Exhibits

1.2-2b   Update Report: Learning Outcomes, Assessment & Program Improvement Mechanisms

1.7-1b   2006-2007 UC Merced General Catalog

2.5-2b   Overview of Academic Advising at UC Merced

2.10-3b   National Survey of Student Engagement—UC Merced—July 2006

2.10-4b   University of California Undergraduate Student Experience Survey—UC Merced—July 2006

3.4-2b   Teaching/Learning Center Retreat

4.1-8   Enrollment Summit—June 9, 2006—Notes

4.5-2   Data in Support of Planning: an Overview of Sustaining Educational Effectiveness in Campus Planning

4.5-3   Center for Educational Partnerships School Improvement Initiatives

4.6-1b   Updated General Education Assessment Plans

4.6-2b   Student Affairs Departmental Assessment Plans and Results for 2005 – 2006

4.6-3   Merced Writing Program First Year Assessment

4.6-4   Core Course Sequence--Assessment Report

4.6-5   Service Learning Assessment Report

Learning Outcomes, Assessment & Program Improvement Mechanisms

1) Overview of Section
This section begins with a brief educational effectiveness inventory, which quickly summarizes whether learning outcomes have been developed, how outcomes are communicated to students, and a summary of assessment measures used. Following this, a more thorough description for each degree program will be provided. Although the approach to improvement of such statements was varied, the intent amongst faculty was similar in all degree programs. The goal was to improve statements of student learning objectives, determine the best way to assess those objectives, identify ways in which the assessment data can be used to make changes over time, and finally, how to communicate the outcomes to their students. As a student-centered research university, faculty members remain committed to the development and continuous improvement of learning outcomes for their students. Despite the hectic first year, the program improvement efforts contained herein are evidence of their continued dedication. All of the UC Merced programs are planning to post learning outcomes and assessment strategies on their Web sites as a way to improve the communication of expectations to students.

2) Process for Revising Learning Outcomes, Assessment & Program Improvement Mechanisms
Depending upon preference by the faculty members in each degree program, different approaches were taken as to what would work best to conduct the improvement process. Each of these approaches will be described below. The educational effectiveness inventory provides specific information about the approach taken by each degree program. Dr. Sara Terheggen was on hand to assist faculty with process-related issues and/or questions about the educational effectiveness of objectives. However, it is important to note the level of faculty involvement in conducting the program improvement process. Despite the completion of a very busy first year and the desire for a well-deserved summer break, faculty members took the time necessary to ensure that the statements contained in this document were updated and reflected the intents of their respective programs. They were also very willing to take the steps needed to have the contents contained herein communicated to students in a myriad of ways.

Reflection Process Questionnaire
Faculty in the School of Natural Sciences and faculty teaching Core 1 used the Reflection Process Questionnaire. See Appendix A. The Questionnaire was meant to elicit individual responses from all faculty members as a means to involve everyone in the education process. Upon receiving the Questionnaire responses, Dr. Sara Terheggen compiled the responses and used the feedback to make faculty-recommended changes to the statement of learning outcomes, assessment measures, and program improvement mechanisms. After such changes were made, the revised document was sent back to faculty for review and any additional revisions. Some faculty groups, like Core 1, used the feedback as a basis for discussion during their summer 2006 retreat. This process ensured that revising the document did not fall on the shoulder of one faculty member. It was by far the most effective process used as it ensured that all faculty members within a given degree program contributed to the program improvement process. It was such a successful process that other faculty groups indicated interest in using the questionnaire and retreat as a program improvement mechanism in coming years.

In addition, the Questionnaire asked faculty if they would be willing to include such statements of learning objectives on their course syllabi to which 100% responded that they would. This is a strong indicator as to the commitment faculty have expressed in ensuring that their students will know what the learning objectives are and how they will be measured.

Retreat
Another method in which to conduct the program improvement process was through the use of a retreat. Prior versions of the learning outcomes, assessment, and program improvement mechanisms were provided as a basis of discussion in order to invoke necessary changes for the coming year. Feedback from the retreat was then used to develop a revised statement. Dr. Sara Terheggen was available as an educational expert to address questions about the process and how best to ensure educational soundness given the needs of the faculty within any particular degree program.

Faculty/Committee Lead
This method entailed a faculty member and/or committee assuming the lead on revising the program statement of outcomes, gathering any faculty input, and finalizing the outcomes for inclusion in the report herein. This process worked well for faculty who were very involved with the previous drafting of outcomes and for whom faculty were dispersed due to the summer months. Dr. Sara Terheggen assisted with the process where she was needed, providing best practices and examples from other institutions as guides.

Educational Effectiveness Indicators Inventory
Table developed using WASC Sample Template 7.1

Category	Formal Learning Outcomes Developed and/or Revised?	Process for Developing/ Revising Outcomes, Assessment & Program Improvement	Method of Communicating Learning Outcomes	Assessment Measures
General Education				
Core 1*	Yes	▪ Reflection Process Questionnaire ▪ Retreat	▪ Posters ▪ Web Site ▪ Brochures	▪ Student Work ▪ Course Evaluations ▪ Surveys ▪ Peer-Review Teaching Evaluation
Core 100*	Yes	▪ Faculty Leads (Co-Leaders)	▪ Posters ▪ Web Site ▪ Brochures	▪ Student Work ▪ Course Evaluations ▪ Surveys ▪ Peer Evaluation

*Note: Of course, Core 1 and Core 100 do not represent General Education in its entirety. However, they are critical courses in General Education and provide the primary venue for assessing General Education as a whole.

Category	Formal Learning Outcomes Developed and/or Revised?	Process for Developing/ Revising Outcomes, Assessment & Program Improvement	Method of Communicating Learning Outcomes	Assessment Measures
School of Engineering				
Bioengineering	Yes	▪ Faculty Lead	▪ Program Web Site ▪ Course Syllabi	▪ Student Work ▪ Focus Groups ▪ Senior Exit Questionnaire ▪ Student Teaching and Course Evaluations ▪ Alumni Contacts ▪ Interaction with Various Extended Constituencies
Computer Science and Engineering	Yes	▪ Faculty Lead	▪ Program Web Site ▪ Course Syllabi	▪ Student Portfolio ▪ Student Perception Survey ▪ Web-Based Assessment Instrument
Environmental Engineering	Yes	▪ Faculty Lead	▪ Program Web Site ▪ Course Syllabi	▪ Student Portfolio ▪ Student Perception Survey ▪ Web-Based Assessment Instrument
Materials Science and Engineering	Yes	▪ Faculty Lead	▪ Program Web Site ▪ Course Syllabi	▪ Student Work ▪ Performance in Service Learning ▪ Performance in Capstone Design Projects ▪ Course Evaluations ▪ Teaching Effectiveness Evaluations ▪ Exit Questionnaire ▪ Student Success after Graduation ▪ ABET Review Feedback ▪ Student Perception Survey
Mechanical Engineering	Yes	▪ Faculty Lead	▪ Program Web Site ▪ Course Syllabi	▪ Student Portfolio ▪ Course Evaluation ▪ Senior Exit Interviews ▪ Yearly Faculty Meetings with Advisory Board

Category	Formal Learning Outcomes Developed and/or Revised?	Process for Developing/ Revising Outcomes, Assessment & Program Improvement	Method of Communicating Learning Outcomes	Assessment Measures
School of Natural Sciences				
Applied Mathematical Sciences	Yes	▪ Faculty Lead	▪ Program Web Site ▪ Course Syllabi	▪ Student Work ▪ Course Evaluations ▪ Student Perception Survey ▪ Performance in Independent Research, as Assessed by a Variety of Measures ▪ Focus Group Interviews of Graduating Students ▪ Random Sampling of Graduates for Evaluation of General Education Component ▪ Student Success after Graduation
Biological Sciences	Yes	▪ Reflection Process Questionnaire ▪ Retreat	▪ Program Web Site ▪ Course Syllabi	▪ Student Work ▪ Course Evaluations ▪ Student Perception Survey ▪ Performance in Independent Research, as Assessed by a Variety of Measures ▪ Student Success after Graduation
Chemical Sciences	Yes	▪ Reflection Process Questionnaire	▪ Program Web Site ▪ Course Syllabi	▪ Student Work ▪ Course Evaluations ▪ Student Perception Survey ▪ Performance in Independent Research, as Assessed by a Variety of Measures ▪ Student Success after Graduation ▪ Approval by the American Chemical Society
Earth Systems Sciences	Yes	▪ Faculty Lead	▪ Program Web Site ▪ Course Syllabi	▪ Student Work ▪ Course Evaluations ▪ Student Perception Survey ▪ Performance in Independent Research, as Assessed by a Variety of Measures ▪ Student Success after Graduation
Physics	Yes	▪ Reflection Process Questionnaire ▪ Retreat	▪ Program Web Site ▪ Course Syllabi	▪ Student Work ▪ Senior Research Thesis Requirement ▪ Course Evaluations ▪ Student Perception Survey ▪ Performance in Independent Research, as Assessed by a Variety of Measures ▪ Student Success after Graduation

Category	Formal Learning Outcomes Developed and/or Revised?	Process for Developing/ Revising Outcomes, Assessment & Program Improvement	Method of Communicating Learning Outcomes	Assessment Measures
School of Social Sciences, Humanities and Arts				
Management	Yes	▪ Faculty Lead	▪ Program Web Site ▪ Course Syllabi ▪ Posters	▪ Student Work ▪ Course Evaluation ▪ Student Perception Survey ▪ Independent Study Data, as Assessed by a Rubric ▪ Random sampling of graduates for evaluation of general education component ▪ Graduating & Alumni Survey ▪ Focus Group Interviews of Seniors ▪ Student Success after Graduation
Social & Cognitive Sciences	Yes	▪ Faculty Lead	▪ Program Web Site ▪ Course Syllabi ▪ Posters	▪ Student Work ▪ Course Evaluation ▪ Student Perception Survey ▪ Independent Study Data, as Assessed by a Rubric ▪ Random sampling of graduates for evaluation of general education component ▪ Graduating & Alumni Survey ▪ Focus Group Interviews of Seniors ▪ Student Success after Graduation
World Cultures & History	Yes	▪ Faculty Lead	▪ Program Web Site ▪ Course Syllabi ▪ Posters	▪ Student Work ▪ Course Evaluation ▪ Student Perception Survey ▪ Independent Study Data, as Assessed by a Rubric ▪ Random sampling of graduates for evaluation of general education component ▪ Graduating & Alumni Survey ▪ Focus Group Interviews of Seniors ▪ Student Success after Graduation

School of Engineering:
Learning Outcomes, Assessment & Program Improvement

Bioengineering
Computer Science and Engineering
Environmental Engineering
Materials Science and Engineering
Mechanical Engineering

Bioengineering:
Learning Outcomes, Assessment & Program Improvement

Description of the Bioengineering Program at UC Merced
The fundamental goal of Bioengineering is to provide our students with a broad curriculum that that gives them experience with a wide range of subject areas and intellectual approaches, to prepare them to function creatively and independently, and lead in bioengineering practice and research within either traditional engineering and research environments, or in non-traditional multidisciplinary environments at the interface between engineering and a diversity of fields, including medicine, the life sciences, business, and law.

Bioengineering is an interdisciplinary field that applies engineering principles and quantitative methods to the advancement of knowledge at the molecular and cellular levels through the ecosystem level, and to the development of new and novel biologics, materials, devices, and processes. In practice, bioengineers address issues in the broad areas of bioenvironmental, biomedical and bioprocess technology.

At many universities, life sciences and engineering are more or less parallel cultures, reflected in two almost completely disparate disciplines, where students in one have trouble taking courses in the other. At UCM, bioengineers will be trained to work at the interface between these disciplines. All bioengineering students will complete several semesters of Service Learning Projects (Engineering Projects in Community Service) where students will interface with a client, assess the problem, write a proposal, complete the project, and report results to the client. These courses are designed to give the student real life experience, as well as problem solving, report writing, and presentation skills. Upper level coursework in bioengineering includes modeling of nanoscale processes, physiology, and biophysics, as well as biomaterials, biosensors, and biomembranes. Graduates have the ability to formulate and solve problems with medical relevance, including the design of devices and systems to improve human health.

Activities in bioengineering are inextricably linked to issues relevant to public health and confidence. Perhaps more than in any other engineering discipline, bioengineers must maintain an awareness of ethical issues in their field, and the patterns of thought that lead to moral judgment and decision-making. Bioengineers must be able to identify situations posing ethical conflict, select strategies for assessing ethical dilemmas and critically arriving at a solution, and deal effectively with the ambiguity inherent in ethical matters. Further, the ability to communicate effectively with people from disparate disciplines, both inside and outside of science, is essential to bioengineers.

Program Goals
- To provide a broad interdisciplinary curriculum that allows the students to investigate a wide range of intellectual activities, all through the University.
- To provide students with the core abilities and knowledge, such as basic knowledge in mathematics, physical and life science, engineering science, and design, to prepare them for a range of technical and interfacial fields.
- To provide opportunities where students can begin to function at a professional level, using teamwork and communication skills, and taking responsibility for educating themselves.

Learning Outcomes

- Multidisciplinary Ability: ability to apply fundamental science and engineering in an integrative fashion, to effectively work and solve problems at the interface of engineering, life sciences, and medicine (ABET criteria 3a, 3b, 3e, 3d, 8);
- Problem Solving Approach: ability to pose, identify, formulate, and solve engineering problems (ABET criterion 3e);
- Problem Solving Methods: ability to apply diverse techniques, methods, and tools towards the solution of engineering problems (ABET criteria 3e, 3k);
- Experimentation: Ability to develop an hypothesis, design and carry out an experiment to test that hypothesis; ability to analyze experimental data, and to use statistics in experimental design and analysis; ability to make measurements on and interpret data from living systems (ABET criteria 3a, 3b, 3c, 3e, 3k, 8);
- Design: ability to participate in creative, synthetic, integrative activities of Bioengineering design; understanding of the engineering process and design driven research (ABET criteria 3c, 3e, 3k); and
- Professional Orientation: ability in effective oral and written communication skills; ability for reliable independent work as well as teamwork experience; judgment and appreciation of the bigger picture; ability to recognize and appreciate ethical principles and standards; a basis in the humanities and social sciences; aspiration and habits to keep learning throughout life (ABET criteria 3f, 3g, 3h, 3i, 3j, 3k).

Assessment Measures

- Bioengineering Students Focus Groups: Focus groups will be conducted to gather feedback. Input and comments will be solicited about all program aspects. Each focus group will be given a brief presentation given by a BE faculty member about ABET and the BE department's mission, objectives, and outcomes. Following the presentation, the students will discuss the problem solving methods they learned, where they learned them, which methods they would like to learn more, and how well the BE curriculum integrates problem solving methods in the curriculum.
- BE Senior Exit Questionnaire: Input from BE senior students will be solicited annually through the Bioengineering Exit Survey. The results are disseminated to the BE faculty and Advisory Board for analysis and discussion. The questionnaire will be designed to survey program outcomes, solicit data about program experiences, career choices as well as suggestions and comments.
- Student Teaching and Course Evaluation: UCM will routinely conduct end-semester course and teacher evaluations as part of the university-wide course evaluation process. While these evaluations are not geared to directly evaluate overall programmatic objectives and outcomes, they serve as an important assessment mechanism of courses, labs and teaching performance, which are central to fulfilling the program mission and objectives. Teaching quality is an important factor in faculty promotion and compensation, thereby contributing to instruction and program quality and improvement.
- Alumni: An outside firm will contact alumni at different phases of their careers, asking them to participate in a survey seeking input on the Program Objectives and Learning Outcomes based on their experience after graduation.
- Extended Constituencies: By virtue of their profound influence on the program Mission,

Objectives and Outcomes the following are important constituents. The Department of Bioengineering does not have a direct survey or programmatic input mechanism from them. Their interaction with the program is accomplished by other mechanisms that are described below.

- o ABET: Input from ABET is obtained through published documents, available on their web site that describe current requirements for accreditation and by faculty participation in ABET and engineering education workshops. Input is also solicited through the formal process of Program Evaluation for Accreditation. The ABET periodic Self Study process is, in and of itself, a mechanism for program review and improvement.
- o Review Boards:
    - Bioengineering Departmental Advisory Board: The Bioengineering Advisory Board includes a diverse group of experts from academe and industry, as well as alumni representation. The Advisory Board meets annually, or as needed, for a comprehensive review of the Bioengineering Department strategic planning and programs. The Advisory Board meets with administration, faculty and students and prepares a report, which is presented to Engineering Dean. In each visit, the Department of Bioengineering responds to the report indicating improvements and amendments to the program.
    - School Board of Overseers: This is not a direct BE constituency. The Department provides input as part of the school annual review and strategic plan process.
    - Federal and State Funding Agencies: The influence of agencies funding bioengineering research such as NSF, NIH, CDC and other is very profound. Our faculty responds to requests for proposals to advance national priorities in the areas of bioengineering, medicine, and life sciences in general. Grants from these agencies and foundations enable the important intellectual environment and infrastructure in numerous laboratories and facilities, where our students carry out design and research projects, thereby supporting program outcomes. The funding agency input is reflected in the direction of research in many of our laboratories and supports the training of students in areas of societal need and national priorities. By virtue of the public nature of the appropriations for these agencies and the determination of national priorities by Congress, the public interest has a strong input to our program. The Bioengineering Department does not have a direct mechanism to solicit programmatic educational input from funding agencies. However, research grants and other awards are an indirect measure of providing our students a training environment and research and design outcomes in current areas supporting the public interest in contemporary needs.
- o Professional Societies: The role of professional societies in introducing our students to technical, entrepreneurial and societal aspects of the field and in providing outstanding opportunities for life long learning makes them important constituencies. UCM will support a student chapter of the Biomedical Engineering Society (BMES) and encourages student participation as a means for

service, enhancing the profession, networking and leadership skills. The BMES chapter interacts continually with the faculty and is engaged in many school activities including peer mentoring of new BE students.

- o General Public: There is no formal mechanism to obtain input from the General Public. Indirect input is obtained through the faculty keeping informed of current societal trends and expectations. In addition, the ranking of bioengineering programs by the public media (e.g., U.S. News and World Report) provides an indicator of the reputation of the Department of Bioengineering, and thus an indirect assessment of the Educational Objectives.

- Bioengineering Students: The Educational Objectives will be posted on the Departmental Web site. Input is welcomed by the Bioengineering Department either directly from students, through the Student Societies and by dedicated focus groups and surveys.

Program Improvement Mechanisms
- Obtain Input from Constituencies
- Determine and Evaluate Objectives and Program Improvements
    - o Input from constituents is evaluated by the Bioengineering Faculty and the Curriculum Committee, where amendments to the program and their implementation is discussed and approved. The undergraduate program and curriculum are virtually on the agenda of every BE faculty meeting. New courses and substantive programmatic revisions are also discussed and require approval from the Undergraduate Council.
- Implement and Disseminate
    - o The Bioengineering faculty and Curriculum Committee incorporate the approved amendments to the Educational Objectives and Outcomes. The amendments are disseminated, as appropriate, through (i) UMC General Catalog and other publications, which are updated periodically, (ii) The Department of Bioengineering internet site, to which the faculty, students and other constituents are directed, and (iii) Direct communication with students.

Computer Science and Engineering:
Learning Outcomes, Assessment & Program Improvement

Description of the Computer Science and Engineering Program at UC Merced
The fundamental goal of Computer Science and Engineering is to provide our students with a broad curriculum that gives them experience with a wide range of subject areas and intellectual approaches, to prepare them to function creatively and independently, and lead in computer science practice and research within either traditional environments, or in non-traditional multidisciplinary environments at the interface between computer science and a diversity of engineering and other fields.

The Computer Science and Engineering major provides students with an in-depth education in the conceptual foundations of computer science and in engineering complex software and hardware systems. It allows them to explore the connections between computer science and a variety of other disciplines in engineering and outside. Combined with a strong education in mathematics and social sciences it prepares students to be leaders in computer science practice, applications to other disciplines, and research.

Learning Outcomes
Our goal in the Computer Science and Engineering is to create an experience with an impact focused on (1) improving the connection between fundamental engineering curricula outlined above and modern computer science practice, and (2) maximizing the proportion of enrolled engineering students who complete engineering degrees. We expect to achieve success by through demonstrated achievement of the following outcomes:
- A strong foundation in core computer science and engineering, both theoretical and applied;
- Interdisciplinary vision with strong foundation in mathematics and in the social sciences;
- Ability to apply knowledge of mathematics, science, and engineering to real world problems;
- Ability to design and conduct experiments, as well as to analyze and interpret data;
- Ability to design a system, component, or process to meet desired needs within realistic constraints;
- Ability to function on multi-disciplinary teams;
- Ability to identify, formulate, and solve engineering problems;
- Understanding of professional and ethical responsibility;
- Ability to communicate effectively;
- Broad education necessary to understand the impact of computer science and engineering solutions in a scientific, global, economic, environmental, and societal context;
- Recognition of the need for, and ability to engage in life-long learning;
- Knowledge of contemporary issues; and
- Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Note that this is the same general set of outcomes as required by ABET for Engineering programs.

Assessment Measures

Assessment of substantive, ABET-type outcomes requires going beyond traditional self-report mechanisms and satisfaction surveys. We intend to create a Web-accessed information management system for continuous assessment of learning outcomes from the perspective of students, faculty, and external reviewers (comprising faculty and practicing engineers). The basis for the review will be student work portfolios, and student/alumni surveys regarding engineering education and engineering practice.

- Student Portfolios: The most direct assessment of the ABET-type outcomes will be student portfolio (cumulative work product) ratings. The work product ratings will be provided through (1) course instructor grading, and (2) external evaluations.
- Survey of Student Perceptions about Engineering: Students (and eventually alumni) will be recruited annually from all Engineering majors and levels through the Service Learning courses and other required courses to complete an on-line survey allowing us to analyze students and alumni with respect to: (1) Personal Development (empowerment, skills, and career); (2) Social Development (teamwork and cultural awareness); (3) Ethical Responsibility Development; (4) Perceptions of the Engineering Culture; (5) Civic Participation; (6) Academic Achievement; and (for alumni) (7) Preparation for Profession and (8) Evidence of Active Life-Long Learning.
- Web-Based Assessment Instrument: As the student population grows at UCM, we will need to implement automation to ensure that outcome assessment scales to larger sample sizes. A Web-based survey instrument is currently being developed to facilitate the portfolio rating, and all student and alumni surveys. All results will be archived in a relational database. Different user privileges will allow the students to manage their portfolios without seeing inappropriate program evaluation information. These data will be examined annually by faculty members and extramural advisors in order to (1) identify and correct any short-comings in course scope or content, (2) address issues related to inadequate instructional delivery of the material, and (3) identify successful pedagogical strategies as candidates for dissemination both intra- and extramurally.

Environmental Engineering:
Learning Outcomes, Assessment & Program Improvement

Description of the Environmental Engineering Program at UC Merced

The fundamental goal of Environmental Engineering is to provide our students with a broad curriculum that that gives them experience with a wide range of subject areas and intellectual approaches, to prepare them to function creatively and independently, and lead in engineering practice and research within either traditional engineering and research environments, or in non-traditional multidisciplinary environments at the interface between engineering and a diversity of fields, including the physical, life, and health sciences, policy, business, and law.

The study of environmental engineering provides students with quantitative understanding of the physical, chemical and biological principles that control air, water and habitat quality and sustainability. Students majoring in this exciting field will be prepared to study and solve important problems in all areas of water, air and land resources management including observation and modeling of natural and engineered environmental systems, hydrology and water resources engineering, air resources monitoring and assessment, and alternative, sustainable energy systems.

Learning Outcomes

Our goal in the Environmental Engineering is to create an experience with an impact focused on (1) improving the connection between fundamental engineering curricula outlined above and modern engineering practice, and (2) maximizing the proportion of enrolled engineering students who complete engineering degrees. We expect to achieve success by through demonstrated achievement of the following outcomes:

- Leadership: ability to identify and to solve environmental problems;
- Multidisciplinary Ability: ability to apply fundamental science and engineering in an integrative fashion, to effectively work and solve problems at the interface of mathematics, science, engineering and technology;
- Problem Solving Approach: ability to pose, identify, formulate, and solve engineering problems, including material balances;
- Problem Solving Methods: ability to apply diverse techniques, methods, and tools towards the solution of engineering problems; ability to apply probability and statistics to data and risk analyses;
- Experimentation: Ability to develop an hypothesis, design and carry out an experiment to test that hypothesis; ability to analyze experimental data, and to use statistics in experimental design and analysis; ability to make measurements on and interpret data;
- Design: ability to participate in creative, synthetic, integrative activities of Environmental engineering design; ability to apply understanding of the engineering process and design driven research; and
- Professional Orientation: ability in effective oral and written communication skills; ability for reliable independent work as well as teamwork experience; judgment and appreciation of the bigger picture; ability to recognize and appreciate ethical principles and standards; a basis in the humanities and social sciences; aspiration and habits to keep learning throughout life.

Note that this is the same general set of outcomes as required by ABET for Engineering programs.

Assessment Measures

Assessment of substantive, ABET-type outcomes requires going beyond traditional self-report mechanisms and satisfaction surveys. We intend to create a Web-accessed information management system for continuous assessment of learning outcomes from the perspective of students, faculty, and external reviewers (comprising faculty and practicing engineers). The basis for the review will be student work portfolios, and student/alumni surveys regarding engineering education and engineering practice.

- Student Portfolios: The most direct assessment of the ABET-type outcomes will be student portfolio (cumulative work product) ratings. The work product ratings will be provided through (1) course instructor grading, and (2) external evaluations.
- Survey of Student Perceptions about Engineering: Students (and eventually alumni) will be recruited annually from all Engineering majors and levels through the Service Learning courses and other required courses to complete an on-line survey allowing us to analyze students and alumni with respect to: (1) Personal Development (empowerment, skills, and career); (2) Social Development (teamwork and cultural awareness); (3) Ethical Responsibility Development; (4) Perceptions of the Engineering Culture; (5) Civic Participation; (6) Academic Achievement; and (for alumni) (7) Preparation for Profession and (8) Evidence of Active Life-Long Learning.
- Web-Based Assessment Instrument: As the student population grows at UCM, we will need to implement automation to ensure that outcome assessment scales to larger sample sizes. A Web-based survey instrument is currently being developed to facilitate the portfolio rating, and all student and alumni surveys. All results will be archived in a relational database. Different user privileges will allow the students to manage their portfolios without seeing inappropriate program evaluation information. These data will be examined annually by faculty members and extramural advisors in order to (1) identify and correct any short-comings in course scope or content, (2) address issues related to inadequate instructional delivery of the material, and (3) identify successful pedagogical strategies as candidates for dissemination both intra- and extramurally.

**Materials Science and Engineering:
Learning Outcomes, Assessment & Program Improvement**

Description of the Materials Science and Engineering Program at UC Merced
We strive to provide a top-quality educational program in MS&E that will prepare its graduates with the intellectual rigor, foundational practical skills and independent creativity needed for successful professional careers in academic, commercial and government endeavors. Our educational objectives are guided by and consistent with (i) the values (founding Principles of Community) of UC Merced, (ii) the mission of UC Merced's School of Engineering, and (iii) the accreditation requirements of ABET.

Materials Science and Engineering (MSE) is the interdisciplinary application of fundamental principles of physics and chemistry to the understanding of how (i) the choice of particular atoms and molecules, and (ii) the way in which these atoms and molecules are organized at different length scales can be used to obtain particular combinations of mechanical, optical, electrical, magnetic, electrochemical and other properties. Also encompassed in MSE are the methodologies by which particular atomic and molecular arrangements (nanostructures and microstructures) are achieved, the overall cost of the ingredients and processes used to produce particular materials, the effects of the environment on materials, the effects of materials and materials processing on the environment, and characterization of materials structure and properties.

Civilizations have thrived or stumbled according to the materials that they were able to acquire from nature, or through trade, or by innovation. Wood, stone, bronze, iron, steel, aluminum, cermets, plastics, semiconductors, liquid crystals and quantum dots have successively revolutionized what can be made and what can be done. Nations continue to go to war over access to particular raw materials. The construction of safe dwellings, the conveniences of rapid travel, the efficiency of telecommunications, the calculating and archiving power of computers, the life-prolonging gift of surgical implants, and the dazzling performances of athletes all require dependable materials. Available materials will always limit future technological progress of any kind.

Given the subject's roots in applying principles from physics, chemistry and (increasingly) biology, MSE graduates are especially versatile in the job market. Employers appreciate the ability of MSE graduates to relate to people across a wide spectrum of expertise. With its ready examples of fundamental knowledge being used to widespread practical advantage, MSE also provides a superb platform from which to attract high school students to engineering as a career.

Recent surveys of employment prospects nationally suggest that there will be a steady growth in the overall MSE job market (4%-8%) over the next decade at least. It is expected that this growth will be focused in areas related to the development of new materials, including composites, nanomaterials, and biomolecular materials, rather than traditional areas of materials manufacturing. Our degree program reflects this expectation, with the emphasis on materials issues that will ensure the long-term relevance of UC Merced's MSE degrees. The versatility and employability of our graduates will be enhanced further by the skills imparted during their Engineering Service Learning experience.

Learning Outcomes

To succeed in our mission within the context described above, our MS&E degree program has set the following educational objectives:

- To ensure that our graduates have the necessary fundamental knowledge of mathematics and basic sciences (physics, chemistry and biology), and are able to apply this knowledge to the proper engineering use of a variety of materials systems;
- To ensure that our graduates are skilled in engineering fundamentals;
- To ensure that our graduates are knowledgeable about all classes of materials and their structure, properties, processing, applications and performance;
- To ensure that our graduates are able to solve materials selection and design problems by integrating knowledge from the program's constituent courses;
- To ensure that our graduates are able to properly use experimental, statistical and computational methods, along with critical thinking skills, to address analysis and design problems;
- To ensure that our graduates can properly relate their hands-on laboratory experiences to solving real materials engineering problems;
- To ensure that our graduates have a well-rounded education, preparing them to contribute effectively as individual professional and as team members in academia, industry and government;
- To ensure that our graduates are proficient at integrating engineering and materials design concepts with societal issues, including economics, ethics, quality and human values;
- To ensure that our graduates are able to communicate effectively – orally and in writing– the concepts and results of engineering investigations to both technical and non-technical audiences; and
- To ensure that our graduates are prepared for entry to top-ranked graduate programs in MS&E and related disciplines.

Assessment Measures

The following measures will be used to assess the success of the MS&E program in achieving the above objectives:

- Quality of Exam Results and Reports in formal courses, as determined by instructors and external evaluators.
- Performance in Service Learning: including quality of design notebooks and written reports: this measure will be especially useful in assessing design and communication skills, teamwork, critical thinking, and understanding of societal issues.
- Performance in Capstone Design Project: because the project requires that students make use of concepts and techniques acquired across the curriculum to solve real problems, success in the project is an excellent yardstick against which to judge the achievement of programmatic goals.
- Course Evaluations: the objectives and desired outcomes of each course will be stated clearly in the course syllabus; students will be asked to rate how successfully each course addressed its objectives and achieved its outcomes on a quantitative scale.
- Evaluations of Teaching Effectiveness of Faculty.
- Exit Questionnaire given to Graduating Seniors.
- Student Success after Graduation: acceptance to graduate or professional school, or

employment in a field that makes use of the student's education; we will attempt to track all graduates annually for up to 10 years after graduation.

- Feedback from ABET Review of the Program.
- Feedback from External Advisory Board, consisting of faculty, practicing engineers and employers.
- Survey of Student Perceptions about Engineering: students (and eventually alumni) will be recruited annually from all Engineering majors and levels through the Service Learning courses and other required courses to complete an on-line survey that will allow us to evaluate students and alumni with respect to (i) personal development (empowerment, skills, and career), (ii) social development (teamwork and cultural awareness), (iii) ethical responsibility development, (iv) perceptions of the engineering culture, (v) civic participation, (vi) academic achievement, (vii, for alumni) preparation for profession, and (viii, also for alumni) evidence of active life-long learning.

We are creating a WWW-based information management system to efficiently collect and interpret all of these assessment data from students, faculty, and external reviewers. All results will be archived in a relational database. Different user privileges will allow the students to manage their portfolios without seeing inappropriate program evaluation information.

Program Improvement Mechanisms

Data will be examined annually by faculty members and extramural advisors in order to:

- Identify and correct any shortcomings in course scope or content;
- Address issues related to inadequate instructional delivery of the material;
- Identify successful pedagogical strategies as candidates for both intramural and extramural dissemination; and
- Ensure that the curriculum remains flexible enough to keep up with changes in the discipline.

A number of modifications may be considered, including:

- Revisions to the content, emphasis or pedagogy of existing courses;
- Changes to the support (office hours, tutoring, workshops) offered to students;
- Changes in prerequisites, both within and outside the major-specific courses;
- Elimination of courses that may have outlived their usefulness, or combination of two or more courses into one;
- Addition of new courses in response to evolving new directions in MS&E; and
- Changes in the instructors assigned to teaching particular courses.

Mechanical Engineering:
Learning Outcomes, Assessment & Program Improvement

Description of the Mechanical Engineering Program at UC Merced

The mission of the Mechanical Engineering program at UC Merced is to provide a modern, comprehensive, and interdisciplinary educational experience to its student with the objective of preparing them for successful careers in the dynamic professional environment of today.

Program Goals

- To provide a solid background on the pertinent mathematical, physical, chemical and engineering concepts that makes up the foundations of the discipline of mechanical engineering and its closely associated fields.
- To provide our students with the knowledge to correctly apply the laws of nature to the creative formulation and solution of engineering problems through the use of analytical, computational and experimental techniques.
- To educate students as independent thinkers who are prepared to work effectively with others through appreciation of the importance of continuing education, self-learning and diversity in the workplace.
- To instill a sense of community and ethical responsibility associated with the professional use of the knowledge acquired.
- To expand the reach of mechanical engineering to non-traditional areas by continually seeking to incorporate new methodologies and research findings to our curriculum.

Learning Outcomes

- An ability to apply knowledge of informatics, mathematics, science, and engineering;
- An ability to design and conduct experiments and numerical simulations, analyze, and interpret general scientific and engineering information;
- An ability to design a system, component, or process to meet desired needs;
- An ability to solve multidisciplinary problems;
- An ability to identify, formulate, and solve engineering problems;
- An understanding of professional and ethical responsibilities;
- An ability to communicate effectively;
- The broad education necessary to understand the impact of engineering solutions in a social context;
- A sound basis and motivation to engage in life-long learning and continuing education;
- A knowledge of contemporary issues;
- An ability to use the techniques, skills, and modern engineering and scientific tools necessary for engineering practice;
- A working knowledge of the principles of Mechanics and Thermodynamics and how these principles evolve into other disciplines such as Heat and Mass Transfer, Vibration and Controls, CFD, Mechanical Design, etc;
- An ability to recognize new forms of thinking and new promising directions in engineering, and an understanding of modern tools of analysis, synthesis and design (such as neural networks, genetic algorithms, adaptive and bio-mimetic design, virtual environments, uncertainty in simulations, life-cycle analysis, etc.); and

- An ability to incorporate interdisciplinary concepts from mathematics, physics, biology, chemistry and other disciplines into engineering solutions and vice-versa.

Assessment Measures

The assessment of the ABET-type outcomes above will be made through the analysis of a number of measures:
- Student class portfolios, including exams, design projects, lab reports, computer simulations, exams and special assignments.
- Course evaluations.
- Senior exit interviews.
- Yearly faculty meetings with the Program Advisory Board (PAB), which is composed of academic, research and industrial advisors, including representatives from major employers. These meetings are expected to provide feedback on how well our students are being prepared to enter jobs in academia, industry, research labs and the government.
- Yearly faculty meetings with the University Advisory Board (UAB), which is composed of faculty members from the UC system in ME and other disciplines who share a vision with and interest in our Mechanical Engineering program. These meetings are expected to provide corrective measures and new visions to our program.

Program Improvement Mechanisms

The data gathered through the assessment measures above will be compiled and analyzed to identify corrective measures and new directions to our program. A number of adjustments will be considered, including the modernization of laboratory and computational tools, removal of outdated courses and addition of new ones to the program in response to evolving new directions in engineering; change in pre-requisites, co-requisites and/or partition of laboratory, design, lecture, and computational content in existing courses; rotation of instructors; etc.

School of Natural Sciences:
Learning Outcomes, Assessment & Program Improvement

Applied Mathematical Sciences
Biological Sciences
Chemical Sciences
Earth System Sciences
Physics

Applied Mathematical Sciences:
Learning Outcomes, Assessment & Program Improvement

Description of the Applied Mathematical Sciences Program at UC Merced
To advance the frontiers of interdisciplinary mathematics through teaching and research at the interface between mathematics, natural sciences, social sciences and engineering; to educate students with a sense of professionalism and citizenship; and to serve the public through outreach efforts.

Program Goals
- To educate students in the fundamentals in applied mathematics: modeling, analysis and scientific computing to solve real-world problems in natural sciences, social sciences and engineering.
- To educate students to be self-actualized and creative thinkers who can function well independently and as part of a team.
- To educate students to communicate effectively in written and oral formats.
- To educate students for careers in teaching, industry, business and academia.
- To educate students with a sense of community, ethical responsibility and professionalism.
- To educate students the necessity of continuing education and self-learning.

Learning Outcomes
Upon graduating, we expect students from the Applied Mathematical Sciences B.S. program to have achieved the following outcomes.
- A general understanding of science including biology, chemistry and physics;
- An understanding of major concepts and theoretical principles in applied mathematics: calculus, linear algebra, differential equations, probability and statistics, numerical analysis and modeling;
- An understanding of a specific application area through the choice of an emphasis track (e.g. computational biology, physics, economics, computer science, engineering mechanics, etc.);
- An understanding of basic research methodologies, data analysis and interpretation;
- An understanding of the impact of mathematics in a global/societal context;
- The ability to use the fundamental tools of applied mathematics to develop mathematical models for a real-world problem chosen from a broad variety of areas;
- The ability to use both analytical methods and modern computational methods to solve mathematical problems;
- The ability to employ critical thinking and hypothesis-driven methods of scientific inquiry;
- The ability to formulate significant research questions, and analyze and interpret data;
- The ability to read, evaluate, and interpret numerical and general scientific information;
- The ability to work effectively both individually and in teams;
- The ability to engage in life-long learning;
- The ability to communicate in written and oral formats complex technical information in a clear and concise manner to a broad audience; and
- An appreciation of the importance and practice of good ethics.

Assessment

The following measures will be used to assess the success of the Applied Mathematical Sciences program in achieving the objectives listed above.

- Student work including homework assignments, exams, and reports.
- Course evaluations.
- Student perception survey to determine whether students believe that they have achieved the objectives of the Applied Mathematical Sciences major. This survey will be developed in the Fall of 2006.
- Performance in independent research, to be assessed by:
    - Standard rubric to be used by all faculty supervising independent research projects. The rubric will map directly to the program outcomes and will be developed in the Fall of 2006;
    - Quality of written research reports;
    - Presentation of results at scientific meetings; and
    - Co-authorship on publications.
- Focus group interview of graduating students.
- Random sampling of graduates for evaluation of general education component.
- Student success after graduation: acceptance to graduate or professional school, or employment in a field that makes use of the student's education.

Program Improvement Mechanisms

We will analyze the assessment data to identify strengths and weaknesses of the existing program. Moreover, we will use this data to update the curriculum to remain current with changes in the discipline. A number of modifications may be considered:

- Revisions in the content or pedagogy of existing applied mathematical sciences courses.
- Changes in prerequisites, both within and outside the applied mathematical sciences.
- Elimination of courses that may have outlived their usefulness, or combination of two or more courses into one.
- Addition of new courses in response to evolving new directions in mathematics and/or changes in the relative importance of sub-disciplines.
- Changes in the instructors teaching various courses.

Biological Sciences:
Learning Outcomes, Assessment & Program Improvement

Description of the Biological Sciences program at UC Merced
The Biological Sciences address many of the most important and fundamental questions about our world: What is life? How does our brain produce our ideas and emotions? What are the limits to human life and physical capabilities? How do we feed the world's growing population? Could medical science ensure that our children won't have to worry about disease? Moreover, there has never been a more exciting and important time to study biology. From the mapping of the genome to understanding the molecular basis of human disease to predicting the effects of global climate change on ecosystems to understanding fundamental processes that produce and sustain life on Earth, the Biological Sciences are at the forefront of finding answers to some of society's most vexing problems.

The undergraduate major in Biological Sciences is an excellent first step towards exciting careers in biology and the health sciences. Graduates of this program will also be well prepared for positions in the biotechnology and pharmaceutical industries, health care, conservation, environmental law and policy and natural resources management (including forest and park services), as well as careers such as journalism, public policy and business, which increasingly involve the biological sciences. In addition, the breadth and rigor of this program will be an excellent preparation for graduates to teach science at the elementary or high school levels.

This program teaches biology as a multidisciplinary science, reflecting the increasing role of chemistry, physics, mathematics, computer science and advanced technologies in the life sciences. Students majoring in Biological Sciences can choose between three cores providing background in different areas of biology: Molecular and Cell Biology, Integrative Biology and Human Biology. These cores consist of a sequence of five or six upper division courses that are taken in the second, third and fourth years of the program. In addition to the core courses, students select an emphasis area involving three thematically linked upper division courses that will give more background in a specific area of biology. Biological Sciences majors also have the opportunity to apply for a Master's Degree program requiring an additional year of study.

Learning Outcomes
Graduates from the Biological Sciences programs will have demonstrated:
- An understanding of major concepts, theoretical principles and experimental findings in chemistry, mathematics and physics underlying biology;
- An understanding of the fundamentals of biochemistry and molecular and cell biology;
- An understanding of additional areas of biology that may include genetics and genomics, microbiology/immunology, and/or physiology;
- An understanding of how cellular functions are integrated at the level of the whole organism to sustain life;
- An ability to employ critical thinking and hypothesis-driven methods of scientific inquiry;
- A working knowledge of basic research methodologies, data analysis and interpretation;
- The ability to formulate significant research questions, design experiments, use appropriate chemical instrumentation, and analyze and interpret data;

- The ability to read, evaluate, interpret, and apply numerical and general scientific information;
- Effective written and oral communication skills, especially the ability to transmit complex technical information in a clear and concise manner;
- The ability to use computers for simulation and computation, data acquisition, and database usage;
- A familiarity with, and application of safety and hygiene regulations and practices in the laboratory;
- An appreciation and understanding of how to apply what is learned in the classroom in a more practical setting outside of the classroom;
- An appreciation of the importance and practice of good ethics;
- An ability to work effectively both individually and in teams in the classroom, laboratory, and everyday living; and
- An understanding of the impact of biology in a global/societal context.

Assessment

The following measures will be used to assess the success of the Biological Sciences program in achieving the above objectives:

- Student Work: Quality of exams, reports, and presentations in formal courses. In addition to these more traditional means of assessing student work, some courses include innovative measures such as game quizzes and the development of educational posters to convey research results. An example of this course is one of the Biological Sciences General Education Courses, Core 90, entitled, "Liver Disease & Hepatitis Alphabet." In this course, students communicate scientific knowledge through the use of artwork and posters invoking a sense of aesthetic understanding and creativity while encouraging students to consider science from a unique perspective.
- Course Evaluations: The objectives of each course will be stated clearly in the course syllabus. Students will be asked to give their viewpoint on how successfully each course addressed its objectives. As an example, we administered a detailed survey in BIS 1 asking students about several different aspects of the class. This survey will be administered again in Fall 2006.
- Student Perception Survey: to determine whether students believe that they have achieved the objectives of the Biological Sciences major. This survey will be developed in the Fall of 2006, and administered to students at the end of their sophomore year and upon graduation.
- Biological Sciences majors require at least one unit of undergraduate research and one unit of research seminar. Because research requires that the student make use of concepts and techniques acquired across the curriculum to solve real problems, success at research is an excellent yardstick for the achievement of programmatic goals. Performance in independent research will be assessed by:
  - o Standard rubric to be used by all faculty supervising independent research projects. The rubric will map directly to the program outcomes and will be developed in the Fall of 2006;
  - o Quality of written research reports;
  - o Presentation of results at scientific meetings; and
  - o Co-authorship on publications.

- Student Success after Graduation: acceptance to graduate or professional school, or employment in a field that makes use of the student's education. Efforts will be made to track all graduates annually for at least several years after graduation.

Program Improvement Mechanisms

The assessment data will be analyzed to identify strengths and weaknesses of the existing program and to insure that the curriculum remains flexible enough to keep up with changes in the discipline. A number of modifications may be considered:

- Formative evaluation. We carefully compare the success of students on our exams and assignments from semester to semester to see if changes to our teaching approach are working.
- Revisions in the content or pedagogy of existing life sciences courses. This particularly includes laboratory exercises, which tend to become outdated quickly.
- Changes in prerequisites, both within and outside the biological sciences.
- Elimination of courses that may have outlived their usefulness, or combination of two or more courses into one.
- Addition of new courses in response to evolving new directions in biology, changes in the relative importance of sub-disciplines, or the addition of new faculty with new expertise.
- Addition of new emphasis tracks in response to new directions in biology or the addition of new faculty with new expertise.
- Changes in the instructors teaching various courses.

Chemical Sciences:
Learning Outcomes, Assessment & Program Improvement

Description of the Chemical Sciences program at UC Merced
Chemistry is often called "the central science" because of the key position it occupies in modern science and engineering. Most phenomena in the biological and earth sciences can be described in terms of the chemical and physical behavior of atoms and molecules, and chemical principles also underlie much progress in medicine and engineering. In addition, chemical sciences are fascinating and often beautiful in their own right. Recent developments in the chemical sciences are increasingly directed toward the study of phenomena at the nanoscale: the size range intermediate between individual molecules and macroscopic matter. The ability to measure, understand, and control the properties of matter on these size scales allows us to draw conceptual and practical connections between the submicroscopic world of atoms and molecules and the macroscopic world with which we interact.

The Chemical Sciences program is based on a "core plus emphasis" structure that enables students to specialize in a particular subfield while completing a set of core courses designed to meet the requirements for American Chemical Society accreditation. We offer both a basic chemistry program and three emphasis tracks: biological chemistry, environmental chemistry, and materials chemistry. These emphasis tracks allow our students to pursue interdisciplinary areas within a degree program that is still focused on chemistry.

Learning Outcomes
Graduates from the Chemical Sciences B.S. program will have demonstrated the following learning outcomes.
- An understanding of major concepts, theoretical principles and experimental findings in chemistry;
- An understanding of the principal subfields of chemistry, including analytical, biological, environmental, inorganic, materials, organic, and physical chemistry;
- A thorough knowledge of mathematics and physics to facilitate the understanding and manipulation of fundamental chemical theories;
- An appreciation for the role of chemistry as a foundational science that enables advances in biology, medicine, environmental science, and engineering;
- An ability to employ critical thinking and hypothesis-driven methods of scientific inquiry;
- A working knowledge of basic research methodologies, data analysis and interpretation;
- The ability to formulate significant research questions, design experiments, use appropriate chemical instrumentation, and analyze and interpret data;
- The ability to read, evaluate, and interpret numerical, chemical and general scientific information;
- Effective written and oral communication skills, especially the ability to transmit complex technical information in a clear and concise manner;
- The ability to use computers for chemical simulation and computation, data acquisition, and database usage;
- The ability to search and use the chemical literature in both printed and electronic formats;

- An understanding of the importance of performing accurate and precise experimental measurements and the ability to keep legible and complete experimental records;
- Familiarity with and application of local, state and federal safety and chemical hygiene regulations and practices;
- An appreciation of the importance of ethics and an understanding of the ethical and professional standards articulated by professional organizations (*e.g.* the American Chemical Society);
- An ability to work effectively both individually and in teams in both classroom and laboratory; and
- An understanding of the interrelationships among chemistry, technology, and global society, and of the societal implications of new developments in science.

Assessment

The following measures will be used to assess the success of the Chemical Sciences program in achieving the above objectives.
- Student Work: quality of exams and reports in formal courses.
- Course Evaluations: The objectives of each course will be stated clearly in the course syllabus.
- Student Perception Survey: to determine whether students believe that they have achieved the objectives of the Chemical Sciences major. This survey will be developed in the Fall of 2006, and administered to students at the end of their sophomore year and upon graduation.
- Performance in Independent Research. All emphasis tracks within Chemical Sciences require at least two units of CHEM 95/195 (undergraduate research). Because research requires that the student make use of concepts and techniques acquired across the curriculum to solve real problems, success at research is an excellent yardstick for the achievement of programmatic goals. Success in independent research will be assessed by the following measures:
  o Standard rubric to be used by all faculty supervising independent research projects. The rubric will map directly to the program outcomes and will be developed in the Fall of 2006;
  o Quality of written research reports;
  o Presentation of results at scientific meetings; and
  o Co-authorship on publications.
- Student success after graduation: acceptance to graduate or professional school, or employment in a field that makes use of the student's education. Efforts will be made to track all graduates annually for at least several years after graduation.
- We have designed our curriculum such that it will be eligible for approval by the American Chemical Society and will enable UC Merced to confer ACS-certified degrees. We intend to seek such approval at the earliest possible date, although this cannot occur until we have granted an average of at least two degrees per year over a period of five years. The requirements for program approval are many but ACS allows considerable flexibility in how they are met. ACS approval of our curriculum will constitute further recognition that it meets established professional criteria.

Program Improvement Mechanisms

The assessment data will be analyzed to identify strengths and weaknesses of the existing program and to insure that the curriculum remains flexible enough to keep up with changes in the discipline. A number of modifications may be considered:

- Revisions in the content or pedagogy of existing chemical sciences courses. This particularly includes laboratory exercises, which tend to become outdated quickly.
- Changes in prerequisites, both within and outside the chemical sciences.
- Elimination of courses that may have outlived their usefulness, or combination of two or more courses into one.
- Addition of new courses in response to evolving new directions in chemistry and/or changes in the relative importance of sub-disciplines.
- Changes in the instructors teaching various courses.

Earth Systems Sciences:
Learning Outcomes, Assessment & Program Improvement

Description of the Earth Systems Sciences Program at UC Merced
To advance the frontiers of interdisciplinary science through teaching and research at the interface between mathematics, natural sciences, social sciences and engineering; to educate students with a sense of professionalism and citizenship; and to serve the public through outreach efforts.

Program Goals
- To educate students in the fundamentals processes responsible for the biogeophyscial properties of the planet.
- To educate students to be self-actualized and creative thinkers who can function well independently and as part of a team.
- To educate students to communicate effectively in written and oral formats.
- To educate students for careers in teaching, industry, business and academia.
- To educate students with a sense of community, ethical responsibility and professionalism.
- To educate students the necessity of continuing education and self-learning.
- To educate students on the role of scientific information in public policy.

Learning Outcomes
Upon graduating, we expect students from the Earth Systems Sciences B.S. program to have achieved the following outcomes.
- An understanding of major concepts, theoretical principles and experimental findings related to physical, chemical, and biological aspects of Earth systems science;
- A basic understanding of the principal areas of scholarship associated with Earth systems science, including physical and biological Earth sciences, hydrology, atmosphere and climate, geochemistry and biogeochemistry, geomicrobiology, and ecosystem science;
- A thorough knowledge of fundamental mathematics, chemistry, and physics to facilitate the understanding and manipulation of Earth systems science;
- An ability to employ critical thinking and hypothesis-driven methods of scientific inquiry;
- A working knowledge of basic research methodologies, data analysis and interpretation for a variety of Earth-related data;
- The ability to formulate significant research questions, design experiments, use appropriate laboratory and field instrumentation, and analyze and interpret data;
- The ability to read, evaluate, and interpret numerical and general scientific information;
- Effective written and oral communication skills, especially the ability to transmit complex technical information in a clear and concise manner;
- The ability to use computers for simulation and computation, data acquisition, and database usage;
- A familiarity with, and application of local, state and federal safety regulations and practices;
- An appreciation of the importance and practice of good ethics;
- An ability to work effectively both individually and in teams in classroom, laboratory, and field settings; and

- An understanding of the impact of Earth systems science in a global/societal context and of the relationship of aspects of social science and economics to Earth systems science.

Assessment

The following measures will be used to assess the success of the Earth Systems Sciences program in achieving the objectives listed above.

- Student work including homework assignments, exams, and reports.
- Course evaluations.
- Student perception survey to determine whether students believe that they have achieved the objectives of the Earth Systems Sciences major. This survey will be developed in the Fall of 2006.
- Performance in independent research, to be assessed by:
    - The quality of written research reports;
    - Presentation of results at scientific meetings; and
    - Co-authorship on publications.
- Focus group interview of graduating students.
- Random sampling of graduates for evaluation of general education component.
- Student success after graduation: acceptance to graduate or professional school, or employment in a field that makes use of the student's education.

Program Improvement Mechanisms

We will analyze the assessment data to identify strengths and weaknesses of the existing program. Moreover, we will use this data to update the curriculum to remain current with changes in the discipline. A number of modifications may be considered:

- Revisions in the content or pedagogy of existing applied earth systems sciences courses.
- Changes in prerequisites, both within and outside the earth systems sciences.
- Elimination of courses that may have outlived their usefulness, or combination of two or more courses into one.
- Addition of new courses in response to evolving new directions earth systems sciences and/or changes in the relative importance of sub-disciplines.
- Changes in the instructors teaching various courses.

Physics:
Outcomes, Assessment & Program Improvement

Description of the Physics program at UC Merced
Physics is the study of nature at its most fundamental. Its scope covers everything from the tiniest particles of matter – such as atoms, electrons, and quarks -- to the structure of the entire universe, encompassing innumerable galaxies and stars.

Physicists seek to understand complex phenomena in terms of simple, unifying principles. Their queries have ranged from the seemingly innocuous, like "What causes an object to fall?" to the more elemental, like "What is the true nature of light?" Such questions led to the discovery of the gravitational force, which governs the motion of planets and stars, as well as to the biggest breakthrough of the twentieth century – quantum mechanics – that governs the very small. Answers to physicists' questions have revolutionized society, not only altering our basic understanding of the universe, but also profoundly affecting our day-to-day lives, laying the foundation for numerous technological innovations such as the laser, computer, and cellular phone. And Physics continues to evolve and excite us, with unanswered questions from a multitude of active and emerging fields of research, such as Quantum Computation, Superconductivity, Chaos, Biophysics, and String Theory, to name a few.

The physics program at UC Merced provides a strong foundation in the fundamentals of theoretical and applied physics, while also emphasizing the increasingly interdisciplinary role played by physicists in the scientific and technological community. This is reflected in the "core plus emphasis track" model of the major. The core is a rigorous grounding in fundamental physical principles, including electricity and magnetism, quantum and classical mechanics, and thermodynamics. The emphasis tracks consist of flexible specialization options which students design with the assistance of their faculty advisor. Possible emphases include Atomic, Molecular, and Optical (AMO) Physics; Mathematical Physics; Biophysics; Earth and Environmental Physics; Materials Physics; and Engineering Physics.

Physics students develop excellent quantitative and analytical skills, enabling them to approach new and complex problems that arise in any field. These fundamental skills are essential preparation for a wide range of careers in such fields as aerospace, biotechnology, computers, engineering, medicine, education, law, finance, business, and consulting.

Learning Outcomes
Graduates from the Physics B.S. program will have demonstrated the following learning outcomes.
- An understanding of fundamental principles in physics and major concepts in a student-chosen emphasis track: e.g., atomic/molecular/optical (AMO) physics, mathematical physics, biophysics, or earth/environmental physics;
- An ability to apply physical principles to real-world problems;
- An ability to apply mathematical techniques to solve physical problems;
- Proficiency in experimental laboratory techniques;
- An ability to formulate significant research questions;
- An ability to employ critical thinking and hypothesis-driven methods of scientific inquiry;

- A working knowledge of basic research methodologies, data analysis and interpretation;
- An ability to read, evaluate, and interpret numerical and general scientific information;
- Effective written and oral communication skills, especially the ability to transmit complex technical information in a clear and concise manner;
- An ability to work effectively in teams;
- An appreciation of the importance and practice of good ethics in science and respect for culturally diverse views in the global scientific community; and
- An understanding of the impact of physics in the global/societal context.

Assessment Measures

The following measures will be used to assess the success of the physics program in achieving the above objectives:
- Student Work: quality of exams, reports, and lab work in formal courses.
- Senior Research Thesis Requirement: This cumulative capstone experience will be a requirement of all physics graduates.
- Course Evaluations: The objectives of each course will be stated clearly in the course syllabus.
- Student Perception Survey: to determine whether students believe that they have achieved the objectives of the Physics major. This survey will be developed in the Fall of 2006, and administered to students at the end of their sophomore year and upon graduation.
- Performance in Independent Research. Success in independent research will be assessed by the following measures:
    - Standard rubric to be used by all faculty supervising independent research projects. The rubric will map directly to the program outcomes and will be developed in the Fall of 2006;
    - Quality of written research reports;
    - Presentation of results at scientific meetings; and
    - Co-authorship on publications.
- Student success after graduation: acceptance to graduate or professional school, or employment in a field that makes use of the student's education. Efforts will be made to track all graduates annually for at least several years after graduation.

Program Improvement Mechanisms

The assessment data will be analyzed to identify strengths and weaknesses of the existing program and to insure that the curriculum remains flexible enough to keep up with changes in the discipline. A number of modifications may be considered:
- Revisions in the content or pedagogy of existing physics courses. An example of this occurred at our June 2006 faculty retreat, where it was decided that we are going to revamp some of the physics requirements. This analysis and revision are ongoing and the Physics faculty will further refine the goals and assessment strategies as planning proceeds. One important change the resulted from the retreat was the inclusion of a senior thesis requirement, which you will find listed in the above Assessment section.
- Changes in prerequisites, both within and outside physics.
- Elimination of courses that may have outlived their usefulness, or combination of two or more courses into one.

- Addition of new courses in response to evolving new directions in physics and/or changes in the relative importance of sub-disciplines.
- Changes in the instructors who are reaching various courses.

School of Social Sciences, Humanities and Arts:
Learning Outcomes, Assessment & Program Improvement

Management
Social and Cognitive Sciences
World Cultures and History

Management:
Learning Outcomes, Assessment & Program Improvement

Description of the Management Program at UC Merced
To provide students with the analytical, quantitative, communication, and problem solving skills to succeed in management careers or in entrepreneurial endeavors; to instill in students a sense of professionalism and citizenship; to advance the frontiers of management education and practice through teaching and research that explores the connections between management science, economics, cognitive science, as well as other scientific disciplines; and to serve the general public through outreach efforts.

The Management major will respond to the growing need of California industry, especially in the Central Valley. UC Merced's management education is interdisciplinary and consists of a blend of courses from the fields of economics, management theory and the social sciences. Real life management problems do not fit neatly into subject areas. Today's managers and economists tackle issues that involve a number of management functions - so solutions need to account for all the areas involved. The UC Merced approach is to step away from thinking of management and economics as a set of simple, separate disciplines. Instead, the students learn to integrate key ideas from across subject areas to understand all the dimensions of a given issue. Creativity, innovation and entrepreneurship are emphasized.

The Management major at UC Merced represents a unique hands-on approach to management development and economics, positioning courses at the leading edge of dynamic business performance. The practical and project-based approach is based on the principle that learning is more rewarding when put into practice. Expertise can be taught, yet skills development demands live employment in the real world of work. The major is based on the premise that organizations of different kinds – for-profit, non-profit, technological and governmental – require employees who are trained in analytical and quantitative decision-making work effectively in teams and on projects, are comfortable in various cultures, are "well-rounded" in sciences and humanities, and who have learned the art of self-directed learning.

Using a multidisciplinary approach, the Management major prepares students for a broad range of management-related careers. The curriculum provides a strong foundation in economics, organization, business, finance, accounting and quantitative methods. UC Merced's Management program also emphasizes the historical and cultural dimensions of economics and management. It focuses on analysis and problem solving across a wide spectrum of management activities. The theoretical underpinning for the undergraduate program comes from Economics and Management Science disciplines that use tools and techniques based on applied mathematics and statistics to solve problems in virtually all areas of business and government. The typical undergraduate student will develop skills to build quantitative models of complex operations and be able to use those models to facilitate decision-making.

The Management degree provides students with the analytical tools to operate successfully in a modern, volatile business environment. The core management courses provide a rigorous foundation in economics, organizations, finance, accounting and psychology.

Program Goals

- To educate students in the fundamental analytical and quantitative tools necessary for management decision-making.
- To educate students as creative, independent, critical thinkers who can also function effectively in diverse teams.
- To instill in students a sense of community and ethical responsibility.
- To teach students the importance of continuing education and self-learning.
- To advance students' proficiency in communicating effectively in written and oral form.

Learning Outcomes

Upon graduation, we expect our students to:

- Understand the role of organizations and institutions in a society; understand the impact of organizations and institutions on the economic environment; and to understand how incentives influence individual and organizational behavior and performance;
- Recognize how government actions affect organizational performance and how businesses influence government decisions;
- Be able to design and conduct research that will inform managerial decision-making; and be able to collect, analyze, and interpret data using familiar software packages;
- Be able to define problems and identify multifaceted explanations for complex phenomena; use information and data from multiple sources to answer the questions at hand;
- Think critically about the information that they encounter, whether it is in their work, reported in the media, or in their private lives;
- Have an ability to recognize their ethical responsibilities;
- Have an ability to communicate clearly and cogently in written and oral form using modern technology; and
- Engage in life-long learning;

Assessment Strategies

- Student Work (exams, homework, reports, research projects, internship/service learning project results).
- Alumni Survey.
- Student Perception Survey.
- Graduating Student (Exit) Survey.
- Focus Group Interview of Seniors.
- Faculty Course Assessment Form.
- Independent Study Data, as Assessed by a Rubric.
- Random sampling of graduates for evaluation of general education component.

Social and Cognitive Sciences:
Learning Outcomes, Assessment & Program Improvement

Description of the Social and Cognitive Sciences Program at UC Merced
The undergraduate major in Social and Cognitive Sciences will offer broad preparation that cuts across Economics, Psychology, Political Science, Public Policy, Sociology and Anthropology. Introductory coursework will lay the basis for understanding the major questions and methodologies across the Social and Cognitive Sciences, including a common core of statistical and experimental methods courses. Upper division courses and projects will allow students to synthesize their cross-discipline learning and experiences.

Within this broad framework, three emphases will be developed within the initial program: Psychology, Economics and Public Policy. Students will select one of these emphases and will receive a notation on their transcript and diploma. Other emphases will be developed as the faculty and program enrollments grow.
The Psychology emphasis will provide broad preparation in psychology as a field and in the research methodologies of psychology. Special emphases will include human development (biological and cognitive) and social psychology. Cross-school programs will emphasize the intersections of psychology with the biological sciences through programs in Human Biology. Emphases in human development and social psychology will include multicultural perspectives. Psychology emphasis students will have opportunities to work with faculty on research.

Built on a basis of strong theoretical and statistical training, the Economics emphasis will give students a solid grounding in economic theory and quantitative methods. The Economics emphasis will provide students with an understanding of how incentives and institutions shape society. Special emphases will include labor economics, public economics, environmental economics, political economy and quantitative methods. Opportunities to do research with faculty will also be available.

The Public Policy emphasis provides an interdisciplinary education that prepares students for leadership positions in analyzing, implementing and managing public policies. The emphasis prepares students to apply the knowledge and tools from various academic disciplines, spanning such diverse fields as economics, political science, psychology, engineering and biology. Students will choose an area of emphasis within the program from social policy, health policy or environmental policy. The program focuses on the challenging policy issues of today and strives to prepare students to understand and to solve the emerging problems of tomorrow. As one of the best ways to learn is by doing, students will participate in an internship and/or an independent research project.

Depending upon their emphasis within Social and Cognitive Sciences, students will be well prepared for advanced study in law, management, public policy, urban and regional planning and medicine; or for admission into graduate school in one of the social science emphasis fields. Careers paths include business; social services agencies; federal, state and local government service; non-governmental organizations and non-profit agencies; community development; and counseling and training programs.

Program Goals
- To educate students in the fundamentals of social and cognitive sciences.
- To educate students as independent thinkers who can also function effectively with other people.
- To educate students with a sense of community and ethical responsibility.
- To educate students for careers in industry, government and academia.
- To teach the students the importance of continuing education and self-learning.
- To help students learn to communicate proficiently in written and oral form.

Learning Outcomes
Upon graduation, we expect our students to have
- An ability to see the relevance to society of knowledge in social and cognitive science;
- An ability to design and conduct research in social and cognitive science, and to analyze and interpret data;
- An ability to think critically about social and cognitive science research that they encounter in the media and other outlets;
- An ability to use social science methods to identify, formulate, and study social problems;
- An ability to recognize their ethical responsibilities;
- An ability to communicate proficiently in written and oral form;
- An ability to understand the impact of social and cognitive science in a global and societal context; and
- An ability to engage in life-long learning.

Assessment Strategies
- Student Work (exams, homework, and reports).
- Student Perception Survey.
- Alumni Survey.
- Graduating Student (Exit) Survey.
- Focus Group Interview of Seniors.
- Faculty Course Assessment Form.
- Independent Study Data, as Assessed by a Rubric.
- Random sampling of graduates for evaluation of general education component.

Table 1: Mapping between Program Goals, Objectives & Assessment Strategies

Program Outcomes	Related Objective(s)	Assessment
An ability to see the relevance to society of knowledge in social and cognitive science.	To educate students in the fundamentals of social and cognitive sciences.	Student Work Exit Survey Faculty Course Assessment Form Senior class interview Alumni Survey
An ability to design and conduct research in social and cognitive science, and to analyze and interpret data.	To educate students in the fundamentals of social and cognitive sciences.	Student Work Exit Survey Alumni Survey Faculty Course Assessment Form Independent Study Data
An ability to think critically about social and cognitive science research that they encounter in the media and other outlets.	To educate students as independent thinkers who can also function effectively with other people.	Student Work Alumni Survey Exit Survey Independent Study Data
	To educate students for careers in industry, government and academia.	Alumni Survey Exit Survey
An ability to use social science methods to identify, formulate, and study social problems.	To educate students as independent thinkers who can also function effectively with other people.	Student Work Alumni Survey Exit Survey Faculty Course Assessment Form
	To educate students for careers in industry, government and academia.	Senior focus group Alumni survey
An ability to recognize their ethical responsibilities.	To educate students with a sense of community and ethical responsibility.	Exit Survey Alumni survey Senior focus group
An ability to communicate proficiently in written and oral form.	To help students learn to communicate proficiently in written and oral form.	Exit Survey Faculty Course Assessment Form Student Work
An ability to understand the impact of social and cognitive science in a global and societal context.	To educate students with a sense of community, ethical responsibility, and professionalism.	Student Work Exit Survey Alumni Survey Senior focus group
An ability to engage in life-long learning.	To teach students the importance of continuing education and self learning.	Exit Survey Alumni Survey Senior focus group

World Cultures and History:
Learning Outcomes, Assessment & Program Improvement

Description of the WCH Program at UC Merced
The undergraduate major in World Cultures and History will invite students to study questions of society and culture in a comparative context. It will address such questions as: What constitutes a society and a culture, and how are they formed? How and why do societies and cultures sometimes come into conflict? What happens at the crossroads of culture—for example, California and the San Joaquin Valley —when people from many different backgrounds come into contact?

These questions can best be understood through the prism of the humanities and arts, assisted by the natural and social sciences. Thus, this major will bring together a variety of disciplines previously thought of as dissimilar—including anthropology, history and political science, language and literature, music and performance studies, philosophy and religious studies and area and ethnic studies.

In UC Merced's opening years, the World Cultures and History major will particularly examine the interaction of nations and cultures from both a literary and an historical perspective. Within both these fields, lively scholarly debates on the subject of culture abound. This major will appeal to students who are interested in learning the methods and tools of history, literature, and allied fields to understand how societies and cultures have developed and continue to evolve. A special feature of this major will give students the opportunity to apply their classroom learning to relevant and contemporary research problems outside the classroom, where students may contribute to expanding public knowledge and awareness of cultural issues.

Two emphases will be developed within the initial program: history or literature. Students will select one of these emphases and receive a notation to that effect on their transcript and diploma. Other emphases will be developed as the faculty and program enrollments grow.

The History emphasis will prepare students to understand and use the methods by which historians examine society and culture, through historical research and writing. Students will learn to locate, evaluate, and interpret evidence, and then use that evidence to construct an argument or develop a thesis, using both historical case studies and comparative studies. Students will explore history as a field, including the examination in depth of issues concerning world, national, or state and local history. Initially, the history emphasis will focus on world history, American history and the history of science and technology.

The Literature emphasis will prepare students in the multiple perspectives from which literature as a product of culture is read. Students will learn how to interpret texts by applying different critical methods and hone their own interpretive skills through analysis and writing. Students will have the opportunity to take courses on a national tradition, transnational movements, historical periods, cultural analysis, literary genres, women's and ethnic literatures, regional literatures, environmental writings and children's literature. Students will use this study to build written, oral and other communication skills. They will develop the ability to create well-crafted analyses for

specialists in their field, as well as to interpret the results of their research and analyses for a non-specialist public.

During their undergraduate careers, World Cultures and History majors will have a variety of opportunities to apply what they are learning. Possibilities include undergraduate research with individual faculty; community or regional internships in a variety of cross-cultural settings; and enrichment experiences through the World Cultures Institute. The rich and diverse historical experiences and cultural heritages of California and the San Joaquin Valley offer an excellent living laboratory for this research.

A unique part of the World Cultures and History major will be a public research project that enables students to use their research and communication skills either individually or as part of a team to educate and inform the public. Students might work, for example, on researching and writing an interpretative account linking the environmental and human histories of nearby Yosemite or Sequoia National Park; or on representations through the arts of a San Joaquin Valley cultural group at a Valley museum; or on an aspect of irrigation history and water policy for a public agency in the Valley. The final product might be in the form of an interpretive web site that combines written and oral texts with visual material, an interpretive text for the public or a written and oral report to a sponsoring agency. Extensive writing will be a keystone of the World Cultures and History major, and a requirement of any public research project.

World Cultures and History majors may also elect to study overseas through the University of California Education Abroad Program (EAP) or participate in the University of California programs in Washington DC (UCDC) or Sacramento. To fulfill the public research project requirement, the EAP, UCDC or Sacramento experience would need to be planned under UCM faculty supervision and lead to completion of a final written report (for EAP students: in English or in the language of the EAP country) addressed to a well-defined public audience.

Students will also complete a two-semester senior proseminar in which they will explore connections among the World Cultures and History courses they have completed and write a senior thesis. The proseminar will require students to demonstrate their skills in communicating effectively both orally and in writing with an audience in their emphasis field. Semester one will focus on directed research in preparation for writing a senior thesis; semester two will be devoted to completing the thesis.

World Cultures and History students will be well prepared to enter advanced study programs in law, education, journalism, diplomacy, library science, and management, as well as graduate study in their field of emphasis. Career opportunities will be found in academe, business, publishing, public service, non-governmental organizations and museums and archives. Public as well as private agencies seeking employees with strong cross-cultural communication skills and understanding should find graduates from this program especially appealing.

The WCH Internship, Proseminar, and Senior Thesis
Among the unique aspects of the World Cultures and History major at UC Merced, decided upon by the WCH faculty at the outset, are the WCH public internship, the two-seminar Proseminar,

and the senior thesis requirement. All three, together, are intended to be part of the "capstone experience" for WCH graduates.

The public internship, required of students in the junior year, is intended to encourage them to use their newly acquired research and communication skills either individually, or as part of a team, working with sponsors from a variety of disciplines and locales on a project to benefit the community. Students may well fulfill this requirement thorough participating in the UCDC program, while studying abroad, or through some other non-local channel. The final product might be in the form of a research paper linked to the internship experience, an oral history project, a presentation using various media, an archive or museum exhibit, or an interpretative web site.

The WCH Senior Proseminar is divided in two parts. During the first semester, WCH students choose and research an original topic or question in their specific discipline--history, literature, or the arts--with the assistance of a faculty sponsor and adviser. During the second semester, the student writes a comprehensive thesis on that topic, and is graded on the results by the faculty adviser and a second reader chosen from the WCH faculty.

Like the College One Core Course sequence, the WCH internship, the Proseminar, and the senior thesis requirement were inspired by the early experience of other University of California start-up campuses--specifically, UC Santa Cruz and UC San Diego, both of which opened in 1965. While these programs as originally conceived have since either been abandoned or substantially altered at Santa Cruz and San Diego, the hope and expectation of UCM's World Cultures and History faculty is that the individual attention and emphasis upon writing which are the hallmarks of the internship, proseminar, and senior thesis will continue on our campus.

Program Goals
- To teach students to appreciate and be knowledgeable of human creative expression, including literature, history, and the arts.
- To educate students for future careers in academia, government, non-profits, and the private sector.
- To teach students how to communicate and interact effectively with multiple audiences, using advanced skills in written and oral communication.
- To teach students to understand and value diverse perspectives in milieus ranging from the local to the global, in ethically and culturally rich settings.
- To teach students to work effectively as individuals as well as in leadership and group roles, integrating their expertise with the skills of others.
- To teach students to appreciate and understand the various and diverse factors bearing on decisions, and to use information effectively for critical analysis and problem solving.
- To instill in students an appreciation of and a desire for life-long learning.
- To instill in students a desire for civic participation.
- To educate students regarding their ethical responsibilities as citizens of a modern society.

Table 2. Learning Outcomes & Assessment Tools

Outcome	Course Assessment Tool	
Upon completion of the course, students will demonstrate the following capabilities:	Team	Individual
Decision-making; **Leadership and Teamwork**: An ability to apply, in daily life as well as work, knowledge of history, literature, and the arts. An ability to recognize, analyze, and successfully resolve questions and problems associated with the disciplines of literature, history, and the arts.	Core 100 group presentations and reports	Overall student work; Exit and alumni surveys
Communication: An ability to communicate effectively, in written form and oral expression.	Core Group Presentations and Reports; Proseminar; Focus Group Interviews	Overall Student Work; WCH Internship Reports; Senior Thesis
Self and Society: An ability to work effectively as individuals and in groups.	Core 100 Presentations and reports; Proseminar; focus group interviews	WCH Internship; Proseminar; Senior Thesis; Overall Student Work
Ethics and Responsibility: An ability to recognize and carry out their ethical responsibilities as individuals and as members of society.	Exit and alumni surveys; focus group interviews	Exit and alumni surveys
Knowledge and Appreciation of the Past: An ability to conduct research in the primary sources of history, literature, or the arts, and to present the results in a coherent, comprehensive, and persuasive manner.	Exit and alumni surveys; proseminar; internship experience and focus group interviews	Overall student work; Exit and alumni surveys; Proseminar and senior thesis
Life-long Learning: An appreciation of and ability to engage in life-long learning.	Alumni survey	Alumni survey
Civic Engagement: An ability to be an active, engaged, and responsible citizen in the civic life of the community.	Alumni survey	Alumni survey

Assessment Strategies
- Faculty assessment of overall student work (exams, homework, written and oral reports).
- Student Perception Survey.
- Capstone experience: Senior Proseminar and Senior Thesis, Assessed through the use of a Rubric.
- Student, faculty, and sponsor assessment of WCH internship experience.
- Student evaluation of faculty and courses.
- Senior exit interviews.
- Focus group interviews.
- Alumni survey of WCH graduates.

Appendix A: Reflection Process Questionnaire

Introduction: Learning objectives are a critical component to any class and represent a foundation upon which any program is built. They provide students with valuable information about what they can expect to learn and what faculty members expect them to be able to do upon completion of their major. The idea is that objectives should stay fairly consistent, and course activities and assessments can be adjusted over time to better reflect how you go about teaching and assessing those objectives. Developing specific objectives is also useful for you as a faculty member because a clear statement of learning objectives will ensure that you are well prepared to make quick course decisions, design changes, and updates.

Instructions: To complete this reflection process, refer to the current statement of learning objectives and assessment measures on the last page of this document. Your current document is a great start and the goal of this questionnaire is to seek feedback on how we might make the learning objectives even more specific, ensure the assessment plan is consistent with the objectives, and agree upon a way in which we can communicate the objectives to the students.

Question 1. Please indicate which courses you teach at UC Merced:

Learning Objectives

Question 2. As you review the current statement of learning objectives on the last page of this document, think about what a student would have to "know AND do" to be successful in the [_____] program.

Are there objectives missing from the list? If you believe additional objectives are needed, please write them below (Note: don't be too concerned about the wording of the objective, just get the idea out there).

2a. Of the current learning objectives and the ones you suggested above, which are reflected in the courses you teach?

Assessment

Question 3. Review the assessment measures on the last page of this document. Which of those listed do you use in your courses?

3a. Are there additional ways you would like to see students assessed? Please list them here. (Examples may include student perception surveys, portfolios, projects, etc).

Communicating Objectives & Assessment to Students

Question 4. If you do not already do so, would you be willing to add a statement to your course syllabi that indicates which learning objectives and assessment measures are used?

General Education & Other

Question 5. All of your students will participate in general education at UC Merced. The general education guiding principles are:
1. Scientific Literacy
2. Decision Making
3. Communication
4. Self & Society
5. Ethics & Responsibility
6. Leadership & Teamwork
7. Aesthetic Understanding and Creativity
8. Development of Personal Potential

In [_____], which of the above principles are most emphasized? List any and all that apply.

Question 6. Please use the below space to write down any additional comments, reflections, concerns, etc that you have regarding [_____].

Overview of Academic Advising at UC Merced

Each of the three Schools –Natural Sciences, Engineering, and Social Sciences, Humanities and Arts has one full-time academic advisor to serve the students in the respective unit. These advisors provide guidance to the students enrolled in their School's majors, in addition to those who remain "undecided" with regard to their specific choice of major, yet they have a general focus related to the School that they have selected as their home. Students who have chosen no specialty or general area are overseen by the Student Advising and Learning Center (SALC), where a full-time academic advisor works with them exclusively.   Advising in the SALC aims to help students take steps to find their specialty and declare it by the end of their sophomore year. The fully undecided students may select their major and transfer to the appropriate advisor at any point in their first two years of study; the SALC does not advise students at the junior level and beyond.

The SALC is a student affairs entity, and by this means advising is a function that bridges academic and student services. Students are served by the following structure:

School of Social Sciences, Humanities and Arts (SSHA)	School of Natural Sciences (NS)	School of Engineering (ENG)	Student Advising and Learning Center (SALC)
Dean of SSHA	Dean of NS	Dean of ENG	Vice Chancellor for Student Affairs
Assistant Dean of SSHA	Assistant Dean of NS	Assistant Dean of ENG	Director of the SALC
Director of the SALC			
Academic Advisor for SSHA	Academic Advisor for NS	Academic Advisor for ENG	Academic Advisor for SALC
Students in the SSHA majors and emphases: Management; Social and Cognitive Sciences (Economics, Psychology, Public Policy); World Cultures and History (History, Literature); SSHA-undecided	Students in the NS majors and emphases: Human Biology; Earth Systems Sciences (Atmospheric sciences, Ecosystem Sciences, Geochemistry, Hydrologic and Climate Sciences); Chemical Sciences; Biological Sciences;	Students in the ENG majors and emphases Bioengineering (Nanobioengineering); Computer Science and Engineering; Environmental Engineering (Air Pollution, Energy and Environmental Sustainability, Environmental Quality, Hydrology); Mechanical Engineering; Materials Science and	Students who have yet to choose a specialty area.

	Mathematical Sciences; Physics; NS-undecided	Engineering; ENG-undecided	

The matrix above aims to demonstrate that upon entry and throughout their career at UC Merced, students identify their academic advisor with ease, based on their chosen field of study. All academic advisors report to their School's Assistant Dean, or to the Director of the SALC, in the case of the undecided. The Director of the SALC leads all efforts that unify the advising process with regard to timelines, policy review, revision and campus-wide implementation, new student services such as orientation planning, and general communications.

Each academic advisor is employed within his or her respective School or the SALC. School advisors are supervised by their Assistant Deans; the SALC advisor is supervised by the SALC Director. The Assistant Deans of the Schools and the SALC Director collaborate in hiring processes of academic advisors, and in the scheduling of many other processes that involve advisors' participation. These include New Student Orientation planning and professional development activities of the advisors. The School advisors do not report formally to the SALC Director. However, they are supported by their Schools in their role as members of a campus-wide advising team. Day to day responsibilities and expectations of academic advisors vary across the different areas, and these are set by the advisors' supervisors. Participation in weekly advising meetings and other activities led by the SALC Director that demand the contribution of perspectives from across campus are built into the expectations set by the Assistant Deans. By this means the leadership of the Director of the SALC traverses the Schools at the advising and Assistant Dean level to unify advising processes, and to facilitate the flow of information across the Schools, and also back and forth between Student Affairs and Academic Affairs.

Flow of Communication

Beginning in the summer of 2005, advisors began meeting weekly. These sessions are convened and the agenda is set by the SALC Director, in consultation with advisors. The weekly minutes are distributed by the Director following each meeting to the Assistant Deans, the Vice Chancellor for Student Affairs, and all advisors. By this means the supervisors of all who are involved in advising gain insight into the successes and challenges faced by their staff on an ongoing basis. Assistant Deans relay advising-related concerns to their faculty or Dean, as appropriate.

Advisors across campus reserve one hour each week to gather to compare notes and plan for upcoming processes or events. This has facilitated easy access, for example, on the part of the Registrar, Admissions staff, Disability Services, and other units who request the opportunity, through the SALC Director, to meet with all of the advisors together. Furthermore, College One is not represented at the meetings by any one advisor. All new information or program changes to general education, freshman seminars and the Core sequence are conveyed to advisors through weekly meetings. All advisors perform as advocates for general education and the Core sequence in particular.

At the same time, advisors rely upon College One to provide the Core sequence for their School; this is a reciprocal relationship that has further strengthened the collaborative foundation of advising.

Ensuring Seamlessness of the Student Advising Experience

Beginning with New Student Orientation, which is planned with all academic advisors, students are introduced to the advising process through the advisor to whom they have been assigned. Because all Schools adhere to the same course placement exam standards, transcript deadlines, and academic standards (such as academic probation, dismissal, and in the future, Dean's List standing), students are able to change their mind about their major and seek guidance from any advisor at any time, before or after they officially change their major. In fact, advisors encourage their advisees to meet with advisors in other Schools whenever they feel the need to explore a different major. Through weekly meetings and other communications, advisors actively communicate to share advising records with one another when students move from one field of study to another. As of Fall 2005, SSHA will be offering minors, which will be open to students from all majors. This has already resulted in students visiting minor (SSHA) advisor at least once a year in addition to seeing their major advisor regularly (at least once per semester). Weekly meetings of the advisors assist non-SSHA advisors in designing their students' majors and course plans to accommodate minor requirements.

Advisors are regularly consulted by curriculum assistants in the process of course scheduling for their respective School. Cross-School advising meetings provide the opportunity for exchange of information relevant to optimal timing of certain courses needed by all students, in order to ensure that major-specific labs or other courses do not impede student access to the university-wide requirements such as Core and Writing. In fact, customized planning sheets are provided to the students in each School for their orientation advising session. These at-a-glance planning sheets "hide" certain sections of biology from SSHA students, for example, that are at times that are most needed by the NS students. This helps to prevent the occurrence of log jams in essential freshman courses within each major. Similarly, SSHA and UND students are ushered into writing sections that are during essential NS freshman courses, so that seats in writing sections that do not conflict with NS courses will be open to the students who most need them. These strategically designed advising materials are produced and provided to advisors by the Director of the SALC. In addition, weekly advising meetings provide the opportunity throughout the mid-semester advising process for advisors to update one another on potential shortages or vacancies in different sections. This helps advisors to distribute course enrollments in ways that best serve the students, and the Schools.

The review process for students who are subject to academic dismissal also represents a unified effort across the Schools and the SALC, to ensure that students' best interests remain at the center of these processes. After final grades are issued each semester, it is up to the School advisors along with their Dean or Assistant Dean, and the SALC in collaboration with College One, to decide which student appeals to honor, and how to proceed. The SALC Director coordinates a meeting each semester with all advisors, Assistant Deans (and Associate Dean of College One), the Registrar, and the Vice Chancellor for Student Affairs to develop a framework from which all areas can

work. Each unit has set its own criteria for approving dismissal appeals, but all work from the same baseline of standards, the same timeline, and the same procedure of meeting with the students.

All student submissions of requests for appeals are received in the SALC, and they are recorded and then distributed to the Schools. Some students who face dismissal have declared their majors in one School, yet they have committed to courses and goals based in another. Similarly, some officially "undecided" students have sought all of their advising through, for example, Natural Sciences, and are clearly pursuing a degree in that area. Through the communication among advisors, all areas have agreed to have their dismissal students reviewed in whatever area houses the program where a particular student's interests lie; this demands much coordination for the record-keeping and tracking of crossover students. In these respects, the SALC serves as a headquarters for the academic dismissal appeal process, but the different units retain their autonomy when facing program-specific issues affecting their students.

In addition to what is described above, Academic Advising has reached out to students, and even the UC System as a whole, in a variety of ways:

- Academic Advising Socials: Advisors held one fall social and one in the spring in 2005-06. This is an event in a communal space in the residential facilities, held once on a Saturday, and in the spring, on a weeknight. Together, advisors planned games to help students learn about success resources. All advisors had launched a marketing campaign through e-mails, table tents in the dining area, and posters around advising spaces. The SALC provided pizza. The purpose of the advising social each semester, which is a tradition that will continue, is to bring advising to the students, in a comfortable setting. This helps to generate in-person contact with students who may have avoided their advising appointment. At both events, actual advising was accomplished for more than seventy students campus-wide.

- UC Advisors' Conference Presentation: The advisors collaborated, led by the Director of the SALC, to propose and then lead a session at the UC Advisors' Conference in May, 2005. The purpose of the session was to demonstrate the effectiveness of a unified advising effort on a UC campus. A portion of the presentation gave how-to instructions for making an "advising social" as a way of integrating advising into student life.

- Student Success Workshops: All academic advisors participate in the design and facilitation of Student Success Workshops. Advisors have proven to be the most effective marketing tool for drawing students to non-mandatory workshops, by contacting their students through e-mail lists, and in some cases by setting their own requirements for attendance within the probationary contracts that they issue to some students.

University of California, Merced
National Survey of Student Engagement
July 2006

1. UC Merced NSSE Report

2. UC Merced NSSE Data Tables

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Spring 2006 National Survey of Student Engagement
UC Merced
July 2006

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Introduction

UC Merced administered the National Survey of Student Engagement (NSSE) to undergraduates during the Spring 2006 semester. Student motivation or engagement "refers to a student's willingness, need, desire and compulsion to participate in, and be successful in, the learning process" (Bomia et al., 1997, p. 1). According to Skinner and Belmont (1993, p. 572), students who are motivated to engage in school "select tasks at the border of their competencies, initiate action when given the opportunity, and exert intense effort and concentration in the implementation of learning tasks; they show generally positive emotions during ongoing action, including enthusiasm, optimism, curiosity, and interest" Less motivated or disengaged students, on the other hand, "are passive, do not try hard, and give up easily in the face of challenges" (Skinner & Belmont, 19913, p. 572).

A substantial research literature on college student development indicates that student engagement is linked to persistence, academic achievement, and personal development (Kuh; 2003a; Pascarella and Terenzini, 1991, 2005). Actively engaged students devote more time and energy to educationally purposeful activities than less engaged students. High levels of student engagement, in turn, are linked to effective educational practices. Perhaps the best known set of effective practice is the "Seven Principles for Good Practice in Undergraduate Education" (Chickering and Gamson, 1987). These principles include contact between students and faculty, reciprocity and cooperation among students, active learning, prompt feedback, time on task, high expectations, and respect for diverse talents and ways of learning. Also important to student learning are institutional environments that are perceived by students as inclusive and affirming and where expectations for performance are clearly communicated and set at reasonably high levels. A recent summary of these factors is displayed in the box below.

<div align="center">

EFFECTIVE EDUCTIONAL PRACTICES

</div>

1) Student-Faculty Contact: Quality of non-classroom interactions with faculty, faculty interest in teaching and student development.

2) Cooperation among Students: Instructional emphasis on cooperative learning, course-related interaction with peers.

3) Active Learning/Time on Task: Academic effort/involvement, essay exams in courses, instructor use of high-order questioning techniques, emphasis on high-order examination questions, computer use.

EFFECTIVE EDUCTIONAL PRACTICES

4) Prompt Feedback: Instructor feedback to students

5) High Expectations: Course challenge/effort, scholarly/intellectual emphasis, number of textbooks or assigned readings, number of term papers or other written reports
.

6) Quality of Teaching: Instructional clarity, instructional organization/preparation.

7) Influential Interactions with Other Students: Quality of interactions with students, non-course-related interactions with peers, cultural and interpersonal involvement.

8) Supportive Campus Environment: Emphasis on supportive interactions with others.

Source: Kuh and Pascarella, 2004, p. 54

Effective educational practices and high levels of student engagement are positively related to student satisfaction and achievement on a variety of dimensions (Pascarella and Terenzini, 1991, 2005). As a consequence, the direct measurement of student engagement is also an indirect measure of educational effectiveness. A meaningful approach to evaluating an institution is to determine how well it fosters student learning. Decades of studies show that college students learn more when they direct their efforts to a variety of educationally purposeful activities. To assess the quality of the undergraduate education at an institution, we need good information about student engagement (Kuh, 2003b, p. 25).

The NSSE asks undergraduate students questions that focus on effective educational practices, including student-faculty interaction, active and collaborative learning, academic challenge, diversity-related experience, and supportive campus environment. In the process of responding, the survey "requires . . . students [to] reflect on what they are putting into and getting out of their college experience" (Kuh, 2003a, p. 2).

The survey was administered for a number of reasons: to learn how students evaluate their education at UC Merced, identify which academic programs and student services students say are working well or not so well, and provide baseline data during the university's inaugural year that can be used to measure progress as the campus seeks accreditation.

Importantly for accreditation, quite a few NSSE questions address the WASC standards; a crosswalk linking the questions to WASC standards is contained in *Accreditation Toolkit: Western Association* (NSSE, no date). In addition, because the survey has been administered at over 1,000 colleges and universities over the last six years, there are averages (benchmarks) for all of the survey questions for each of five

Carnegie classifications (Doctoral-Extensive, Doctoral Intensive, Master's, Baccalaureate-Liberal Arts, and Baccalaureate-General). Therefore, it is possible to compare the findings from UC Merced with those of similarly classified institutions.

UC Merced Respondents

The NSSE was administered via the web to the population of UC Merced undergraduates who began as new freshmen or transfers in Fall 2005 and continued on in Spring 2006. A total of 783 students were invited to participate in the survey. The overall response rate was 44%, which is somewhat higher than last year's response rate (42%) for all Spring 2005 NSSE participating institutions.

Table 1 compares the NSSE respondents to the population of undergraduates who had been invited to participate in the survey. Women were clearly more likely to respond than men. Hispanics and White students were most likely to respond, followed in order by those of other or unknown race, Asians, and African-Americans. New freshmen responded more frequently than new transfer students. Overall, students from the School of Social Sciences, Humanities, and the Arts (SSHA) had the highest average response rates, while those from the Schools of Engineering and Natural Sciences had lower rates.

The Office of Institutional Planning and Analysis conducted three web-based surveys of undergraduates over the 2005-2006 academic year, the New Student Survey (Fall 2005), the NSSE (Spring 2006), and the University of California Undergraduate Experience Survey (UCUES, Spring 2006). Although the overall response is comparable to the NSSE rate from 2005, it may have been affected by survey fatigue. There is evidence that administering multiple surveys to students in one year leads to such fatigue and a decline in response rates (Porter, Whitcomb, & Weitzer, 2004). Overall response rates declined over the three surveys, from 50% (New Student) to 47% (NSSE) to 37% (UCUES). Although the response rates declined, the general patterns of response by gender, ethnicity, level, and major were fairly stable. On average, woman had higher response rates than men. White and Hispanic students generally had above average response rates, while students from the other racial and ethnic groups tended to have lower than average rates. African-Americans had the lowest rates of all. New freshmen consistently had higher response rates than new transfers. Across the three schools, SSHA students had the highest response rates, followed by Natural Science students, then Engineering students.

Because of the small numbers of respondents when disaggregated by gender, ethnicity, or discipline, most of the following analyses are not broken down by these groups. However, the results are disaggregated by entering level, freshmen and transfers, because their ages and educational experiences are considerably different.

Survey Results

The NSSE asks questions that address all of the Effective Educational Practices listed above, except for Quality of Teaching.[1] In the discussion that follows, the survey questions have been reorganized to address these educational practices and a few other topics. This reorganization largely follows the work of the NSSE researchers, who have developed benchmark indexes that measure Student-Faculty Interaction, Active and Collaborative Learning, etc. The data tables present the percentages of UC Merced students who provided each response (e.g., Never, Sometimes, Often, and Very Often), the percentages who gave the top two answers (Often + Very Often), and for contextual purposes, the 2005 average percentages of freshmen (first-year students) who gave the top two answers from comparable institutions. As planned, UC Merced will grow into a doctoral-extensive research university, but right now looks more like a small, undergraduate-liberal arts college. So the tables contain the average percentages for institutions classified into these two categories. The contextual percentages are only provided for freshmen. NSSE normally administers the instrument only to freshean and seniors, then publishes grand frequencies (counts and percentages) for both groups. At UC Merced all undergraduates were invited to participate, but there were not enough seniors to make comparisons meaningful.

Student-Faculty Interaction: According to NSSE, students learn firsthand how experts think about and solve practical problems by interacting with faculty, especially outside the classroom. As indicated in Table 2, six questions asked respondents about their interaction with faculty. Sixty-eight percent of freshmen said they communicate often or very often via email with instructors, while 45% indicated they often or very often discussed grades or assignments with faculty members. A modest minority (25%) regularly talked about career plans with faculty or advisors. These percentages are roughly equal to the often or very often percentages reported for doctoral-extensive institutions, though they are lower than those for baccalaureate-liberal arts institutions. Twenty-five percent of respondents said they often or very often discussed ideas from readings or classes with instructors outside of class, while 19% worked with faculty on activities other than coursework. A small majority (54%) of freshmen said they have already, or plan to, work on a research project with a faculty member outside of their coursework. The latter three percentages are all higher than the corresponding percentages reported for both doctoral and baccalaureate institutions. This suggests that when it comes to more substantive interaction with faculty, UC Merced freshmen are somewhat more comfortable with faculty than their counterparts at other colleges and universities.

This latter suggestion is reinforced by the results for transfers, who are obviously older and have more experience interacting with faculty. Nearly ninety percent regularly e-mail instructors, while 65% discuss grades or assignments with faculty. A full 47% said they often or very often talked about career plans with faculty or advisors; 38%

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[1] Since 2002 the NSSE Institute has been engaged in Project DEEP (Documenting Effective Educational Practices), which aims to identify colleges that do an exemplary job of teaching undergraduates and identify their successful instructional practices.

reported regularly discussing ideas with faculty outside of class; and 31% worked with faculty members on activities other than coursework. Finally, 82% of transfers said they had, or plan to work on a research project with faculty outside of course or program requirements. Transfers, though more experienced, still were meeting UC Merced faculty members for the first time. Presumably, when today's freshmen have interacted with the UC Merced faculty for two years, they may be even more comfortable than with substantive involvement with faculty members than the today's transfers.

    Collaborative Learning: Cooperative or collaborative learning involves students in the active exchange of ideas with peers, and in the process promotes teamwork, fosters understandings between diverse learners, groups, or communities, increases critical thinking, and improves understanding of problems and potential solutions. There were at least nine NSSE questions that explored aspects of collaborative learning (see Table 3). A majority of freshmen worked often or very often with other students during class (54%) and outside of class (60%). Forty-six percent indicated they regularly used electronic media to discuss or complete an assignment, while 42% said they had, or plan to participate in a learning community. Only a minority of freshmen said they often or very often tutored or taught other students (25%), or participated in a community based project (17%). With only one exception, these percentages are higher or much higher than the corresponding average percentages reported for both doctoral and baccalaureate institutions. Freshman use of electronic media to discuss or complete assignments is somewhat lower than the average percentages. Perhaps face-to-face communication replaced electronic communication among freshmen because of their relatively small numbers, and the fact that almost all of them live in close proximity in student housing. Three other questions focused on collaboration not immediately relevant to class assignments.   A substantial majority of freshmen said they had serious conversations with students of different race or ethnicity (68%), and with those of different religious beliefs, political opinions, or personal values (68%). These percentages are higher than those for doctoral and baccalaureate institutions. Fifty-four percent said they discussed ideas from readings or classes with others outside of class. This percentage is somewhat lower than that for the comparison institutional categories.

    The percentages of transfers reporting participation in collaborative learning on a regular (often or very often) basis are generally higher than those for freshmen. Sixty-two percent reported working with other students during class, while 69% said they did so outside of class. A third of transfers said they often or very often tutored or taught other students. Eighteen percent indicated they participated in a community-based project as part of a regular course. Three-quarters of transfers, compared to 46% of freshman, regularly used electronic media to discuss or complete an assignment. Almost all transfers live off campus and, consequently, are forced to rely on other means of communication rather than the face-to-face conversation seemingly relied upon by freshmen living on campus. Large majorities of transfers regularly discussed ideas from readings or classes with others outside of class (84%), and had serious conversations with students of different races and ethnicities (78%), as well as different religious beliefs, political opinions, or personal values (69%). Transfers (31%), whose academic programs

are more set in place than those of first-year students, were less likely than freshmen (42%) to say they had participated, or planned to participate, in a learning community.

Active Learning. The heart of student engagement is active learning, where students are intensely involved in their education. The NSSE asked over a dozen questions that measure active learning (see Table 4). Fifty-seven percent of freshmen said they often or very often ask questions in class or contribute to class discussions. When completing coursework, 79% regularly prepared two or more drafts of papers or assignments before turning them in, and 77% included diverse perspectives in class discussions or writing assignments. Somewhat more than half of freshmen (56%) said they put together ideas or concepts from different courses in assignments and class discussions. Just over half (51%) indicated they worked harder than they thought possible to meet an instructor's standards or expectations. Almost three-quarters (74%) of freshmen read some books on their own for personal enjoyment or academic enrichment; 18% indicated they read five or more such books. Despite these generally positive responses, 20% of freshmen admitted they often or very often come to class without completing readings or assignments, while only 17% regularly made a class presentation. The percentages of UC Merced freshmen preparing two or more drafts, including diverse perspectives, and putting ideas together from different courses were higher than the corresponding averages for doctoral and baccalaureate institutions. They were also higher than those for doctoral-extensive institutions for asking questions in class and working harder. Smaller percentages of UC Merced freshmen come to class unprepared than at doctoral, but not baccalaureate institutions. UC Merced freshman are not as likely as those at comparable institutions to make class presentations on a regular basis.

Question 7 asked students whether or not they had already, or planned to do, a number of enriching educational activities. A very large majority of freshmen responded favorably to participating in a practicum, internship, field experience, or clinical assignment (80%), and community service or volunteer work (83%). Small majorities also responded favorably to taking a foreign language (55%) and study abroad (51%). Thirty-seven percent anticipated completing a culminating senior experience (capstone course, senior project, comprehensive exam, etc.), and only 18% planned on undertaking an independent study or a self-designed major. Generally, UC Merced freshmen were less likely to reports plans for these educational activities, especially as compared to the averages for baccalaureate institutions. They were slightly more likely than those at doctoral institutions to report plans for community service, study abroad, and independent study.

Transfer students generally provided larger percentages of often and very often responses, including for asking questions in class (64%), making a class presentation (29%), coming to class unprepared (27%), and putting together ideas from different courses (67%). They also were somewhat more likely to read five or more books for pleasure (22%). A large percentage of transfer students said they would be involved in a practicum, internship, etc. (87%), culminating senior experience (60%), and an independent study (44%). Given their advance standing and educational experience,

smaller majorities of transfers than freshmen reported that they regularly prepared two or more drafts of assignments (51%), included diverse perspectives in their assignments (65%), or planned to participate in community service (69%). Only a minority of transfers were interested in foreign languages (49%) or study abroad (31%).

Time on Task. Academic success is largely dependent upon the number of hours students devote to class attendance, preparation, and study. It is generally accepted that undergraduate students should spend two hours preparation for every class hour (in math and science, 3 to 4 hours seems to be the expectation (Kuh, 2003b). Unfortunately, most students spend about half that amount of time (see Table 5).[2] Seventy-four percent of freshmen reported spending between 1-20 hours preparing for class each week; only 24% said they put in more than 20 hours. The latter figure is slightly higher than the 21% figure for doctoral-extensive institutions. More UC Merced freshmen (30%) work on campus than their counterparts (19%) at all doctoral-extensive institutions, but the figures are reversed for freshmen working off campus (11% vs. 25%). Overall, a lower percentage of UC Merced freshmen report working (39% vs. 44%). Approximately the same majority of freshmen said they participated in co-curricular activities (67% and 65%, respectively). When it comes to relaxing and socializing, 63% of freshmen report spending 10 or fewer hours each week, a somewhat higher percentage than the average of 51% at doctoral-extensive institutions. Only small percentages of freshmen report spending time taking care of dependents, usually fewer than 10 hours a week at UC Merced (14%) and doctoral institutions (11%). It appears UC Merced freshmen spend less time commuting to class than their counterparts at doctoral institutions, although the reported percentages are somewhat meaningless because, at least for those at UC Merced, almost all live on campus and walk to class. Overall, it appears UC Merced freshmen may spend somewhat more time on academic tasks than their counterparts at doctoral institutions. UC Merced students spend more time studying, and less time working, relaxing and socializing, and commuting.

A greater percentage of transfer students (37%) than freshmen (24%) spend more than 20 hours a week studying and working at least an hour a week for pay off campus (42% vs. 11%). Transfer students also are more likely to spend time providing care for dependents (27% vs. 16%), and because most live off campus, commuting between 1-10 hours a week to class (85% VS. 77%). Transfer students spend about the same amount of time as freshmen in co-curricular activities.

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[2] Because it makes sense to compare all hourly categories, rather than just the top two categories, for ease of presentation I have limited the comparison to just UC Merced and doctoral-extensive institutions.

Personal Growth. During college students develop increasingly mature patterns of interpersonal behaviors, coping styles, career orientations, value systems, and lifestyles that will greatly influence the shape of their futures. NSSE asks some questions that address the process of personal growth (see Table 6). Sixty-seven percent of freshmen indicated they often or very often tried to understand someone else's view; 62% said they learned something that changed the ways they understand an issue or concept; and 51% reported that they examined the strengths and weaknesses of their own views. These percentages are about equal to those of their counterparts at doctoral-extensive institutions, but lower than those at baccalaureate institutions. Smaller percentages of freshmen often or very often participated in the remaining activities, as compared to freshmen at the two different kinds of comparison institutions. Only 18% of freshmen regularly attended an art exhibit, gallery, play, dance, or other theatre production, while only 27% regularly participated in activities to enhance their spirituality. These results are not surprising. The university is located on the outskirts of Merced, transportation for students without cars is limited, the campus does not have its own art galleries or theatre productions, and, although the town has an active playhouse and multicultural arts center, it does not have an extensive array of cultural activities. Fifty-five percent of freshmen said they regularly exercised or participated in fitness activities, a figure which should increase when the new recreation and wellness center is opened.

Transfer students were slightly more likely than freshmen to say they regularly tried to understand someone else's views (73%) and that they learned something that changed the ways they understand an issue or concept (66%). Transfers also were more likely to often or very often participate in spiritual activities (33%). Forty-nine percent of transfers said the regularly examined their own view, slightly less than the 51% of freshmen. Finally, transfer students were considerably less likely than freshmen to exercise regularly (38%) or attend cultural events (11%), perhaps because transfers are more likely than freshmen to have other responsibilities, including work and caring for dependents.

Prompt Feedback. The NSSE asked students one question about how often they received prompt written or oral feedback from faculty on their academic performance. Sixty-three percent of freshmen reported they often or very often received such feedback, compared to 58% at doctoral-extensive institutions and 71% at baccalaureate-liberal arts institutions. Transfer students agreed with freshmen; 64% said they regularly received prompt feedback.

High Expectations.   Research indicates that high expectations and high standards improve achievement and positively influence student learning. As a consequence, the NSSE asked over a dozen questions that pertain to high expectations (see Table 7). Question 2 asked how much coursework emphasized various mental activities. Seventy percent of freshmen said courses emphasized memorizing facts, ideas, and methods quite a bit or very much, which is about the same percent as for students at doctoral-extensive institutions, but somewhat higher than for baccalaureate-liberal arts institutions. More importantly, substantial majorities of UC Merced freshmen also reported their courses

strongly (quite a bit or very much) emphasized higher order mental activities, including analyzing the basic elements of an idea, experience, or theory (80%), synthesizing and organizing ideas, information or experiences into new interpretations (69%), making judgments about the value of information, arguments, or methods (73%), and applying theories or concepts to practical problems or new situations (73%). In addition, 81% of freshmen reported often or very often working on a paper that required integrating ideas of information from various sources. All of these latter percentages are higher than the corresponding average percentages at both doctoral and baccalaureate institutions.

Question 3 asked about reading and writing assignments. Thirty-nine percent of freshmen said they were assigned 11 or more textbooks, books, or book-length packets, which was the same as for freshmen at doctoral institutions, but lower than those at baccalaureate institutions. Only 3% of freshmen wrote 11 or more papers of 20 pages or more, about equal to the percentages at both types of comparable institutions. The percentages in the other categories for 20-page papers are also about the same. For example, 83% of UC Merced freshmen said they wrote no 20-page papers; the corresponding percentages are 85% (doctoral) and 84% (baccalaureate). In the other paper categories (less than five pages, 5-19 pages), UC Merced freshmen were less likely to write 11 or more papers than freshmen attending doctoral or baccalaureate institutions, but more likely to write 5-10 papers (percentages not shown in Table 7). Overall, it appears that UC Merced freshmen wrote about the same amount as their counterparts at the comparable institutions.

Question 4 asked about homework problem sets. Thirty-four percent of UC Merced freshmen reported they complete more than five sets that take more than an hour during a typical week, about double the amount of sets as freshmen at doctoral and baccalaureate institutions. Twenty percent said they completed 5 or more sets taking less than an hour, about the same or lower percentage as freshmen at the comparable institutions. These comparative differences may reflect differences in discipline distributions rather than curriculum. Subsequent analyses should explore how these items vary by major program. Finally, 79% of freshmen said the UC Merced places strong (quite a bit and very much) emphasis on spending significant amounts of time studying and on academic work, the same percentage as freshmen at doctoral-extensive universities, but somewhat lower than at baccalaureate-liberal arts colleges.

Transfer students (56%) were less likely than freshmen (70%) to say that memorizing facts is strongly (quite a bit and very much) emphasized in coursework, and more likely to say higher order mental activities is emphasized, such as analyzing (91% vs. 80%), synthesizing (75% vs. 69%), and making judgments (78% vs. 73%). Transfers and freshmen responded similarly in terms of how frequently they applied theories or concepts to practical problems or new situations (73% saying often or very often). A slightly greater percentage of transfers (85%) than freshmen (81%) reported they were regularly (often and very often) working on a paper that required integrating ideas of information from various sources. These differences make sense because transfer students, after two years in college, would be more likely to take courses that expect them to integrate and apply that information.

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Transfer students report being assigned 1-4 books more often than freshmen (24% vs. 13), and less than freshmen in the other categories, 5-10 (40% vs. 45%) and 11 or more (39% vs. 36%). However, they tend to write considerably more (58%) long (20 or more pages) papers than freshmen (15%), and somewhat more medium-length (5-19 pages) papers (91% vs. 87%). Transfers also are less likely than freshmen to have problems sets in a typical week. Finally, substantial majorities of transfers (78%) and freshmen (79%) agree that UC Merced strongly (quite a bit and very) emphasizes spending significant amounts of time studying and on academic work.

Supportive Environment. Students perform better and are more satisfied at colleges that are committed to their success and cultivate positive working and social relationships among different groups on campus. So the NSSE asked student to evaluate the atmosphere on campus. Three questions asked about the quality of relationships using a seven-point scale (1=most negative, 4=neutral, 7=most positive). Eighty-one percent of freshmen rated the relationships with students as friendly, supportive, and creating a sense of belonging (ratings of 5, 6, or 7; see Table 8). Seventy-eight percent evaluated relationships with faculty as available, helpful, and sympathetic, while 60% said relationships with the administrative staff are helpful, considerate, and flexible. These percentages were all higher than those reported for doctoral-extensive universities, but lower than those for baccalaureate-liberal arts colleges.

Another four questions explored the supportive atmosphere on campus. Seventy-eight percent of freshmen reported that UC Merced provided strong (quite a bit and very much) support to help students succeed academically, while 59% agreed the campus strongly encouraged contact among students from different backgrounds. Freshmen were not so positive when it came to evaluating the campus' emphasis on helping students cope with non-academic responsibilities (34%) or providing support to thrive socially (43%). These percentages were all higher than the corresponding percentages at doctoral institutions, but lower than those at baccalaureate institutions (Table 9).

Transfer students were more positive about the quality of relationships. Eight-seven percent of transfers rated the relationships with students as friendly, supportive, and creating a sense of belonging, and 87% percent also evaluated faculty as available, helpful, and sympathetic. Sixty-nine percent said the administrative staff is helpful, considerate, and flexible. Transfers generally provided slightly lower responses than freshmen on the four supportive questions.

Institutional Effectiveness. The NSSE asked students to judge how much UC Merced contributed to their knowledge, skills, and personal development in a number of areas (Table 10). For academic and analytical skills, a majority of freshmen said UC Merced strongly (very much and quite a bit) contributed to thinking critically and analytically (80%), acquiring a broad general education (77%), writing clearly and effectively (77%), analyzing quantitative problems (70%), using computers and information technology (70%), solving real-world problems (55%), and speaking clearly and effectively (51%). Only 49% thought UC Merced strongly contributed job-related skills. Freshmen were not quite as positive about social skills. Sixty-eight percent

thought the institution contributed strongly to working effectively with others, 57% to understanding people of diverse backgrounds, and only 34% to contributing to the welfare of the community. Finally, for personal skills, a majority thought the school contributed strongly to learning effectively on their own (58%), personal understanding (54%), and developing a code of ethics (51%), but only a minority thought the same about developing a deepened sense of spirituality (25%) and voting in elections (19%).

The percentages given by UC Merced freshmen for analyzing quantitative problems and solving real world problems were higher than those for both doctoral and baccalaureate institutions. This might reflect the emphasis on quantitative analysis along with real-world problem-solving in the lower division CORE courses (general education). Areas where UC Merced freshmen appeared to be weakest, compared to both the Doctoral-Extensive and Baccalaureate-Liberal Arts institutions, included "voting" (19% vs. over 50%), "learning effectively on your own" (58% vs. 70% or more), "understanding yourself" (54% vs. 60% or more), "acquiring job-related knowledge and skills" (49% vs. 55-56%), "contributing to the welfare of your community" (34% vs. 43-52%), and "developing a deepened sense of spirituality" (25% vs. 32-33%).

Compared to freshmen, transfer students were especially positive about UC Merced's contributions to working effectively with others (80% vs. 68%) and solving real-world problems (69% vs. 55%), probably because their upper division classes provide more opportunity for collaborative learning and applied problems. They were also more positive about learning effectively on their own (65% vs. 58%). Although a large majority of transfer students thought the institution contributed strongly to acquiring a broad general education (65%) and writing clearly (65%), these percentages were over ten points below those for freshmen. Presumably transfers already had made considerable progress in these two areas before coming to UC Merced. The rest of thee transfer responses were not very different than those of freshmen.

Overall Satisfaction. Finally, the NSSE asked three overall rating or satisfaction questions (Table 11). Sixty-nine percent of freshmen rated the quality of academic advising as good or excellent, while 75% gave the same ratings to an evaluation of their entire educational experience at UC Merced. Responding to the same questions, 71% of transfers rated advising good or excellent, and 80% similarly rated their entire educational experience. Asked if would come to the same institution if they could start all over again, 72% of freshmen said the probably or definitely would attend UC Merced, as did 82% of transfer students. Although strongly positive, these percentages are lower than those for both doctoral-extensive and baccalaureate-liberal arts institutions. But given the fact that the campus was still under construction when classes started in Fall 2005, the percentages are pretty remarkable.

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Spring 2006 National Survey of Student Engagement
UC Merced

Table 1: Representativeness of Respondents

	Respondents		Non-Respondents		Population of Undergraduates		Response Rate
	N	%	N	%	N	%	%
Gender							
Female	211	57%	213	46%	424	51%	50%
Male	159	43%	252	54%	411	49%	39%
Ethnicity							
Asian American/Pacific Islander	134	36%	182	39%	316	38%	42%
Black/African-American	16	4%	38	8%	54	6%	30%
Hispanic	103	28%	104	22%	207	25%	50%
White/Caucasian	104	28%	119	26%	223	27%	47%
Other/Unknown	13	4%	22	5%	35	4%	37%
Matriculation Type							
New Freshman	315	85%	414	89%	704	84%	45%
New Transfer	55	15%	100	22%	131	16%	42%
Class Level							
Freshman	293	79%	372	80%	665	80%	44%
Sophomore	24	6%	27	6%	51	6%	47%
Junior	44	12%	61	13%	105	13%	42%
Senior	8	2%	5	1%	13	2%	62%
2nd BA	1	0%	0	0%	1	0%	100%
Major							
School of Engineering	*60*	*16%*	*82*	*18%*	*142*	*17%*	*42%*
Bioengineering	10	3%	28	6%	38	5%	26%
Computer Science & Engineering	28	8%	29	6%	57	7%	49%
Environmental Engineering	1	0%	4	1%	5	1%	20%
Undeclared, Engineering	21	6%	21	5%	42	5%	50%
School of Natural Sciences	*118*	*32%*	*165*	*35%*	*283*	*34%*	*42%*
Biological Sciences	72	19%	108	23%	180	22%	40%
Earth Systems Science	5	1%	2	0%	7	1%	71%
Human Biology	21	6%	31	7%	52	6%	40%
Undeclared, Natural Sciences	20	5%	24	5%	44	5%	45%
School of Social Sciences, Humanities, & Arts (SSHA)	*143*	*39%*	*145*	*31%*	*288*	*34%*	*50%*
Management	28	8%	37	8%	65	8%	43%
Social & Cognitive Sciences	58	16%	63	14%	121	14%	48%
World Cultures & History	24	6%	13	3%	37	4%	65%
Undeclared SSHA	33	9%	32	7%	65	8%	51%
Undeclared SSHA	*49*	*13%*	*73*	*16%*	*122*	*15%*	40%
TOTAL	**370**	**100%**	**465**	**100%**	**835**	**100%**	**44%**

Spring 2006 National Survey of Student Engagement							
UC Merced							

Table 2: Student-Faculty Contact							

		UC Merced Percentages					NSSE Percentages	
Question 1: In your experience at your institution during the current school year, about how often have you done each of the following? (WASC Standards in Parentheses)	**Entering Level**	**Never**	**Sometimes**	**Often**	**Very Often**	**Often & Very Often**	**Doc-Ext Often & Very Often**	**Bac-LA Often & Very Often**
m. Used e-mail to communicate with an instructor (2.3; 2.5; 2.12)	Freshmen	2%	30%	32%	35%	68%	72%	80%
	Transfers	2%	9%	29%	60%	89%		
n. Discussed grades or assignments with an instructor (2.5; 2.12)	Freshmen	7%	46%	27%	19%	45%	44%	54%
	Transfers	6%	29%	33%	33%	65%		
o. Talked about career plans with a faculty member or advisor (2.12; 2.13)	Freshmen	30%	44%	17%	8%	25%	25%	31%
	Transfers	22%	31%	27%	20%	47%		
p. Discussed ideas from your readings or classes with faculty members outside of class (2.5; 2.9)	Freshmen	39%	36%	16%	8%	25%	15%	24%
	Transfers	18%	44%	16%	22%	38%		
s. Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.) (2.8; 2.9)	Freshmen	46%	33%	12%	7%	19%	10%	17%
	Transfers	40%	29%	18%	13%	31%		
Question 7: Which of the following have you done or do you plan to do before you grduate from your institution?	**Entering Level**	**Have not decided**	**Do not plan to do**	**Plan to do**	**Done**	**Plan to do and Done**	**Plan to do and Done**	**Plan to do and Done**
d. Work on a research project with a faculty member outside of course or program requirements (2.9; 2.11)	Freshmen	34%	10%	46%	8%	54%	36%	41%
	Transfers	11%	6%	44%	38%	82%		

Spring 2006 National Survey of Student Engagement
UC Merced

Table 3: Collaborative Learning

Question 1: In your experience at your institution during the current school year, about how often have you done each of the following? (WASC Standards in Parentheses)	Entering Level	UC Merced Percentages					NSSE Percentages	
							Doc-Ext	**Bac-LA**
		Never	**Sometimes**	**Often**	**Very Often**	**Often & Very Often**	**Often & Very Often**	**Often & Very Often**
g. Worked with other students on projects **during class** (2.2)	Freshmen	7%	39%	42%	12%	54%	38%	36%
	Transfers	9%	29%	42%	20%	62%		
h. Worked with classmates **outside of class** to prepare class assignments (2.2)	Freshmen	4%	36%	40%	20%	60%	37%	49%
	Transfers	6%	26%	36%	33%	69%		
j. Tutored or taught other students (paid or voluntary) (2.2)	Freshmen	33%	41%	15%	10%	25%	16%	17%
	Transfers	33%	35%	24%	9%	33%		
k. Participated in a community-based project (e.g., service learning) as part of a regular course (2.11)	Freshmen	64%	17%	10%	7%	17%	11%	12%
	Transfers	60%	20%	11%	7%	18%		
l. Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment (2.3)	Freshmen	18%	35%	20%	25%	46%	56%	52%
	Transfers	11%	15%	38%	36%	75%		
t. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.) (2.2)	Freshmen	8%	37%	35%	19%	54%	56%	65%
	Transfers	2%	15%	40%	44%	84%		
u. Had serious conversations with students of a different race or ethnicity than your own (1.5; 2.2; 2.10; 3)	Freshmen	7%	23%	25%	43%	68%	54%	56%
	Transfers	0.036	18%	24%	55%	78%		
v. Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values (1.5; 2.2; 2.10; 3)	Freshmen	9%	22%	27%	41%	68%	61%	66%
	Transfers	7%	24%	26%	44%	69%		

Table 3: Collaborative Learning								
		UC Merced Percentages					**NSSE Percentages**	
							Doc-Ext	**Bac-LA**
Question 7: Which of the following have you done or do you plan to do before you grduate from your institution?	**Entering Level**	**Have not decided**	**Do not plan to do**	**Plan to do**	**Done**	**Plan to do and Done**	**Plan to do and Done**	**Plan to do and Done**
c. Participate in a learning community or some other formal program where groups of students take two or more classes together (2.11)	Freshmen	40%	16%	31%	10%	42%	37%	29%
	Transfers	33%	35%	11%	20%	31%		

Table 4: Active Learning

Question 1: In your experience at your institution during the current school year, about how often have you done each of the following? (WASC Standards in Parentheses)	Entering Level	UC Merced Percentages					NSSE Percentages	
							Doc-Ext	Bac-LA
		Never	Sometimes	Often	Very Often	Often & Very Often	Often & Very Often	Often & Very Often
a. Asked questions in class or contributed to class discussions	Freshmen	2%	41%	33%	24%	57%	49%	73%
	Transfers	4%	33%	22%	42%	64%		
b. Made a class presentation	Freshmen	20%	63%	14%	4%	17%	21%	30%
	Transfers	22%	49%	22%	7%	29%		
c. Prepared two or more drafts of paper or assignment before turning it in (2.5)	Freshmen	5%	16%	37%	43%	79%	51%	52%
	Transfers	18%	31%	42%	9%	51%		
e. Included diverse perspectives (diff. races, religions, genders, political beliefs, etc.) in class discussions or writing assignments (1.5; 2.10; 3)	Freshmen	3%	20%	39%	37%	77%	59%	67%
	Transfers	9%	26%	33%	33%	65%		
f. Come to class without completing readings or assignments (2.5)	Freshmen	16%	64%	16%	4%	20%	24%	17%
	Transfers	11%	62%	20%	7%	27%		
i. Put together ideas or concepts from different courses when completing assignments or during class discussions (2.2; 2.5)	Freshmen	4%	39%	39%	17%	56%	48%	55%
	Transfers	4%	29%	40%	27%	67%		
r. Worked harder than you thought you could to meet an instructor's standards or expectations (2.5;2.10)	Freshmen	7%	41%	36%	15%	51%	49%	56%
	Transfers	4%	31%	46%	20%	66%		

Table 4: Active Learning								

Question 3: During the current school year, about how much reading and writing have you done? (WASC Standards in Parentheses)	Entering Level			None	1-4	5 or More	5 or More	5 or More
b. Number of books read on your own (not assigned) for personal enjoyment or academic enrichment (2.2)	Freshmen			26%	56%	18%	20%	21%
	Transfers			29%	49%	22%		

Question 7: Which of the following have you done or do you plan to do before you graduate from your institution? (WASC Standards in Parentheses)	Entering Level	Have not decided	Do not plan to do	Plan to do	Done	Plan to do and Done	Doc-Ext Plan to do and Done	Bac-LA Plan to do and Done
a. Practicum, internship, field experience, or clinical assignment (2.2; 2.11)	Freshmen	15%	3%	75%	5%	80%	84%	85%
	Transfers	11%	0%	56%	31%	87%		
b. Community service or volunteer work (2.2; 2.11)	Freshmen	11%	3%	57%	27%	83%	79%	84%
	Transfers	24%	4%	31%	38%	69%		
e. Foreign language coursework (2.2)	Freshmen	22%	21%	41%	13%	55%	58%	75%
	Transfers	15%	35%	26%	24%	49%		
f. Study abroad (2.11)	Freshmen	31%	16%	51%	1%	51%	48%	65%
	Transfers	20%	47%	27%	4%	31%		
g. Independent study or self-designed major (2.2)	Freshmen	37%	43%	15%	4%	18%	16%	24%
	Transfers	13%	42%	22%	22%	44%		
h. Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, etc.) (2.5)	Freshmen	47%	14%	36%	2%	37%	44%	63%
	Transfers	31%	7%	58%	2%	60%		

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Table 5: Time on Task

Question 9: about how many hours do you spend in a typical 7-day week doing each of the following? (WASC Standards in Parentheses)	Entering Level	UC Merced Percentages					Doctoral-Extensive Percentages				
		0 Hours	1-10 Hours	11-20 Hours	21-30 Hours	More than 30 Hours	0 Hours	1-10 Hours	11-20 Hours	21-30 Hours	More than 30 Hours
a. Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities) (2.5)	Freshmen	0%	31%	43%	18%	6%	1%	40%	39%	16%	5%
	Transfer	0%	24%	38%	24%	13%					
b. Working for pay **on campus**	Freshmen	68%	12%	17%	1%	0%	80%	10%	8%	1%	0%
	Transfer	49%	29%	20%	0%	0%					
c. Working for pay **off campus**	Freshmen	87%	5%	5%	0%	1%	74%	9%	9%	5%	2%
	Transfer	56%	16%	13%	9%	4%					
d. Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, sports, etc.) (2.11)	Freshmen	31%	60%	5%	1%	1%	35%	50%	11%	3%	1%
	Transfer	29%	64%	2%	2%	2%					
e. Relaxing and socializing (watching TV, partying, etc.) (2.5)	Freshmen	1%	62%	24%	6%	3%	1%	50%	32%	9%	6%
	Transfer	4%	67%	24%	2%	2%					
f. Providing care for dependents living with you (parents, children, spouse, etc.)	Freshmen	81%	14%	2%	0%	0%	84%	11%	3%	1%	1%
	Transfer	71%	16%	7%	0%	4%					
g. Commuting to class (driving, walking, etc.)	Freshmen	18%	77%	3%	0%	0%	9%	83%	6%	1%	1%
	Transfer	2%	85%	11%	0%	0%					

Spring 2006 National Survey of Student Engagement
UC Merced

Table 5: Time on Task

Question 9: about how many hours do you spend in a typical 7-day week doing each of the following? (WASC Standards in Parentheses)	Entering Level	UC Merced Percentages									NSSE %	
		0 Hours	1-5 Hours	6-10 Hours	11-15 Hours	16-20 Hours	21-25 Hours	26-30 Hours	More than 30 Hours	More than 20 Hours	Doc-Ext More than 20 Hours	Bac-LA More than 20 Hours
a. Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities) (2.5)	Freshmen	0%	8%	23%	18%	24%	11%	7%	6%	24%	21%	29%
	Transfer	0%	11%	13%	22%	16%	9%	15%	13%	36%		
b. Working for pay **on campus**	Freshmen	68%	4%	8%	9%	7%	0%	0%	0%	1%	1%	0%
	Transfer	49%	9%	20%	11%	9%	0%	0%	0%	0%		
c. Working for pay **off campus**	Freshmen	87%	2%	3%	2%	3%	0%	0%	1%	1%	7%	2%
	Transfer	56%	7%	9%	6%	7%	4%	6%	4%	13%		
d. Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, sports, etc.) (2.11)	Freshmen	31%	45%	14%	4%	0%	1%	0%	1%	2%	4%	6%
	Transfer	29%	47%	16%	0%	2%	0%	2%	2%	4%		
e. Relaxing and socializing (watching TV, partying, etc.) (2.5)	Freshmen	1%	31%	31%	17%	8%	5%	2%	3%	10%	15%	12%
	Transfer	4%	46%	22%	11%	13%	2%	0%	2%	4%		
f. Providing care for dependents living with you (parents, children, spouse, etc.)	Freshmen	81%	10%	4%	1%	1%	0%	0%	0%	1%	2%	1%
	Transfer	71%	9%	7%	6%	2%	0%	0%	4%	4%		
g. Commuting to class (driving, walking, etc.)	Freshmen	18%	65%	11%	3%	0%	0%	0%	0%	0%	2%	0%
	Transfer	2%	64%	22%	9%	2%	0%	0%	0%	0%		

Table 6: Personal Growth

Question 6: during the current school year, about how often have you doe each of the following? (WASC Standards in Parentheses)	Entering Level	UC Merced Percentages					NSSE Percentages	
		Never	Some-times	Often	Very Often	Often & Very Often	Doc-Ext Often & Very Often	Bac-LA Often & Very Often
a. Attended an art exhibit, gallery, play, dance, or other theater production (2.11; 2.2)	Freshmen	33%	47%	13%	4%	18%	25%	40%
	Transfers	47%	42%	11%	0%	11%		
b. Exercised or participated in physical fitness activities (2.11)	Freshmen	13%	30%	25%	30%	55%	61%	68%
	Transfers	16%	46%	16%	22%	38%		
c. Participated in activities to enhance your spirituality (worship, meditation, prayer, etc.) (2.11)	Freshmen	48%	23%	12%	15%	27%	35%	31%
	Transfers	38%	29%	18%	15%	33%		
d. Examined the strengths and weaknesses of your own views on a topic or issue (2.5)	Freshmen	8%	39%	33%	19%	51%	53%	60%
	Transfers	6%	46%	29%	20%	49%		
e. Tried to better understand someone else's views (1.5)	Freshmen	4%	27%	40%	28%	67%	60%	67%
	Transfers	6%	22%	49%	24%	73%		
f. Learned something that changed the way you understand an issue or concept (2.5)	Freshmen	4%	32%	39%	23%	62%	61%	67%
	Transfers	4%	31%	38%	27%	66%		

Table 7: High Expectations

		UC Merced Percentages					NSSE Percentages	
							Doc-Ext	**Bac-LA**
Question 1: In your experience at your institution during the current school year, about how often have you done each of the following? (WASC Standards in Parentheses)	**Entering**		**Some-**		**Very**	**Often &**	**Often &**	**Often &**
	Level	**Never**	**times**	**Often**	**Often**	**Very Often**	**Very Often**	**Very Often**
d. Worked on paper or project that required integrating ideas or information from various sources (2.5)	Freshmen	1%	18%	43%	38%	81%	70%	79%
	Transfers	0%	15%	33%	53%	85%		
		UC Merced Percentages					Doc-Ext	Bac-LA
						Quite a bit	Quite a bit	Quite a bit
Question 2: During the current school years, how much has your coursework emphasized the following mental activities? (WASC Standards in Parentheses)	**Entering**	**Very**		**Quite**	**Very**	**& Very**	**& Very**	**& Very**
	Level	**little**	**Some**	**a bit**	**much**	**much**	**much**	**much**
a. Memorizing facts, ideas, or methods from your courses or readings so you can repeat them in pretty much the same form (2.10; 2.2)	Freshmen	6%	22%	39%	31%	70%	69%	64%
	Transfers	9%	35%	40%	16%	56%		
b. Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components (2.10; 2.2)	Freshmen	2%	17%	41%	39%	80%	77%	74%
	Transfers	0%	9%	42%	49%	91%		
c. Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships (2.10; 2.2)	Freshmen	3%	26%	40%	29%	69%	64%	65%
	Transfers	2%	24%	36%	38%	75%		
d. Making judgments about the value of information, arguments, or methods (2.10; 2.2)	Freshmen	4%	21%	43%	30%	73%	61%	62%
	Transfers	2%	20%	40%	38%	78%		
e. Applying theories or concepts to practical problems or in new situations (2.10; 2.2)	Freshmen	4%	21%	41%	32%	73%	70%	71%
	Transfers	2%	26%	42%	31%	73%		

Table 7: High Expectations

Question 3: during the Current school year, about how much reading and writing have you done? (WASC Standards in Parentheses)	Entering Level	UC Merced Percentages				Doc-Ext	Bac-LA
		None	1-4	5-10	11 or More	11 or More	11 or More
a. Number of assigned textbooks, books, or book-length packs of course readings (2.5)	Freshmen	0%	13%	45%	39%	39%	47%
	Transfers	0%	24%	40%	36%		
c. Number of written papers or reports of 20 pages or more (2.2; 2.5)	Freshmen	83%	11%	2%	3%	2%	2%
	Transfers	42%	51%	2%	5%		
d. Number of written papers or reports between 5 and 19 pages (2.2; 2.5)	Freshmen	11%	48%	31%	7%	10%	14%
	Transfers	9%	46%	35%	11%		
e. Number of written papers or reports of fewer than 5 pages (2.2; 2.5)	Freshmen	1%	28%	40%	30%	33%	40%
	Transfers	7%	40%	24%	29%		

Question 4: In a typical week, how many homework problem sets do you complete? (WASC Standards in Parentheses)	Entering Level	UC Merced Percentages				Doc-Ext	Bac-LA
		None	1-2	3-4	5 or More	5 or More	5 or More
a. Number of problems sets that take you **more** than an hour to complete (2.5)	Freshmen	5%	24%	35%	34%	17%	18%
	Transfers	18%	31%	26%	25%		
b. Number of problems sets that take you **less** than an hour to complete (2.5)	Freshmen	19%	36%	24%	20%	22%	20%
	Transfers	42%	33%	11%	15%		

Question 5: Mark the box that best represents the extent to which your examinations during the current school year have challenged you to do you best work? (WASC Standards in Parentheses)	Entering Level	UC Merced Percentages					Doc-Ext	Bac-LA
		Very little 1 & 2	3 & 4	5 & 6	Very much 7	5+6+7	5+6+7	5+6+7
	Freshmen	2%	12%	68%	16%	85%	84%	86%
	Transfers	2%	7%	73%	18%			

Question 10: To what extent does your institution emphasize each of the following? (WASC Standards in Parentheses)	Entering Level	UC Merced Percentages				Quite a bit and Very much	Doc-Ext Quite a bit and Very much	Bac-LA Quite a bit and Very much
		Very little	Some	Quite a bit	Very much			
a. Spending significant amounts of time studying and on academic work (2.5)	Freshmen	2%	16%	45%	34%	79%	79%	86%
	Transfers	2%	18%	47%	31%	78%		

Table 8: Supportive Environment: Quality of Relationships

Question 8: Mark the box that best represents the quality of your relationships with people at your institution. (WASC Standards in Parentheses)	Entering Level	UC Merced Percetages								NSSE Percentages	
		Unfriendly, Unsupportive, Sense of alienation						Friendly, Supportive, Sense of belonging		Doc-Ext	Bac-LA
		1	2	3	4	5	6	7	5 - 7	5 - 7	5 - 7
Quality of relationships with other students (2.10; 2.2)	Freshmen	1%	1%	4%	11%	21%	29%	31%	81%	78%	85%
	Transfers	0%	4%	2%	6%	13%	35%	40%	87%		
		Unavailable, Unhelpful, Unsympathetic						Available, Helpful, Sympathetic			
Quality of relationships with faculty members (2.10; 2.2)	Freshmen	1%	3%	3%	12%	23%	29%	26%	78%	70%	86%
	Transfers	0%	0%	4%	7%	15%	27%	46%	87%		
		Unhelpful, Inconsiderate, Rigid						Helpful, Considerate, Flexible			
Quality of relationships with Administrative staff (2.10; 2.2)	Freshmen	3%	5%	11%	18%	23%	20%	17%	60%	49%	63%
	Transfers	7%	2%	4%	16%	27%	20%	22%	69%		

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Table 9: Supportive Environment

		UC Merced Percentages					NSSE Percentages	
							Doc-Ext	**Bac-LA**
Question 10: To what extent does your institution emphasize each of the following? (WASC Standards in Parentheses)	**Entering Level**	**Very little**	**Some**	**Quite a bit**	**Very much**	**Quite a bit and Very much**	**Quite a bit and Very much**	**Quite a bit and Very much**
b. Providing the support you need to help you succeed academically (2.11;2.13)	Freshmen	4%	16%	38%	40%	78%	72%	85%
	Transfers	4%	18%	42%	35%	76%		
c. Encouraging contact among students from different economic, social, and ethnic backgrounds (1.5; 2.2)	Freshmen	14%	25%	30%	28%	59%	50%	57%
	Transfers	7%	35%	29%	27%	56%		
d. Helping you cope with your non-academic responsibilities (work, family, etc.) (2.11)	Freshmen	28%	35%	23%	11%	34%	27%	36%
	Transfers	31%	38%	18%	11%	29%		
e. Providing the support you need to thrive socially (2.11)	Freshmen	19%	35%	28%	15%	43%	42%	49%
	Transfers	18%	40%	27%	13%	40%		

Table 10: Institutional Effectiveness

Question 11: To what extent has your experience at this institution contributed to you knowledge, skills, and personal development in the following areas? (WASC Standards in Parentheses)	Entering Level	Percentages					NSSE Percentages	
		Very little	Some	Quite a bit	Very much	Quite a bit and Very much	Doc-Ext Quite a bit and Very much	Bac-LA Quite a bit and Very much
a. Acquiring a broad general education (2.20)	Freshmen	3%	16%	46%	31%	77%	80%	88%
	Transfers	0%	33%	33%	33%	65%		
b. Acquiring job or work-related knowledge and skills (2.20)	Freshmen	17%	31%	32%	17%	49%	55%	56%
	Transfers	11%	36%	27%	24%	51%		
c. Writing clearly and effectively (2.20)	Freshmen	3%	17%	41%	35%	77%	65%	79%
	Transfers	6%	27%	35%	31%	65%		
d. Speaking clearly and effectively (2.20)	Freshmen	11%	34%	29%	22%	51%	52%	63%
	Transfers	11%	33%	29%	26%	55%		
e. Thinking critically and analytically (2.20)	Freshmen	2%	14%	39%	41%	80%	79%	87%
	Transfers	0%	13%	35%	51%	85%		
f. Analyzing quantitative problems (2.20)	Freshmen	6%	20%	41%	30%	70%	67%	66%
	Transfers	7%	18%	42%	31%	73%		
g. Using computing and information technology (2.20)	Freshmen	7%	19%	31%	38%	70%	71%	64%
	Transfers	4%	22%	22%	51%	73%		
h. Working effectively with others (2.20)	Freshmen	4%	24%	34%	34%	68%	65%	71%
	Transfers	7%	11%	38%	42%	80%		
i. Voting in local, state, or national elections (2.20)	Freshmen	45%	31%	13%	7%	19%	51%	54%
	Transfers	51%	22%	20%	6%	26%		
j. Learning effectively on your own (2.20)	Freshmen	6%	31%	38%	20%	58%	70%	76%
	Transfers	13%	20%	31%	35%	65%		
k. Understanding yourself (2.20)	Freshmen	12%	31%	36%	19%	54%	60%	67%
	Transfers	20%	33%	20%	26%	46%		
l. Understanding people of other racial and ethnic backgrounds (2.20)	Freshmen	9%	30%	34%	24%	57%	51%	53%
	Transfers	20%	26%	33%	20%	53%		

Table 10: Institutional Effectiveness								

Question 11: To what extent has your experience at this institution contributed to you knowledge, skills, and personal development in the following areas? (WASC Standards in Parentheses)	**Entering Level**	**Percentages**					**NSSE Percentages**	
		Very little	**Some**	**Quite a bit**	**Very much**	**Quite a bit and Very much**	**Doc-Ext Quite a bit and Very much**	**Bac-LA Quite a bit and Very much**
m. Solving complex real-wold problems (2.20)	Freshmen	12%	28%	34%	21%	55%	51%	53%
	Transfers	13%	16%	38%	31%	69%		
n. Developing a personal code of values and ethics (2.20)	Freshmen	18%	26%	33%	18%	51%	52%	58%
	Transfers	16%	31%	31%	20%	51%		
o. Contributing to the welfare of your community (2.20)	Freshmen	26%	36%	19%	15%	34%	43%	52%
	Transfers	16%	46%	16%	20%	36%		
p. Developing a deepened sense of spirituality (2.20)	Freshmen	49%	22%	14%	10%	25%	32%	33%
	Transfers	62%	20%	13%	4%	16%		

		Percentages					NSSE Percentages	

Spring 2006 National Survey of Student Engagement

UC Merced

Table 11: Overall Satisfaction

Academic Advising, Educational Experience, and Attend Same Institution

	Entering Level	Poor	Fair	Good	Excellent	Good and Excellent	Doc-Ext Good and Excellent	Bac-LA Good and Excellent
Overall, how would you evaluate the quality of **academic advising** you have received at your institution? (2.12)	Freshmen	7%	21%	46%	23%	69%	71%	81%
	Transfers	11%	16%	42%	29%	71%		
How would you evaluate your entire **educational experience** at this institution? (1.1; 2.10)	Freshmen	3%	18%	55%	20%	75%	86%	91%
	Transfers	4%	15%	47%	33%	80%		
	Entering Level	Definitely No	Probably No	Probably Yes	Definitely Yes	Probably & Definitely Yes	Probably & Definitely Yes	Probably & Definitely Yes
If you could start over again, would you go to the **same institution** you are now attending? (1.1; 2.10)	Freshmen	4%	19%	50%	23%	72%	84%	84%
	Transfers	4%	13%	44%	38%	82%		

University of California, Merced
University of California Undergraduate Student Experience Survey
July 2006

1. UC Merced UCUES Report

2. UC Merced UCUES Data Tables

Spring 2006 UC Undergraduate Experience Survey (UCUES)
UC Merced
July 2006

Introduction

UC Merced participated in the UC Undergraduate Experience Survey (UCUES) in the campus' inaugural year, Spring 2006. This survey has been administered by the other eight UC general campuses several times over the past four years (Spring 2002, 2003 and 2004). It developed from earlier administrations by the UC Berkeley campus in Spring 1997, 1998, Fall 1999, Spring 2000, and Fall 2000. Over time, the survey has been revised and improved, and it also has evolved from a paper to web administration. The Spring 2006 UCUES was a comprehensive survey of all UC undergraduates covering, in the Core module, topics related to students' academic and nonacademic time allocation, academic and personal development, skill development, academic engagement, plans and aspirations, overall satisfaction with their college education, evaluation of their education experience, as well as demographic information.

In addition to the Core module, the UCUES includes five other modules. All undergraduates, freshmen through seniors, take the Core module. For the other five modules, the students are divided into five groups so that 20% are asked to take one of the five: Academic Engagement, Civic Engagement, Student Development, Student Programs and Services, or Wildcard (questions specific to a particular campus). Because the number of undergraduates at UC Merced was so small (814 in the population)[1] and because this same population already had been asked to participate in the National Survey of Student Engagement (NSSE), a somewhat similar survey to the UCUES, the Merced campus did not include the five supplemental modules in the Spring 2006 UCUES.

The population of UC Merced undergraduates was comprised of Fall 2005 new freshmen and new transfers (mostly juniors) who continued in Spring 2006 plus new freshmen and transfers who matriculated in Spring 2006. A total of 814 students were invited to participate in the survey, 630 freshmen, 48 sophomores, 121 juniors, and 15 seniors (including one 2nd-bachelor's-degree student). The overall response rate was 37%, which compares favorably to the other UC campuses. The average for all nine campuses was 33%; only two campuses had higher response rates than UC Merced. Despite the risk of survey fatigue from having just finished the NSSE survey, UC Merced's pioneering students helped contribute to a successful UCUES administration.

Comparative Spring 2006 UCUES data from the other eight campuses are not yet available. Except for individual campus reports from earlier administrations of the survey, only one comprehensive report is available. In June 2004, the Center for Studies in Higher Education (CSHE), housed at UC Berkeley, released results from the first University of California Undergraduate Experience Survey: *Learning and Academic Engagement in the Multiversity: Student Experience in the Research University—21st Century (SERU21) Project.* This is a report of the Spring 2002 and Spring 2003 UCUES survey administrations. Where possible and relevant, we will try to put UC Merced's

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[1] Even with an optimistic response rate of 40-50%, only 65-80 students would respond to each of the 5 modules.

responses into context by comparing this campus' results to the results for the combined UC campuses reported by CSHE. In 2002, the survey was administered to all freshmen and seniors enrolled at the eight campuses, as well as first- and second-year transfer students. The overall response rate was 24%. In 2003, each campus provided a random sample of 2,000 students across all classes: freshman, sophomores, juniors, and seniors, regardless of when they entered as either freshmen or transfers. The overall response rate, after focusing on multiple methods for increasing response rates, reached 42%.

As the CSHE report indicates (p.7), the UCUES project has three major objectives:

- *Developing a new longitudinal database on the undergraduate student experience at the University of California;*
- *Conducting and promoting research for assessment and policy development and ultimately for improving the undergraduate experience;*
- *Conducting and promoting scholarly research and reflection on the changing nature of the undergraduate experience within major research universities, including student perceptions regarding their educational goals and academic engagement.*

UC Merced Respondents

Table 1 compares the UCUES respondents to the population of undergraduates who had been invited to participate in the survey. Over a third (37%) of the students responded. Analyses of response rates for various demographic characteristics reveals similar patterns to those reported by CSHE for the other UC campuses: Females were more likely to respond than males; Blacks and Hispanics were less likely to respond than Asians, American Indian, and White students. New freshmen were more likely to respond than new transfers. The CSHE report did not discuss response rate patterns by major. UC Merced students in the following disciplines tended to have lower than average response rates: all disciplines in the School of Engineering, as well as Human Biology, Management, and Social & Cognitive Sciences majors. Because of the small numbers of respondents when disaggregated by gender, ethnicity, or discipline, most of the following analyses are not broken down by these groups. However, it will be important as the campus grows to tease out the impact of response bias on future surveys.

Who Are Our Students?

The UCUES survey provides detailed information about our students' immigrant status, English language fluency, parents' and grandparents' educational background, as well as socio-economic status. California has a rich immigrant history that contributes to the changing educational tapestry in the State. Perhaps faster than any other State, California is rapidly changing in terms of ethnic distributions and majority representation. At UC Merced, in the heart of California's Central Valley, 17% of the new freshmen and 26% of the new transfers were foreign-born (Table 2). About 60% of the new freshmen had mothers and/or fathers who were foreign-born and 65-69% had one more grandparents who were foreign-born (Table 3). These percentages were slightly lower for new transfers: about 50% had mothers and/or fathers who were foreign-born and 58-64% had at least one grandparent who was foreign-born. This is comparable to the CSHE findings for the other eight campuses, on average.

Over 60% of the new freshmen and transfers reported that English was their first language (compared to 55% for the other UC campuses). Eighteen percent of the new freshmen and 20% of the transfers learned English after the age of 5 (Table 2).

Compared to the other UCs, greater percentages of UC Merced's undergraduates perceived that they grew up in families who were working-class or low-income. For new freshmen, 23% said they grew up in working class families while 16% said they grew up in low-income or poor families (Table 4). For new transfers, the respective categories were 34% and 23%. According to the CSHE report, 20.2% of the other UC campus' undergraduates said they grew up in working class families, 8.2% in low-income families. UC Merced transfer students were almost one and a half times as likely as the new freshmen to consider themselves from a working class or low-income background. This is also reflected in their estimate of their parents' income in 2005. Over a third of the transfers said that their parents' income was under $35,000 in 2005, compared to 28% of the new freshmen (Table 5). Without adjusting for inflation from 2002 to 2005, the percentage of undergraduates, on average at the other UCs reporting family incomes under $35,000 was 23.1%.

Uses of UCUES Information

UCUES provides information that UC Merced expects to use in several ways:
1. As feedback from students to indicate ways the campus can improve the undergraduate experience.
2. As indirect measures of learning outcomes that can be used, along with other types of information, for academic program reviews and WASC (Western Association of Schools and Colleges) accreditation.
3. As one of many sources of information about our students, over time, to help determine how differences in students' backgrounds and experiences affect their learning.

The focus of this report will be on using the survey data to address the WASC standards for accreditation. Most of the survey items relate to Standard 2: *Achieving Educational Objectives Through Core Functions*, but there are a few items that relate to Standard 1 (*Defining Institutional Purposes and Ensuring Educational Objectives*) and Standard 3 (*Developing and Applying Resources and Organizational Structures to Ensure Sustainability*). Where relevant, each table indicates the WASC standards that relate to the items in the table. Please refer to the UCUES-WASC Standards Crosswalk for more details.

Time Allocation

Time management skills typically are related to students' success in an education or work setting. Often educators and /or advisors expend a great deal of effort trying to teach students how they can manage their time better to be more successful in college. Students have a variety of competing demands on their time. Besides attending classes and labs, many of them try to hold down jobs (on- or off-campus), participate in co-curricular, cultural and social activities, as well as family matters. Time spent in class and studying has been positively associated with college GPAs and retention (Kuh, 2001; Toutkoushian & Smart, 2001; Leppel, 1984).

Table 6 shows that the new freshmen, on average, said they spent about 17.4 hours attending class in a typical week and about 13.1 hours studying or doing other academic activities outside of class. Very few freshmen are part-time, so typically the new freshmen are enrolled for 15-16 credits each semester. Transfers, on average, spent less time attending classes or labs (about 15.8 hours in a typical week), while they spent more time than the new freshmen studying and doing other academic activities (about 18.6 hours weekly). Compared to new freshmen, transfers also spent more time working for pay both on- and off-campus (including paid internships) (6.9 hours vs. 4.8 hours weekly). This pattern is consistent with the findings of the other UC campuses, as reported by the CSHE, where first year freshmen said they spent, on average, 12.8 hours per week studying compared to first-year transfers who spent 14.6 hours (p.15). According to the CSHE report, "…transfer students allocate their time differently than those who come directly from high school, spending more time studying, more time on off-campus obligations such as work and family, and less time on co-curricular activities, partying and sports" (p. 13).

Self-Assessment of Skills & Abilities

The UCUES survey asked respondents to indicate their perceived level of proficiency in terms of 15 different skills and abilities both at the time they matriculated at UC Merced (Fall 2005) and at the time of the survey (May 2006). Basically we can compare their responses to each timeframe and estimate their perceived gains over their first year on campus. Table 7 shows the responses for both new freshmen and new transfers, as well as their calculated gains, measured in terms of the change in percentages rating themselves "Good," "Very Good" or "Excellent" between Fall 2005 and May 2006. Not surprisingly, the transfer students tended to rate themselves higher than new freshmen on most items. There were three exceptions: *Computer Skills*, *Ability to Prepare and Make Presentations*, and *Interpersonal (Social) Skills*. Both freshmen and transfers seemed to rate themselves similarly for the last two, and freshmen were only 5 percentage points higher than the transfers in rating themselves on *Computer Skills* (66% vs. 61%).

The biggest differences in new freshman and transfer ratings of their abilities at matriculation were for *Analytical & Critical Thinking Skills* (54% of freshmen said their level of proficiency was good, very good or excellent, compared to 87% transfers) and for *Ability to be Clear & Effective When Writing* (45% of freshmen and 76% of transfer rated themselves good, very good or excellent). The patterns for gains in their perceptions of proficiency levels during their first year at UC Merced also were very different for new freshmen and transfers. Of course, because the new freshmen rated themselves, on average, lower than transfers for most items, they had the most room for growth. The highest gains for new freshmen appeared in six areas: *Understanding of a Specific Field of Study* (+41 percentage points), *Ability to be Clear & Effective When Writing* (+40), *Analytical & Critical Thinking Skills* (+35), *Understanding International Perspectives* (+27), *Ability to Read & Comprehend Academic Material* (+25), and *Library Research Skills* (+24). The highest gains for transfers were *Understanding of a Specific Field of Study* (+39 percentage points), *Library Research Skills* (+30), and five areas in which there were gains of 20-24 percentage points: *Understanding International*

*Perspectives, Other Research (non-library) Skills, Computer Skills, Ability to Prepare &
Make Presentations,* and *Leadership Skills.*

Comparison to the other UCs in the prior administration of a UCUES survey
cannot be made easily. The earlier question dealing with self-assessment of skills and
abilities was considerably different, asking students to rate the importance of a list of
items as educational goals for themselves, and then rating their progress in reaching each
goal at the time of the survey. The items overlap but are not exactly the same as the
Spring 2006 version of the UCUES.

Table 8 shows the self-ratings by new freshmen and transfers for a set of personal
development items, comparing their perceptions of their abilities along these dimensions
when they matriculated and at the time of the survey. Again, transfers tended to rate
themselves somewhat higher than the freshmen on 4 out of 5 of the items (but by no more
than 4 percentage points). Over 80% of both freshmen and transfers rated themselves as
good, very good or excellent on their ability, at the time of matriculation, for *Self
Awareness & Understanding, Understanding the Importance of Personal Social
Responsibility, Ability to Appreciate Cultural & Global Diversity,* and 90% or more *for
the Ability to Appreciate, Tolerate & Understand Racial & Ethnic Diversity.* Over 75%
rated themselves good, very good or excellent for the *Ability to Appreciate the Fine Arts.*
Because they tended to rate themselves so high on these items to begin with, their
perceived gains were small. But they did perceive gains in every case (ranging from 5 to
9 percentage points) at the end of their first year on campus.

Academically-Related Behaviors: Academic Engagement

Tables 9,10,11,12,13, and 14 still reflect self-reported information; however, they
focus on actual academically-related behaviors exhibited by the new freshmen and
transfers at UC Merced during their first year. Transfers were considerably more likely
than freshmen to more frequently: *Turn in a Course Assignment Late* (9% vs. 4%)*, Have
Gone to Class Without Completing Assigned Reading* (41% vs. 35%)*, Have Gone to
Class Unprepared* (24% vs. 15%)*, Skipped Class* (24% vs. 14%), and *Worked On Class
Projects or Studied as a Group With Other Classmates Outside of Class* (74% vs. 63%).
The first four items reflect degrees of academic *dis*engagement that concern faculty,
advisors, and other education professionals. Relating the students' responses to these to
their actual success (measured by GPA) during their first year at UC Merced will be an
important part of the next phase in analyzing this survey data. According to the CSHE
report, about 10% of the students at the other UCs had missed class 'often' or 'very
often.' Corresponding percentages for new freshmen and transfers at UC Merced were
7% and 16%, respectively. The CSHE report also indicated that, "in general, such
academically *dis*engaged behavior is more likely among students from more advantaged
backgrounds… and that such behavior is also strongly associated with spending time
partying and other 'social life' activities" (p. 32). Furthermore, they found that "class
attendance is also negatively related to engagement in individualized pursuits like
watching TV, playing video games, and surfing the web for entertainment purposes."

Large percentages of freshmen and transfers admitted that they frequently went to
class without completing the assigned reading (35% and 41%, respectively). Table 10
shows that only 55% of the freshmen and 61% of the transfers completed 70% or more of

their assigned reading over the 2005-2006 academic year. At the time these students took this survey, they were within 3-4 weeks of taking the spring semester finals.

Over 50% of the freshmen (57%) and transfers (59%) indicated that they somewhat often, often, or very often *raised their standard for acceptable effort due to the high standards of a faculty member.* Over 60% said they somewhat often, often or very often *extensively revised a paper at least once before submitting it to be graded.* Both Writing 1 and Writing 10 required frequent paper revisions. Since large numbers of the freshmen and transfers were required to take these courses this academic year, we would expect their responses to reflect, at least in part, their experiences in the writing courses.

Another indicator of academic engagement is how frequently students use the campus library for research and other purposes. Table 12 compares self-reported library usage by freshmen with that by transfers during an average term. (Use of the UC Merced library needs to be qualified in a couple ways. First of all, the library building was not completely finished at the start of the Fall 2005 semester. In fact, much of the library was used for classrooms because the Classroom Building also was not completed in time for the inaugural semester. Many sections of the library, including the space for housing the books, were closed or in reduced, makeshift space. Secondly, the UC Merced library is unique and forward-looking in many ways. Most of the access to materials is online. Book and journal holdings are not the library's *modus operandi.* Much more emphasis than usual (especially compared to more established, older academic libraries) is on electronic access to materials and research instruction by library staff. As a member of the University of California, this electronic access is huge---almost 34 million volumes and serials through the Melvyl Catalog System.[2])

Transfers were much more likely to use the library both for research and for other purposes. In fact, they were over 75% more likely than freshmen to use the campus library for research more frequently than monthly; and over 25% more like to use it for other purposes more frequently than monthly. Student satisfaction with the accessibility of library staff and with the availability of library research materials is high, but until we receive the comparative data for the other UC campuses, we will not know if it is higher than average for the UC system. Transfer students, not surprisingly, given their greater tendency to use the library, tended to be more satisfied than the freshmen. 86% of the transfers (compared to 77% of the freshmen) were somewhat satisfied, satisfied, or very satisfied with the accessibility of library staff (Table 15). 95% of the transfers (compared to 82% of the freshmen) were similarly satisfied with the availability of library research materials.

All of the above-mentioned items are indicators of academic engagement that will be important to track over time and to analyze in terms of other student characteristics.

Evaluation of Educational Experience

Part of the effort to improve student learning focuses on moving students toward higher order cognitive skills, from memorization to analysis, synthesis, making judgments, and applying theories or concepts to real world problems. The UCUES

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[2] The Melvyl catalog provides access to online collections of the California Digital Library (CDL), including the libraries held by the ten UC campuses, the California State Library, Hastings College of Law, the California Academy of Sciences, the California Historical Society, the Center for Research Libraries, the Graduate Theological Union, and the Lawrence Berkeley National Laboratory.

survey asked the students to indicate how frequently over the past year their coursework required them to perform these five types of cognitive skills. Table 13 summarizes the responses from the new freshmen and transfers. What is interesting or surprising from these results is that the transfer students were more likely than the freshmen to say that their coursework somewhat often, often or very often required them to memorize material (*Recognize or recall specific facts, terms and concepts*). About 80% of the freshmen indicated that their coursework required them to memorize material more than occasionally, while 91% of the transfers did. For the rest of the cognitive skill levels, the pattern was the same for both the freshmen and transfers. In general, over 70% of the students were required more than occasionally to exhibit the higher level cognitive skills: *Explain methods, ideas, or concepts and use them to solve problems* (86% of the freshmen and transfers), *Break down material into component parts or arguments into assumptions to see the basis for different outcomes and conclusions* (75% of the freshmen; 73% of transfers), *Judge the value of information, ideas, actions and conclusions based on the soundness of sources, methods and reasoning* (78% of the freshmen and transfers), and *Create or generate new ideas, products or ways of understanding* (75% of the freshmen; 71% of transfers).

Table 13A shows that, in almost every case, for the freshmen and transfers, Engineering majors were less likely than the other majors (Natural Sciences and Social Sciences, Humanities, and Arts majors) to have been required to do all of the listed cognitive skills. The only exception was the second skill: *Explain methods, ideas, or concepts and use them to solve problems.* In this case, Engineering majors responded similarly to the other majors.

Table 14 augments the analysis of students' use of higher level cognitive skills, detailing examples of synthesis and judgment and skills that are particularly necessary to do research. Again, perhaps surprisingly, the new freshmen seem to have performed these cognitive skills more frequently than the transfer students. The freshmen were more often than the transfers to have been required to *Use facts and examples to support their* viewpoint (93% vs. 85%), *Incorporate ideas or concepts from different courses when completing assignments* (82% vs. 78%), and *Reconsider their own position on a topic after assessing the arguments of others* (65% vs. 53%).   Part of the differences between the freshmen and transfers could be explained by the differences in their distributions by major. Compared to the freshmen, transfers were more likely to be in Engineering and Social Sciences, Humanities, and Arts majors (Table 14A). The general pattern for freshmen and transfers was similar: the highest percentages saying they more than occasionally *Used facts and examples to support your viewpoint* (93% of freshmen; 85% of transfers) and fewer with each of the remaining items: *Incorporated ideas or concepts from different courses when completing assignments* (82% of freshmen; 78% of transfers), *Examined how others gathered and interpreted data and assessed the soundness of their conclusions* (69% of freshmen; 71% of transfers), and *Reconsidered your own position on a topic after assessing the arguments of others* (65% of freshmen; 53% of transfers).

For all of these cognitive skills items (Tables 13 and 14), it will be extremely useful, when the campus has a full array of students in each class (freshman through senior), to be able to answer more detailed questions about the trends. Does the

frequency of these skills track by class level, certain majors, or other student characteristics?

Diverse Perspectives

Table 16 shows how often students felt they had gained a deeper understanding of other perspectives through conversations with fellow students, due to exposure to different characteristics from their own: religious beliefs, political opinions, nationality, race/ethnicity, sexual preference, and social class. UC Merced has a very diverse student body in terms of race/ethnicity: 38% Asian, 6% Black, 25% Hispanic, and 26% White (Table 1), as well as a good distribution of students from various social classes and income groups. We would expect, therefore, that the students would be exposed to a wide range of perspectives. The pattern of responses for freshmen and transfers was very similar. About two-thirds or more indicated that they had gained a deeper understanding of other perspectives relative to race/ethnicity and nationality more than occasionally. More than a third, and in some cases almost half, also said the same relative to political opinions, social class, and religious beliefs.

Satisfaction with Educational Experience

UCUES included a series of questions to probe the students' levels of satisfaction with their UC Merced education overall and also with various aspects of their education (Tables 17, 18 and 15). Table 17 shows in general how they felt about how well they did (GPA), their social experience, academic experience overall, as well as the overall value for the price they paid. It also shows how much in agreement they were with feeling that they belong at this campus and, knowing what they know now, whether they would still choose to enroll. For most of these aspects, transfer students were more satisfied than the new freshmen.

Academic Success. The new freshmen obviously were not very satisfied with their academic success so far. Only 54% were at least somewhat satisfied with their GPA. Not only is the freshman year typically difficult because it tends to be more rigorous than their high school experience, and, in many cases, this is the first long-term experience for these students away from home (coping with time management, increased responsibilities, etc.), but this also was the inaugural year for the campus. All the courses were being taught for the first time. No one really knew what to expect from the first class of students, based on their characteristics. Many of the students were first generation, low-income, and from high schools that traditionally had lower than average academic preparation indices. By mid-semester in the fall, after mid-term grades were distributed, some of the courses were revised to adjust to student learning needs (e.g., Math 5, CORE 1). Compared to the new freshmen, transfer students were much more likely to be satisfied with their academic success at UC Merced so far. Almost three-quarters of the transfers were at least somewhat satisfied with their GPAs. Until we have the UC comparison data, however, we will not know how to evaluate this in terms of being normal, below or above normal, for the UC system.

Social Experience. Almost three-quarters of the freshmen and 85% of the transfers were at least somewhat satisfied with their overall social experience at UC Merced. It is a little surprising that the transfers were more positive than the freshmen

about their social experience, given that about 85% of the freshmen lived in on-campus housing whereas most of the transfers lived off campus.

Overall Academic Experiences. Almost 80% of the freshmen were at least somewhat satisfied with their overall academic experience and 85% of the transfers also were. Transfers were more likely to value their education (for the price they were paying) more than the freshmen (78% vs. 68% at least somewhat satisfied).

Sense of Belonging and Whether They Would Enroll Again. Over 80% of the new freshmen and 78% of the transfers indicated that they agreed at least somewhat that they felt they belonged at this campus, but fewer freshmen (76%) said that they still would enroll at this campus after knowing what they know now. The transfers were more positive in this regard; 85% agreed at least somewhat that they still would enroll. Breakdowns by major discipline area (Table 17A) shows that, whereas freshman Social Sciences, Humanities, and Arts majors were **least** likely (73%) to say they would still choose to enroll at UC Merced, transfer majors in the Social Sciences, Humanities, and Arts were **most** likely (91%) compared to the other discipline areas.

Faculty Communication and Fairness. Both the freshmen and transfers were very positive about the channels of communication between themselves and faculty, equitable and fair treatment of students by the faculty, and how clearly faculty explain plagiarism and its consequences (Table 18). Over 90% of the freshmen and 96% of the transfers said that *there are open channels of communication between faculty and students regarding student needs, concerns, and suggestions.* Almost 90% of the freshmen and 93% of the transfers indicated that *students are treated equitably and fairly by faculty.* More freshmen than transfers felt that the *faculty clearly explain plagiarism and its consequences* (95% vs. 84%). This is heartening especially because the Academic Senate, during this first year, had not yet released its official policy on plagiarism. This is an area that should be tracked over time, and by major, to be sure that students understand the subtleties of, as well as the penalties for, plagiarism for each discipline.

Advising. The freshmen and transfers responded similarly in terms of satisfaction with academic advising by student peer advisors, college staff, departmental staff, and faculty (Table 15). Over 80% were at least somewhat satisfied with college and departmental staff as well as faculty advising. They were less satisfied with student peer advisors (72% at least somewhat satisfied).

Quality of Instruction. Freshmen and transfers also responded similarly in terms of satisfaction with the quality of instruction by faculty and graduate student TAs. Again, over 80% were at least somewhat satisfied. Over 90% of the transfers were at least somewhat satisfied with the quality of faculty instruction.

Availability of Majors and Availability/Variety of Courses. Satisfaction with the availability of majors and both the availability and variety of courses is another matter. Only 69% of the freshmen and transfers were at least somewhat satisfied with their ability to get into a major that they wanted. For the transfers, this might have referred in part to the fact that, for academic year 2005-2006, the Management program was only open to new freshmen. The transfers also might have been referring to the calculus prerequisite for many of the majors in the Schools of Natural Sciences and Engineering. For freshmen, especially undeclared freshmen, their concern about availability of majors may have had more to do with the lack of breadth in terms of

choices of majors than to any inability to get into one of the nine the majors UC Merced offered in 2005-2006.

Somewhat perplexing are the responses of both freshmen and transfers to the questions about availability of courses for general education or breadth requirements (47% of the freshmen and 44% of the transfers were at least somewhat dissatisfied). UC Merced's general education requirements include the University requirements of Entry Level Writing and American History and Institutions (both of which could be met prior to arriving on campus) as well as the Campus requirements of College Reading and Composition (Writing 10), a quantitative reasoning course, and a unique CORE course sequence (CORE 1 and 100). There also are School-specific general education requirements such as, for the School of Engineering, Integrated Calculus and Physics, Contemporary Biology, Introduction to Computing I and II, plus another 17 elective units (from a list of acceptable courses). Since a sufficient number of sections of the Campus requirements were available for all freshmen and transfers who needed them, these students may have been referring to a restricted choice in times that courses were offered or to a restricted choice in the number of general education elective courses offered.

The respondents, especially the transfers, also were very concerned about the availability of courses needed for graduation (62% of the transfers and 43% of the freshmen were at least somewhat dissatisfied). Variety of courses in their majors also was an issue. Fifteen percent of the freshmen and 18% of the transfers were very dissatisfied with the variety of courses offered in their majors. Only 46% of the freshmen and 40% of the transfers were at least somewhat satisfied.

Access to Small Classes and to Faculty. The students' satisfaction with access to small classes and also to faculty outside of class stood out from all the other aspects in a positive way. Over 90% of the freshmen and transfers were at least somewhat satisfied with their access to small classes and to faculty. An impressive 98% of the transfers were satisfied with their access to small classes (60% were very satisfied). This is one of the advantages of being a small campus, with under 900 students and about 60 full-time faculty. Despite the research mission of the campus, UC Merced in some ways compares more to small, selective, liberal arts colleges than to the much larger UC campuses.

Opportunities for Research Experience. Most of the freshmen (73%) and even more of the transfers (84%) were at least somewhat satisfied with the opportunities for research experience or to produce creative products. The pattern by major, however, is very different for freshmen and transfers. Freshmen in Engineering majors were much less likely to be satisfied with their opportunities for research experiences (63% vs. about 75% for non-Engineering majors), while transfers in the Social Sciences, Humanities, and Arts were much more likely than the other disciplines to be at least somewhat satisfied with their research opportunities (90% vs. about 77-78% for Natural Sciences and Engineering majors) (Table 15A).

Educational Enrichment Programs. Comparatively, there was considerably less satisfaction with students' opportunities to participate in various educational enrichment programs, such as study abroad, internships, and the UCDC program (where students spend a semester in Washington DC, focusing on courses related to public policy issues). Study abroad is not an option through UC Merced yet and, although participation in the UCDC program is available, these students would not have had the chance yet to take advantage of that program. Still, a little over half of the new freshmen

and 68% of the transfers were at least somewhat satisfied with the educational enrichment programs.

       Library. Satisfaction with the accessibility of the library staff and availability of library research materials was substantially higher for the transfers than for the freshmen, probably because the transfers used the library more often (see previous discussion on page 6). 86% of the transfers were at least somewhat satisfied with the accessibility of the library staff (77% of the freshmen) and 95% were at least somewhat satisfied with the availability of library research materials (82% of the freshmen).

       How to Create a Better Undergraduate Experience. Finally, Table 19 summarizes the most important ways that UC Merced could create a better undergraduate experience for its students. The most common response to this open-ended question was *More Courses.* Thirty percent gave this as their number one way to improve the campus. 46% gave it as one of their three top ways. The second most important thing the campus could do was to provide *More Majors.* Sixteen percent listed this as their top way to create a better undergraduate experience; 21% listed it as one of their top three ways. The third most important thing the campus could do was to provide *More or Better Campus Activities.* 10% listed this as their top way; 27% listed it as one of their top three ways. Finally, the fourth most important thing to improve was *More or Better Food Options.* (This actually was the third most popular way to improve the undergraduate experience when all the first, second, and third choices were combined. 4% indicated it was their top choice; 22% listed it as one of their top three choices.)

Future Plans

       One in ten of the new freshmen and one in five of the transfers said that they plan to work full-time when they graduate (Table 20). Not surprisingly, 20% of the freshmen (and 7% of the transfers) indicated that, at this point in time, they had no idea what they plan to do when they graduate. Over 50% of the undeclared freshmen were uncertain. Small percentages (4% of freshmen and 2% of transfers---all in Engineering--- said they plan to study or work abroad.

       The majority of both the new freshmen (66%) and transfers (70%) said they plan to enroll in graduate or professional school when they graduate. In both cases, majors in the Natural Sciences were the most likely to pursue graduate or professional degrees after graduating from UC Merced (80% of the freshman and 92% of the transfer Natural Sciences majors). Ultimately, 73% of the new freshmen and 76% of the transfers said they expected to earn a higher degree than the bachelor's (Table 21). One in five of the freshmen did not know yet what their highest degree would be (over half of the undeclareds were uncertain), but 21% indicated it would be a master's, 4% law, 18% MD or other health professional degree, and 27% other doctoral degree. Transfers were more likely than the freshman to say they ultimately expected to earn a doctoral degree (44% vs. 27%). According to the CSHE report (p. 20), 24% of the UC respondents to the earlier UCUES survey said indicated that they expected to earn a doctoral degree. Clearly, UC Merced students, like the students at the other UCs, have graduate school ambitions and expect the university to prepare them for those ambitions.

       Engineering majors, regardless of matriculation type, were more likely than majors in the other discipline areas to plan to pursue master's degrees as their highest degrees. Natural Sciences majors were more likely than the others to plan to earn

medical professional/doctoral degrees. Over half of the transfers majoring in the Social Sciences, Humanities and Arts intend to earn a non-medical doctoral degree. Freshman majors in the Social Sciences, Humanities and Arts were fairly evenly split between master's (30%) and non-medical doctoral (29%) degrees.

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Kuh, G.D. (2001). The National Survey of Student Engagement: Conceptual framework and overview of psychometric properties. Bloomington, IN: Indiana University Center for Postsecondary Research.

Leppal, K. (1984). The Academic Performance of Returning and Continuing College Students: An Economic Analysis. Journal of Economic Education, Vol. 15, No. 1, pp. 46-53.

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Spring 2006 UC Undergraduate Experience Survey
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Table 1: Representativeness of Respondents

	Respondents		Non-Respondents		Population of Undergraduates		Response Rate
	N	%	N	%	N	%	%
Gender							
Female	169	56%	245	48%	414	51%	41%
Male	130	43%	269	52%	399	49%	33%
Ethnicity							
American Indian/Alaskan Native	2	1%	3	1%	5	1%	40%
Asian American/Pacific Islander	119	40%	188	37%	307	38%	39%
Black/African-American	17	6%	33	6%	50	6%	34%
Hispanic	73	24%	134	26%	207	25%	35%
White/Caucasian	81	27%	133	26%	214	26%	38%
Other/Unknown	8	3%	27	5%	35	4%	23%
Matriculation Type							
New Freshman	254	85%	414	81%	668	82%	38%
New Transfer	46	15%	100	19%	146	18%	32%
Class Level							
Freshman	235	78%	395	77%	630	77%	37%
Sophomore	23	8%	25	5%	48	6%	48%
Junior	36	12%	85	17%	121	15%	30%
Senior	5	2%	9	2%	14	2%	36%
2nd BA	1	0%	0	0%	1	0%	100%
Major							
School of Engineering	*39*	*13%*	*95*	*18%*	*134*	*16%*	*29%*
Bioengineering	6	2%	27	5%	33	4%	18%
Computer Science & Engineering	19	6%	37	7%	56	7%	34%
Environmental Engineering	2	1%	4	1%	6	1%	33%
Undeclared, Engineering	12	4%	27	5%	39	5%	31%
School of Natural Sciences	*100*	*33%*	*175*	*34%*	*275*	*34%*	*36%*
Biological Sciences	69	23%	111	22%	180	22%	38%
Earth Systems Science	2	1%	3	1%	5	1%	40%
Human Biology	15	5%	40	8%	55	7%	27%
Undeclared, Natural Sciences	14	5%	21	4%	35	4%	40%
School of Social Sciences, Humanities, & Arts	*124*	*41%*	*185*	*36%*	*309*	*38%*	*40%*
Management	22	7%	47	9%	69	8%	32%
Social & Cognitive Sciences	49	16%	94	18%	143	18%	34%
World Cultures & History	19	6%	21	4%	40	5%	48%
Undeclared, Social Sciences, Humanities, & Arts	34	11%	23	4%	57	7%	60%
Undeclared	*37*	12%	59	11%	96	12%	39%
TOTAL	**300**	**100%**	**514**	**100%**	**814**	**100%**	**37%**

Spring 2006 UC Undergraduate Experience Survey
UC Merced

Table 2: When came to US to live & when learned to speak English

in percentages

When came to live in US	Born in U.S.	1991 or earlier	1992-2000	2001 or later
New Freshmen	83%	3%	8%	5%
New Transfers	74%	9%	9%	7%

in percentages

When learned to speak English	English is native language	Before 5 yrs old	6-10 yrs old	11-15 years old	After turning 16 yrs old
New Freshmen	62%	19%	13%	5%	0%
New Transfers	64%	16%	9%	9%	2%

Spring 2006 UC Undergraduate Experience Survey
UC Merced

Table 3: To the best of your knowledge, who among the following of your relatives was born in the U.S.?

in percentages

New Freshmen	Born in U.S.	Foreign-Born
Mother	43%	58%
Father	41%	60%
Mother's mother	35%	65%
Father's mother	31%	69%
Mother's father	35%	65%
Father's father	32%	68%

in percentages

New Transfers	Born in U.S.	Foreign-Born
Mother	48%	52%
Father	49%	51%
Mother's mother	39%	61%
Father's mother	36%	64%
Mother's father	41%	59%
Father's father	42%	58%

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Table 4: Which of the following best describes your social class when you were growing up?

New Freshmen	Percentage
Wealthy	1%
Upper-middle or professional middle	20%
Middle-class	40%
Working-class	23%
Low-income or poor	16%

New Transfers	Percentage
Wealthy	0%
Upper-middle or professional middle	18%
Middle-class	25%
Working-class	34%
Low-income or poor	23%

Spring 2006 UC Undergraduate Experience Survey
UC Merced

Table 5: To the best of your knowledge, which category includes the total annual combined income of your parent(s) before taxes in 2005?

in percentages

	<$35,000	$35,000-79,999	$80,000-149,999	$150,000-199,999	$200,000+
New Freshmen	28%	34%	29%	4%	5%
New Transfers	36%	43%	18%	0%	2%

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UC Merced

Table 6: During typical 7-day week, hours spent doing the following:

(WASC standards in parentheses)   In Percentages

New Freshmen	Hours per typical week								Mean Hrs*
	0	**1-5**	**6-10**	**11-15**	**16-20**	**21-25**	**26-30**	**>30**	
Attend class or labs (2.5)	0%	2%	7%	24%	46%	13%	5%	3%	**17.4**
Study and other academic activities outside of class (2.5)	1%	14%	29%	25%	17%	5%	4%	5%	**13.1**
Paid employment (incl. paid internships)	62%	6%	8%	11%	10%	1%	1%	0%	**4.8**
Work for pay on campus	67%	4%	8%	11%	9%	1%	0%	1%	**4.2**
Work hours related to your academic interests (2.2; 2.11)	83%	8%	5%	2%	2%	1%	0%	0%	**1.4**
New Transfers	**0**	**1-5**	**6-10**	**11-15**	**16-20**	**21-25**	**26-30**	**>30**	
Attend class or labs (2.5)	0%	2%	22%	28%	28%	9%	7%	4%	**15.8**
Study and other academic activities outside of class (2.5)	0%	4%	16%	16%	27%	16%	2%	20%	**18.6**
Paid employment (incl. paid internships)	50%	5%	16%	9%	14%	2%	2%	2%	**6.9**
Work for pay on campus	59%	**4%**	15%	7%	15%	0%	0%	0%	**4.9**
Work hours related to your academic interests (2.2; 2.11)	76%	7%	7%	4%	4%	0%	0%	2%	**2.8**

*Mean hours were calculated by taking the midpoints of the intervals. For the last interval (>30), we used the midpoint of 31-35.

Table 7: Please rate level of proficiency in the following areas when you started at this campus and now:

In Percentages
Frequency

WASC standards: 2.2; 2.3; 2.10; 2.11

WHEN STARTED

New Freshmen	Very Poor	Poor	Fair	Good	Very Good	Excellent	Good, Very Good, Excellent
Analytical & critical thinking skills	2%	9%	34%	37%	14%	3%	**54%**
Ability to be clear & effective when writing	5%	10%	40%	33%	9%	2%	**45%**
Ability to read & comprehend academic material	2%	8%	26%	38%	19%	7%	**64%**
Foreign language skills	6%	17%	34%	29%	8%	6%	**43%**
Understanding of a specific field of study	3%	10%	43%	36%	6%	2%	**44%**
Quantitative (math & statistical) skills	4%	12%	33%	32%	15%	4%	**51%**
Ability to speak clearly & effectively	0%	2%	15%	23%	29%	29%	**81%**
Understanding international perspectives	0%	10%	34%	33%	18%	4%	**55%**
Leadership skills	2%	13%	25%	34%	17%	9%	**60%**
Computer skills	2%	7%	24%	33%	22%	11%	**66%**
Internet skills	1%	1%	16%	29%	25%	29%	**82%**
Library research skills	4%	13%	34%	35%	11%	2%	**49%**
Other research skills	2%	9%	33%	37%	13%	6%	**56%**
Ability to prepare & make presentations	1%	4%	34%	34%	20%	7%	**61%**
Interpesonal (social) skills	1%	6%	25%	35%	21%	12%	**68%**

New Transfers	Very Poor	Poor	Fair	Good	Very Good	Excellent	Good, Very Good, Excellent
Analytical & critical thinking skills	0%	0%	13%	46%	35%	7%	**87%**
Ability to be clear & effective when writing	0%	7%	17%	46%	26%	4%	**76%**
Ability to read & comprehend academic material	0%	0%	26%	41%	26%	7%	**74%**
Foreign language skills	9%	17%	26%	30%	9%	9%	**48%**
Understanding of a specific field of study	0%	4%	44%	37%	13%	2%	**52%**
Quantitative (math & statistical) skills	0%	4%	35%	37%	17%	7%	**61%**
Ability to speak clearly & effectively	0%	0%	15%	22%	35%	28%	**85%**
Understanding international perspectives	0%	2%	37%	37%	22%	2%	**61%**
Leadership skills	2%	2%	31%	36%	16%	13%	**65%**
Computer skills	0%	4%	35%	35%	17%	9%	**61%**
Internet skills	0%	0%	15%	35%	33%	17%	**85%**
Library research skills	0%	4%	37%	48%	11%	0%	**59%**
Other research skills	0%	2%	30%	54%	11%	2%	**67%**
Ability to prepare & make presentations	0%	9%	30%	44%	13%	4%	**61%**
Interpesonal (social) skills	0%	9%	24%	35%	22%	11%	**67%**

Table 7: Please rate level of proficiency in the following areas when you started at this campus and now:

In Percentages
Frequency

WASC standards: 2.2; 2.3; 2.10; 2.11

NOW

New Freshmen	Very Poor	Poor	Fair	Good	Very Good	Excellent	Good, Very Good, Excellent	Gain (pctg pts)
Analytical & critical thinking skills	0%	1%	9%	41%	43%	6%	**89%**	35
Ability to be clear & effective when writing	0%	2%	13%	40%	38%	8%	**85%**	40
Ability to read & comprehend academic material	0%	1%	10%	36%	41%	11%	**89%**	25
Foreign language skills	5%	19%	30%	29%	10%	6%	**46%**	3
Understanding of a specific field of study	0%	2%	13%	41%	37%	7%	**85%**	41
Quantitative (math & statistical) skills	2%	8%	22%	33%	30%	6%	**68%**	17
Ability to speak clearly & effectively	0%	0%	6%	27%	36%	31%	**93%**	12
Understanding international perspectives	0%	2%	16%	40%	31%	12%	**82%**	27
Leadership skills	0%	8%	19%	32%	27%	14%	**73%**	13
Computer skills	1%	2%	16%	33%	31%	16%	**80%**	15
Internet skills	0%	1%	6%	25%	34%	34%	**93%**	11
Library research skills	0%	3%	24%	38%	26%	9%	**72%**	24
Other research skills	0%	3%	21%	43%	24%	9%	**76%**	19
Ability to prepare & make presentations	0%	2%	22%	36%	30%	10%	**76%**	16
Interpesonal (social) skills	1%	3%	12%	31%	32%	21%	**83%**	16

New Transfers	Very Poor	Poor	Fair	Good	Very Good	Excellent	Good, Very Good, Excellent	Gain (pctg pts)
Analytical & critical thinking skills	0%	0%	4%	22%	59%	15%	**96%**	9
Ability to be clear & effective when writing	0%	0%	11%	37%	46%	7%	**89%**	13
Ability to read & comprehend academic material	0%	0%	11%	26%	50%	13%	**89%**	15
Foreign language skills	7%	24%	15%	35%	9%	11%	**54%**	7
Understanding of a specific field of study	0%	0%	9%	37%	37%	17%	**91%**	39
Quantitative (math & statistical) skills	0%	2%	28%	39%	22%	9%	**70%**	9
Ability to speak clearly & effectively	0%	0%	9%	15%	41%	35%	**91%**	7
Understanding international perspectives	0%	0%	15%	39%	39%	7%	**85%**	24
Leadership skills	2%	2%	11%	39%	30%	15%	**85%**	20
Computer skills	2%	0%	15%	48%	24%	11%	**83%**	22
Internet skills	0%	2%	4%	22%	48%	24%	**93%**	9
Library research skills	0%	0%	11%	39%	46%	4%	**89%**	30
Other research skills	0%	0%	9%	46%	36%	9%	**91%**	24
Ability to prepare & make presentations	0%	4%	13%	35%	37%	11%	**83%**	22
Interpesonal (social) skills	0%	0%	15%	26%	37%	22%	**85%**	17

Table 7: Please rate level of proficiency in the following areas when you started at this campus and now:

In Percentages

WASC standards: 2.2; 2.3; 2.10; 2.11 **Frequency**

WHEN STARTED

New Freshmen	% Good, Very Good, Excellent			
	Engineer-ing	Natural Sciences	Social Sciences, Humanities, Arts	Undeclared
Analytical & critical thinking skills	60%	45%	59%	58%
Ability to be clear & effective when writing	40%	40%	50%	45%
Ability to read & comprehend academic material	67%	60%	66%	64%
Foreign language skills	37%	45%	41%	50%
Understanding of a specific field of study	60%	44%	45%	28%
Quantitative (math & statistical) skills	80%	48%	43%	56%
Ability to speak clearly & effectively	77%	77%	85%	86%
Understanding international perspectives	40%	54%	63%	50%
Leadership skills	50%	57%	65%	58%
Computer skills	73%	62%	64%	72%
Internet skills	90%	78%	79%	89%
Library research skills	60%	44%	46%	58%
Other research skills	67%	52%	57%	54%
Ability to prepare & make presentations	69%	53%	65%	58%
Interpesonal (social) skills	59%	68%	71%	64%

New Transfers	% Good, Very Good, Excellent			
	Engineer-ing	Natural Sciences	Social Sciences, Humanities, Arts	Undeclared
Analytical & critical thinking skills	89%	92%	83%	*
Ability to be clear & effective when writing	78%	69%	78%	*
Ability to read & comprehend academic material	78%	77%	70%	*
Foreign language skills	56%	62%	39%	*
Understanding of a specific field of study	56%	39%	61%	*
Quantitative (math & statistical) skills	89%	77%	43%	*
Ability to speak clearly & effectively	78%	92%	83%	*
Understanding international perspectives	67%	54%	61%	*
Leadership skills	56%	75%	61%	*
Computer skills	67%	54%	61%	*
Internet skills	89%	77%	87%	*
Library research skills	56%	54%	61%	*
Other research skills	56%	77%	65%	*
Ability to prepare & make presentations	67%	39%	70%	*
Interpesonal (social) skills	67%	54%	74%	*

*Too few respondents to report.

Table 7: Please rate level of proficiency in the following areas when you started at this campus and now:

In Percentages
Frequency

WASC standards: 2.2; 2.3; 2.10; 2.11

NOW

New Freshmen	% Good, Very Good, Excellent			
	Engineer-ing	Natural Sciences	Social Sciences, Humanities, Arts	Undeclared
Analytical & critical thinking skills	97%	85%	92%	86%
Ability to be clear & effective when writing	87%	85%	86%	81%
Ability to read & comprehend academic material	97%	89%	89%	81%
Foreign language skills	37%	41%	77%	64%
Understanding of a specific field of study	97%	86%	83%	78%
Quantitative (math & statistical) skills	93%	74%	59%	61%
Ability to speak clearly & effectively	90%	94%	94%	92%
Understanding international perspectives	80%	76%	89%	78%
Leadership skills	63%	73%	78%	64%
Computer skills	90%	73%	80%	89%
Internet skills	97%	91%	91%	97%
Library research skills	77%	69%	72%	78%
Other research skills	71%	79%	72%	75%
Ability to prepare & make presentations	83%	72%	79%	72%
Interpesonal (social) skills	83%	85%	84%	78%

New Transfers	% Good, Very Good, Excellent			
	Engineer-ing	Natural Sciences	Social Sciences, Humanities, Arts	Undeclared
Analytical & critical thinking skills	100%	100%	91%	*
Ability to be clear & effective when writing	89%	92%	86%	*
Ability to read & comprehend academic material	78%	85%	96%	*
Foreign language skills	56%	62%	52%	*
Understanding of a specific field of study	78%	100%	91%	*
Quantitative (math & statistical) skills	100%	85%	48%	*
Ability to speak clearly & effectively	89%	100%	87%	*
Understanding international perspectives	89%	77%	87%	*
Leadership skills	78%	92%	83%	*
Computer skills	89%	85%	78%	*
Internet skills	89%	100%	91%	*
Library research skills	78%	92%	91%	*
Other research skills	75%	100%	91%	*
Ability to prepare & make presentations	78%	77%	87%	*
Interpesonal (social) skills	89%	85%	83%	*

*Too few respondents to report.

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Table 8: Please rate your abilities now and when you first began at this university on the following:

In Percentages

WASC standards: 2.2

WHEN STARTED

New Freshmen	Very Poor	Poor	Fair	Good	Very Good	Excellent	Good, Very Good, Excellent
Ability to appreciate, tolerate & understand racial & ethnic diversity	0%	2%	8%	29%	30%	31%	**90%**
Ability to appreciate the fine arts (e.g. painting, music, drama, dance)	1%	4%	15%	31%	26%	22%	**79%**
Ability to appreciate cultural & global diversity	0%	2%	12%	33%	28%	25%	**86%**
Understanding the importance of personal social responsibility	0%	3%	12%	38%	34%	13%	**85%**
Self awareness & understanding	4%	3%	16%	36%	29%	15%	**80%**

New Transfers	Very Poor	Poor	Fair	Good	Very Good	Excellent	Good, Very Good, Excellent
Ability to appreciate, tolerate & understand racial & ethnic diversity	0%	0%	7%	13%	39%	41%	**93%**
Ability to appreciate the fine arts (e.g. painting, music, drama, dance)	2%	2%	20%	37%	24%	15%	**76%**
Ability to appreciate cultural & global diversity	0%	0%	11%	22%	37%	30%	**89%**
Understanding the importance of personal social responsibility	0%	0%	11%	30%	33%	26%	**89%**
Self awareness & understanding	0%	4%	13%	24%	41%	17%	**83%**

NOW

New Freshmen	Very Poor	Poor	Fair	Good	Very Good	Excellent	Good, Very Good, Excellent	Gain (pctg pts)
Ability to appreciate, tolerate & understand racial & ethnic diversity	0%	4%	2%	17%	37%	43%	**97%**	7
Ability to appreciate the fine arts (e.g. painting, music, drama, dance)	2%	2%	12%	28%	29%	28%	**85%**	5
Ability to appreciate cultural & global diversity	1%	1%	7%	26%	34%	32%	**91%**	5
Understanding the importance of personal social responsibility	0%	2%	4%	26%	39%	29%	**94%**	9
Self awareness & understanding	0%	1%	6%	25%	41%	26%	**92%**	12

New Transfers	Very Poor	Poor	Fair	Good	Very Good	Excellent	Good, Very Good, Excellent	Gain (pctg pts)
Ability to appreciate, tolerate & understand racial & ethnic diversity	0%	0%	0%	15%	30%	54%	**100%**	7
Ability to appreciate the fine arts (e.g. painting, music, drama, dance)	2%	2%	13%	39%	28%	15%	**83%**	6
Ability to appreciate cultural & global diversity	0%	0%	4%	31%	29%	36%	**96%**	6
Understanding the importance of personal social responsibility	0%	0%	2%	26%	35%	37%	**98%**	9
Self awareness & understanding	0%	2%	4%	20%	41%	33%	**94%**	11

Table 8: Please rate your abilities now and when you first began at this university on the following:

In Percentages

WASC standards: 2.2

WHEN STARTED

New Freshmen	% Good, Very Good, Excellent			
	Engineer-ing	Natural Sciences	Social Sciences, Humanities, Arts	Undeclared
Ability to appreciate, tolerate & understand racial & ethnic diversity	97%	93%	87%	86%
Ability to appreciate the fine arts (e.g. painting, music, drama, dance)	80%	66%	80%	74%
Ability to appreciate cultural & global diversity	93%	88%	84%	77%
Understanding the importance of personal social responsibility	90%	83%	87%	77%
Self awareness & understanding	93%	74%	80%	83%

New Transfers	% Good, Very Good, Excellent			
	Engineer-ing	Natural Sciences	Social Sciences, Humanities, Arts	Undeclared
Ability to appreciate, tolerate & understand racial & ethnic diversity	89%	85%	100%	*
Ability to appreciate the fine arts (e.g. painting, music, drama, dance)	67%	77%	83%	*
Ability to appreciate cultural & global diversity	89%	85%	91%	*
Understanding the importance of personal social responsibility	89%	85%	91%	*
Self awareness & understanding	78%	77%	87%	*

*Too few respondents to report.

NOW

New Freshmen	% Good, Very Good, Excellent			
	Engineer-ing	Natural Sciences	Social Sciences, Humanities, Arts	Undeclared
Ability to appreciate, tolerate & understand racial & ethnic diversity	97%	97%	97%	97%
Ability to appreciate the fine arts (e.g. painting, music, drama, dance)	80%	86%	86%	81%
Ability to appreciate cultural & global diversity	93%	95%	89%	86%
Understanding the importance of personal social responsibility	93%	94%	94%	92%
Self awareness & understanding	97%	93%	89%	94%

New Transfers	% Good, Very Good, Excellent			
	Engineer-ing	Natural Sciences	Social Sciences, Humanities, Arts	Undeclared
Ability to appreciate, tolerate & understand racial & ethnic diversity	100%	100%	100%	*
Ability to appreciate the fine arts (e.g. painting, music, drama, dance)	78%	85%	83%	*
Ability to appreciate cultural & global diversity	100%	100%	91%	*
Understanding the importance of personal social responsibility	100%	100%	96%	*
Self awareness & understanding	100%	92%	91%	*

*Too few respondents to report.

Table 9: How frequently during this academic year have you done each of the following:

In Percentages

WASC standards: 2.2; 2.3; 2.5   **Frequency**

New Freshmen	Never	Rarely	Occasionally	Somewhat Often	Often	Very Often	Somewhat Often, Often, Very Often
Turned in a course assignment late	34%	51%	11%	2%	1%	2%	**4%**
Gone to class without completing assigned reading	4%	24%	36%	21%	10%	5%	**35%**
Gone to class unprepared	16%	42%	27%	10%	4%	1%	**15%**
Skipped class	11%	44%	31%	7%	4%	3%	**14%**
Raised your standard for acceptable effort due to the high standards of a faculty member	5%	12%	26%	28%	21%	8%	**57%**
Extensively revised a paper at least once before submitting it to be graded	2%	8%	24%	17%	29%	20%	**66%**
Sought academic help from instructor or tutor when needed	8%	18%	23%	19%	19%	12%	**51%**
Worked on class projects or studied as a group with other classmates outside of class	3%	11%	24%	22%	24%	17%	**63%**
Helped a classmate better understand the course material when studying together	1%	12%	27%	24%	22%	16%	**61%**

New Transfers	Never	Rarely	Occasionally	Somewhat Often	Often	Very Often	Somewhat Often, Often, Very Often
Turned in a course assignment late	48%	28%	15%	4%	4%	0%	**9%**
Gone to class without completing assigned reading	9%	20%	30%	11%	17%	13%	**41%**
Gone to class unprepared	15%	28%	33%	13%	9%	2%	**24%**
Skipped class	11%	33%	33%	9%	7%	9%	**24%**
Raised your standard for acceptable effort due to the high standards of a faculty member	2%	11%	28%	35%	17%	7%	**59%**
Extensively revised a paper at least once before submitting it to be graded	0%	17%	22%	17%	20%	24%	**61%**
Sought academic help from instructor or tutor when needed	13%	18%	20%	24%	13%	11%	**49%**
Worked on class projects or studied as a group with other classmates outside of class	0%	7%	20%	17%	35%	22%	**74%**
Helped a classmate better understand the course material when studying together	4%	11%	26%	24%	13%	22%	**59%**

Table 9: How frequently during this academic year have you done each of the following:

New Freshmen	% Somewhat, Often, Very Often			
	Engineer-ing	Natural Sciences	Social Sciences, Humanities, Arts	Undeclared
Turned in a course assignment late	7%	9%	1%	0%
Gone to class without completing assigned reading	37%	25%	42%	40%
Gone to class unprepared	10%	13%	16%	19%
Skipped class	13%	19%	9%	17%
Raised your standard for acceptable effort due to the high standards of a faculty member	63%	56%	54%	64%
Extensively revised a paper at least once before submitting it to be graded	70%	71%	63%	58%
Sought academic help from instructor or tutor when needed	40%	62%	47%	45%
Worked on class projects or studied as a group with other classmates outside of class	63%	61%	62%	67%
Helped a classmate better understand the course material when studying together	63%	67%	60%	47%

New Transfers	% Somewhat, Often, Very Often			
	Engineer-ing	Natural Sciences	Social Sciences, Humanities, Arts	Undeclared
Turned in a course assignment late	33%	8%	0%	*
Gone to class without completing assigned reading	56%	39%	39%	*
Gone to class unprepared	22%	23%	26%	*
Skipped class	44%	23%	17%	*
Raised your standard for acceptable effort due to the high standards of a faculty member	44%	54%	65%	*
Extensively revised a paper at least once before submitting it to be graded	56%	69%	57%	*
Sought academic help from instructor or tutor when needed	67%	42%	43%	*
Worked on class projects or studied as a group with other classmates outside of class	89%	62%	74%	*
Helped a classmate better understand the course material when studying together	89%	62%	43%	*

*Too few respondents to report.

Table 10: On average, how much of your assigned course reading have you completed this year?

WASC standards: 2.5	Percentage of reading completed					>70%
	0-30%	31-50%	51-70%	71-90%	91-100%	
New Freshmen	13%	11%	21%	48%	8%	55%
New Transfers	11%	11%	17%	37%	24%	61%

Table 11: In how many service learning courses have you enrolled?

(In percentages)

WASC standards: 2.3	Number of service learning courses					Avg #*
	0	1	2	3	4+	
New Freshmen	72%	22%	3%	1%	1%	0.37
New Transfers	63%	22%	11%	4%	0%	0.77

*Assumes 4+ courses = 4.

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Table 12: During an average term, how often do you use the campus libraries (including online resources?

In Percentages

WASC standards: 2.2; 2.3   **Frequency**

New Freshmen	More than once a week	Weekly	2-3 times a month	Monthly	Less than once a month, but more than once a term	Once a term or less	More than monthly
Use campus library for research	11%	17%	13%	12%	19%	22%	**42%**
Use campus library for other purposes	32%	20%	8%	9%	9%	18%	**59%**

New Transfers	More than once a week	Weekly	2-3 times a month	Monthly	Less than once a month, but more than once a term	Once a term or less	More than monthly
Use campus library for research	41%	28%	4%	7%	11%	4%	**74%**
Use campus library for other purposes	44%	24%	9%	4%	7%	7%	**76%**

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Table 13: Thinking back over your coursework this academic year, how often were you REQUIRED to do the following?							
WASC standards: 2.2; 2.10			In Percentages **Frequency**				
New Freshmen	**Never**	**Rarely**	**Occasionally**	**Somewhat Often**	**Often**	**Very Often**	**Somewhat Often, Often, Very Often**
Recognize or recall specific facts, terms and concepts	0%	2%	15%	19%	38%	26%	**83%**
Explain methods, ideas, or concepts and use them to solve problems	0%	2%	12%	22%	39%	25%	**86%**
Break down material into component parts or arguments into assumptions to see the basis for different outcomes and conclusions	0%	6%	20%	23%	33%	19%	**75%**
Judge the value of information, ideas, actions and conclusions based on the soundness of sources, methods and reasoning	1%	3%	18%	22%	38%	18%	**78%**
Create or generate new ideas, products or ways of understanding	0%	9%	16%	22%	34%	19%	**75%**
			Frequency				
New Transfers	**Never**	**Rarely**	**Occasionally**	**Somewhat Often**	**Often**	**Very Often**	**Somewhat Often, Often, Very Often**
Recognize or recall specific facts, terms and concepts	0%	2%	7%	20%	40%	31%	**91%**
Explain methods, ideas, or concepts and use them to solve problems	0%	0%	14%	27%	25%	34%	**86%**
Break down material into component parts or arguments into assumptions to see the basis for different outcomes and conclusions	0%	9%	18%	29%	24%	20%	**73%**
Judge the value of information, ideas, actions and conclusions based on the soundness of sources, methods and reasoning	0%	7%	16%	27%	20%	31%	**78%**
Create or generate new ideas, products or ways of understanding	2%	2%	24%	18%	29%	24%	**71%**

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Table 14: Thinking back on this academic year, how often have you done each of the following?

In Percentages

WASC standards: 2.2; 2.10

Frequency

New Freshmen	Never	Rarely	Occasionally	Somewhat Often	Often	Very Often	Somewhat Often, Often, Very Often
Used facts and examples to support your viewpoint	0%	1%	6%	18%	34%	41%	**93%**
Incorporated ideas or concepts from different courses when completing assignments	0%	4%	14%	24%	32%	26%	**82%**
Examined how others gathered and interpreted data and assessed the soundness of their conclusions	1%	8%	22%	26%	28%	15%	**69%**
Reconsidered your own position on a topic after assessing the arguments of others	2%	6%	27%	22%	29%	14%	**65%**

Frequency

New Transfers	Never	Rarely	Occasionally	Somewhat Often	Often	Very Often	Somewhat Often, Often, Very Often
Used facts and examples to support your viewpoint	0%	2%	13%	9%	38%	38%	**85%**
Incorporated ideas or concepts from different courses when completing assignments	0%	2%	20%	18%	31%	29%	**78%**
Examined how others gathered and interpreted data and assessed the soundness of their conclusions	2%	7%	20%	22%	31%	18%	**71%**
Reconsidered your own position on a topic after assessing the arguments of others	0%	20%	27%	16%	27%	11%	**53%**

Table 13A: Thinking back over your coursework this academic year, how often were you REQUIRED to do the following?

WASC standards: 2.2; 2.10

New Freshmen	%Somewhat Often, Often, Very Often			
	Engineer-ing	Natural Sciences	Social Sciences, Humanities, Arts	Undeclared
Recognize or recall specific facts, terms and concepts	80%	83%	85%	81%
Explain methods, ideas, or concepts and use them to solve problems	87%	88%	86%	80%
Break down material into component parts or arguments into assumptions to see the basis for different outcomes and conclusions	63%	78%	78%	70%
Judge the value of information, ideas, actions and conclusions based on the soundness of sources, methods and reasoning	67%	85%	77%	72%
Create or generate new ideas, products or ways of understanding	63%	78%	77%	72%

New Transfers	%Somewhat Often, Often, Very Often			
	Engineer-ing	Natural Sciences	Social Sciences, Humanities, Arts	Undeclared
Recognize or recall specific facts, terms and concepts	78%	92%	96%	*
Explain methods, ideas, or concepts and use them to solve problems	89%	92%	81%	*
Break down material into component parts or arguments into assumptions to see the basis for different outcomes and conclusions	56%	85%	73%	*
Judge the value of information, ideas, actions and conclusions based on the soundness of sources, methods and reasoning	56%	69%	91%	*
Create or generate new ideas, products or ways of understanding	56%	69%	77%	*

*Too few respondents to report.

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Table 14A: Thinking back on this academic year, how often have you done each of the following?				

WASC standards: 2.2: 2.10	%Somewhat Often, Often, Very Often			
New Freshmen	**Engineer-ing**	**Natural Sciences**	**Social Sciences, Humanities, Arts**	**Undeclared**
Used facts and examples to support your viewpoint	90%	93%	93%	94%
Incorporated ideas or concepts from different courses when completing assignments	70%	82%	84%	86%
Examined how others gathered and interpreted data and assessed the soundness of their conclusions	63%	64%	74%	72%
Reconsidered your own position on a topic after assessing the arguments of others	60%	64%	64%	75%

	%Somewhat Often, Often, Very Often			
New Transfers	**Engineer-ing**	**Natural Sciences**	**Social Sciences, Humanities, Arts**	**Undeclared**
Used facts and examples to support your viewpoint	78%	77%	91%	*
Incorporated ideas or concepts from different courses when completing assignments	78%	85%	73%	*
Examined how others gathered and interpreted data and assessed the soundness of their conclusions	67%	62%	77%	*
Reconsidered your own position on a topic after assessing the arguments of others	56%	39%	64%	*

*Too few respondents to report.

Table 15: How satisfied are you with each of the following aspects of your educational experience?

In Percentages

WASC standards: 1.7; 2.1; 2.2; 2.5; 2.11; 2.12; 2.13; 3.1; 3.6

New Freshmen	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Satisfied	Very Satisfied	Somewhat, Satisfied, Very Satisfied
Advising by student peer advisors on academic matters	5%	6%	17%	39%	29%	4%	**72%**
Advising by college staff on academic matters	2%	6%	11%	32%	40%	9%	**81%**
Advising by departmental staff on academic matters	2%	5%	13%	34%	37%	10%	**81%**
Advising by faculty on academic matters	1%	4%	10%	25%	46%	16%	**86%**
Quality of faculty instruction	1%	2%	8%	24%	43%	19%	**87%**
Quality of teaching by graduate student TA's	2%	4%	9%	29%	40%	17%	**85%**
Availability of courses for general education or breadth requirements	8%	15%	23%	27%	22%	4%	**53%**
Availability of courses needed for graduation	8%	11%	24%	32%	20%	5%	**57%**
Access to small classes	2%	1%	6%	18%	38%	36%	**92%**
Access to faculty outside of class	0%	2%	5%	21%	43%	30%	**94%**
Ability to get into a major that you want	10%	8%	14%	26%	26%	17%	**69%**
Opportunities for research experience or to produce creative products	4%	8%	15%	39%	26%	8%	**73%**
Educational enrichment programs (e.g., study abroad, UCDC, internships)	8%	10%	26%	34%	19%	4%	**56%**
Variety of courses available in your major	15%	17%	22%	28%	13%	5%	**46%**
Accessibility of library staff	3%	5%	15%	34%	31%	12%	**77%**
Availability of library research materials	3%	4%	11%	28%	37%	17%	**82%**

New Transfers	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Satisfied	Very Satisfied	Somewhat, Satisfied, Very Satisfied
Advising by student peer advisors on academic matters	7%	2%	19%	31%	36%	5%	**72%**
Advising by college staff on academic matters	7%	4%	2%	33%	42%	11%	**87%**
Advising by departmental staff on academic matters	0%	5%	9%	37%	33%	16%	**86%**
Advising by faculty on academic matters	0%	0%	16%	16%	36%	32%	**84%**
Quality of faculty instruction	2%	0%	7%	14%	41%	36%	**91%**
Quality of teaching by graduate student TA's	0%	2%	15%	24%	39%	20%	**83%**
Availability of courses for general education or breadth requirements	13%	4%	27%	33%	20%	2%	**56%**
Availability of courses needed for graduation	11%	20%	31%	22%	16%	0%	**38%**
Access to small classes	0%	2%	0%	2%	36%	60%	**98%**
Access to faculty outside of class	0%	5%	2%	7%	30%	56%	**93%**
Ability to get into a major that you want	4%	13%	13%	11%	20%	38%	**69%**
Opportunities for research experience or to produce creative products	0%	7%	9%	23%	21%	41%	**84%**
Educational enrichment programs (e.g., study abroad, UCDC, internships)	2%	7%	23%	33%	28%	7%	**68%**
Variety of courses available in your major	18%	24%	18%	24%	16%	0%	**40%**
Accessibility of library staff	0%	7%	7%	23%	44%	19%	**86%**
Availability of library research materials	0%	0%	5%	30%	54%	12%	**95%**

Table 15A: How satisfied are you with each of the following aspects of your educational experience?

WASC standards: 1.7;2.1;2.2;2.5;2.11;3.1

New Freshmen	% Somewhat Satisfied, Satisfied, Very Satisfied			
	Engineering	Natural Sciences	Social Sciences, Humanities, Arts	Undeclared
Availability of courses for general education or breadth requirements	59%	53%	53%	49%
Availability of courses needed for graduation	67%	59%	53%	57%
Ability to get into a major that you want	65%	83%	59%	63%
Opportunities for research experience or to produce creative products	63%	76%	73%	77%
Variety of courses available in your major	50%	59%	34%	43%

New Transfers	% Somewhat Satisfied, Satisfied, Very Satisfied			
	Engineering	Natural Sciences	Social Sciences, Humanities, Arts	Undeclared
Availability of courses for general education or breadth requirements	67%	46%	55%	*
Availability of courses needed for graduation	33%	31%	41%	*
Ability to get into a major that you want	100%	85%	50%	*
Opportunities for research experience or to produce creative products	78%	77%	90%	*
Variety of courses available in your major	44%	54%	27%	*

*Too few respondents to report.

Table 16: How often have you gained deeper understanding of other perspectives through conversations with fellow students because they differed from you in the following ways:

In Percentages

WASC standards: 2.2   **Frequency**

New Freshmen	Never	Rarely	Occasionally	Somewhat Often	Often	Very Often	Somewhat Often, Often, Very Often
Religious Beliefs	12%	20%	31%	20%	11%	6%	**38%**
Political Opinions	7%	12%	34%	22%	16%	9%	**47%**
Nationality	4%	10%	20%	21%	28%	16%	**66%**
Race/Ethnicity	3%	9%	17%	21%	28%	23%	**71%**
Sexual Preference	17%	38%	26%	10%	6%	3%	**20%**
Social Class	6%	17%	29%	21%	16%	11%	**48%**

New Transfers	Never	Rarely	Occasionally	Somewhat Often	Often	Very Often	Somewhat Often, Often, Very Often
Religious Beliefs	9%	30%	22%	13%	20%	7%	**39%**
Political Opinions	7%	7%	41%	20%	17%	9%	**46%**
Nationality	4%	11%	17%	17%	22%	28%	**67%**
Race/Ethnicity	2%	9%	20%	17%	17%	35%	**70%**
Sexual Preference	28%	35%	26%	4%	4%	2%	**11%**
Social Class	11%	17%	35%	13%	13%	11%	**37%**

Table 17: Please rate your level of satisfaction with the following aspects of your University education.

In Percentages

WASC standards: 2.10

New Freshmen	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Satisfied	Very Satisfied	Somewhat, Satisfied, Very Satisfied
UC grade point average	12%	15%	19%	30%	20%	5%	**54%**
Overall social experience	4%	8%	16%	27%	34%	12%	**72%**
Overall academic experience	2%	5%	14%	29%	38%	13%	**79%**
Value of your education for the price you're paying	5%	8%	19%	28%	26%	14%	**68%**

New Freshmen	Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly agree	Somewhat, Agree, Strongly Agree
I feel that I belong at this campus	4%	4%	10%	32%	30%	20%	**82%**
Knowing what I know now, I would still choose to enroll at this campus	4%	8%	12%	28%	25%	23%	**76%**

New Transfers	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Satisfied	Very Satisfied	Somewhat, Satisfied, Very Satisfied
UC grade point average	4%	9%	15%	28%	30%	13%	**72%**
Overall social experience	2%	2%	11%	22%	46%	17%	**85%**
Overall academic experience	2%	2%	11%	28%	35%	22%	**85%**
Value of your education for the price you're paying	2%	9%	11%	20%	31%	27%	**78%**

New Transfers	Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly agree	Somewhat, Agree, Strongly Agree
I feel that I belong at this campus	7%	4%	11%	9%	27%	42%	**78%**
Knowing what I know now, I would still choose to enroll at this campus	2%	9%	4%	16%	29%	40%	**85%**

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	% Somewhat Agree, Agree, Strongly Agree			
New Freshmen	**Engineer- ing**	**Natural Sciences**	**Social Sciences, Humanities, Arts**	**Undeclared**
I feel that I belong at this campus	83%	86%	80%	81%
Knowing what I know now, I would still choose to enroll at this campus	77%	79%	73%	74%
New Transfers	**Engineer- ing**	**Natural Sciences**	**Social Sciences, Humanities, Arts**	**Undeclared**
I feel that I belong at this campus	78%	77%	78%	*
Knowing what I know now, I would still choose to enroll at this campus	78%	77%	91%	*
*Too few respondents to report.				

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Table 18: Please answer the following questions about your educational experience overall.

WASC standards: 1.7;2.2;2.10;2.12

New Freshmen	Percentage saying "Yes"
Are there open channels of communication between faculty and students regarding student needs, concerns, and suggestions?	92%
Are students treated equitably and fairly by the faculty?	89%
Do faculty clearly explain what constitutes plagiarism and its consequences?	95%

New Transfers	Percentage saying "Yes"
Are there open channels of communication between faculty and students regarding student needs, concerns, and suggestions?	96%
Are students treated equitably and fairly by the faculty?	93%
Do faculty clearly explain what constitutes plagiarism and its consequences?	84%

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Category	Most Important Things	First	Second	Third	Total
Activities	Frats/Sororities	2	1		3
	More $s for Campus Orgs	1	7		8
	More Clubs	2			2
	More Recreation Activities		3		3
	More Sports/Teams	2	2	9	13
	More/Better Campus Activities	25	29	17	71
	Programs/Activities w/ other UCs	1	2		3
Administrative Area	Better Parking		2	2	4
	Improve Cat Card Process	1	2	2	5
	Better CatTracks/Transp Services	1	3	8	12
	Better/Friendlier Staff	2	1		3
Advising/Tutoring	Better Advising	6	6	7	19
	More Advisors	1	2		3
	More Tutors	3	3	3	9
Communication	Be Truthful			3	3
	Better Communication	4	11	6	21
	Keep Promises	1		2	3
	More Student Representation	1	1	1	3
	Understanding	3	2	2	7
Construction	Finish Construciton	2	3	5	10
	Speed up Construction		3	3	6
CORE courses	Alternative to Core	2			2
	Eliminate Core		2	3	5
	Improve CORE	3	1	1	5
Courses/Schedule	More Class Times/Improve Class Schedule	8	8	7	23
	More Courses	78	31	10	119
Dining/Food	Better Dining Plan	2	1	2	5
	More Food Options/Better Food	10	19	28	57
Facilities	Longer Library hours		1	4	5
	More Facilities	2	1		3
Faculty	Better Faculty	5	1	2	8
	More Accessibility to Faculty		3		3
	More Diverse Faculty	1			1
	More Faculty		2		2
Financial Aid	More Financial Aid	2		2	4
Housing	Better Housing			1	1
	More Dorms	1		5	6
Instruction	Better Instruction		6	5	11
	Better TAs	2	1		3
	Clearer Instruction/Better Classes	4	3		7
	More TAs		1		1
Majors/Minors	More Majors/Particular Program	42	9	4	55
	More Minors		2	1	3
Opportunities	More Research Opportunities		2		2
	Study Abroad Programs		4	3	7
	More Internships		2	3	5
	More Jobs for Students		2	3	5
Students	Better Students	2			2
	More involvement of off-campus students	2	1	1	4
	More Students	2	4		6
		224	189	155	568

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Table 20: What do you plan to do when you graduate?

WASC standards: 2.5;2.11   in percentages

New Freshmen	Engineer-ing	Natural Sciences	Social Sciences, Humanities, Arts	Undeclared	Total
Enroll in graduate or professional school	63%	80%	63%	39%	66%
Work full-time	10%	5%	10%	22%	10%
Study or work abroad	0%	4%	6%	3%	4%
Do something else	0%	0%	2%	0%	1%
I have no idea at this point	27%	12%	19%	36%	20%

in percentages

New Transfers	Engineer-ing	Natural Sciences	Social Sciences, Humanities, Arts	Undeclared	Total
Enroll in graduate or professional school	33%	92%	70%	*	70%
Work full-time	44%	8%	17%	*	20%
Study or work abroad	11%	0%	0%	*	2%
Do something else	0%	0%	4%	*	2%
I have no idea at this point	11%	0%	9%	*	7%

*Too few respondents to report.

Table 20: What do you plan to do when you graduate?

WASC standards: 2.5;2.11   in percentages

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Table 21: What is the highest academic degree or credential that you plan to earn eventually?

WASC standards: 2.5   in percentages

New Freshmen	Engineer-ing	Natural Sciences	Social Sciences, Humanities, Arts	Undeclared	Total
Bachelor's	3%	3%	7%	14%	6%
Teaching credential	0%	1%	5%	6%	3%
Master's total	43%	9%	30%	8%	21%
Law degree	0%	1%	9%	0%	4%
Medical Doctorate total	7%	43%	5%	6%	18%
Other Doctorate total	20%	32%	29%	14%	27%
I don't know yet	27%	10%	16%	53%	20%

in percentages

New Transfers	Engineer-ing	Natural Sciences	Social Sciences, Humanities, Arts	Undeclared	Total
Bachelor's	11%	8%	13%	*	11%
Teaching credential	0%	0%	0%	*	0%
Master's total	56%	0%	13%	*	17%
Law degree	11%	0%	4%	*	4%
Medical doctorate total	0%	39%	0%	*	11%
Doctorate total	11%	46%	52%	*	44%
I don't know yet	11%	8%	17%	*	13%

*Too few respondents to report.

Core Module	Spring 2006 UCUES Questions	WASC Standards
	PART I: TIME, STUDENT DEVELOPMENT, ACADEMIC ENGAGEMENT, SATISFACTION, & EVALUATION OF THE EDUCATIONAL EXPERIENCE	
	TIME ALLOCATION	
	1. During your TYPICAL 7-day (168 hour) week during the academic semester, how many hours do you spend doing the following?	
	a. Attend class or labs	2.5
	b. Study and other academic activities outside of class	2.5
	c. Paid employment (incl. paid internships)	
	d. Work for pay on campus	
	e. Work hours related to your academic interests	2.2; 2.11
	ACADEMIC & PERSONAL DEVELOPMENT	
	2. How often have you gained a deeper understanding of other perspectives through conversations with fellow students because they differed from you in the following ways:	
	a. Religious beliefs	2.2
	b. Political opinions	2.2
	c. Nationality	2.2
	d. Race/ethnicity	2.2
	e. Sexual preference	2.2
	f. Social class	2.2
	SKILL DEVELOPMENT	
	3. Please rate your level of proficiency in the following areas when you started at this campus and now.	
	a. Analytical and critical thinking skills	2.2
	b. Ability to be clear and effective when writing	2.2
	c. Ability to read and comprehend academic material	2.2
	d. Foreign language skills	2.2
	e. Understanding of a specific field of study	2.2
	f. Quantitative (mathematical & statistical) skills	2.2
	g. Ability to speak clearly and effectively	2.2
	h. Understanding international perspectives (economic, political, social, cultural)	2.2
	i. Leadership skills	2.2
	j. Computer skills	2.2
	k. Internet skills	2.2; 2.3; 2.10
	l. Library research skills	2.2; 2.3
	m. Other research skills	2.2; 2.3
	n. Ability to prepare & make a presentation	2.2
	o. Interpersonal (social) skills	2.11
	4. Similarly, please rate your abilities now and when you first began at this university on the following dimensions.	
	a. Ability to appreciate, tolerate & understand racial & ethnic diversity	2.2
	b. Ability to appreciate the fine arts (e.g., painting, music, drama, dance)	2.2
	c. Ability to appreciate cultural & global diversity	2.2
	d. Understanding the importance of personal social responsibility	2.2
	e. Self awareness & understanding	2.11
	ACADEMIC ENGAGEMENT	
	5. How frequently during this academic year have you done each of the following?	
	a. Turned in a course assignment late	2.5
	b. Gone to class without completing assigned reading	2.5
	c. Gone to class unprepared	2.5
	d. Skipped class	2.5
	e. Raised your standard for acceptable effort due to the high standards of a faculty member	2.5
	f. Extensively revised a paper at least once before submitting it to be graded	2.5
	g. Sought academic help from instructor or tutor when needed	2.5
	h. Worked on class projects or studied as a group with other classmates outside of class	2.2
	i. Helped a classmate better understand the course material when studying together	2.2
	6. On average, how much of your assigned course reading have you completed this academic year?	2.5
	7. In how many service learning courses have you enrolled?	2.3
	8. Among all the courses you have taken this academic year, which one do you consider to be the MOST VALUABLE?	
	8.a. What makes this course so valuable to you?	
	9. During an average term, how often do you use the campus libraries (including online resources)?	
	a. For research	2.2; 2.3
	b. For other purposes	2.2; 2.3
	PLANS AND ASPIRATIONS	
	10. What do you plan to do when you graduate?	
	a. Enroll in graduate or professional school	2.5
	b. Work full-time	
	c. Study or work abroad	2.11
	d. Do something else	
	e. I have no idea at this point	
	11. What is the highest academic degree or credential that you plan to eventually earn?	
	OVERALL SATISFACTION & AGREEMENT	
	12. Please rate your level of satisfaction with the following aspects of your University education.	
	a. UC grade point average	2.10
	b. Overall social experience	2.10
	c. Overall academic experience	2.10
	d. Value of your education for the price you're paying	2.10
	e. I feel that I belong at this campus	
	f. Knowing what I know now, I would still choose to enroll at this campus	
	EVALUATION OF THE EDUCATION EXPERIENCE	
	13. Thinking back over your coursework this academic year, how often were you REQUIRED to do the following?	
	a. Recognize or recall specific facts, terms and concepts	2.2; 2.10
	b. Explain methods, ideas, or concepts and use them to solve problems	2.2; 2.10
	c. Break down material into component parts or arguments into assumptions to see the basis for different outcomes and conclusions	2.2; 2.10
	d. Judge the value of information, ideas, actions and conclusions based on the soundness of sources, methods and reasoning	2.2; 2.10
	e. Create or generate new ideas, products or ways of understanding	2.2; 2.10
	14. Thinking back on this academic year, how often have you done each of the following?	
	a. Used facts and examples to support your viewpoint	2.2; 2.10
	b. Incorporated ideas or concepts from different courses when completing assignments	2.2; 2.10
	c. Examined how others gathered and interpreted data and assessed the soundness of their conclusions	2.2; 2.10
	d. Reconsidered your own position on a topic after assessing the arguments of others	2.2; 2.10
	15. Please answer the following questions about your educational experience overall.	
	a. Are there open channels of communication between faculty and students regarding student needs, concerns, and suggestions?	2.2; 2.10
	b. Are students treated equitably and fairly by the faculty?	1.7
	c. Do faculty clearly explain what constitutes plagiarism and its consequences?	2.12
	16. How satisfied are you with each of the following aspects of your educational experience?	
	a. Advising by student peer advisors on academic matters	2.12
	b. Advising by college staff on academic matters	2.12
	c. Advising by departmental staff on academic matters	2.12
	d. Advising by faculty on academic matters	2.12
	e. Quality of faculty instruction	2.1; 3.1
	f. Quality of teaching by graduate student TA's	1.7; 2.1; 3.1
	g. Availability of courses for general education or breadth requirements	1.7; 2.1; 3.1
	h. Availability of courses needed for graduation	1.7; 2.1; 3.1
	i. Access to small classes	2.1; 3.1
	j. Access to faculty outside of class	2.1; 3.1
	k. Ability to get into a major that you want	2.1; 3.1
	l.Opportunities for research experience or to produce creative products	2.5; 2.11
	m. Educational enrichment programs (e.g., study abroad, UCDC internships)	2.5; 2.11
	n. Variety of courses available in your major	2.2
	o. Accessibility of library staff	2.13
	p. Availability of library research materials	3.6
	17. What are the three most important things your campus could realistically do to create a better undergraduate experience for students like you?	
	a. First	
	b. Second	
	c. Third	
	PART II: YOUR BACKGROUND	
	18. When did you come to the United States to live?	
	19. When did you learn to speak English?	
	20. What educational levels were reached by your parents?	
	a. Mother (in US)	
	b. Father (in US)	
	c. Mother (in a foreign country)	
	d. Father (in a foreign country)	
	21. To the best of your knowledge, how many of your grandparents went to college?	
	22. To the best of your knowledge, who among the following of your relatives was born in the U.S.?	
	a. Mother	
	b. Father	
	c. Mother's mother	
	d. Father's mother	
	e. Mother's father	
	f. Father's father	
	23. Which of the following best describes your social class when you were growing up?	
	a. Wealthy	
	b. Upper-middle or professional-middle	
	c. Middle-class	
	d. Working-class	
	e. Low-income or poor	
	24. To the best of your knowledge, which category includes the total annual combined income of your parent(s) before taxes in 2005?	
	25. How confident are you of that income figure?	

University of California, Merced
Teaching & Learning Center and WASC Planning Retreat

1. Agenda

2. Meeting Notes

University of California, Merced
Teaching & Learning Center and WASC Planning Retreat

May 19, 2006
10:00 am-3:00 pm
Kolligian Library Room 232

Purpose: The core mission of UC Merced is to become a great student-centered research university. The upcoming WASC "educational effectiveness" review, the next crucial step in our progress toward achieving institutional accreditation [Attachment 1: "The EE Review"], is focused on how we expect to achieve this goal. The development of the UC Merced Teaching and Learning Center is central to this objective, and we are therefore embarking on a search for the Founding Director of the TLC [Attachment 2: Job Description]. Today's discussion is intended to bring both goals, the creation of the TLC and the successful completion of the WASC accreditation review process, into the forefront of our academic planning for next year.

10:00 am – 12:00 pm: *Discussion:* Working Models: Teaching/Learning Centers on other UC campuses. Discussion of current research on assessment, advances in technology and pedagogy, and effective evaluation of teaching.

Guests:
Dr. Rosalind Streichler
Director, Center for Teaching Development, UCSD

Dr. Stan Nicholson
Director, Instructional Consultation, UCSB (retired)

Dr. Jon Wagner
Director, Teaching Resources Center, UCD (via phone)

12:00 pm – 1:00 pm   *Lunch* (served in conference room)

1:00 pm – 3:00 pm   *Discussion Topics:*
  ➢ Designing the TLC: Based on the morning's exchange, what kinds of activities and services provided by the UC Merced TLC will best support faculty in teaching effectiveness?
  ➢ The WASC Review: How might the TLC support the more global goal of assessing educational effectiveness at UC Merced? How should this effort be reflected in the upcoming Educational Effectiveness report?

University of California, Merced
Teaching & Learning Center and WASC Planning Retreat
May 19, 2006 10:00 am – 2:00 pm
Meeting Chair: David Ashley, Executive Vice Chancellor and Provost

"Recommendation 1: The director of the Center for Teaching and Learning should be appointed as soon as possible, in any event before the Educational Effectiveness Review. The Center should provide support and leadership as the institution fashions an evidence-based environment for supporting the faculty in their teaching and assessing the students' learning."

The Capacity and Preparatory Review Report by the WASC Team that visited UC Merced in March 2006, as quoted above, pointed to the need for the University to prioritize the establishment of the planned campus Teaching and Learning Center. The Provost and Executive Vice Chancellor, David Ashley, invited faculty and staff to come together for a one-day meeting in order to hear from representatives of teaching/learning centers on some of our sister campuses in order to stimulate discussion about the needs of our campus and the shape our Center might take, beginning of course with the selection of a Director. (see "Agenda: Teaching & Learning Center and WASC Planning Retreat," May 19, 2006 and "Job Description: Director, Teaching and Learning Center.")

The morning session opened with an opportunity for each of our guests to describe the functioning of his or her campus' teaching and learning center. Highlights of these reports are summarized here:

Dr. Jon Wagner, Teaching Resources Center, UC Davis

- A faculty member serves as Director at 50% time, along with a full-time Executive Director
- Focus is on assessment and consultation
- Services include:
    --Assistance with test scoring and teaching evaluations
    --Teaching support, including workshops on pedagogical techniques
    --Instructional Technology Unit assists faculty in creating websites, use of technology in the classroom, etc.
    --Learning Management System: Sakai, includes training for faculty

Dr. Rosalind Streichler, Director, Center for Teaching Development, UC San Diego

- Primary goal is the enhancement of undergraduate education at UCSD
- Services are geared toward all instructional employees: TAs, lecturers, faculty, etc.

- Teaching Development Advisory Committee (TDAC) reviews requests for special funding for teaching assistants (research projects, conference fees, i.e.). TDAC awards are matched by departments
- Center confers TA Excellence Awards
- Services include:
  --Required and optional training for TAs
  --Classroom visits
  --Faculty development workshops
  --Sample course evaluation forms as well as a "design-your-own evaluation" website
  --Technology training

Dr. Stan Nicholson, Director, Instructional Consultation, retired, UC Santa Barbara Office of Instructional Consultation

- Working to develop an assessment culture on campus, in the belief that good assessment improves courses and instruction
- OIC employs 3½ consultants who provide confidential and voluntary individual and group consultation on teaching and learning, including:
  --grant preparation
  --classroom visits
  --course and curriculum development
  --development of course evaluations
  --tech support
  --orientation workshops
- OIC coordinates, processes and interprets all end-of-quarter course evaluations. Uses Sakai for Evaluation System for Courses and Instruction (ESCI)

* * *

From these presentations it became clear that there is great variation among UC teaching and learning centers in terms of where they reside in the campus structure, who runs them and what their roles on campus are perceived to be. In many cases there are historical reasons for the way in which Centers are structured, depending on when they were created and by whom and for what purpose. As ever, UC Merced has the opportunity to examine other campus' best practices and to deliberately create a Center that will best serve our particular faculty and students.

Our meeting's afternoon discussion session yielded a variety of thoughts, questions, and suggestions, including the following:

1. Assessment practices should be "built-in" to programs at UC Merced from the beginning to create a culture of teaching and learning that is taken for granted.

2. The TLC should be mindful of the *diversity* of faculty. The faculty is not one unit with identical interests and methods. Some are not interested in using technology in

teaching, for example. This approach might lead to a broader "buy-in" by faculty members.

3. How should we measure the achievement of learning outcomes? Not only grades and testing, but also capstone courses, presentations, performances, etc.

4. How do we determine that a student is a qualified "UC graduate"? What does a good [English, Chemistry, Engineering, etc.] student look like? What defines a "successful student"?

5. What incentives might there be for faculty to advocate/use/participate in the Teaching and Learning Center? Perhaps a Faculty Advisory Board for the TLC?

6. Suggested additions to the job description for TLC Director:
   - Component on preparing grant proposals for course and curriculum development
   - More language of teaching in the ad: scholarship of teaching, teaching theory and practice, cross-disciplinarity

7. Where should the TLC reside in the UC Merced organizational structure? With General Ed.? Student Support Services? Academic Personnel? A separate department?

8. What qualities are we seeking in a Director?
   - Someone who will be both a Founder and will stay for awhile
   - Vision for the long-term life of the TLC
   - Ability to communicate with faculty and administration
   - Receptive to feedback
   - Exceptional ability to prioritize and use resources wisely
   - Political and financial acuity
   - Well-formed teaching statement/philosophy
   - Alliance-maker

9. Are the FTE positions currently allocated for the TLC appropriate? (Director, New Instructor Coordinator, two technical positions). What about course and curriculum consultants? Should there be a group of "Associate Directors" to handle different areas (technology, assessment, etc)? Should we offer course relief to faculty members to work on the TLC?

10. The TLC should be an enabler, not a policy-maker or evaluator. It should gather and disseminate information, not make judgments.

11. The Merced Writing Program already gives high priority to assessment and is interested in collaborating on curriculum development. Possibly a natural partner for the TLC?

University of California, Merced
Enrollment Summit June 9, 2006

1. Notes from the Meeting

2. Memo to Provost Hume and Vice President Hershman

Notes from the Meeting

Welcome, Introduction, Goals and Creation of Action Steps

The Enrollment Summit was held on June 9, 2006 in the Chancellor's Conference Room of the Kolligian Library. Chancellor Carol Tomlinson-Keasey presided.

UC Merced faculty members, members of the administrative staff and guests from OP (Susan Wilbur, Director of Admissions) and UCSC (Kevin Browne, Executive Director of Admissions and Registrar) were present. Materials covering many of the topics were distributed.

Chancellor Carol Tomlinson-Keasey:
> ➢ Our enrollment for Fall 2006 has not reached the 800 new students we had expected, but it is a perfectly healthy number for this stage in UC Merced's growth. The last three UC campuses experienced ups and downs in enrollment growth in their first years.
> Handouts:
> *1. Early Enrollment History at UC Irvine, San Diego, and Santa Cruz: Fall 1965-1979*

> ➢ A realistic enrollment plan needs be developed perhaps one that involves cooperation with other campuses. The campus EVCs and officers at UCOP have expressed a strong willingness to help us achieve our enrollment goals.

Susan Wilbur, UCOP Director of Admissions

Although enrollment planning has historically been a campus matter,
Sue Wilbur reiterated UCOP's desire to help UC Merced in our efforts to improve enrollment numbers.

Ms Wilbur made several points about the current state of enrollment activity at UC:
> ➢ UC campuses have been in a growth mode at the undergraduate level due to the increased number of high school graduates in California.
> ➢ Admission decisions tend to overlap between campuses—i.e., 7,000 students were admitted to both UCLA and UCSD last year. This is good for the students, because it allows them more choices in selecting a campus, but it is not ideal for campus planning efforts, and in fact can wreak havoc with meeting freshman enrollment targets.
> ➢ The current UC practice of using a "referral pool" system achieves the goal of offering a space to every UC eligible student, but actual enrollments from the pool

are very low, as students choose to go outside the UC system (usually to a CSU) when they do not gain admission to their UC campus of choice.

➢ Tensions at work in admissions planning include:
  o Cooperation vs. competition
  o Supply vs. demand
  o Efficiency vs. improvements in process

➢ With the imminent end of "Tidal Wave II's" population increase (approximately 2009), we can expect the number of high school grads to level off which will increase the campus' competition for students. This shift to a "buyer's market" will make enrollment planning more difficult and increase each campus need to effectively market to attract more applicants.

➢ Ms Wilbur offered ten suggested strategies which UC Merced could use (if not already doing) to respond to this enrollment environment. They will require cooperation between UCOP and UC Merced:

Focus on increasing applications
1. Utilize ELC (Eligibility in Local Context) database to target UC-eligible students. These students receive a letter notifying them of their eligibility to attend UC. UCOP would include a UC Merced brochure.
2. Guarantee admission to UC Merced to all ELC-identified students, perhaps offering other perks such as guaranteed housing or scholarships as well.
3. Guarantee UC Merced admission to all "Qualified-on-Track" students. These are the students who are UC-qualified, just not in the top 4% but who are on track to eligibility. Build early awareness through marketing tools such as targeted mailers to students with special interests, etc. Start as early as sophomore year of high school to let students know about UC Merced.

Focus on Admission
4. Implement an "Admission-in-the-Field" program. Admit students on the spot during campus visits or other events.
5. Notify admitted students early, perhaps offer perks for early SIR/enrollment. This is a "student-friendly" option.
6. Reengineer the "referral pool" process by contacting all UC applicants and offering to add application to UC Merced at no cost. This could help students feel as if they are particularly wanted at UC Merced, instead of being referred here at the end of the process.
7. Strengthen communications messages and utilize enhanced communication strategies. Create personalized communications according to specific interests or background. Customize and personalize.
8. Establish "UC Merced Scholars" program and other more attractive financial aid to reduce net cost to students.
9. Utilize the UC Counselor's Conference being held on campus this fall to UC Merced's advantage. Highlight UC Merced to increase counselors knowledge about the campus.

10. Explore possibility of dual admissions opportunities through which students could spend a quarter, semester, etc. at another UC campus. Highlight UCDC, EAP programs.

Susan Wilbur added that enrollment issues (over and under enrollment) are of concern at the Office of the President and officials are focusing on the competition and collaboration factors to better address this problem.

Other thoughts from the room:
- Add: "any campus" box on UC application forms
- OP to provide incentives for campuses to hit (not go over) enrollment targets and do not reward over enrollment
- Should UCOP take a more proactive stance with enrollment process? Traditionally, UC culture has been one of campus autonomy.
- Could we admit students in their junior year of high school?
- Eliminate referral? It is a short-term solution, but has a terrible impact on the campus' retention rate—many referred students leave after first-year.

Encarnacion Ruiz, UC Merced Director of Admissions and Nancy Ochsner, UC Merced Director of Institutional Planning & Analysis

Handouts:
1. Summary of Fall 2006 SIR: No Survey
2. SIRs by Family Income (as of May 26, 2006)
3. Fall 2006 UC Merced Applicants and SIRs
4. Fall 2006 Referral Pool by Major
5. Fall 206 Regular Applicants, Admits, SIRS by Major
6. Referral Pool by Region
7. SIR Analysis: Admits that have not provided UCM with an SIR response or have responded "no."

Chon Ruiz and Nancy Ochsner presented the data in their handouts, highlighting a couple of issues:
- Top reasons given by applicants for not enrolling at UC Merced were:
  - Student body too small
  - State of facilities/things to do
  - Not enough majors
- UC Merced must work to set itself apart from other campuses and to build our academic reputation—we have yet to find our "niche" in the system, and are currently often a "backup" school for those applying to other campuses.
- We should learn more about what types of programs are most in demand for our potential students.

> ➢ We don't yet have a reputation and we need more students to visit the campus. The website is not adequate—especially the virtual tour—to meet the needs of our prospective students.

Fall 2006 UCM Applicants, Admits, & SIRs

Freshmen
UC Merced had over 14,000 Freshman applicants, admitted over 12,200, and to date about 450 have submitted their Statements of Intent to Register (SIR) at Merced. That's about an 87% admit rate and 3.7% take rate (but the rate is 6.3% for the regular admits and only 1.1% for the referrals). UC Merced's take rate last year was 7.1% overall (including referrals). The take rate for the other UC campuses ranged from 17.2% to 43.0%. Over 39% of Merced's freshman SIRs are underrepresented minorities. The range for the other UCs is 13.6% to 36.5%

Looking at California residents only, compared to the other UC campuses, UC Merced freshman SIRs, on average, are in the low range in terms of mean number of A-G courses taken (43.9 in range of 43.9-48.6), mean HS GPA (3.45 in range of 3.42-4.12), and mean SAT total (1039 in range of 1039-1307). 29% come from High Schools ranked low in API rating (29.0% in range of 12.7%-29.0%).

A large percentage come from first-generation college-going families (defined as neither parent obtained a 4-year degree): 50.0% in range of 29.7%-51.0%. Over two-fifths are from low-income families (43.1% in range of 24.9%-43.2%). Compared to the other UCs, a large percentage come from rural California areas (19.5% in range of 4.6%-19.5%), whereas a low percentage come from suburban California areas (40.1% in range of 40.1%-56.5%).

Transfers
Merced so far has about 1,800 transfer applicants, admitted over 1,500, and to date about 80 have SIR'd. That's about an 83% admit rate and 5.3% take rate.

Factors Significant in Affecting Likelihood of Freshman Admits to SIR at UC Merced (excludes referral pool)
UCOP ran logistic regressions for all the UC campuses to identify factors that significantly affect a freshman admit's likelihood to SIR at a campus. UCM asked UCOP to slightly modify the analysis for us: changing the categories for home location (to distinguish the San Joaquin Valley from other areas), adding the location of the high school attended, and adding high school control (private or public).

Logistic regression can be used to predict a dependent variable (SIR yes or no) when the dependent variable is dichotomous and the independents are of any type. It estimates the probability of a certain event occurring.

The final overall model had a prediction success rate of 84%. We need to be cautious about interpreting the results because of the small number of SIRs relative to the large

number of applicants. Blindly estimating the most frequent category (not SIR'ing) for all cases would yield an even higher percent correct. Over time, we'll be able to develop a more reliable model.

Factors that reduce the odds of SIR'ing
- Admission to 6 other UC campuses: Davis, Santa Cruz, San Diego, Santa Barbara, Irvine, and Riverside.
- Taking more honors courses (compared to those taking fewer)
- Having a higher HS GPA (compared to those with lower GPAs)

Factors that increase the odds of SIR'ing
- Home location in San Joaquin Valley or Bay Area
- HS location in rural area
- HS API rank missing?
- Public HS
- Participation in UC outreach program
- Any ethnicity except White (African-American, Hispanic, Asian, Other)
- Male (rather than female)
- Intended major discipline in Engineering/Computer Science, Science, or Social Science (not Humanities)

Why Admitted Students Did Not SIR at UC Merced
(*Based on survey of admitted students when they formally declined to SIR)*

790 admitted students responded to the survey.

The top **reason** for declining to SIR was that the student body is too small (45.8%).
The second reason was that campus facilities were not impressive (25.9%)
Third was that their intended major was not offered (17.2%).
The fourth reason was that they did not get the information they needed (15.9%).
Financial aid was the fifth choice (12.8% said they received more financial aid elsewhere).
9.2% said that the location of the campus was not appealing.

About 13% **visited** UC Merced on their own
1.5% attended Bobcat Day
3.3% participated in a tour program in March/April/May
39.4% took the UCM virtual tour (website)

For those who indicated that they planned to **attend another college**:
90% said they were planning to attend a California college
  67% at another UC (largest proportion going to Davis--- 20%)
  12% at a CSU (largest proportion at San Luis Obispo---5%)
  8% at private colleges
  3% at CCCs
10% at out of State colleges

Distribution of their **intended major** at other college:
30.7% Sciences (most of which is in the biological sciences area)
17.1% Engineering/Computer Science
12.1% Social Sciences (predominantly psychology, political science, economics)
9.4% Humanities
7.0% Business
3.0% Health
2.6% Math/Statistics
0.6% Architecture
17.4% Undecided

My **decision** to enroll may have been **different if** (n=231):
  14% Major not offered, or lack of variety of majors
  13% Distance from home
  12% Campus lack of academic reputation

Professor Mike Colvin, Chair, UC Merced Undergraduate Council

Handouts:
   1. *Table 8: Degrees Conferred by Campus, degree Type, and Gender, and Table 9: Degrees Conferred by Discipline and Degree Type*
   2. *Freshman Admits by Major, 2004-2005 Entire Year (Fall and Winter/Spring)*
   3. *Freshman Enrolls by Enrolls by Major, 2004-2005 Entire Year (Fall and Winter/Spring)*
   4. *Transfer Admits by Major, 2004-2005 Entire Year (Fall and Winter/Spring)*
   5. *Transfer Enrolls by Major, 2004-2005 Entire Year (Fall and Winter/Spring)*

Professor Colvin examined UC Merced's current major programs and whether they are meeting our potential students' wants/needs. Some of his points were as follows:

 ➢ We need to base our planning more on what majors students graduate with rather than the majors they intend to pursue when starting university work. A majority (around 50%) of UC grads are in the social sciences, especially psychology.
 ➢ Not only must we expand our major offerings, we need to be sure to give our majors titles that are recognizable to incoming students—UC Merced does offer many in-demand programs, but tends to use names which may be unfamiliar to many high school students. Perhaps we should consider "repackaging" our programs to look more like traditional majors. Also, we might more sharply define our major programs through the use of "emphasis tracks" in the titles: i.e., "ESS: Geochemistry," "Environmental Engineering: Policy," or Environmental Engineering: Economics."
 ➢ UC Merced lacks several popular major areas, including:
       ▪ Political Science
       ▪ English

- Chemical Engineering
- Fine & Applied Arts
- Communications
- Ethnic Studies

➤ Our management program is relatively unique and potentially very popular, but needs development/refinement to set it apart.
➤ Develop a create "your own major" program. Kevin Browne to provide UCSC examples.
➤ Discuss putting "advising clusters" on the application.
➤ Change Management Program from a BA to a BS.
➤ Re-do lists of UCM majors to include MA/PhD programs.
➤ Get as many of our current students as possible to go back to their high schools and discuss their UC Merced academic experience.
➤ Find out from OP the deadline for adding more majors to the application.
➤ Shawn Kantor indicated that there are proposals going to the Undergraduate Council to establish Economics and Cognitive Science majors.
➤ Develop and market more BA/MA or BS/MS programs.
➤ Streamline articulation to make it easier for students to transfer into UC Merced.

Kevin Browne, UCSC Executive Director of Admissions

➤ At UC Santa Cruz, students are allowed to create their own majors
➤ At UCSC students are assigned to "advising clusters" according to general interest areas. Each "cluster" is assigned to a School through which they receive close mentorship. Undecided students tend to be the best academically prepared, so should receive careful attention.
➤ Listing graduate programs in marketing literature for undergrads can be useful in demonstrating the breadth of the institution's offerings.

Diana Ralls, UC Merced Director of Financial Aid and Scholarships

Handout:
1. Percent of 2006 Freshman Admits that SIRed by Financial Aid Levels: Total Financial Aid
2. Percent of 2006 Transfer Admits that SIRed by Financial Aid Levels: Total Financial Aid
3. Predicting Fall 2006 Admits-to-SIRS for UC Merced
4.Predicting Fall 2008 Admits-to-SIRS for UC Merced Based on Logistic Regression: Includes Referral Pool n=12,302

Information About Financial Aid at UC Merced

➤ Scholarships are more important to students than grants
➤ It is beneficial to offer early awards of donor-based scholarships—students tend to feel a personal connection with the donor and the institution

- ➢ UC Merced's endowments are not yet generating enough income to provide significant scholarship funds, so one-time gifts are critical to our financial aid program and must be maximized
- ➢ For freshman admits, higher awards = more takers
- ➢ Financial aid is very important, but not the only significant factor in student enrollment
- ➢ Research from Institutional Planning and Analysis (IPA) shows that financial aid was extremely important in students decision to attend UC Merced.
- ➢ One time funding provided by OP—Benton Scholarships—did make a difference, but not as much as we had hoped. More research being done in this area.
- ➢ Request support from OP for additional financial aid/scholarships. Work with Kate Jeffrey.

Summary of Institutional Planning and Analysis' Analysis of Impact of Financial Aid on Fall 2006 Admit-to-SIR Rates
- Econometric research has shown fairly consistently that a $1,000 decrease in tuition, or a $1,000 increase in scholarship or grant financial aid, increases college attendance rates by roughly 4 percent (see especially the recent work by Susan Dynarski at the Kennedy School, Harvard University)
- Institutional Planning and Analysis (IPA) classified 2006 freshman admits (including referrals) by family income category and financial aid awards to determine whether the percentage of admits that SIRed (take rates) increased as financial aid offers increased. The summary tables below show the positive association between aid and SIRing for all income groups. Not surprisingly, financial aid, especially scholarships and grants, had the most impact among low income admits.

Fall 2006 Take Rates (Percentage of Admits Who SIRed)			
Total Financial Aid			
Income	No Aid	Up to $5,000	$15,000	$15,000+
Low	2.1	4.5	13.5	17.0
Middle	1.0	4.2	6.7	11.3
High	1.8	4.0	17.6	6.1

Scholarships & Grants Only			
Income	No Aid	Up to $5,000	$15,000	$15,000+
Low	2.5	5.0	16.9	66.7
Middle	2.3	4.7	14.2	NA
High	2.7	4.4	9.0	NA

- IPA also conducted a logistic regression analysis, similar to those conducted by UCOP, to predict the likelihood that Fall 2006 admits would SIR at UC Merced. In addition to the variables included in the UCOP analysis, we added three financial aid variables, all of which were highly statistically significant and increased the likelihood of SIRing. The variables were Total Financial Aid (+18%), Scholarships and Grants as a Percentage of Total Aid (+72%), and Total Financial Aid as a Percentage of Parent Income (+16%).

Impact of Majors on Admit-to-SIR Rates
- The logistic regression analysis mentioned above also included variables for college major
- UCOP included major in its logistic regressions, but the comparison was between declared majors (Humanities, Engineering/Computer Science, Science, and Social Science
- IPA's analysis compared Undeclared admits, with admits who declared majors in Engineering/Computer Science, Natural Science, and SSHA
- The results were highly statistical significant and showed that declared majors were much more likely to SIR than undeclared admits: Engineering/Computer Science (+183%), Natural Science (+212%), and SSHA (+198%)
- One interpretation of these results would be that admits that do not yet know their major prefer to attends campuses that have a larger range of majors than UC Merced

Redirect Program

Handout:
History of UCSC/Berkeley Redirect Program

➢ The UCSC/Berkeley redirect program was successful in that it tended to draw a higher-caliber of students to the UCSC campus, half of whom decided to stay and finish their degrees there. On the other hand some of the redirected students were unhappy at having been forced to attend a "second-tier" campus for their first two years.
➢ Questions to consider in contemplating a redirect program for UC Merced:
   o From UC Merced's perspective, we should only enter into such a program with the most selective campuses, with whom we are not in direct competition
   o Why would another campus choose to do such a program with us?
   o Would a redirect program put us in competition with the (much cheaper and more accessible) community colleges? Or do we become the "community college" of the UC system (UC Lite)?
   o A redirect program has to have provisions for transferring between semester and quarter systems and ensure that coursework transfers easily.
   o At the end of the conversation there was support for a limited redirect program possibly between Berkeley and UC Merced in, for example, engineering.

Encarnacion Ruiz, UCM Director of Admissions

Suggestions for improving results at yield events:
- Unfavorable messages regarding the "total student experience" are affecting student choices; we must find a way to get more positive messages out
- Need faculty to be involved in yield events.
- Need to develop new messages about the UC Merced experience. Why is it special?
- Bobcat Day should be later in the year. Possibly rethink its size and scope.
- Get more potential students on campus more often—from September through Bobcat Day
- Hold more yield events outside our region
- Use our own students to aid recruitment. Use our "Ambassadors Program" and offer UC Merced students an honorarium to go back to their own high schools and community colleges to talk about UC Merced
- Improve/revamp "virtual tour" and other recruitment information on UC Merced website

Jane Lawrence, Vice Chancellor for Student Affairs

Handout:
Memo from David Dunham to Jane Lawrence re: Campus Recreation Special Funding Needs

Suggestions for improving UC Merced's "Out-of-Classroom Experience:"
- Open UC Merced's Rec & Wellness Center
- Continue UC Merced's partnership with Millennium Gym
- Begin sports clubs program on campus
- Hire more student life staff to help students organize activities
- Work towards the formation of sororities/fraternities
- Simplify process for students to plan on-campus activities, and make facilities available
- Utilize Lake Yosemite Park

Other ideas for marketing UC Merced:
- Create a Visitor's Center to put campus in context
- Revamp the UC Merced website to better reflect UC Merced experience. Also, provide online campus tour reservation system.
- Offer more (targeted) information for high school counselors and parents on the website
- Hold a UC Merced-only Counselor's Weekend

Nancy Ochsner, Director of Institutional Planning and Analysis

Enrollment Projections Scenario

Official Budgeted Projections

       The official budgeted enrollment projections for UC Merced, developed before the campus had opened, or even recruited the first students, created the expectation for 1,000 FTEs in the first year, then an additional 800 FTEs each year thereafter through 2010-11, when we would reach a total of 5,000 FTEs. This was considered our break-even point, as long as the FTE/Faculty ratio reached 18.7 to 1 and other resource assumptions were met.

UC Merced's first year (2005-06) produced 865 FTEs. Many of the students attracted to the campus in the first year came, at least in part, because they were excited about being part of the very first class --- pioneers. It is apparent that the second year not only will not make up for the "shortfall" from the first year but also will not produce the expected 800 FTE growth. Instead, more realistically, we expect the FY 2006-07 FTEs to be around 1250-1300. This would be a growth of about 380-430 FTEs. The Chancellor and Vice Chancellor, Administrative Affairs, negotiated a revised enrollment plan with the Budget Office at the UC System Office. That plan ([Y:\Enrl Proj\UCM enrl proj\UCM enrol plan June 2006\UCM Enrollment_Plan_June 2006.xls](#)) establishes an annual growth expectation of about 675 FTES from FY 2008 through FY 2011, and then at least a 500 FTE annual growth rate thereafter, through FY 2015. This revised plan pushes the breakeven point out two years to FY 2013 instead of FY 2011, thereby extending the timeline for special State supplemental support of the campus. The negotiated plan also changed the timeline for reaching the UC targeted workload ratios (students to faculty), moving up the time when we reach a ratio of 18.7 from FY 2010 to FY2009. This means that the growth in budgeted ladder rank faculty will be somewhat reduced, compared to the original plan.

       Early enrollment history for the three UC campuses that opened in 1965 reveals that their overall growth over the first 10 years fluctuated substantially. For the first 5 years, their average annual growth rates were 897 (UCI), 1000 (UCSD, and 745 (UCSC); the next 5 years produced growth rates of 622, 669, and 482, respectively, while the following 5 years (1975-1979) produced annual growth rates of 155, 337, and 40. Overall, for the first 15 years they averaged 534, 645, and 400 per year growth in enrollments.

Enrollment Summary – Attendees

University Administration

Carol Tomlinson-Keasey, Chancellor
Keith Alley, Vice Chancellor for Research, Vice Chancellor for Administration (Interim)
Jane Lawrence, Vice Chancellor, Student Affairs
Nancy Tanaka, Assistant Vice Chancellor, Academic Affairs
Nancy Ochsner, Director, Office of Institutional Planning and Analysis

Berkeley Miller, Principal Research Analyst, Office of Institutional Planning and Analysis
Pam Moody, Analyst, Academic Affairs
Denis Nepveu, Director, Budget
Diana Ralls, Director, Financial Aid and Scholarships
Encarnacion Ruiz, Director, Admissions
Richard Kogut, Chief Information Officer
Patti Waid Istas, Director, Communications
Mitch Ylarregui, Recruitment Coordinator, Admissions
Janet Young, Assistant Chancellor

University Faculty

Roger Bales, Professor, School of Engineering
Michael Colvin, Professor, School of Natural Sciences
Jan Goggans, Assistant Professor, Social Sciences, Humanities and Arts
Kenji Hakuta, Dean School of Social Sciences, Humanities and Arts
Shawn Kantor, Professor, School of Social Sciences, Humanities and Arts
Peggy O'Day, Professor, School of Natural Sciences
Maria Pallavicini, Dean School of Natural Sciences
Roland Winston, Professor, School of Engineering
Jeffrey Wright, Dean School of Engineering

Guests

Kevin Browne, Executive Director of Admissions, UC Santa Cruz
Susan Wilbur, Director of Admissions, UC Office of the President.

UNIVERSITY OF CALIFORNIA

OFFICE OF THE CHANCELLOR

UNIVERSITY OF CALIFORNIA, MERCED
P.O. BOX 2039
MERCED, CALIFORNIA 95344
(209) 724-4417

June 15, 2006

TO: Wyatt R. (Rory) Hume, Provost and Senior Vice President
Larry Hershman, Vice President for Budget

FROM: Carol Tomlinson-Keasey, Chancellor
Keith Alley, Vice Chancellor Administration
Jane Lawrence, Vice Chancellor for Student Affairs

RE: UC Merced Strategies to Reach Enrollment Targets

At an enrollment summit last week, UC Merced considered reasons for our enrollment
shortfall, reviewed a large amount of data, tabulated survey responses from students,
and agreed upon action steps to be taken for fall 2007. UC Merced faculty,
administrators and staff were joined by Susan Wilbur, Director of Admissions for the
University of California and Kevin Browne, Executive Director of Admissions and
Registrar at UC Santa Cruz. The following action steps resulted from the discussion.

Actions to be taken in concert with the Office of the President
- Include a UC Merced brochure in the mailing to ELC students.
- Work with UC Merced to enable us to contact all UC eligible applicants in
  December and offer to add UC Merced to their application at no additional
  cost. This would result in the elimination of the referral pool. (Sue Wilbur
  suggestion)
- Provide UC Merced with additional funds for more scholarships or provide
  financial aid packages for first- year students that do not include loans.
  (Discussed at recent COVC meeting)
- Assist UC Merced to establish a selective redirect program with UC Berkeley
  that would involve no more than 200 students a year and be limited to
  certain majors. (Sue Wilbur suggestion)
- Use the predictive models developed by OP to assist us to identify those
  students in our applicant pool who are most likely to attend UC Merced so
  that we can make them a priority in our yield activities.
- Continue to use OP's communications and media outlets to help promote
  UC Merced.
- Work with OP to find ways to list our majors with their emphasis areas on
  the application.
- Consider ways to actively manage enrollments across the system
- Revise enrollment targets, maintaining long-range enrollment goals

Actions involving curriculum
- Approve Psychology major that is currently before the Undergraduate Council.
- Develop and refine Management major to set it apart and make it attractive to prospective students. Change Management program from B.A. to B.S.
- Develop a "create your own major" program.
- Approve other new majors (Economics and Cognitive Science majors being developed) before fall 2007 application deadline.
- Repackage, possibly rename, our programs to look like more traditional majors.
- Discuss putting "advising clusters" on the application to help guide undeclared students.
- Develop and market more BA/MA and BS/MS programs.

Actions involving student life
- Open Joseph E. Gallo Recreation and Wellness Center this fall.
- Develop a club sports program that will allow us to create five teams this coming year and to begin to build school spirit.
- Continue UC Merced's partnership with the Millennium Club since they have facilities that we do not have, i.e., tennis courts, swimming pool, etc.
- Hire additional Student Life staff to help organize student activities to address the omnipresent question: What is there to do at UC Merced?
- Simplify process for students to plan on-campus activities and make facilities available for their use.

Actions involving Admissions/Enrollment
- Notify admitted students as early as December and January; use rolling admissions; consider offering perks to students who SIR early.
- Guarantee on-campus housing to all freshman applicants.
- Guarantee admission to UC Merced to all ELC and "Qualified-on-Track" students. If adequate scholarship funds available, guarantee them a scholarship and on-campus housing.
- Send a joint letter from Admissions/Financial Aid to all ELC and "Qualified-on-Track" parents listing the advantages of a UC Merced education.
- Analyze 2006 applicant and SIR data to create a more targeted recruitment strategy for fall 2007, including school visits and college fair participation.
- Hold a Counselor Conference in Merced on September 8th and highlight UC Merced to increase counselors' knowledge of the campus.
- Use OP's predictive model to better target yield events.
- Develop strategies to get more prospects to visit the campus.
- Use student ambassadors to represent UC Merced at their former high schools and/or community colleges.
- Rethink Bobcat Day and other large yield events on campus so that they encourage prospective students and families to visit the campus.
- Hold more yield events outside of the Valley.

Actions involving communications strategies
- Work with our Communications Department to develop a communications strategy, publications and clear messages about UC Merced.
- List graduate programs in marketing literature for undergraduates to show the breath of the institution's offerings.
- Improve website to improve communications to prospects, parents and high school and community college counselors.
- Develop new, improved virtual tour.

Actions involving other campuses
- Develop a limited redirect program
    Selected campuses (UCB, UCLA, and/or UCSD
    Limited number of students (no more than 200)
    Selected majors (engineering)

Actions to improve number of transfer students
- Implement an "Admissions-in-the-Field" program at community colleges in the San Joaquin Valley. One will be held at Fresno City College this summer.
- Reassign an experienced Admissions staff member to be responsible for transfer efforts.
- Hold conference in the fall for community college counselors (funded by Ford grant).
- Develop joint publications and website with Merced College to encourage transfers (funded by Ford grant).
- Create transfer-friendly website and transfer mentor program (funded by Hewlett grant)
- Str eamline articulation and transfer process.

Long term strategies
- Implement a recruitment tracking system that will allow us to better segment our market from prospect to matriculate and personalize our communications with prospective students.
- Continue to expand majors, especially in the social sciences and humanities.
- Create academic-themed housing within our Residence Life complexes.
- Work with students to create additional organizations, possibly including sororities and fraternities, to help build a vibrant campus community.

Carol Tomlinson-Keasey

University Of California, Merced
Data in Support of Planning

1. Report: Data in Support of Campus Planning

2. Enrollment Summit Memo

3. Presentation: Student Performance

4. Merced College Transfers Memo

5. EAOP Scholars Memo

6. Graduate Student Survey
   Report
   Tables

7. Summary of Data Warehousing Meetings with Potential Users/Decision-Makers

Data in Support of Campus Planning

Planning

Data, along with the analysis and interpretation of data, support institutional tactical and strategic planning in important ways. Data provide the foundation for decision support and institutional effectiveness, but they are not sufficient. The power of data in a planning environment comes from integration of data across areas (e.g., academic, budget, facilities, personnel), the ability to consider alternative scenarios, as well as from the communication and interpretation of the data. Interpretation and communication of the data are essential to ensure that the information is used to evaluate and support decision making. This is important at all institutions, but it is particularly important at a start-up campus like UC Merced.

The Office of Institutional Planning and Analysis (IPA), housed in Academic Affairs, is part of a nucleus of campus administrators with planning responsibilities. Other important players include the Budget Office, Capital Planning, Admissions, Registration, Facilities, and CAPRA (the Faculty Senate Committee on Academic Planning and Resource Allocation). Coordination of the various data and reporting systems represented by these planning areas supports decision-making at the highest levels of campus management (Chancellor, Vice Chancellors, Deans, and Faculty Senate Executives). Next steps in improving the planning process at UC Merced involve institutionalizing the responsibilities of the planning working group as well as developing the infrastructure necessary to better support campus planning:

- Regular meetings and coordination of the planning working group
- Regular communication between the planning working group and upper management
- Reporting infrastructure that supports integrated reporting in a data warehousing environment
- Dissemination of information in a timely, usable way so that campus administrators and faculty have access to the information they need

Although UC Merced is in the process of setting up the planning infrastructure, at the same time, we are pulling together information from various sources so that we can address key questions and resource issues. The lack of a mature reporting infrastructure is a major challenge to the effectiveness of the planning efforts at this time.

Some examples of these efforts include analyses of:

- admissions and financial aid, in the context of meeting enrollment targets and projections (logistic regressions showing the likelihood of admitted students enrolling, depending on student characteristics, financial aid offers, etc.) *[See "Enrollment Summit Memo"]*
- impact of enrollment shortfalls on resource allocations (how do various enrollment projection scenarios affect the campus' timeline to reach a break-even point?)
- impact of enrollment shortfalls on the timeline for additional housing and other capital projects, such as the Science/Engineering Building 2
- student course enrollments and faculty workload to project allocation of future faculty resources, by program

- mid-term and final grades by course and program, as well as student characteristics
- first semester undergraduate survey, dealing with students' reasons for attending UC Merced, their perceptions of their skill levels, satisfaction with various services and experiences at UC Merced *[See "Presentation: Student Performance"]*
- feedback on academic success of community college transfers *[See "Merced College Transfers Memo"]*
- feedback on academic success of Early Academic Preparation (EAP) program participants who enrolled at UC Merced *[See "EAOP Scholars Memo"]*
- Spring 2006 undergraduate surveys (National Survey of Student Engagement and the University of California Undergraduate Experience Survey), benchmarking the academic and co-curricular experiences of UC Merced students with other institutions within the UC System and nationally *[See Exhibit 2.10-3b "NSSE Report" and Exhibit 2.10-4b "UCUES Report"]*
- FY 2006 Graduate Student Survey providing feedback on the quality of the graduate program and student satisfaction with various aspects of their graduate experience. *[See "Graduate Student Survey"]*

Communication

IPA is working on better ways to communicate information to campus administrators and decision-makers, including the development of a website that will highlight current semester information (student, faculty, personnel), as well as track trends over time. It will also include the campus' Common Data Set (CDS), useful links to other resources, and special reports and surveys. The goal is to make the data available, but also to provide interpretation and context. Working with management and the planning working group, we will develop a set of key performance indicators that will help us monitor the effectiveness of our efforts in terms of recruitment (students, faculty, and staff), programs (academic and co-curricular), and resource allocations as well as help us benchmark our progress against other institutions with similar missions. In addition to the forthcoming website, regular discussions regarding planning, analyses, and effectiveness of various strategies are the focus of the Chancellors' monthly Deans and Directors meetings, as well as the Provost/EVC's bi-monthly meetings with his Council (VCs, Deans, CIO, Academic Affairs Directors). Dominating topics for these meetings have centered on admissions issues, retention and academic performance, facilities (e.g. building completion schedules, classroom readiness), academic program planning, process improvements (e.g., recharges, budget/accounting/grants reporting), goals for a Teaching and Learning Center, and reflections on each semester's successes or problems. Special, ad hoc meetings also are scheduled so that, as much as possible, information gets to the people who need it and can use it and so that we obtain feedback from important campus groups. Early in the spring semester, we present some of the results from the Fall 2005 undergraduate student survey to the Student Advisory Group for the Vice Chancellor, Student Affairs. This was an opportunity for the students to hear what their counterparts expressed in this survey (satisfaction with various services, reasons they came to UC Merced, etc.) and to give us feedback. Based on this survey, several changes were made to improve the campus experience for the students (e.g., meal

changes in the dining hall; schedule changes in bus service to downtown Merced). The survey results also were discussed in early spring with all the directors in Student Affairs. They discussed, for instance, the implications of students' reported time spent in various activities (studying, non-academic use of their computers, socializing on campus and off campus, etc.). Efforts will be made to have more frequent, targeted discussions surrounding major issue areas, so that as much information as possible is available to evaluate programs and processes and to inform decision-making.

Reporting Infrastructure

IPA[1] devoted a significant part of this past year (FY2006) to evaluating the campus' data and reporting systems. UC Merced uses SCT-Banner for its student information system (Admissions, Registrations, Financial Aid) and a "home-grown" Payroll/Personnel system that was developed and is maintained by UCLA. Other systems have been developed or purchased to meet other needs as they have been identified. For instance, UC Merced uses an open-source course-management system (Sakai) and a locally-developed personnel recruitment system (PAWS). Capital Planning purchased a system developed at UC San Diego which, in addition to supporting the needs of capital projects, also has the potential to incorporate the data collection and reporting needs of Physical Plant, Facilities, and Construction Design. The campus has the opportunity to acquire a faculty workload module from UC Davis. This module interfaces with the SCT-Banner student information system (SIS) and the Payroll/Personnel data at UCOP. It is used to report faculty workload by school and program for internal resource-allocation decisions as well as for compliance reporting to UCOP and the Legislature. UC Davis also uses this system to analyze classroom utilization and to generate induced courseload matrices (to help project course scheduling needs, based on demand for majors). Working with UC Davis, UC Merced could use this module to jumpstart efforts to evaluate and project faculty workload. The costs associated with this project would be for implementation and ongoing maintenance and support of the system. Other administrative systems needs have been identified and will be addressed over time. Although many of the existing systems are adequate or even more than adequate for operational purposes (admitting students, registering students, dispersing financial aid, paying bills, paying employees, etc.), they are not adequate for reporting, especially when data across systems must be integrated.

In January, 2006, the Provost charged the Chief Information Officer (CIO) (with the assistance of the Director for Institutional Planning & Analysis) with the task of recommending a plan for the development of a campus data warehouse (DW). The goals of the DW would be to support decision-making, planning, and accountability. The DW would be a central, standardized data repository, separate from the production systems, and would facilitate integration of data and expand access to information. The data would be in a format that would make it more easily reportable and understandable. The CIO and Director, IPA met with a series of small groups, representing a cross-section of major decision-makers and data users on campus over the span of about two months. These meetings involved Deans and Assistant Deans, Vice Chancellors, Directors of

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[1] The Office of Institutional Planning & Analysis was established in July 2005, with the hiring of a Director. In November 2005, two additional staff members were hired: a Principal Research Analyst and an Institutional Research Systems Manager.

various offices (Admissions, Registration, Financial Aid, Career Center, Budget, Capital Planning, Human Resources, Business Services), as well as the Chair of CAPRA. This process revealed overlapping needs for a wide array of data or information, as well as common desires to have integrated and user-friendly access to the information. *[See "Summary of Data Warehousing Meetings with Potential Users/Decision Makers"]* It also revealed the need for various new production systems. We discovered that we were not collecting some information that we need for better decision-making (e.g., grants management and post-award system, inventory system, receivables, sabbatical/leave tracking, prospect data, degree-audit system). Although the development of a comprehensive DW will be a long and iterative process, one immediate outcome of this effort was the purchase of the SCT-Banner Operational Data Store (ODS), which is the first step toward a DW for the student information system. The ODS allows us to off-load the SIS data regularly (daily or weekly) so that we can begin to denormalize the data (make it easier and more transparent to use for reporting) and move major reporting efforts off the production system. Off-loads, or extracts, from other systems, such as Payroll/Personnel, can be loaded into the same database environment as the ODS for ease in integrating multiple data sources.

In the meantime, as the campus deliberates and plans a formal DW initiative, IPA has begun designing a reporting infrastructure to support the office's reporting and planning needs. Snapshots of SIS, as well as Payroll/Personnel, have been stored on a secure server apart from the production systems. The data and data structures are being transformed for easier reporting. This short-term strategy to improve reporting and analysis capabilities complements and jumpstarts the longer-term strategy to design and implement a campus-wide DW.

Date: July 13, 2006
To: Jane Lawrence
From: Berkeley Miller
Re: More Information for Enrollment Summit Meeting Summary

Financial Aid
- Econometric research has shown fairly consistently that a $1,000 decrease in tuition, or a $1,000 increase in scholarship or grant financial aid, increases college attendance rates by roughly 4 percent (see especially the recent work by Susan Dynarski at the Kennedy School, Harvard University)
- Institutional Planning and Analysis (IPA) classified 2006 freshmen admits (including referrals) by family income category and financial aid awards to determine whether the percentage of admits that SIRed increased as financial aid offers increased. The summary tables below show the positive association between aid and SIRing for all income groups. Not surprisingly, financial aid, especially scholarships and grants, had the most impact among low income admits.

Financial AIR and SIRs, 2006			
Total Financial Aid			
Income	No Aid	Up to $5,000	$15,000	$15,000+
Low	2.1	4.5	13.5	17.0
Middle	1.0	4.2	6.7	11.3
High	1.8	4.0	17.6	6.1

Scholarships & Grants Only			
Income	No Aid	Up to $5,000	$15,000	$15,000+
Low	2.5	5.0	16.9	66.7
Middle	2.3	4.7	14.2	NA
High	2.7	4.4	9.0	NA

- IPA also conducted a logistic regression analysis, similar to those conducted by UCOP, to predict the likelihood that Fall 2006 admits would SIR at UC Merced. In addition to the variables included in the UCOP analysis, we added three financial aid variables, all of which were highly statistically significant and increased the likelihood of SIRing. The variables were Total Financial Aid (+18%), Scholarships and Grants as a Percentage of Total Aid (+72%), and Total Financial Aid as a Percentage of Parent Income (+16%).

Admission
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- UCOP included major in its logistic regressions, but the comparison was between declared majors (Humanities, Engineering/Computer Science, Science, and Social Science
- IPA's analysis compared Undeclared admits, with admits who declared majors in Engineering/Computer Science, Natural Science, and SSHA
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- One interpretation of these results would be that admits that do not yet know their major prefer to attends campuses that have a larger range of majors than UC Merced

Student Performance
Fall 2005

Presentation to the Student Affairs Committee
February 28, 2006

Nancy Ochsner and Berkeley Miller
Office of Institutional Planning and Analysis
209-381-6900

Fall 2005 Student Performance
Percent in GPA Categories
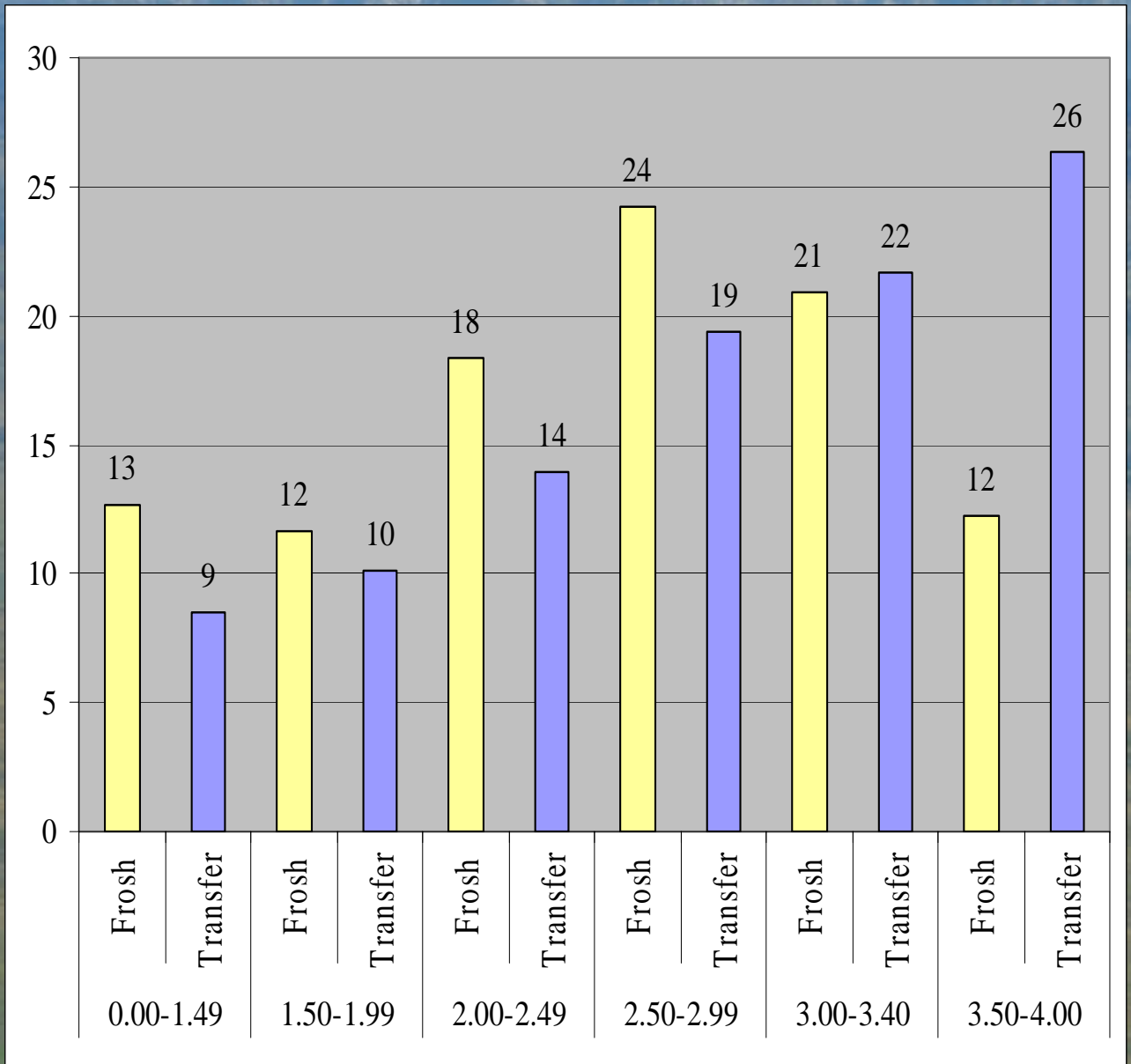
Explaining Student Performance
Variables Used in the Analysis

- Qualifications
  - GPA (High School for Freshman, College for Transfers)
  - SAT Verbal, SAT Math, ACT or SAT Combined (Freshman Only)
  - Eligible in the Local Context (Freshman Only)
- Applications
  - UCM Only
  - Total UCs
  - Referral
- Background Characteristics
  - Gender
  - Ethnicity (Asian, Hispanic, White, Other)
  - First Language (English Only, English & Other, Other Only, Unknown)
  - First Generation College (No College, Some College, 4-Yr Degree, Unknown)
  - Region (San Joaquin Valley, SF Bay Area, Southern California, Other)
- Residence (On Campus, Off Campus)
- Program Characteristics
  - Major (Engineering, Natural Sciences, SSHA, Undeclared)
  - Third Week Credits

Explaining Student Performance Variables Used in the Analysis (Continued)

- Time Management/Effort (Hours Spent in Various Activities)
  - Freshman
    - Off Campus Activities
    - E-Playing
    - On Campus Work
    - Mixed Activities
  - Transfers
    - Off Campus Activities
    - E-Playing Plus work
    - Off Campus work
    - Campus Activities
    - Reading & Prayer

Explaining Student Performance
Student "Types"

- Fall 2005 Student Survey asked students how many hours they spent each week in the following activities:
  - Attending class/labs
  - Studying/doing homework
  - Socializing informally with friends on campus
  - Socializing informally with friends off campus
  - Participating in campus-organized activities
  - Exercising or sports
  - Partying
  - Working (for pay) on campus
  - Working (for pay) off campus
  - Student clubs and groups
  - Watching TV
  - Household/childcare duties
  - Reading for pleasure
  - Commuting
  - Playing video/computer games
  - Prayer/meditation
  - Surfing the internet (Non-course related)
  - Communicating via e-mail, Instant Messenger, etc.

Factor Analysis of Student Activities

Freshman

- Studying
  - Attending class/labs
  - Studying
- Socializing
  - Partying
  - Campus activities
  - Student clubs
  - Socializing on campus
  - Socializing off campus
- Off Campus Activities
  - Commuting
  - Household duties
  - Working Off Campus
- E-Playing
  - Surfing the Internet
  - Emailing
  - Video/comp. games
  - Watching TV
- Working On Campus

Transfers

- Studying
  - Attending class/labs
  - Studying
- Socializing
  - Partying
  - Exercising/sports
  - Watching TV
  - Socializing off campus
- Off Campus Activities
  - Commuting
  - Household duties
- E-Playing Plus
  - Surfing the Internet
  - Emailing
  - Partying
  - Working off campus
- Working On Campus

Factor Analysis of Student Activities (continued)

Freshman

- **Mixed Activities**
  - Reading for pleasure
  - Prayer
  - Watching TV
  - Student clubs
  - Campus activities

Transfers

- **Campus Activities**
  - Campus activities
  - Student Clubs
  - Socializing on campus
  - Exercising/sports
- **Reading and Prayer**
  - Reading for pleasure
  - Prayer

"E-Players" Compared to Student Population

	Population	E-Players
CLASS		
Frosh	84	90
Transfer	16	10
ETHNICITY		
Asian	38	47
Hisp	25	21
White	27	25
Other	11	7
MAJOR		
Engr	17	22
Nat Sci	34	32
SSHA	35	34
Other	15	12
GENDER		
Male	49	63
Female	51	37
HOUSING		
On Campus	69	75
Off Campus	31	25
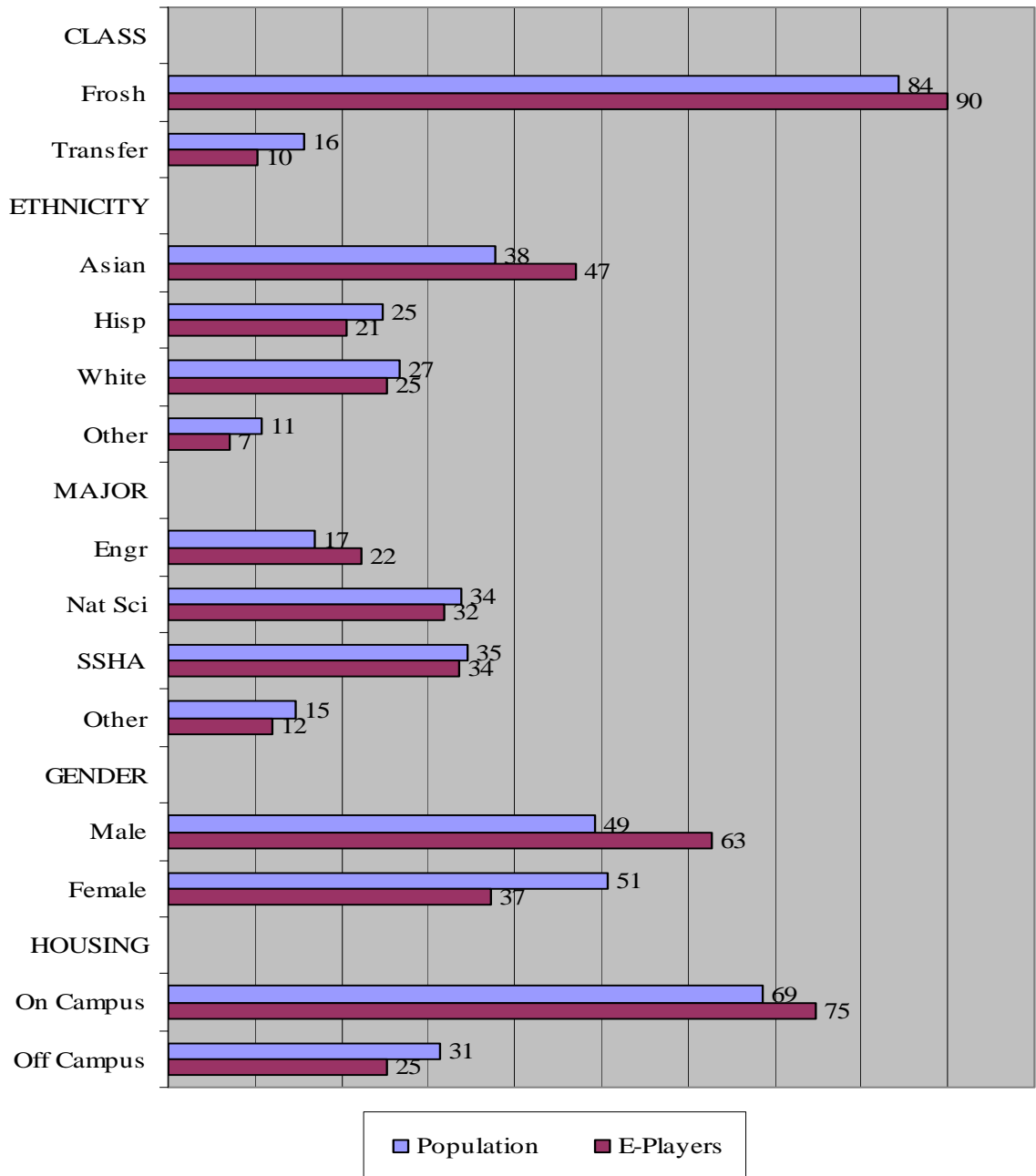
"Devoted Students" Compared to Student Population

	Population	Devoted Students
CLASS		
Frosh	84	80
Transfer	16	20
ETHNICITY		
Asian	38	36
Hisp	25	24
White	27	31
Other	11	9
MAJOR		
Engr	17	19
Nat Sci	34	33
SSHA	35	37
Other	15	12
GENDER		
Male	49	40
Female	51	60
HOUSING		
On Campus	69	61
Off Campus	31	39
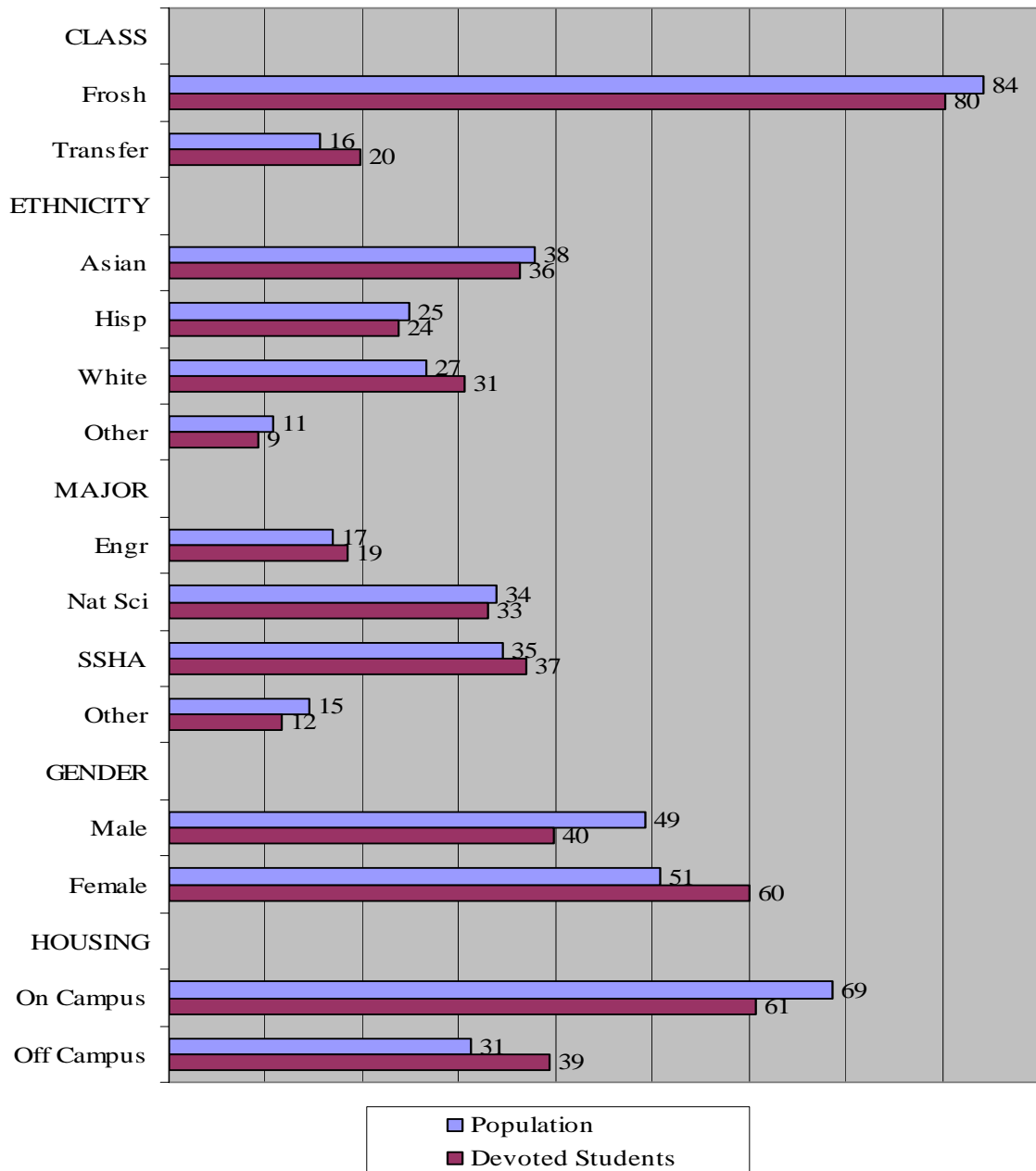
Backward Stepwise Regression
Analysis of Term GPA
Freshman

Without Time Management		With Time Management	
HS GPA	0.326**	HS GPA	0.226**
SAT Math	0.140**	SAT Math	0.201**
3rd Week Credits	0.121**	Studying	0.176**
SAT Verbal	0.116*	SAT Verbal	0.161*
SSHA	0.082	3rd Week Credits	0.161**
English Only	0.071	Mixed Activities	0.106
Live Off Campus	-0.062	E-Playing	-0.129*
Nat Sciences	-0.084	Off Campus Act.	-0.132*
Engineering	-0.124**	Engineering	-0.176**
		Nat Sciences	-0.177**

Adj. R-Sq=.183

n=682

**Significant at .01

* Significant at .05

Adj. R-Sq=.246

n=302

**Significant at .01

* Significant at .05

Backward Stepwise Regression Analysis of Term GPA Transfers

Without Time Management		With Time Management	
College GPA	0.437**	College GPA	0.496**
1st Gen-No College	-0.149	1st Gen-No College	-0.265
Adj. R-Sq=.206		Adj. R-Sq=.299	
n=128		n=58	
**Significant at .01		**Significant at .01	
* Significant at .05		* Significant at .05	

Additional Performance Analyses

- Additional Variables
  - High School Exit Exam Scores
  - Advanced Placement Test Scores
  - Income, SES
  - Others?

- Additional Analyses
  - Focus on courses
  - Course-taking patterns

Date: April 27, 2006
To: John Spevak, VP for Instruction, Merced College
Anne Newins, VP for Student Personnel
From: Berkeley Miller, Institutional Planning and Analysis, UC Merced
Re: Fall 2005 Performance of Merced College Transfers

You requested information on how Merced college transfers performed during their first semester at UC Merced. We hope this feedback will be useful to you.

A total of 26 transfers enrolled at UC Merced, compared to 105 from other colleges, mostly California community colleges.

Chart 1 shows the average college GPAs (Transfer GPA) of incoming transfers and the average GPAs of these transfers at the end of UC Merced's Fall 2005 semester. Merced College's transfers arrived at UC Merced with a slightly higher average GPA (3.09) than transfers from other community colleges (2.97). Compared to their counterparts from other community colleges, Merced college transfers also were more successful, on average, during their first semester at UC Merced. Their average GPA was 2.95, compared to 2.70 for transfers from other colleges.

Chart 2 shows transfer and Fall 2005 GPAs by UC Merced major. The comparisons between Merced and other colleges should be interpreted with caution because of the small numbers of Merced College transfers. Of the 26 Merced transfers, six were majoring in engineering, seven in the natural sciences, and thirteen in the social sciences, humanities, or the arts. Compared to their counterparts from other community colleges, with the exception of engineering majors, Merced College transfers tended to have higher Fall 2005 GPAs. The comparative average Fall 2005 GPAs were: Engineering, Other CCs=3.04, Merced=2.50; Natural Sciences, Other CCs=2.67, Merced=2.99; and Social Sciences, Humanities, and Arts, Other CCs=2.57, Merced=3.14.

Finally, the attached table shows the distribution of courses and grades for the 26 Merced College transfer students. We hope that this gives you more specific feedback as to the success of these students in various content areas and course levels. Please do not circulate this information in any way that might lead to identification of any students.

More detailed breakdowns and comparisons have not been undertaken because of the limited number of Merced College transfers and the university's obligations to protest confidentiality. In general, though, it appears Merced College transfers have performed on average better than transfers from other colleges.

Please let us know if other types of data or analyses would be more useful, so that we can improve our feedback to the community colleges.

Thank you.

Cc: Jane F. Lawrence, Vice Chancellor for Student Affairs

Chart 1
Average Transfer and Fall 2005 GPAs: Merced College
Compared to Other Community Colleges
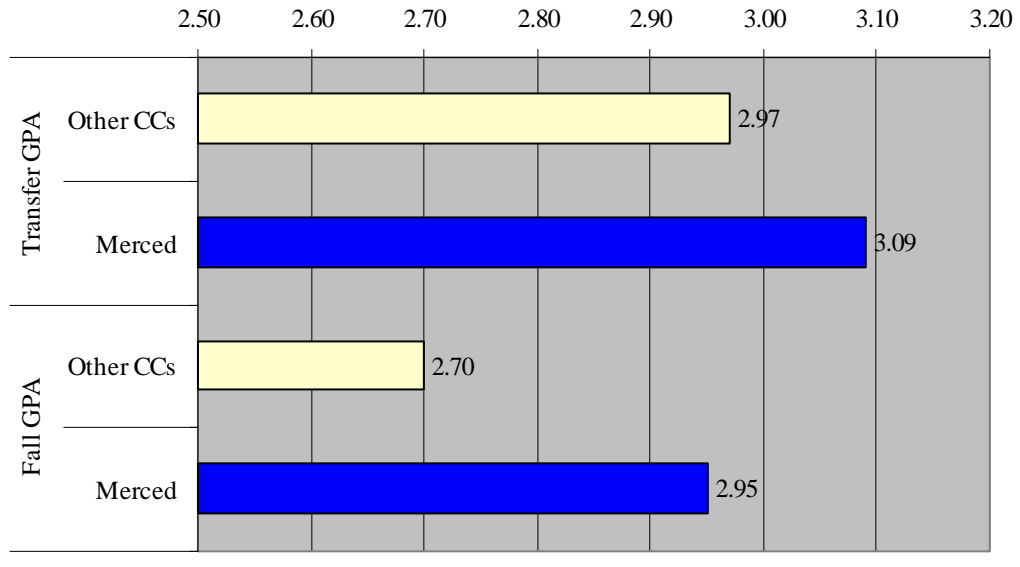
Chart 2
Average Transfer and Fall 2005 GPAs by College Major:
Merced College Compared to Other Community Colleges

Engineering	Other CCs	3.17
		3.04
	Merced	3.11
		2.50
Nat Sciences	Other CCs	2.91
		2.67
	Merced	3.19
		2.99
SSHA	Other CCs	2.97
		2.57
	Merced	3.03
		3.14

Scale: 0.00 0.50 1.00 1.50 2.00 2.50 3.00 3.50
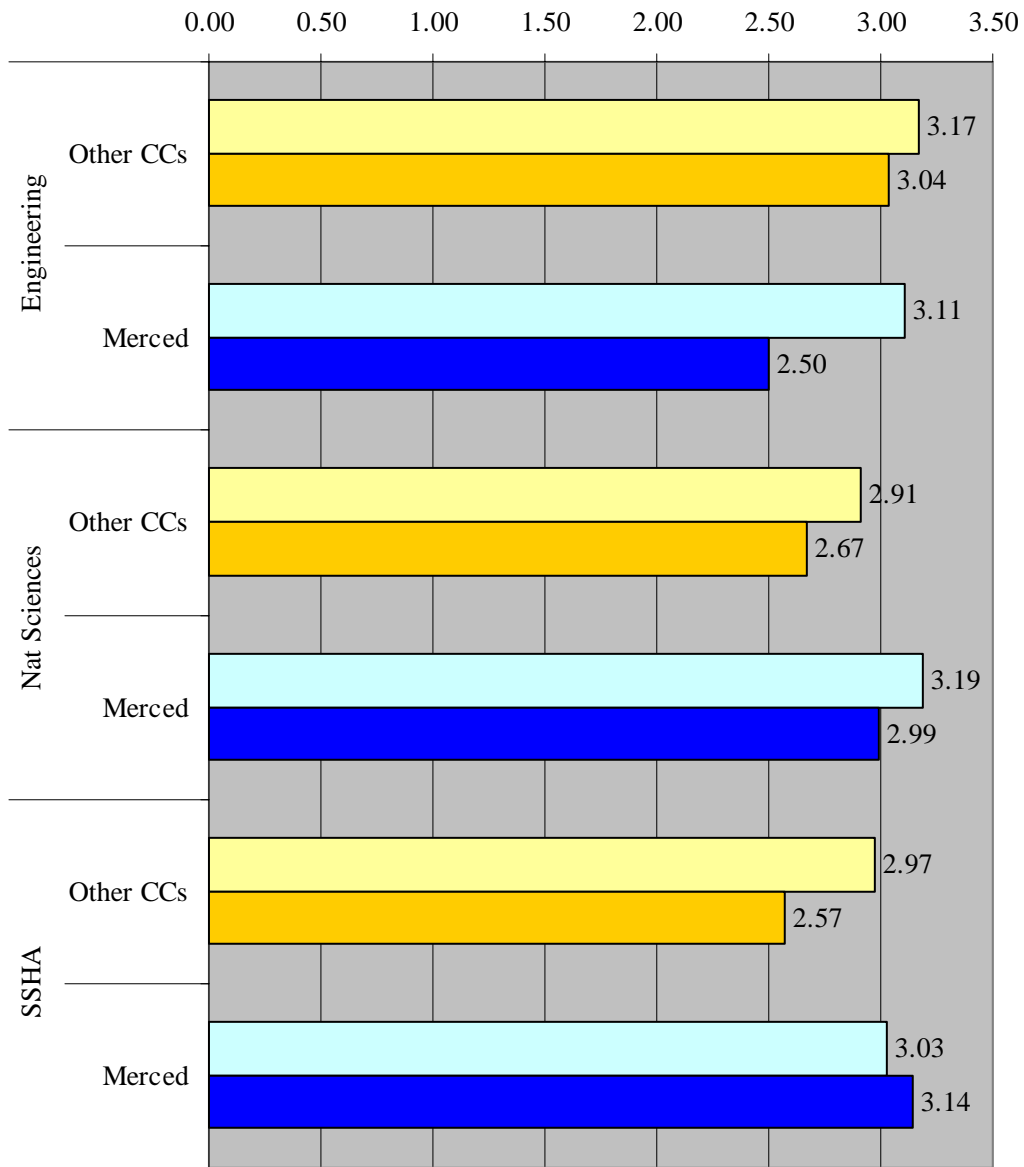
Fall 2005 Final Grades: Merced College Transfer Students										
Courses										
Number	**Title**	**A**	**B**	**C**	**D**	**F**	**I**	**P**	**NP**	**Total**
Lower Division										
BIOE 99	BioEngineering-Indep Study							1		1
BIS 1	Contemporary Biology		1	3						4
CHEM 90X	Chemistry Freshman Seminar								1	1
COGS 1	Intro to Cognitive Science	1								1
CSE 20	Intro to Computing	1								1
CSE 30	Intro to CompSci & Engineering	2		1						3
ENGR 090X	Engineering Freshman Seminar							1		1
ENGR 97	Service Learning: Engrg Projects	3	2	1						6
ENVE 090X	Environ. Engrg Freshman Seminar							1		1
ENVE 10	Environment in Crisis	1								1
ENVE 20	Intro to Environ. Sci & Technology		1							1
HIST 10	Intro to World History	1								1
ICP 001A	Integrated Calc & Phys: Calculus				1					1
ICP 001B	Integrated Calc & Phys: Physics				1					1
LIT 30	Intro to American Literature	1				1				2
LIT 50	Intro to Hispanic Literature	1								1
MATH 21	Calculus of Single Variable I			1						1
MATH 22	Calculus of Single Variable II			1						1
MATH 5	Pre-Calculus			1		1	1			3
PHYS 8	Intro Physics I	2				1				3
TOTAL		**13**	**4**	**8**	**2**	**3**	**1**	**3**	**1**	**35**
Percent LD		*37%*	*11%*	*23%*	*6%*	*9%*	*3%*	*9%*	*3%*	*100%*
Upper Division										
ARTS 199	Arts Independent Study	1								1
BIS 100	Molecular Machinery of Life	1	4	1						6
BIS 140	Evolution of Biological Diversity	2								2
BIS 198	Directed Group Study: Biol. Sciences	1								1
COGS 198	Directed Group Study: Cog. Science							1		1
ECON 190	Topics in Economics	2				1	1			4
ENGR 130	Thermodynamics	2		1						3
ENGR 180	Spatial Analysis & Modeling	1		1	1	1	1			5
HIST 100	The Historians's Craft	2	1							3
LIT 120	Topics in Lit of Difference	2	1				1			4
PSY 121	Cognitive Psychology	3	7				1			11
PSY 130	Social Psychology	3	5	1		1				10
PSY 140	Clinical Psychology	4	3	1						8
PUBP 199	Public Policy Independent Study	1								1
TOTAL		**25**	**21**	**5**	**1**	**3**	**4**	**1**	**0**	**60**
Percent UD		*42%*	*35%*	*8 %*	*2%*	*5%*	*7%*	*2%*	*0%*	*100%*
GRAND TOTAL		**38**	**25**	**13**	**3**	**6**	**5**	**4**	**1**	**95**
Percent Total		*40%*	*26%*	*14%*	*3%*	*6%*	*5%*	*4%*	*1%*	*100%*
Note: NG=No grade; I=Incomplete;P=Passing;NP=Not Passing.										
Prepared by UCMerced Office of Institutional Planning & Analysis, 4-26-2006										

Date: April 28, 2006
From: Berkeley Miller
To: Jorge Aguilar
Re: Fall 2005 Performance of UC Scholars Early Academic Outreach Program (EAOP)

This is a brief report that summarizes the characteristics and first-semester performance of former high school students involved in the UC Scholars Early Academic Outreach Program. Please let us know if you have any questions or need other information. As shown in Table 1, a total of 102 students were involved, including 75 females (73.5%) and 27 (26.5%) males. The vast majority were either of Hispanic (63 or 61.6%) or Asian/PI (34 or 33.3%) ethnicity.

Table 1: Race and Ethnicity of Program Students					
	Ethnicity				
Gender	Asian/PI	Hispanic	White	Other	Total
Female	22	49	1	3	75
Male	12	14	1	0	27
Total	34	63	2	3	102

Table 2: High School and UC Merced Attendance				
	Students in Program		Students at Merced	
High School	Count	Percent	Count	Percent
1. Golden Valley	12	11.8	5	12.8
2. Edison	10	9.8	3	7.7
3. Atwater	9	8.8	5	12.8
4. Livingston	9	8.8	5	12.8
5. Orosi	9	8.8	3	7.7
6. Caruthers	8	7.8	1	2.6
7. Tranquility	7	6.9	5	12.8
8. Merced	6	5.9	4	10.3
9. Foothill	5	4.9	1	2.6
10. Madera	5	4.9	0	0.0
11. Dinuba	4	3.9	2	5.1
12. Hoover	4	3.9	2	5.1
13. Sunnyside	4	3.9	1	2.6
14. McLane	3	2.9	0	0.0
15. Washington Union	2	2.0	0	0.0
16. West	2	2.0	0	0.0
17. Pitman	1	1.0	1	2.6
18. Parlier	1	1.0	1	2.6
19. Wasco Union	1	1.0	0	0.0
Total	102	100.0	39	100.0

EAOP students attended one of 19 high schools in Fresno, Kern Madera, Merced, Stanislaus, and Tulare counties, as displayed in Table 2. The top ten high schools each had five or more students enrolled in the program and accounted for 80 or 78.4% of all the students.

By definition, EAOP students are at a disadvantage in terms of their preparation for college. Their average SAT (932) was 138 points below the UCM freshman average (1070) and 207 points below all UCM admitted Students' average (1139) (see Table 3).

Table 3: Average SAT Scores for Fall 2005			
Category	SAT Verbal	SAT Math	Combined
Program Students	452	520	932
UCM Freshman	480	550	1070
All UCM Admits			1139

Table 4 displays the distribution of EAOP students by school and college major. Five (12.8%) declared majors in Engineering, 13 (33.3%) in the Natural Sciences, and 17 (43.6%) in the Social Sciences, Humanities, and the Arts (SSHA). Slightly more than 10% did not indicate a major.

Table 5 summarizes the academic performance of EAOP students by the end of the Fall 2005 semester, and compares their performances to all freshmen at UC Merced. On average, EAOP students performed less well than all freshman students, with an average GPA of 2.12 compared to 2.53. This was true within each discipline area as well. EAOP students in Engineering had an average GPA of 1.76, compared to the overall freshman engineering average of 2.35. For the Natural Sciences, the respective figures are 2.07 and 2.42, for SSHA, they are 2.26 and 2.71, and for students without majors, 2.16 and 2.55.

Overall, 43.6% of program students had GPAs below 2.00, either placing them on academic probation or subjecting them to dismissal, compared to 24.3% for all freshmen (see Table 6). Like their counterparts generally, EAOP Engineering and Natural Sciences majors seemed to have more difficulty than Social Sciences, Humanities, and Arts majors.

Table 4: Schools and Majors				
	EAOP Students		All Freshman	
School and Major	Number	Percent	Number	Percent
Engineering				
Computer Science & Engineering	1	2.6	41	5.8
Bioengineering	2	5.1	36	5.1
Environmental Engineering	0	0.0	2	0.3
Undeclared Engineering	2	5.1	36	5.1
Total Engineering	5	12.8	115	16.3
Natural Sciences				
Biological Sciences	5	12.8	145	20.6
Earth Systems Sciences	0	0.0	7	1.0
Human Biology	7	17.9	44	6.3
Undeclared Natural Sciences	1	2.6	37	5.3
Total Natural Sciences	13	33.3	233	33.1
Social Sciences, Humanities & Arts				
Management	9	23.1	63	8.9
Social & Cognitive Sciences	6	15.4	77	10.9
World History & Cultures	0	0.0	25	3.6
Undeclared SSHA	2	5.1	69	9.8
Total SSHA	17	43.6	234	33.2
Undeclared	4	10.3	122	17.3
Total All Majors	39	100.0	704	100.0

Table 5: Fall 2005 GPAs by School				
	EAOP Students		All Freshman	
School	Number	GPA	Number	GPA
Engineering	5	1.76	115	2.35
Natural Sciences	13	2.07	232	2.42
Social Sciences, Humanities & Arts	17	2.26	234	2.71
Undeclared	4	2.16	122	2.55
Overall Group GPA	39	2.12	703	2.53

Table 6: GPA Categories by School								
	0.00-1.99		2.00-2.99		3.00-4.00		Total	
Students	Number	Percent	Number	Percent	Number	Percent	Number	Percent
EAOP Students								
Engineering	2	40.0	3	60.0	0	0.0	5	100.0
Natural Sciences	7	53.8	4	30.8	2	15.4	13	100.0
SSHA	6	35.3	8	47.1	3	17.6	17	100.0
Undeclared	2	50.0	2	50.0	0	0.0	4	100.0
Totals	17	43.6	17	43.6	5	12.8	39	100.0
All Freshman								
Engineering	35	30.4	46	40.0	34	29.6	115	100.0
Natural Sciences	69	29.7	99	42.7	64	27.6	232	100.0
SSHA	37	15.8	101	43.2	96	41.0	234	100.0
Undeclared	30	24.6	52	42.6	40	32.8	122	100.0
Totals	171	24.3	298	42.4	234	33.3	703	100.0

FY 2006 UC Merced Graduate Student Survey
July 24, 2006

In late Spring 2006, the UC Merced Graduate School decided to do a survey of all graduate students at UC Merced. The Graduate School contacted UC Berkeley to get permission to use their survey questions as a base, with modifications as needed. Permission was granted, and the UC Merced Office of Institutional Planning and Analysis helped with setting up and administering the web survey. The graduate students were invited to participate in the survey via e-mail (with the Graduate School Dean as the signatory). After several e-mail reminders to non-respondents, 27 of the 36 graduate students completed the survey (75% response rate). Because there were so few graduate students in the population, the results cannot be disaggregated by program, gender, or other demographic variables without risk of identifying the respondents. The responses of the 27 graduate students who participated in the survey are summarized in this report.

Demographics
About a third of the respondents were in the Environmental Systems program, another third in Quantitative & Systems Biology, 22% in World Cultures, and the remaining 15% distributed among the Atomic & Molecular Science & Engineering and the Social & Cognitive Sciences program. Three-quarters of the students had started their program at UC Merced in Fall 2005; the rest having started in Fall 2004. Their expected degree dates ranged from Fall 2008 to Spring 2011, with most expecting to graduate by Spring 2009. Almost 90% were in Ph.D. programs; the remainder were in Master's programs. Before entering their programs at UC Merced, most (56%) were employed in a field related to their programs; 15% were employed in unrelated areas; 11% were graduate students elsewhere; the rest (18%) were either undergraduates elsewhere or doing something else. Sixty percent were male; 40% female.

Graduate Studies at UC Merced
UC Merced offers individually tailored graduate programs with emphases in six areas: Quantitative and Systems Biology; Molecular Science and Engineering, Environmental Systems; Social, Behavioral and Cognitive Sciences; World Cultures and History; and Computer Information Systems. Because each of these areas is highly interdisciplinary, the programs are designed to facilitate interactions between faculty and students from a broad scope of traditional academic areas. Graduate Groups oversee each of these emphases and are comprised of faculty from multiple schools.

Rating of Graduate Groups
Over 80% of the graduate students rated the quality of instruction and the overall quality of coursework in their program as good or excellent (Table 1). Less than two-thirds felt that their graduate group encouraged them to take courses outside of the program. The interpretation of this, however, is not straightforward. The graduate groups and programs already reflect a great deal of interdisciplinarity, reducing the need to cross over programs in order to incorporate relevant interdisciplinary coursework. Perhaps the most important concern for the graduate students (and also for undergraduates) at UC Merced is the availability of courses needed to complete their programs. Only 41% of the graduate students rated their graduate group as good or excellent in the availability of courses necessary for their degree completion. Since many of the students will not be completing their coursework for another few years, however, this may not be as great a concern as it appears on the surface. More detailed analysis by program and students' progress should shed better light on the this issue.

Satisfaction
Much of the survey focused on satisfaction with various aspects of the students' graduate programs and with their experiences in their graduate groups and on campus overall. There is no comparative data available to put the responses into broader context, however, this survey will serve as a baseline for the Graduate School to gauge improvement in the campus' graduate experience over time. These students are the pioneering graduate students at the opening of this campus.

Table 2 shows the satisfaction levels of the graduate students with aspects of their graduate programs, ranging from the academic rigor and opportunities, to the facilities, and quality of relationships with faculty and staff. All of the respondents were satisfied (somewhat or very) with the intellectual caliber of the faculty, although satisfaction with the quality of teaching was not so resounding. A little over three-

quarters were satisfied with teaching quality and also with academic advising. Almost 90% said that they were satisfied with their program's ability to keep pace with developments in their academic field, and, indeed, despite some other problems, were satisfied overall with their program. Relationships with faculty and staff in the program seemed to be mostly positive, with 85% reporting satisfaction. It is also encouraging that, given the emphasis on interdisciplinarity for all the UC Merced graduate programs, 85% were satisfied with the interaction they had across disciplines. Graduate students were somewhat less satisfied with the financial support they received, but almost three-quarters were satisfied. Not surprisingly, one of the areas reflecting the most dissatisfaction was the adequacy of facilities. Many of the graduate labs and classes were scheduled at the Castle facility, which was accessible from campus by special campus shuttles. Another area of concern was in research methods training. Only 63% of the graduate students were satisfied with their training in research methods (another 4% said this was not applicable to their situation). It is not clear, however, whether the students were evaluating their satisfaction with this training in their current program or their training elsewhere. Most of the students (63%) said that faculty help in finding employment was not applicable to their situation (at least not yet). This question will be more helpful and important to assess once substantial cohorts are closer to actually receiving their degrees.

Almost 90% of the students agreed (agreed and strongly agreed) that the overall climate of their program was positive (Table3). As a group, they were especially positive about their own relationships with faculty, the good rapport between faculty and students, faculty being willing to work with students and treating students with respect, as well as the relationships among between themselves and students in other programs and the general collegiality among students in their own programs (93-100% in agreement with these aspects of their program or the Graduate School). In addition, 92% disagreed with the statement that the degree of competition among students is excessive.   The graduate students were less likely to agree that financial support for students is distributed fairly (78% agreed), program staff are knowledgeable about rules and regulations that affect graduate students (78%), amount of coursework is appropriate to the degree (78%), and a sense of intellectual community exits in their program (70%). Almost a third agreed that tensions among faculty affected the students in the program. The Graduate School will have to determine if this is true across all programs, or perhaps there is one program that has a particular issue in this regard.   Only a little over half (56%) of the students agreed that their program encourages student collaboration, however this should be reviewed in light of the goals of each program and whether or not student collaboration is a curricular objective.   It will also be important to understand how much effect of just the newness of the campus might have on responses to some of these items, such as staff knowledge of rules. In many areas of the campus, UC Merced still is developing and adopting rules and policies, in some cases "just in time."

Participation in and Satisfaction with Activities

The responses regarding students' participation in (and satisfaction with) various graduate experiences or activities (Table 4) should be interpreted with caution. Many of the activities are strongly linked to students' progress through the program. For instance, receiving advice on developing thesis or dissertation proposals and selecting thesis advisors would more likely occur closer to the time when students were ready and required to develop these proposals, than in the first years of graduate study. Therefore, for this report, when evaluating the students' satisfaction levels, we will concentrate on the four items in which over half of the graduate students said they participated. About 75% of the students said they received adequate advice on how to avoid plagiarism and adequate feedback on their research. These students overwhelmingly said they were satisfied (somewhat or very) with the advice or feedback they received. Two-thirds said that they received clear advice on the degree requirements for their program; 76% of whom were satisfied with the advice. Almost 60% received advice on writing grant proposals, all of whom were satisfied.

Frequency of Use and Quality of University Resources

From the list of university resources in Table 5, those used frequently by the graduate students included student parking (89%), library facilities (78%), Web-based campus computer facilities (67%), campus shuttle (59%), and dining services (52%). Almost 80% of those who used the library and campus shuttle rarely or frequently rated them as good or excellent. About 60% rated the Web-based campus computer facilities and dining services and 56% rated the availability of parking as good or excellent. Large percentages (80% or more) of the graduate students who used the Graduate Division and Career

Services Center rated them as good or excellent, but only 37% of the students used the Graduate Division frequently and only 7% used the Career Services Center frequently.

Social Activities

The graduate students indicated that organized social activities were more likely to be sponsored by the university than by their school or advisor/research groups. When activities were sponsored by their advisor or research group, they were twice as likely as when the activities were sponsored by the university or school to attend frequently (29% vs. 14% or 15%) (Table 6). For university-wide and school-wide activities, they tended to attend occasionally (63% and 68%, respectively).

Rating of Experience at UC Merced

High percentages (85-90%) of the graduate students rated their graduate program and overall experience at UC Merced as good or excellent (Table 7). They were less likely to rate their academic experience and especially their social life experience as good or excellent (74% and 69%, respectively). The rating of social life experience is not surprising, given that 44% of the graduate students said that social activities within their advisor/research groups never occurred and a third said that social activities within their school never occurred Table 6).

Obstacles to Academic Progress

Table 8 lists items which may, at some time, be obstacles to a graduate student's academic progress. As of the first or second year in their program at UC Merced, about one in five of the students said that work/financial commitments are or have been a major obstacle. Another third said that those commitments were a minor obstacle. Family obligations and course scheduling ranked next in terms of being major obstacles (indicated by 11% of the respondents).

Decision to Pursue Program at UC Merced

None of the graduate students said that they would be unlikely to stay in their program through degree completion, however 4% said they were uncertain (Table 9). The other 96% said that they were at least somewhat likely to stay in the program. If they had it to do over again, 100% would choose the same field of study, and over 80% would probably or definitely still choose UC Merced (Table 10). Even given this, however, only three-quarters said that they would recommend UC Merced to someone considering their graduate program.

Future Plans

Table 11 shows that the largest percentage (35%) of graduate students plans to become a postdoctoral fellow after obtaining their graduate degree. Another 27% plan to hold a tenure-track faculty position and 23% plan to have a research (non-faculty) position after graduating. The predominant employer they expect is a college or university (69%).

FY 2006 Graduate Student Survey
UC Merced

Table 1: Rating of Graduate Group

Rating of graduate group on:	Poor	Fair	Good	Excellent	Good, Excellent
Availability of courses needed to complete program	15%	44%	30%	11%	41%
Quality of instruction in courses	4%	11%	56%	30%	85%
Encouragement to take courses outside program	4%	32%	48%	16%	64%
Overall quality of course work in program	4%	15%	67%	15%	82%

FY 2006 Graduate Student Survey UC Merced						
Table 2: Satisfaction With Aspects of Graduate Program In Percentages						
Satisfaction with:	**Not Applicable**	**Very Dissatisfied**	**Somewhat Dissatisfied**	**Somewhat Satisfied**	**Very Satisfied**	**Somewhat, Very Satisfied**
Intellectual caliber of faculty	0%	0%	0%	30%	70%	100%
Program's ability to keep pace with developments	4%	4%	4%	41%	48%	89%
Adequacy of facilities	0%	11%	33%	41%	15%	56%
Quality of teaching	0%	7%	15%	48%	30%	78%
Training in research methods	4%	11%	22%	44%	19%	63%
Financial support	0%	7%	19%	37%	37%	74%
Academic advising	0%	7%	15%	26%	52%	78%
Relationship with faculty advisor	0%	4%	11%	15%	70%	85%
Helpfulness of staff in program	4%	4%	7%	30%	56%	85%
Faculty help in finding employment	63%	11%	4%	11%	11%	22%
Interaction across disciplines	4%	7%	4%	41%	44%	85%
Overall satisfaction with program	0%	4%	7%	63%	26%	89%

FY 2006 Graduate Student Survey UC Merced						
Table 3: Agreement with Aspects of Program or Graduate School In Percentages						
Agreement with:	**Not Applicable**	**Strongly Disagree**	**Disagree**	**Agree**	**Strongly Agree**	**Agree, Strongly Agree**
Students treated with respect by faculty	0%	4%	4%	22%	70%	93%
Faculty willing to work with students	0%	4%	4%	33%	59%	93%
Good rapport between faculty and students	0%	0%	7%	44%	48%	93%
Own relatsionships with faculty are good	0%	0%	0%	33%	67%	100%
Tensions among faculty affect students	0%	22%	48%	15%	15%	30%
Financial support for students distributed fairly	0%	11%	11%	48%	30%	78%
Students in program are collegial	0%	0%	7%	52%	41%	93%
Relationships with other students in program are good	0%	0%	0%	37%	63%	100%
Degree of competition among students is excessive	0%	33%	59%	4%	4%	7%
Staff in program are knowledgeable about rules	0%	4%	19%	59%	19%	78%
Sense of intellectual community exists in program	4%	7%	19%	37%	33%	70%
Program encourages student collaboration	4%	7%	33%	41%	15%	56%
Amount of coursework appropriate to degree	4%	4%	15%	52%	26%	78%
Overall climate of program is positive	0%	4%	7%	56%	33%	89%

FY 2006 Graduate Student Survey
UC Merced

Table 4: Participation in and Satisifaction with Activities During Graduate Experience
In Percentages

Activities During Graduate Experience	Participated?		Satisfaction				
	Not Applicable	Yes	Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied	Somewhat, Very Satisfied
Taken course, workshop or orientation on teaching	15%	37%	18%	27%	27%	27%	55%
Received advice on writing grant proposals	4%	59%	0%	0%	35%	65%	100%
Received advice on publishing own work	7%	33%	9%	0%	64%	27%	91%
Had assistance in developing professional contacts outside program	4%	48%	0%	0%	25%	75%	100%
Received advice on career options within academia	7%	44%	8%	0%	31%	62%	92%
Received advice on career options outside academia	11%	22%	13%	13%	38%	37%	75%
Received advice about research positions	11%	19%	17%	0%	17%	67%	83%
Received clear advice on degree requirements	0%	67%	12%	12%	41%	35%	76%
Received adequate advice on preparing for exams	22%	37%	18%	9%	36%	36%	73%
Received adequate advice on developing thesis or dissertation proposal	15%	44%	0%	8%	67%	25%	92%
Received clear advice on process required to select thesis advisor	26%	48%	0%	17%	25%	58%	83%
Received adequate feedback on your research	7%	74%	0%	0%	30%	70%	100%
Received adequate advice on standards for academic writing in field	11%	44%	0%	4%	22%	19%	41%
Received adequate advice on how to avoid plagiarism & other violations of standards of academic integrity	7%	78%	0%	5%	30%	65%	95%

Table 5: Frequency of Use and Quality of University Resources
In Percentages

University resources:	Frequency of Use			Quality Experienced				Good, Excellent
	Never	Rare	Frequent	Poor	Fair	Good	Excellent	
Library facilities	0%	22%	78%	4%	19%	41%	37%	78%
On-campus computer facilities	30%	33%	37%	11%	26%	42%	21%	63%
Web-based campus computer facilities (e.g., for registration)	0%	33%	67%	15%	26%	37%	22%	59%
Graduate division	7%	56%	37%	4%	8%	50%	38%	88%
Student health center	30%	70%	0%	21%	26%	32%	21%	53%
Health insurance (GSHIP)	26%	59%	15%	20%	35%	25%	20%	45%
Financial aid office	59%	33%	7%	18%	9%	27%	46%	73%
Career services center	59%	33%	7%	4%	4%	40%	40%	80%
Student counseling services	85%	7%	7%	25%	0%	25%	50%	75%
Child care referral services	96%	4%	0%	*	*	*	*	*
Disability services	96%	4%	0%	*	*	*	*	*
Learning assistance center	100%	0%	0%	*	*	*	*	*
Billing & payment services	59%	37%	4%	10%	20%	50%	20%	70%
University police	74%	22%	4%	50%	33%	17%	0%	17%
Housing	100%	0%	0%	*	*	*	*	*
Registrar's office	11%	56%	33%	17%	13%	33%	38%	71%
Availability of student parking	0%	11%	89%	19%	26%	26%	30%	56%
Campus shuttle bus service (Cat Tracks)	11%	30%	59%	4%	17%	33%	46%	79%
Dining services	7%	41%	52%	8%	32%	32%	28%	60%
Bookstore	11%	63%	26%	8%	17%	46%	29%	75%

FY 2006 Graduate Student Survey UC Merced						
Table 6: Frequency of and Attendance at Campus Social Activities In Percentages						
	Frequency Activities Occur			**Frequency of Attendance**		
Social Activities	**Never**	**Occasion-ally**	**Frequently**	**Never**	**Occasion-ally**	**Frequently**
Organized university-wide social activities	12%	68%	20%	21%	63%	17%
Organized social activities within your school	32%	60%	8%	18%	68%	14%
Organized social activities within you advisor/research groups	44%	56%	0%	38%	33%	29%

FY 2006 Graduate Student Survey UC Merced					
Table 7: Rating of Experience at UC Merced					
Rating of experience:	**Poor**	**Fair**	**Good**	**Excellent**	**Good, Excellent**
Academic experience	7%	19%	41%	33%	74%
Student life experience	23%	8%	50%	19%	69%
Graduate program	7%	7%	44%	41%	85%
Overall experience	4%	7%	48%	41%	89%

FY 2006 Graduate Student Survey
UC Merced

Table 8: Rating of Factors as Obstacles to Academic Progress

Rating of factors:	Not an Obstacle	A Minor Obstacle	A Major Obstacle
Work/financial commitments	48%	33%	19%
Family obligations	41%	48%	11%
Availability of faculty	63%	30%	7%
Program structure or requirements	56%	41%	4%
Dissertation topic/research	59%	37%	4%
Course scheduling	44%	44%	11%
Immigration laws or regulations	89%	11%	0%

FY 2006 Graduate Student Survey UC Merced						
Table 9: Likelihood of Staying in Program Until Receive Degree						
	Uncertain	Highly Unlikely	Somewhat Unlikely	Somewhat Likely	Very Likely	Somewhat, Very Likely
Likelihood of staying in program	4%	0%	0%	16%	80%	96%

FY 2006 Graduate Student Survey UC Merced Table 10: If You Had to Do It Again….					
Would you:	**Definitely Would Not**	**Probably Would Not**	**Probably Would**	**Definitely Would**	**Probably, Definitely Would**
Select same university?	4%	15%	44%	37%	81%
Select same field of study?	0%	0%	26%	74%	100%
Recommend this university to someone considering your graduate program?	12%	12%	42%	35%	77%

FY 2006 Graduate Student Survey
UC Merced

Table 11: Professional Plans and Type of Employer Expect to Work For After Degree

Professional Plans:	Percent Responding
Engineering, Manufacturing	0%
Management Information Systems/Programmer	0%
Non-tenure Track Faculty	0%
Tenure Track Faculty	27%
Research (not faculty)	23%
Teacher	0%
Analyst	0%
Postdoctoral Fellow	35%
Psychologist, Counselor	0%
Social Worker	0%
Pursue another graduate degree (not at UC Merced)	4%
Other	12%
	100%

Type of Employer Expect to Work For:	Percent Responding
College or university	69%
Community college or junior college	0%
Elementary, secondary, or special focus school	0%
Industry or business	15%
Hospital or clinic	0%
Non-profit organization or foundation	0%
U.S. (federal) government, or home country if not U.S.	4%
State or local government	4%
National laboratory	4%
Self-employed	4%
Other	0%
	100%

Summary of Data Warehousing Meetings with Potential Users/Decision-Makers
(March-April 2006)

Goal of meetings: Identify reporting needs and integration points

Academic (Schools, Academic Senate and Academic Affairs/Personnel)

Student/course data
1. Student/course assessments (characteristics of students who do not do well; info needed by faculty; indicators of success/failure)
2. Course evaluations
3. Syllabi and grade books information should be captured in UCMCrops and analyzable for WASC
4. Assessment of course-taking patterns
5. Need to address SIS-Banner issue of properly capturing faculty course responsibility
6. Course planning
7. Historical enrollments
8. Major-switching behaviors
9. Specialized testing (placement, etc.)
10. Assessment! (General education, retention, satisfaction, learning outcomes)
11. Graduate student milestones (when defend dissertation, etc.)
12. Student recruitment and scholarship analyses
13. Support admissions decision-making (inform policy decisions on exceptions, etc.)
14. Track new courses (format, Gen ed designation, etc.)
15. Student grades and contact information

Grant and Tech transfer data
1. PIs need to be able to monitor grant financials (real time/refreshed daily or weekly)
2. Grants management
3. Track pre-award data (proposals, etc.)
4. Need post-award system
5. NSF reporting
6. Intellectual property issues (patents, licenses)

Faculty data
1. Faculty activity and workload
2. Instructor of record and appointment letter need to be aligned
3. Faculty salaries, housing assistance, start-up, MOP (mortgage orig.) loans
4. Sabbatical and other leave tracking/reporting
5. Honors and awards
6. Temporary appointments
7. Applicant pool analyses
8. Faculty annual reports (publications/journals/"Bio-bib")

External data
1. Benchmarking data (other campuses)
2. Salary comparisons across system

Personnel
1. PAWS reporting (affirmative action)
2. Postdocs, TAs, Lecturers reporting at census

Other data
1. Space planning/facilities/utilization
2. Cost of programs
3. Budget information
4. Equipment tracking/inventory
5. Storage/archiving of historical documents
6. Evaluate energy costs/savings
7. School/program budget information

Administrative Affairs (HR, Budget, Capital Planning, Business & Finance)

Personnel
1. Historical salary and compensation data
2. WASC – historical personnel data by ethnicity
3. Personnel management system
4. Affirmative action reporting
5. PAWS – applicant pool management

Capital Planning
1. Enrollments/FTEs (historical and projections)
2. PostDocs, TAs, Faculty
3. Space inventory
4. Utilization reporting (classroom/lab types, scheduling, enrollments, capacities)

Budget
1. Detailed access to enrollments, space, faculty, accounts
2. What If scenarios

Business and Finance
1. Web reports available through UCLA
2. Need access (production) to student data

Student Affairs (Admissions, Registrations, Financial Aid, Career Services)

Student/course data
1. Recruitment
2. Retention

3. Integration of Admissions/Registrations/Financial Aid/Housing
4. Housing, Medical Records, Counseling
5. Work Study students (SIS and PPS)
6. Student participation in clubs, internships, etc. ("co-curricular transcript")
7. Integration with NSC data and High School data

Production System Development Needs
Grants Management Portal
Post-award system
Inventory system
Receivables
Student course evaluations
Graduate student milestones
Evidence of student learning (not grades): syllabi, writing samples, portfolios, special testing
New course tracking system (including learning outcomes data)
Sabbatical/leave tracking
PAWS enhancements
Facilities-related integrated system: facilities management, accounting (capital assets), environment-health-safety, physical planning (campus map, utility & distribution systems), campus police, scheduling, CAD
Faculty annual reports (workload, publications, other instructional and noninstructional activities)
Document storage
Prospect data (recruit system)
Research profiles, including images and photos

UC Merced Center for Educational Partnerships

In April 2002, the University of California, Merced, created a single, comprehensive student academic preparation and educational partnerships unit called the Center for Educational Partnerships.

The Center for Educational Partnerships currently houses all student academic preparation and educational partnerships activities, including the UC Scholars Early Academic Outreach Program, The Parent Empowerment Program, the Data Analysis and Evaluation Program, and the Gaining Early Awareness and Readiness for Undergraduate Program.

The Center for Educational Partnerships was established to effect long-range improvement in the education of Central San Joaquin Valley students and ultimately increase the number of Central San Joaquin Valley students eligible to attend institutions of higher education. All Center for Educational Partnerships programs seek to increase UC/CSU competitive eligibility and admission rates in the Central San Joaquin Valley.

The Center for Educational Partnerships has successfully responded to the University of California's call to "connect the disconnect" between the "efforts to reform K-12 and the University's efforts to ensure a diverse student body." [1] Specifically, the Center for Educational Partnerships' Data Analysis and Evaluation Program currently conducts research for K-12 schools throughout the Central San Joaquin Valley focusing on state-mandated standardized tests.

This research provides school partners with detailed analyses for each section tested on a variety of state-standardized tests, including the California Standards Test (CST), California High School Exit Exam (CAHSEE), and California English Language Development Test (CELDT). A multiple regression model is used to include all exam sections in a multi-variate analysis that gives direct measures of the chances of passing or scoring higher on each exam for each additional correct answer in each section. This model also indicates the relative strength of all exam sections for each standardized test. Furthermore, diagnostic data is provided to schools that allow them to sort and analyze data by groups of students or individual students. Schools can use these research findings to conduct targeted interventions in the classroom that help students master tested subject matters. A correlation analysis is also performed with each of these tests and the school's college preparatory course completion data.

By analyzing these data, the Center for Educational Partnerships identifies students' areas/strands of strengths and weaknesses by individual exam sections. In addition, data is disaggregated by student characteristics, including English

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[1] Forging California's Future through Educational Partnerships – Redefining Educational Outreach Final Report of the Strategic Review Panel on UC Educational Outreach to the President of the University of California, February 2003, p. 7.

Language Learning (ELL) status, proficiency status, Migrant Education Program status, gender, grade level, and ethnicity. Finally, data is disaggregated by test administration in order to analyze student performance patterns over time to determine whether performance in previously identified weak and strong exam sections has changed from one test to another. When completed, schools are better able to make informed decisions on strategies that can then be designed to improve overall test scores for all students. Additionally, the Center for Educational Partnerships examines the association between each standardized test and grade point average patterns. This analysis can reveal the relationship of school curriculum, state mandated tests, and standards alignment.

Finally, the Center for Educational Partnerships provides longitudinal analysis across student cohorts and within student cohorts. Through analyses across student cohorts, different students are compared across school years to determine whether their scores have increased or decreased. When longitudinal analysis is performed within student cohorts, same students across different time periods are compared to determine if they have shown improvements on the same tests.

University of California, Merced General Education Assessment Plan

Overview of General Education Requirements at UC Merced
The UC Merced general education program consists of courses that are guided by the Guiding Principles and meet the following requirements for graduation: University requirements; Campus requirements; and School requirements.

Requirement	Fulfillment	Description
University	University of California Entry Level Writing Requirement	To succeed at UC Merced, a student must be able to understand and to respond adequately to written material typical of reading assignments in freshman courses, including being able to structure and develop an essay that uses written English effectively. If students have not yet satisfied this entrance requirement through one of the alternatives listed below, it is essential that they complete it by the end of the second semester of enrollment at UC Merced.
	American History and Institutions	As a candidate for an undergraduate degree at UC Merced, students need to demonstrate knowledge of American history and of the principles of American institutions under the federal and state constitutions. Students can complete the requirement by completing specific courses or earning a certain score on an examination. Transfer students are urged to complete the requirement before they enroll.
Campus	Two-Semester Core Course Sequence	The College One Core Course Sequence is future-oriented, striving to help students gain the intellectual tools, knowledge and insights that will help informed citizens devise future solutions to real-life problems. The UC Merced Core Course Sequence aims to understand the world at large as it is reflected in the world at home—California. By examining the local evidence of global problems, you will begin to grapple with the issues that will affect you personally and professionally. Core 1 poses a set of questions as framed by the various domains of human knowledge known as the disciplines. Core 100 gives students a chance to build on what they have been learning during their first two years by returning to the questions introduced in Core 1 and trying out different ways to find answers. Core 100 is required of all transfer students as well as all continuing UC Merced students. In Core 1, UC Merced faculty introduce students to how disciplines define the challenges faced by informed citizens of this new century. For example: • Can advances in technology mitigate the effects of burgeoning populations and resource depletion? • How will a changing climate affect the future migration of human populations? • How do citizens decide among conflicting ethical choices, each with a compelling claim? Faculty from all three Schools join together to show how such complex questions might best be probed through connecting the insights of their disciplines. As a junior in Core 100, students begin to apply what they have learned during their first two years from lower division general education and the introductory work in their chosen major. Core 100 gives you a chance to mold your own ideas on how people might answer the Core

		Course questions in the future. Across the two semesters of the Core Course Sequence, students will: ■ Work together in small groups on joint projects or problems, to build leadership and teamwork abilities; ■ Learn to think analytically and communicate effectively in the context of problems affecting their lives and futures. ■ Use quantitative methods as well as ethical judgment to make decisions and defend those decisions to their peers; ■ Write and perform brief plays or songs, or create art in other media, to demonstrate lessons/concepts learned in the course; and ■ Assist local community groups through service learning.
	Lower Division Writing Course	Analytical writing is a means for understanding better what is being learned and conveying ideas to different audiences. The lower division writing requirement starts students on a path of writing development that will continue through their four years at UC Merced. This requirement is satisfied through completion of WRI 10: College Reading and Composition. This course is designed to help students develop college-level skills in effective use of language, analysis and argumentation, organization, and strategies for creation, revision and editing. It must be completed during the freshman or sophomore year.
	College-Level Mathematics/ Quantitative Reasoning Course	For some students, mathematics and statistics will be an essential tool for mastering a field in depth. For others, it may be important to build their ability to understand how quantitative methods are applied in society to support arguments and solve problems. A variety of courses will be available to meet this requirement, based on field of interest.
School Requirements	All	The Schools of Engineering, Natural Sciences, and Social Sciences, Humanities and Arts each have a set of general education requirements to be completed if a student completes a major offered by that school. School requirements include courses to help students build the collateral knowledge and skills needed in order to succeed in a major. School requirements also include courses to help students understand the broad domains of knowledge.

The schools prescribed requirements are as follows:

School	General Education Requirements
School of Engineering (45 units)	Lower Division Social Science, Humanities, and Arts Requirements: ■ The World at Home (CORE 1) (4 units) ■ College Reading and Composition (WRI 10) (4 units) ■ General Education elective in the Humanities or Arts (4 units) ■ General Education elective in the Social Sciences (4 units) ■ Service Learning (ENGR 97) or GE elective from SSHA (3 units) Lower Division Math and Science Major Preparation Requirements: ■ Integrated Calculus and Physics (ICP1) or Math 21 and Physics 8 (8 units) ■ Contemporary Biology (BIS 1) (4 units) ■ Introduction to Computing I and II (CSE 20 and CSE 21) (4 units) ■ Probability and Statistics (MATH 32) (3 units) Upper Division Social Science, Humanities, and Arts Requirements: ■ The World at Home (CORE 100) (4 units) ■ Service Learning (ENGR 197) or GE elective from SSHA (3 units) NOTE: Not more than 6 total Service Learning units (ENGR 97 or ENGR 197) can qualify for general education units

School of Natural Sciences (46-47 units)	Math/Science Preparatory Curricula ▪ Calculus of a Single Variable I, Math 21 (4 units)* ▪ Probability and Statistics (3 units) ▪ Physics 8 (4 units)* ▪ Computer Science Course (2-3 units) ▪ General Chemistry (4 units) General Education Courses Outside Natural Sciences and Engineering ▪ The World at Home (Core 1 and 100) ▪ College Reading and Composition (WRI 10) (4 units) ▪ General Ed Elective in the Humanities or Arts (4 units) ▪ General Ed Elective in the Social Sciences (2-3 units) ▪ Two other Gen Ed electives outside Natural Sciences and Engineering (one must emphasize communication and at least one must be an upper-division course) (8 units) ▪ Freshman Seminar (1 unit) *Integrated Calculus and Physics may be taken in place of Math 21 and Physics 8 (8 units)
School of Social Sciences, Humanities and Arts (45 units)	Lower Division Requirements: ▪ The World at Home (CORE 1) (4 units) ▪ College Reading and Composition (WRI 10) (4 units) ▪ Natural Science/Engineering Introductory course with lab, field or studio (4 units) ▪ Second Natural Science or Engineering course (4 units) ▪ Mathematical/Quantitative Reasoning Course (4 units) ▪ Introductory World Culture and History or Arts course (4 units) ▪ Introductory SCS course outside emphasis (4 units) Upper Division Requirements: ▪ The World at Home (CORE 100) (4 units) ▪ Four Upper Division courses outside emphasis or major (16 units)

Students at UC Merced share a common general education experience through their participation in the Core Course Sequence and Writing 10. Building upon this foundation, students then choose a quantitative reasoning class that fits their own personal career goals. Finally, upon the decision of what major, students then complete requirements specified by their respective school. This ultimately results in three general education paths. This approach to general education is both broad and specific, providing students with exposure to the basic skills they need to succeed but also provided targeted general education courses that serve to foster the general background and skills they need to succeed in their respective majors. Nevertheless, it is important for all students to acquire the important general education skills espoused in the General Education Guiding Principles. Thus, it is important to ensure that all general education courses are appropriately mapped to the guiding principles; that all three paths of general education produce students with a foundation of similar skills; and that appropriate action is taken to ensure achievement of learning outcomes. The General Education Assessment Plan provided herein is the key to accomplishing these goals. Our holistic and comprehensive approach to the assessment of general education will ensure the success of the program and provide the means necessary to gauge the success of our students.

Guiding Principles
WASC General Education Criteria, with Related UCM Guiding Principles
The text below is drawn from the WASC Criteria for a baccalaureate degree, reproduced in full below. The Guideline, which specifies 45 semester credits in general education, is not reproduced. Throughout, the most closely related UCM Guiding Principle for General Education is placed next to each criterion.

Guiding Principles	WASC General Education Criteria
Scientific Literacy: To have a functional understanding of scientific, technological and quantitative information, and to know both how to interpret scientific information and effectively apply quantitative tools	College-Level Quantitative Skills Scientific and Technical Knowledge
Decision Making: To appreciate the various and diverse factors bearing on decisions and the know-how to assemble, evaluate, interpret and use information effectively for critical analysis and problem solving	Information Literacy The Habit of Critical Analysis of Data and Argument
Communication: To convey information to and communicate and interact effectively with multiple audiences, using advanced skills in written and other modes of communication	College-Level Written and Oral Communication
Self and Society: To understand and value diverse perspectives in both the global and community contexts of modern society in order to work knowledgeably and effectively in an ethnically and culturally rich setting	Diversity Social and Political
Ethics and Responsibility: To follow ethical practices in their professions and communities, and care for future generations through sustainable living and environmental and societal responsibility	Civic Responsibility
Leadership and Teamwork: To work effectively in both leadership and team roles, capably making connections and integrating their expertise with the expertise of others	The Ability to Work with Others
Aesthetic Understanding and Creativity: To appreciate and be knowledgeable about human creative expression, including literature and the arts	Cultural and Aesthetic
Development of Personal Potential: To be responsible for achieving the full promise of their abilities, including psychological and physical well-being	The Capability to Engage in Lifelong Learning

It is our goal that the General Education Guiding Principles are infused throughout the educational curriculum at UC Merced. We can ensure the inclusion of such principles in general education courses through course approval processes; however, it is also important that our schools and majors appropriately consider the role of these principles in their own learning outcomes. This provides for appropriate alignment of student outcomes from the moment they set foot on campus until they graduate.

General Education Course Approval Process
The first year at UC Merced was a year of change and growth. It was also a year of lessons. As a student-centered research university, UC Merced has a commitment to general education and the attainment of the guiding principles by each and every student. The College One Executive Committee (COEC) is determined to ensure that every general education course at UC Merced contributes to this goal. To this end, they are working towards the goal of developing a general education course approval

process whereby faculty who wish to teach a general education course must concretely align the learning objectives of their course with the guiding principles. Faculty will be provided with an educational presentation that will walk them through the general education course development process. The College One Executive Committee is considering a process whereby approval of the syllabus, learning objectives, and method for communicating objectives to students prior to the first offering of the course must be granted prior to a course offering. Currently, the Undergraduate Council (UGC) approves courses and makes a baseline decision about whether the course should be considered a general education course. The COEC plans on working with the UGC to determine an appropriate approval process for those courses deemed to be potential general education courses.

Such a process certainly does not ensure the achievement of the guiding principles, but it does provide a means through which to educate faculty throughout the institution about the guiding principles by ensuring their general education courses are aligned. The process further ensures a common thread among general education courses, regardless of which school because all would have been subjected to the same information and process as the others. This will contribute to a more unified experience across schools and their respective general education paths and provide for a more consistent means of assessment.

Over the course of this year, the College One Executive Committee will develop a tailored presentation for faculty aimed at assisting them with developing a course with the guiding principles as a guide. The guidelines and course approval process will also be put into place through cooperation with the UGC.

Faculty Involvement in the Development of the General Education Plan
Faculty have been involved in various ways in the development of this plan. The College One Executive Committee, who is responsible for General Education, is a committee composed of faculty all of whom have had input into the development of this plan and the vision for general education at UC Merced.

Other faculty members have also provided invaluable assistance to the development of this plan and will contribute to the success of its implementation. Faculty have already taken steps to align the major learning outcomes with the guiding principles. During the process of revising learning outcomes, the nature and spirit of the general education guiding principles were infused into the revised outcomes. In addition to considering the applicability of the principles to each major, faculty also contributed to a concrete mapping documenting the connections between the learning outcomes for each major and the guiding principles. This was done in several ways. For those faculty who revised the outcomes for their major using the reflection process questionnaire, one of the questions faculty responded to was:

"All of your students will participate in general education at UC Merced. The general education guiding principles are:
  1. Scientific Literacy
  2. Decision Making
  3. Communication
  4. Self & Society
  5. Ethics & Responsibility
  6. Leadership & Teamwork
  7. Aesthetic Understanding and Creativity
  8. Development of Personal Potential

In [_____], which of the above principles are most emphasized? List any and all that apply."

Responses from this question were directly used in the development of the outcomes mapping. Other faculty contributed by providing notes from their retreats that discussed the interrelationships between the general education principles and the learning outcomes for their major. All of this dialogue and rich feedback from faculty in all three schools was used in the development of the Outcomes Mapping. See Appendix A.

UC Merced General Education Assessment Strategy
Assessment is a critical component to general education at UC Merced. At the previous visit, some progress had been made with respect to understanding how assessment of general education would be implemented. A graphic and brief outline was put together to provide a broad outlook as to the type of assessment strategy that will be implemented. Herein, a more detailed explanation of the graphic is provided including the specific strategies that will be used for each area in pursuit of assessing General Education at UC Merced. As the report of the WASC Visiting Team indicated, "the design is ambitious and needs more consideration if it is to serve as a practical guide to evaluating the outcomes of the general education courses. Nevertheless, it serves a useful purpose in calling attention to the elements that might be considered. The Educational Effectiveness Review should probe on how the proposed learning outcomes will be measured." To this end, the College One Executive Committee have taken the next step in the development of general education assessment by revising the graphic to reflect a comprehensive, yet more specific approach and formulating specific strategies that serve to conceptualize the graphic and provide practical means through which to implement its intent. The revised graphic is as follows:
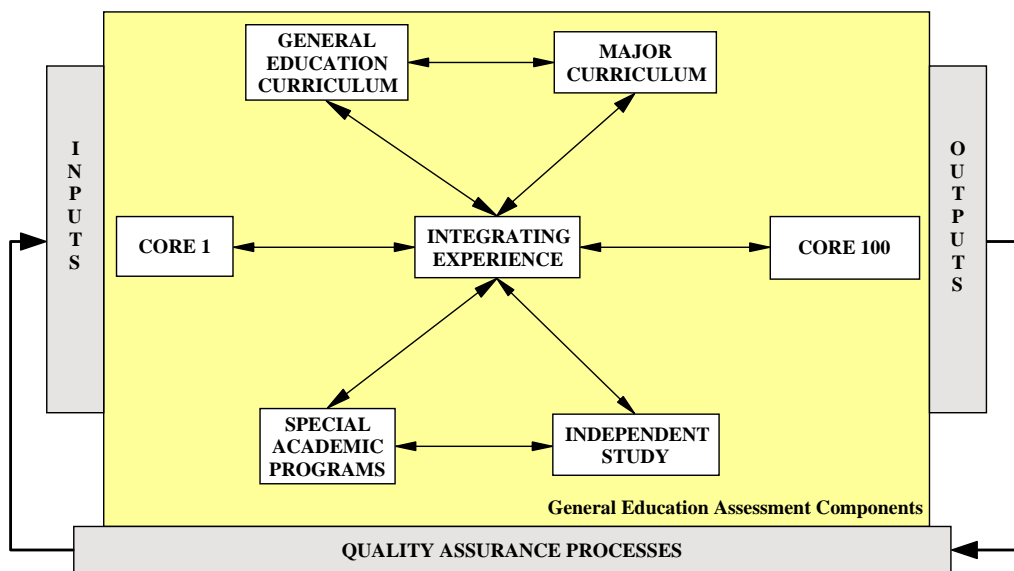
The key is to think about the graphic as a cycle. All of the data we are gathering feeds into the other parts in such a way that we can maximize the quality of student learning outcomes. The General Education Guiding Principles are the outcomes and the various pieces of the map are places that we want to obtain assessment results to determine the extent to which we are achieving those principles. Core 1 and Core 100 is key to our general education assessment plan,

because they provide two key integrating experiences that all students must participate in. At these two junctures in a students' academic career, College One will assess their experiences and determine the extent to which general education as a whole is meeting its necessary objectives. Further, our extensive quality assurance processes ensure that continuous feedback loops are built into the system such that identified challenges can be promptly dealt with and new solutions can be implemented. However, as the WASC visiting team duly noted at their prior visit, the graphic only provides the big picture. Herein, the details will be provided such that the graphic can be understood within its rich context.

Inputs & Outputs: Setting the Context of the Cycle

The Inputs & Outputs shown in the graphic represent data that will be pooled from various constituents across campus. This aspect of the General Education Assessment Strategy represents what could be termed a data clearinghouse. Through cooperation with key offices on campus, such as the Registrar and the Office of Institutional Research, College One will accumulate data that serves to document student attainment of the guiding principles. Inputs will include data from our quality assurance processes as well as various sources of baseline data (i.e., performance indicators) about incoming students, statistics, demographic information, etc. Although such data does not explicitly assess the achievement of skills related to the guiding principles, this information is critical to providing context. Assessment is only relevant as it applies to a certain group of people. The more we can understand about our students, the better we can understand the assessment results. Further, such data provides a level of complexity and comprehensiveness to the assessment that will help us to determine accuracy and consistency of data overall. Another set of performance indicators will come from the National Survey of Student Engagement (NSSE) & the University of California Undergraduate Experience Survey (UCUES). These surveys assess student expectations of their college experiences and evaluate such experiences over time. The Office of Institutional Research has already mapped responses from questions on these surveys to the general education guiding principles. This type of assessment will be included in our documentation of student achievement of the guiding principles. Finally, outputs can be divided into two areas. The first will be all of the data from the assessment conducted within the general education assessment components. The second type of output will be data received from the Office of Institutional Research, who is involved with the development of graduate, alumni and employer surveys. This will act as another source of data from which to assess general education. In addition, similar surveys are proposed within the majors from each school. All of this critical information is necessary to ensure that our assessment of general education is comprehensive and accurate. The general education assessment components do symbolize those areas within the curriculum that can be assessed directly for student achievement of the guiding principles. However, data from the inputs and outputs category represents a critical foundation of data that cannot be ignored. Such data sources are often not considered in other models of general education but we believe the rich source of information that it can provide is worth its inclusion and use in our assessment of general education.

General Education Assessment Components: The Core

As the graphic indicates, the general education assessment components represent the various areas in which data can be pulled or various assessment measures implemented in order to determine whether students are successfully achieving the learning outcomes. As the WASC team indicated, the graphic most certainly identifies the elements that might be considered. What the graphic does not do is provide detailed information about how each component will be assessed. The following table provides such necessary detail:

GE Assessment Component	Assessment Strategy	Status of Development and/or Implementation
General Education Curriculum	As discussed above, the general education curriculum can be seen as three paths, depending upon which school the student belongs to. It is important for us to ensure that students, regardless of school, obtain the skills necessary for a general education. The assessment of the general education curriculum is going to involve three strategies: ■ Course evaluations (these will be the standard course evaluations offered in every course); ■ A general education survey (any course approved as a general education course will be required to administer a brief survey at the end that is intended to directly assess outcomes related to the guiding principles); and ■ General education self studies (these self-studies will entail faculty working with the Director of the Teaching and Learning Center to assess the effectiveness of their general education course; the self-study will examine the learning outcomes, assessment measures, student performance on such measures, and a plan of action for improving the course will be instituted. Although intended as a quality assurance process, much data will be collected in the process that will contribute to the assessment of general education).	A standardized course evaluation is already under development. The general education survey will be developed by the end of Fall semester. Although all of the general education courses would not have undergone the course approval process by that time, it will be the goal that the general education survey be implemented in every GE course anyway as a means for establishing some baseline information about the general education courses. The general education self-studies are a longer-term goal and will require the support of the new Director of the Teaching and Learning Center both with respect to specific design of the self-study evaluation process but also with respect to implementation.
Major Curriculum	In preparation for this report, all of the majors instituted a comprehensive revision of their major learning outcomes and assessment measures. The assessment measures provided for each of the majors will provide the data necessary to assess what general education outcomes are being achieved through the majors. A sampling of specific assessment strategies includes: ■ Faculty Assessment of Student Work ■ Course Evaluations ■ Student Perception Survey ■ Focus Group Interviews of Graduating Students ■ Random Sampling of Graduates for Evaluation of General Education Component ■ Alumni Survey	As seen earlier in this section, an Outcomes Mapping has been completed. This is the first step in connecting the learning outcomes from each major to the guiding principles. Once objective-assessment mappings have been completed for each major, we intend to further refine the Outcomes Mapping to reflect how each major objective is being assessed which will provide the necessary information from which to identify specific strategies being used for each guiding principle.
Core 1 & Core 100	Core 1 and Core 100 have developed comprehensive assessment plans. The section in this report that discusses the Core Course Sequence provides detailed information in this regard. The assessment strategies utilized that will provide information to the general education assessment include: Core 1: ■ Student performance on quantitative assignments, essay assignments, and the cumulative writing assignment. Rubrics are being developed for the assessment of these and	Much work has been done with Core 1 and 100 over the last semester. An instructional consistency and congruency analysis was done for each course to determine the objectives of each course, its connection to the guiding principles, and the assessment measures used. As a result of this and significant work on the part of the faculty in making revisions, both courses have adopted new statements of learning objectives that are

	data from these will be used for general education assessment. ▪ Reflective student journal ▪ Mid-semester and final course evaluation Core 100: ▪ Reflective student journal ▪ Data from Rubrics used to assess team report and presentation ▪ Mid-semester and final course evaluation Because Core 1 sets a baseline to which Core 100 later responds, the use and integration of assessment data from these courses is a critical component to our overall plan.	derived directly from the guiding principles. The mid-semester and final course reviews were developed in the previous semester and implemented. With the revision of the learning outcomes, the surveys were updated to reflect the mapping to the guiding principles. This will make it much easier to pull data from the surveys next semester as documentation for general education assessment.
Special Academic Programs	This component includes such things as service learning and freshman seminars. Specific assessment strategies have been developed for such programs and data from these will be used to assess the guiding principles. Such assessment strategies from service learning include: ▪ Pre and Post surveys ▪ Data from peer evaluation rubrics Additional coordination with the Freshman Seminar program will be undertaken this year to ascertain which assessment strategies will provide data necessary for GE assessment.	With respect to service learning, the objectives have been mapped to the guiding principles and a similar process of mapping the assessment measures to them must be completed. There is already strong coordination between general education and the service learning program and Fall semester will include further solidification of what assessment data will be most useful to the assessment of general education. With respect to other programs, similar connections need to be made.
Independent Study	Several of the majors made a commitment to the use of rubrics in the assessment of independent study, which includes undergraduate research experiences and internships. For example, all of the natural sciences majors have decided to include a rubric in the assessment of student independent research projects and the World Cultures & History major is going to use a similar rubric to assess student performance in the WCH internship, the Proseminar, and the senior thesis requirement. The consistent adoption of rubrics amongst faculty for the assessment of such independent study experiences is of significant benefit. Not only will student performance be consistently assessed but also data from the rubrics will contribute directly to general education assessment because it provides concrete data regarding an individual student's work.	As indicated, several of the majors included the use of rubrics to assess such independent study work when they made revisions to the major learning outcomes and assessment measures. In the Fall, implementation of this will begin through the development of a template rubric that can then be adapted for each major and their intended purposes. A specific section of each rubric will include assessment specific to the determination of major learning outcomes and the guiding principles.

Quality Assurance Processes: The Foundation of the Cycle

As this report has documented, continuous improvement is of great importance at UC Merced. The only way in which a student-centered research university can be obtained is by understanding when and where things go wrong and taking appropriate action to fix them. Our comprehensive assessment strategy will provide us with a rich source of data that will help us determine whether our students are achieving the guiding principles. However, assessment data also must be used in the context of our own evaluations. To this end, we have determined that a number of quality assurance processes are needed. Many of these processes are used in other contexts but data from the general education assessment plan will only help inform these

processes and will in turn, help shape general education at UC Merced. The following is a list of our planned quality assurance process:

- The first two, (i) Program Review and (ii) Undergraduate Degree Review are both established sets of procedures provided in another section of this report.
- Self-Studies were described briefly in the table above. As discussed, these self-studies will provide valuable data to be used in the general education assessment plan; however, these studies are also critical quality assurance processes. By conducting evaluations of this sort, critical improvements can be made to the general education curriculum.
- Finally, the College One Executive Committee will undertake "continuous evaluation of the general education assessment plan." The plan will be revised when necessary to ensure that we are comprehensively assessing the student attainment of the guiding principles.

Some Preliminary Results

Despite the fact that the specific general education assessment procedures are still being implemented, some data was collected in Core 1 and through the Office of Institutional Research which provides some useful student baseline data. The Office of Institutional Research developed a mapping of NSSE questions to the General Education Guiding Principles.

In Core 1, one of the qualitative questions on the final course evaluation survey asked, "Upon completion Core 1, how would you rate your understanding of general education? Please explain." Although some students did indicate that the course did not affect their understanding of general education, most students indicated that it had. Here is a sample of student responses:

- "I would rate my understanding of general education a 4 out of 5 because this course has gone over so much that helped broaden my perspective. It helped me look at situations in a different way."
- "Very well!"
- "Highly. Core showed that GE is good for you."

Another question on the Core 1 survey asked, "Which aspects of Core have you found most useful for your ongoing education? Upon the completion of Core 1, how do you see yourself applying the principles of general education to other courses?" Students, of course, found different things helpful and varied in their responses as to how the principles would be applied to other courses. Here is a sample of student responses:

- "The most useful one would be about culture and society, it helps me understand people more."
- "The aspects that we dealt with real life situations. I can see myself applying the principles of general education to writing classes."
- "That there is always a different approach to everything. A philosophical / mathematical / biological / etc. approach to everything. It opened my mind on different subjects such as communication…"
- "The lectures information, papers, quizzes, readings for comprehension, thinking critically, solving problems. Use all of it to improve myself in other courses."

Although this data was limited in its ability to assess general education, it was important to include it to show that efforts are being made towards incorporating means to assess the guiding principles and determine the extent to which students are achieving them. To this end, any and

all data is useful towards this goal.

Conclusion
With the general education assessment plan in place and a preliminary look at these results, we can take significant strides forward in our efforts to coordinate assessment. As discussed in the sections above, implementation efforts are underway. As a student-centered research university, UC Merced has a commitment to general education and the attainment of the guiding principles by each and every student. Because General Education provides for a foundation of common experience upon which a specific path is prescribed, the nature of general education at UC Merced is complex. Assessment is critical to ensuring that all students acquire the guiding principles of scientific literacy; decision making; communication; self and society; ethical responsibility; leadership and teamwork; aesthetic understanding and creativity; and development of personal potential.

General Education is what makes our students responsible citizens. The challenge is ensuring common skills from different experiences. With our comprehensive approach to General Education Assessment, UC Merced will rise to this challenge.

Appendix A
Mapping of Major Learning Outcomes to General Education Guiding Principles

	Scientific Literacy	Decision Making	Communication	Self and Society	Ethics and Responsibility	Leadership & Teamwork	Aesthetic Understanding and Creativity	Development of Personal Potential
1. Bioengineering	a, b, c, d, e	a, b, c, d, e, f	a, d, e, f	d, f	d, e, f	b, f	d, e, f	a, b, f
2. Computer Science and Engineering	a, b, c, d, e, g, j, l, m	c, d, e, g, m	d, f, i	b, c, f, j, l	d, h, j	c, f, i, j, m	b, j, l, m	b, f, g, h, I, j, k, l, m
3. Environmental Engineering	a, b, c, d, e, f	a, b, c, e	d, e, g	b, g	d, e, f, g	a, g	b, e, f, g	a, b, c, e, f, g
4. Materials Science and Engineering	a, b, c, d, e, f	b, d, e, f, h	b, e, f, h, i	d, e, f, g, h	d, e, f, g, h	b, e, f, g	b, e, f, g, h	b, d, e, f, g, h, i, j
5. Mechanical Engineering	a, b, c, k, l	b, c, d, e, k, m, n	d, e, g, n	c, d, f, h, m, n	b, c, e, f	d, e, g, j, m, n	d, h, m, n	a, b, c, d, e, f, g, h, i, j, k, m, n
6. Applied Mathematical Sciences	a, b, c, d, e, f, g, h, i, j	c, d, f, h, i, j	i, j, m	e, m	d, e, n	e, f, k	e, f, m	e, f, h, k, l, m, n
7. Biological Sciences	a, b, c, d, e, f, g, h, j, k	e, f, g, h, j	g, h, i, j	l, o	f, k, l, m, o	l, n, o	g, j, l, o	e, i, l, m, n
8. Chemical Sciences	a, b, c, d, e, f, g, h, j, k, l, m, p	e, f, g, h, j, k, l, m	g, h, i, j, l	d, p	d, f, l, m, n, p	o, p	d, j, p	d, e, i, l, n, o, p
9. Earth Systems Sciences	a, b, c, e, f, i	d, f, g, i	d, f, g, h, i	j, l, m	d, e, f, g, j, k	d, f, l, m	d, e, f, i, m	d, f, g, h, I, k, l, m
10. Physics	a, b, c, d, e, f, g, h	a, b, c, e, f, g, h	e, h, i	k, l	d, k, l	f, j, k, l	h, i, l	f, i, j, k, l
11. Management	a, c, d, e	b, c, d, e	d, g	a, b, e	b, c, e, f	a, c, e	d, e, g	d, e, f, h
12. Social & Cognitive Sciences	a, b, c, d	a, b, c, d	f	a, c, d, g	b, c, d, e, g	d, g	c, d, g	a, c, e, f, g, h
13. World Cultures & History	f, k, o	a, f, j, k, o	c, f, j, l, o	a, d, f, h, n	d, f, h, i, n, o, p	d, e, f, h, m	a, d, j, o	b, c, d, f, g, h, i, p

Learning Outcomes Key

1. Bioengineering:
a. Multidisciplinary Ability: ability to apply fundamental science and engineering in an integrative fashion, to effectively work and solve problems at the interface of engineering, life sciences, and medicine (ABET criteria 3a, 3b, 3e, 3d, 8);
b. Problem Solving Approach: ability to pose, identify, formulate, and solve engineering problems (ABET criterion 3e);
c. Problem Solving Methods: ability to apply diverse techniques, methods, and tools towards the solution of engineering problems (ABET criteria 3e, 3k);
d. Experimentation: Ability to develop an hypothesis, design and carry out an experiment to test that hypothesis; ability to analyze experimental data, and to use statistics in experimental design and analysis; ability to make measurements on and interpret data from living systems (ABET criteria 3a, 3b, 3c, 3e, 3k, 8);
e. Design: ability to participate in creative, synthetic, integrative activities of Bioengineering design; understanding of the engineering process and design driven research (ABET criteria 3c, 3e, 3k); and
f. Professional Orientation: ability in effective oral and written communication skills; ability for reliable independent work as well as teamwork experience; judgment and appreciation of the bigger picture; ability to recognize and appreciate ethical principles and standards; a basis in the humanities and social sciences; aspiration and habits to keep learning throughout life (ABET criteria 3f, 3g, 3h, 3i, 3j, 3k).

2. Computer Science and Engineering:
a. A strong foundation in core computer science and engineering, both theoretical and applied;
b. Interdisciplinary vision with strong foundation in mathematics and in the social sciences;
c. Ability to apply knowledge of mathematics, science, and engineering to real world problems;
d. Ability to design and conduct experiments, as well as to analyze and interpret data
e. Ability to design a system, component, or process to meet desired needs within realistic constraints;
f. Ability to function on multi-disciplinary teams;
g. Ability to identify, formulate, and solve engineering problems;
h. Understanding of professional and ethical responsibility;
i. Ability to communicate effectively;
j. Broad education necessary to understand the impact of computer science and engineering solutions in a scientific, global, economic, environmental, and societal context;
k. Recognition of the need for, and ability to engage in life-long learning;
l. Knowledge of contemporary issues; and
m. Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

3. Environmental Engineering:
a. Leadership: ability to identify and to solve environmental problems;
b. Multidisciplinary Ability: ability to apply fundamental science and engineering in an integrative fashion, to effectively work and solve problems at the interface of mathematics,

science, engineering and technology;

c. Problem Solving Approach: ability to pose, identify, formulate, and solve engineering problems, including material balances;

d. Problem Solving Methods: ability to apply diverse techniques, methods, and tools towards the solution of engineering problems; ability to apply probability and statistics to data and risk analyses;

e. Experimentation: Ability to develop an hypothesis, design and carry out an experiment to test that hypothesis; ability to analyze experimental data, and to use statistics in experimental design and analysis; ability to make measurements on and interpret data;

f. Design: ability to participate in creative, synthetic, integrative activities of Environmental engineering design; ability to apply understanding of the engineering process and design driven research; and

g. Professional Orientation: ability in effective oral and written communication skills; ability for reliable independent work as well as teamwork experience; judgment and appreciation of the bigger picture; ability to recognize and appreciate ethical principles and standards; a basis in the humanities and social sciences; aspiration and habits to keep learning throughout life.

4. Materials Science and Engineering:

a. To ensure that our graduates have the necessary fundamental knowledge of mathematics and basic sciences (physics, chemistry and biology), and are able to apply this knowledge to the proper engineering use of a variety of materials systems;

b. To ensure that our graduates are skilled in engineering fundamentals;

c. To ensure that our graduates are knowledgeable about all classes of materials and their structure, properties, processing, applications and performance;

d. To ensure that our graduates are able to solve materials selection and design problems by integrating knowledge from the program's constituent courses;

e. To ensure that our graduates are able to properly use experimental, statistical and computational methods, along with critical thinking skills, to address analysis and design problems;

f. To ensure that our graduates can properly relate their hands-on laboratory experiences to solving real materials engineering problems;

g. To ensure that our graduates have a well-rounded education, preparing them to contribute effectively as individual professional and as team members in academia, industry and government;

h. To ensure that our graduates are proficient at integrating engineering and materials design concepts with societal issues, including economics, ethics, quality and human values;

i. To ensure that our graduates are able to communicate effectively – orally and in writing– the concepts and results of engineering investigations to both technical and non-technical audiences; and

j. To ensure that our graduates are prepared for entry to top-ranked graduate programs in MS&E and related disciplines.

5. Mechanical Engineering:
a. An ability to apply knowledge of informatics, mathematics, science, and engineering;
b. An ability to design and conduct experiments and numerical simulations, analyze, and interpret general scientific and engineering information;
c. An ability to design a system, component, or process to meet desired needs;
d. An ability to solve multidisciplinary problems;
e. An ability to identify, formulate, and solve engineering problems;
f. An understanding of professional and ethical responsibilities;
g. An ability to communicate effectively;
h. The broad education necessary to understand the impact of engineering solutions in a social context;
i. A sound basis and motivation to engage in life-long learning and continuing education;
j. A knowledge of contemporary issues;
k. An ability to use the techniques, skills, and modern engineering and scientific tools necessary for engineering practice;
l. A working knowledge of the principles of Mechanics and Thermodynamics and how these principles evolve into other disciplines such as Heat and Mass Transfer, Vibration and Controls, CFD, Mechanical Design, etc;
m. An ability to recognize new forms of thinking and new promising directions in engineering, and an understanding of modern tools of analysis, synthesis and design (such as neural networks, genetic algorithms, adaptive and bio-mimetic design, virtual environments, uncertainty in simulations, life-cycle analysis, etc.); and
n. An ability to incorporate interdisciplinary concepts from mathematics, physics, biology, chemistry and other disciplines into engineering solutions and vice-versa.

6. Applied Mathematical Sciences:
a. A general understanding of science including biology, chemistry and physics;
b. An understanding of major concepts and theoretical principles in applied mathematics: calculus, linear algebra, differential equations, probability and statistics, numerical analysis and modeling;
c. An understanding of a specific application area through the choice of an emphasis track (e.g. computational biology, physics, economics, computer science, engineering mechanics, etc);
d. An understanding of basic research methodologies, data analysis and interpretation;
e. An understanding of the impact of mathematics in a global/societal context;
f. The ability to use the fundamental tools of applied mathematics to develop mathematical models for a real-world problem chosen from a broad variety of areas;
g. The ability to use both analytical methods and modern computational methods to solve mathematical problems;
h. The ability to employ critical thinking and hypothesis-driven methods of scientific inquiry;
i. The ability to formulate significant research questions, and analyze and interpret data;
j. The ability to read, evaluate, and interpret numerical and general scientific information;
k. The ability to work effectively both individually and in teams;
l. The ability to engage in life-long learning;
m. The ability to communicate in written and oral formats complex technical information in a clear and concise manner to a broad audience; and
n. An appreciation of the importance and practice of good ethics.

7. Biological Sciences:
a. An understanding of major concepts, theoretical principles and experimental findings in chemistry, mathematics and physics underlying biology;
b. An understanding of the fundamentals of biochemistry and molecular and cell biology;
c. An understanding of additional areas of biology that may include genetics and genomics, microbiology/immunology, and/or physiology;
d. An understanding of how cellular functions are integrated at the level of the whole organism to sustain life;
e. An ability to employ critical thinking and hypothesis-driven methods of scientific inquiry;
f. A working knowledge of basic research methodologies, data analysis and interpretation;
g. The ability to formulate significant research questions, design experiments, use appropriate chemical instrumentation, and analyze and interpret data;
h. The ability to read, evaluate, interpret, and apply numerical and general scientific information;
i. Effective written and oral communication skills, especially the ability to transmit complex technical information in a clear and concise manner;
j. The ability to use computers for simulation and computation, data acquisition, and database usage;
k. A familiarity with, and application of safety and hygiene regulations and practices in the laboratory;
l. An appreciation and understanding of how to apply what is learned in the classroom in a more practical setting outside of the classroom;
m. An appreciation of the importance and practice of good ethics;
n. An ability to work effectively both individually and in teams in the classroom, laboratory, and everyday living; and
o. An understanding of the impact of biology in a global/societal context.

8. Chemical Sciences:
a. An understanding of major concepts, theoretical principles and experimental findings in chemistry;
b. An understanding of the principal subfields of chemistry, including analytical, biological, environmental, inorganic, materials, organic, and physical chemistry;
c. A thorough knowledge of mathematics and physics to facilitate the understanding and manipulation of fundamental chemical theories;
d. An appreciation for the role of chemistry as a foundational science that enables advances in biology, medicine, environmental science, and engineering;
e. An ability to employ critical thinking and hypothesis-driven methods of scientific inquiry;
f. A working knowledge of basic research methodologies, data analysis and interpretation;
g. The ability to formulate significant research questions, design experiments, use appropriate chemical instrumentation, and analyze and interpret data;
h. The ability to read, evaluate, and interpret numerical, chemical and general scientific information;
i. Effective written and oral communication skills, especially the ability to transmit complex technical information in a clear and concise manner;

j. The ability to use computers for chemical simulation and computation, data acquisition, and database usage;

k. The ability to search and use the chemical literature in both printed and electronic formats;

l. An understanding of the importance of performing accurate and precise experimental measurements and the ability to keep legible and complete experimental records;

m. Familiarity with and application of local, state and federal safety and chemical hygiene regulations and practices;

n. An appreciation of the importance of ethics and an understanding of the ethical and professional standards articulated by professional organizations (*e.g.* the American Chemical Society);

o. An ability to work effectively both individually and in teams in both classroom and laboratory; and

p. An understanding of the interrelationships among chemistry, technology, and global society, and of the societal implications of new developments in science.

9. Earth Systems Sciences:

a. An understanding of major concepts, theoretical principles and experimental findings related to physical, chemical, and biological aspects of Earth systems science;

b. A basic understanding of the principal areas of scholarship associated with Earth systems science, including physical and biological Earth sciences, hydrology, atmosphere and climate, geochemistry and biogeochemistry, geomicrobiology, and ecosystem science;

c. A thorough knowledge of fundamental mathematics, chemistry, and physics to facilitate the understanding and manipulation of Earth systems science;

d. An ability to employ critical thinking and hypothesis-driven methods of scientific inquiry;

e. A working knowledge of basic research methodologies, data analysis and interpretation for a variety of Earth-related data;

f. The ability to formulate significant research questions, design experiments, use appropriate laboratory and field instrumentation, and analyze and interpret data;

g. The ability to read, evaluate, and interpret numerical and general scientific information;

h. Effective written and oral communication skills, especially the ability to transmit complex technical information in a clear and concise manner;

i. The ability to use computers for simulation and computation, data acquisition, and database usage;

j. A familiarity with, and application of local, state and federal safety regulations and practices;

k. An appreciation of the importance and practice of good ethics;

l. An ability to work effectively both individually and in teams in classroom, laboratory, and field settings; and

m. An understanding of the impact of Earth systems science in a global/societal context and of the relationship of aspects of social science and economics to Earth systems science.

10. Physics:

a. An understanding of fundamental principles in physics and major concepts in a student-chosen emphasis track: e.g., atomic/molecular/optical (AMO) physics, mathematical physics, biophysics, or earth/environmental physics;

b. An ability to apply physical principles to real-world problems;

c. An ability to apply mathematical techniques to solve physical problems;

d. Proficiency in experimental laboratory techniques;
e. An ability to formulate significant research questions;
f. An ability to employ critical thinking and hypothesis-driven methods of scientific inquiry;
g. A working knowledge of basic research methodologies, data analysis and interpretation;
h. An ability to read, evaluate, and interpret numerical and general scientific information;
i. Effective written and oral communication skills, especially the ability to transmit complex technical information in a clear and concise manner;
j. An ability to work effectively in teams;
k. An appreciation of the importance and practice of good ethics in science and respect for culturally diverse views in the global scientific community; and
l. An understanding of the impact of physics in the global/societal context.

11. Management:
a. Understand the role of organizations and institutions in a society; understand the impact of organizations and institutions on the economic environment; and to understand how incentives influence individual and organizational behavior and performance;
b. Recognize how government actions affect organizational performance and how businesses influence government decisions;
c. Be able to design and conduct research that will inform managerial decision-making; and be able to collect, analyze, and interpret data using familiar software packages;
d. Be able to define problems and identify multifaceted explanations for complex phenomena; use information and data from multiple sources to answer the questions at hand;
e. Think critically about the information that they encounter, whether it is in their work, reported in the media, or in their private lives;
f. Have an ability to recognize their ethical responsibilities;
g. Have an ability to communicate clearly and cogently in written and oral form using modern technology; and
h. Engage in life-long learning.

12. Social and Cognitive Sciences:
a. An ability to see the relevance to society of knowledge in social and cognitive science;
b. An ability to design and conduct research in social and cognitive science, and to analyze and interpret data;
c. An ability to think critically about social and cognitive science research that they encounter in the media and other outlets;
d. An ability to use social science methods to identify, formulate, and study social problems;
e. An ability to recognize their ethical responsibilities;
f. An ability to communicate proficiently in written and oral form;
g. An ability to understand the impact of social and cognitive science in a global and societal context; and
h. An ability to engage in life-long learning.

13. World Cultures and History:
a. To teach students to appreciate and be knowledgeable of human creative expression, including literature, history, and the arts;
b. To educate students for future careers in academia, government, non-profits, and the private sector;
c. To teach students how to communicate and interact effectively with multiple audiences, using advanced skills in written and oral communication;
d. To teach students to understand and value diverse perspectives in milieus ranging from the local to the global, in ethnically and culturally rich settings;
e. To teach students to work effectively as individuals as well as in leadership and group roles, integrating their expertise with the skills of others;
f. To teach students to appreciate and understand the various and diverse factors bearing on decisions, and to use information effectively for critical analysis and problem solving;
g. To instill in students an appreciation of and a desire for life-long learning;
h. To instill in students a desire for civic participation;
i. To educate students regarding their ethical responsibilities as citizens of a modern society;
j. An ability to apply, in daily life as well as work, knowledge of history, literature, and the arts;
k. An ability to recognize, analyze, and successfully resolve questions and problems associated with the disciplines of literature, history, and the arts;
l. An ability to communicate effectively, in written form and oral expression;
m. An ability to work effectively as individuals and in groups;
n. An ability to recognize and carry out their ethical responsibilities as individuals and as members of society;
o. An ability to conduct research in the primary sources of history, literature, or the arts, and to present the results in a coherent, comprehensive, and persuasive manner;
p. An appreciation of and ability to engage in life-long learning; and
q. An ability to be an active, engaged, and responsible citizen in the civic life of the community.

UCMERCED

Student Affairs Plan for Assessment of Programs and Services

Task	Date for Completion
Introduction of Assessment Plan to the Student Life Staff – The overall plan for assessment, including a proposed timeline will be introduced to the Student Affairs directors at the Student Affairs directors meeting on 4/13/05.	4/13/05
Tracking of Student Use of Services – Each department will submit a narrative describing their planned methods of tracking use of services and their plan for tracking for the 2005-2006 academic year. Examples of tracking tools will also be collected. Consultation will be provided.	7/1/05
Needs Assessment – Each department will submit a narrative describing their planned procedures for assessing their constituents' needs. Assessments will be developed, administered and results obtained by June of 2006.	10/1/05
Satisfaction Assessment – Each department will submit a narrative describing their procedures for assessing their constituents' satisfaction with services and programs. Assessments will be developed, administered and results obtained by June of 2006.	10/1/05
Student Cultures and Campus Environment Assessment – The university will participate in a number of assessments to measure campus environment and students' satisfaction with their college experience such as the College Student Survey, the Student Satisfaction Inventory, the National Survey of Student Engagement, and the UC Undergraduate Experience Survey (UCUES). Student Affairs staff will actively participate in the development, where possible, of more specific questions regarding Student Affairs services and issues. A narrative will be submitted by each department describing how the results of these assessments inform departmental decision making.	Decision on which surveys to participate in during 2005-06 will be made in summer 2005

Task	Date for Completion
Assessment of Desired Student Outcomes – Following the completion of the Student Affairs strategic planning process that will take place during the 2006-2007 academic year, each department will submit a narrative describing their methods of assessing the Desired Student Outcomes pertinent to their department. Those methods for assessing Desired Student Outcomes will be implemented and results presented at the end of the 2007-2008 academic year.	6/1/08
Comparable Institution Assessment – Each department will develop a written plan for comparing their programs and services to other similar institutions. Comparisons will include facilities, staffing and budget allocations, along with programs and services offered.	6/1/08
National Standards Assessment – To accomplish this step, all other steps will need to be completed and assessment data collected. Each department will be provided with a Self-Assessment Guide from the Council for the Advancement of Standard in Higher Education (CAS) for their particular discipline. Following training, to be provided by the Assessment Coordinator, each department will complete the CAS Self-Assessment and prepare a written report regarding level of compliance and/or steps necessary to obtain compliance. In completing the CAS Self-Assessment Guide, an assessment team will be established for each department. This team should be made up of members from both inside and outside of the institution. For example, the CAS Assessment Team for the Career Services Center could be made up of the Director of Career Services, a faculty member, a student, an alumna/e, an employer and a member of the Career Services Staff from one of the other UC campuses. Since this is a major undertaking, a longer time frame will be needed to complete this step when compared to the previous assessment steps. This will allow for the collection, analysis and reporting of data from other assessment steps and the evaluation of this data by the Assessment Team.	6/1/09

Student Affairs Departmental Assessment Plans and Results for
2005 - 2006

During the Spring of 2005 a comprehensive plan for assessment in the Student Affairs Division was developed. By the fall of 2005 the departments had submitted their plans for tracking utilization of their programs and services along with plans for assessing constituents' needs and satisfaction with regarding those programs and services.

While the Student Affairs departments were successful in tracking the utilization of programs and services, for many departments, the implementation of the plans for assessment of needs and satisfaction, proved more challenging. Due to the time and effort required to launch the new campus, staff were unable to devote the time necessary to launch these rather ambitious plans. Some reported that during the course of the academic year, they found that they would modify the data their intended to collect to ensure that it truly inform their decision making. All agree that the implementation of the plans is essential to the continued growth and success of their programs and they intend to refine and implement their plans fully during the 2006-2007 academic years.

At the time of this report the Admissions and Registrar's Offices were still in the process of analyzing their data and had not submitted it for inclusion in this document. Their plans are included in this report.

A D M I S S I O N S

Plan for Use of Tracking Information for 2005-2006

Tracking of Prospective Student Calls, E-Mails and Services to Walk-in Students -
To track prospective student usage of individual services, the Office of Admissions/Relations with Schools and Colleges will use a simple Excel spreadsheet tracking form. The form will collect the following information:

- Date of student contact
- Name of student
- Time spent with the student in minutes
- How the service was provided – in person, via email or on the phone
- Type of services provided

These reporting capabilities will give insight into the types of questions and requests students have and enable us to develop and align resources to best serve this clientele.

Tracking of Workshop, Presentation and Event Participation –
Attendance at various Admissions workshops, events and classroom presentations will be tracked. Again, an Excel spreadsheet will be used to collect information. The name and date of the workshop, presentation or event, followed by the number of students and educators in attendance will be entered.

Tracking of Admissions Data
Applicants, admitted student and students that submit their statement of intent to register (SIR) will be tracked based on geographic and demographic information as well as academic interest (School and Major). A negative SIR survey, already in place, provides insight into why students do not enroll at the campus. A new survey for positive SIR (enrolling students) may provide insight regarding changes or enhancements that would provide better service to applicants and admitted students.

Use of Information

Tracking the use of individual services will assist the Admissions/Relations Office in making decisions regarding:

- Staffing and the allocation of staff time

- Strategies for developing publications, web based resources and messages

- How resources are used to maximize outcomes toward enrollment of students and the quality of services

The tracking of participation in workshops, presentations and events will be used to determine how to best deploy staff and resources.

The tracking of admissions data will assist in determining future recruitment efforts.

Reporting of Information – All tracking information will be reported in the Year-End Report which is submitted to the Vice Chancellor of Student Affairs in June of each year. The Vice Chancellor will also receive a monthly report of individual student contacts.

Plan for Needs Assessment for 2005-2006

In order to ensure that programs offered by Admissions/Relations are effective, a program of assessment for specific programs and services will be implemented. This program of assessment will determine what programs and services are developed or significantly changed.

The Office of Admissions/Relations with Schools and Colleges plans to address the following issues through needs assessment during the 2005-2006 academic year:

- **Workshops/Presentations** – What workshops/presentation delivery methods are of greatest service to prospective students?

- **Events** – What types of events should be held on campus and off campus? What are the needs and interests of prospective students?

- **Publications/Admit Packets/Web** – How effective are the current tools and resources in providing the greatest service to future students and prospective applicants? What needs to be improved for greater satisfaction?

- **Tours** – Are the schedules and presentations meeting the needs/expectations of families, students, special groups and educators? What changes can or need to be made?

Assessments, both qualitative and quantitative, will be developed to answer each of these questions. The results of the assessment will be shared with the Vice Chancellor of Student Affairs. The results will be used to determine what programs should be developed and if any programs that have been planned for the 2005-2006 academic year should be changed or eliminated in future years. This particular assessment project will be completed by July 2006.

Plan for Satisfaction Assessment for 2005-2006

Off-campus Presentations and Application Workshops – To assess the effectiveness of Admissions presentations and application workshops, an evaluation form will be given to the contact educator.

On-campus Presentations and Application Workshops – To assess the effectiveness of Admissions presentations and application workshops held on campus, an evaluation form will be given to each program participant.

On-Campus Tours – To assess the effectiveness of on-campus tours, participants will be surveyed concerning their satisfaction with these events.

Comprehensive Assessment of the Admissions Process - An assessment of satisfaction will be developed and accessible to admitted students. This web based assessment will be administered in March/April when admitted students decide to submit their statement of intent to register to UC Merced.

The results of these assessments will be used to identify areas where we may improve the programs or services of the Admissions Office as well as its successes. Assessment results will be reported to the Vice Chancellor of Student Affairs and included in the Year End Report.

CAMPUS RECREATION

Plan for Use of Tracking Information and Results for 2005-2006

The Campus Recreation program will track student usage in the five program areas. This information will be used to help guide staffing plans, facility development and program development.

Tracking Student Use of the Intramural Sports Program –
To track the student usage of Intramural Sports program during 2005-2006, the Campus Recreation office collected the following information:

- Numbers of participants per sport –
  - Flag Football – 96
  - Basketball – 77
  - Soccer – 72
  - Grass Volleyball – 25
  - Tennis – 12

During the 2006-2007 academic year, the following information will be added to what is currently tracked.

- Numbers of teams per sport
- Demographic information – gender, ethnicity, class standing
- Number of contests
- Contacts with students in the Campus Recreation office related to Intramural Sports
  - Personal contact
  - Phone contact

Tracking Student Use of the Outdoor Adventure Program –
To track the student usage of Outdoor Adventure program, the Campus Recreation office collected the following information for 2005-2006:

- Numbers of participants per trip/event
  - Total number of participants in all trips – 57

During the 2006-2007 academic year, the following information will be added to what is currently tracked:

- Numbers of rentals from proposed equipment rental program (to be implemented in
- Demographic information – gender, ethnicity, class standing
- Contacts with students in the Campus Recreation office related to Outdoor Adventures
  - Personal contact
  - Phone contact

Tracking Student Use of the Sport Club Program –   (To be implemented in 2006-2007)
To track the student usage of Sport Club program, the Campus Recreation office will collect the following information:

- Numbers of clubs
- Numbers of club members
- Demographic information of members – gender, ethnicity, class standing
- Number of contests scheduled per club
- Numbers of practices scheduled per club
- Contacts with students in the Campus Recreation office related to Sport Clubs
  - Personal contact
  - Phone contact

Tracking Student Use of the Fitness Program –
Until the Joseph Gallo Recreation and Wellness Center is opened in mid-fall 2006 students were given the opportunity to register with a local fitness club, Millennium Sportsclub at a significantly reduced rate. Five-hundred and fifty-six students registered for the program. This number represents a participation level of over 63% of the student population.

To track the student usage of Fitness program at the new Joseph Gallo Recreation and Wellness Center, the Campus Recreation office will collect the following information during the 2006-2007 academic year:

- Numbers of participants in structured classes and group programs
- Tracking of numbers of contacts in one-on-one fitness programs

- Demographic information of class participants – gender, ethnicity, class standing
- Contacts with students in the Campus Recreation office related to Fitness
    - Personal contact
    - Phone contact

Tracking Student Use of the Open Recreation Program – (To be implemented in 2006-2007)
To track the student usage of Open Recreation program, the Campus Recreation office will collect the following information:

- Numbers of students entering the building
- Duration of stay
- Demographic information of students entering facility – gender, ethnicity, class standing
- Visit frequency of students
- Hourly counts of activity areas
- Contacts with students in the Campus Recreation office related to Facilities and Open Recreation issues.
    - Personal contact
    - Phone contact

Use of Information

Tracking information will be used to assist the Campus Recreation office in making decisions regarding:

- Staffing levels and allocation of staff time

- Marketing strategies for specific programs

- Long range facility and programming expansion for Campus Recreation

Reporting Information - All tracking information will be compiled on an annual basis and presented to the Assistant Vice Chancellor of Residence and Student Life and the Vice Chancellor of Student Affairs in the Campus Recreation Annual Report.

Plan for Needs Assessment and Results for 2005-2006

The plan developed for 2005-2006 will not be implemented until 2006-2007. This is due to the lack of staffing available to perform comprehensive assessment of student needs.

In 2006-2007, the Campus Recreation program will seek student input on a number of issues during the year. The needs assessment will focus on the five areas of Campus Recreation.

Intramural Sports – Assessment will be done every two years on the following items:
- Types of activities offered,
- Preferred time during the academic year (fall or spring semester) to offer programs,
- Preferred days and times during the week to offer programs.

Sport Clubs – Assessment will be done every two years on the following items:
- Types of clubs offered,

- Desired level of campus support for the programs.

Outdoor Adventures – Assessment will be done every two years on the following items:
- Types of activities engaged in during outdoor trips,
- Classroom and lecture topics,
- Need for outdoor equipment and gear rental program,
- Need for outdoor resources center.

Fitness -- Assessment will be done every two years on the following items:
- Types of group fitness classes offered,
- Types of one-on-one services desired,
- Upgrades/additional pieces of fitness equipment,
- Staffing levels.

Open Recreation -- Assessment will be done every two years on the following items:
- Access to facilities (building hours),
- Adequate staffing levels,
- Need for upgrades/additions to current equipment available for student checkout.

Assessment on these items will be developed and presented to a random selection of the student body every two years. The results will be shared with the Executive Director of Residence and Student Life in addition to the Vice Chancellor for Student Affairs. These results will be used to guide the Campus Recreation staff in its programming and facility design. This assessment will be an ongoing project.

Plan for Satisfaction Assessment and Results for 2005-2006

The plan developed for 2005-2006 will not be implemented until 2006-2007. This is due to the lack of staffing available to perform comprehensive assessment of student satisfaction.

Trip/program Evaluation – To assess the satisfaction level of participants in Campus Recreation trips (Outdoor Adventures) and classes (Outdoor Adventure and Fitness) an evaluation will be provided to all participants at the conclusion of the event. These evaluations will be provided to the participants through an on-line assessment tool.

Intramural Team Sport Evaluation – To assess the satisfaction level of participants in the Intramural Sports program, an evaluation will be provided to all team captains at the conclusion of their team sport season. These evaluations will be presented on-line to the team captains.

Evaluate the Satisfaction Level with Campus Recreation Programs and Services – A comprehensive survey of Campus Recreation members (students, faculty & staff members of the program) to assess the satisfaction and value of the services and programs offered through Campus Recreation. This on-line assessment will be delivered to a random selection of Campus Recreation members in the spring of each year.

CAREER SERVICES CENTER

Plan for Use of Tracking Information and Results for 2005-2006

The Career Services Center (CSC) tracks information on two major groups of constituents; students (later including alumni) and employers.

Tracking of Student Use of CSC Services -
To track student usage of individual services, the CSC is using a web based application that is tied to the Banner system to track student contacts. This application allows the staff of the CSC to collect the following information:

- Date of student contact
- Name of student
- Time spent with the student in minutes
- How the service was provided – in person, via email or on the phone
- Demographic information – Gender, ethnicity, class standing, and residential status
- Type of services used. Specifically career counseling, test interpretation, job search assistance, resume and cover letter assistance, interview preparation/mock interviews, internship search assistance, graduate school search assistance, student employment issues, freshman appointment, senior appointment and other.

At the time of this report, this data is not complete as the end of the academic year is June 30, 2006 and the Registrar's office has not yet released this information. However, based on additional data we collected using a simple Excel spreadsheet, we have the following information about student usage of CSC services:

Scheduled Appointments	224 – Career Counselor Only
Email Consultation	25 – Career Counselor Only
Individual Students Participating in Career Counseling Services	158 – Career Counselor Only or 18% of the student population
Visits to the Career Services – Other than Scheduled Appointment	1636
Individual Freshmen Served	114 or 16% of the Freshman Class
Individual Transfers Served	38 or 28% of the Transfer Class
Individual Graduate Students Served	2 or 5% of Graduate Students

This information will be used as baseline data and will be compared to the percentage of students served by the other UC campuses.

Additionally, the CSC uses web based career services management software. The software, College Central Network, through its basic service, provides tracking and report generation and data in the following areas for the 2005-2006 academic year:

- Student/Alumni Job Search Activity –
  - Student Submitting their resumes on-line to employers– 43
  - Number of time employers reviewed individual student resumes 458

- Number of Student Registrations- 264 or 30.1%

- Number of Students Registered by Ethnicity –

UCM Students Registered on CCN	Students Registered at UC Merced*
o African American – 15 or 5.6% o Asian/Pacific Islander – 59 or 22.3% o Caucasian – 43 or 16.2% o Hispanic/Latino – 58 or 21.9% o Multicultural – 6 or 2.2% o Native American/Alaskan – 0 o Not provided – 74 or 28% o Other – 9 or 3.4%	o African American – 6.1% o Asian/Pacific Islander – 36.1% o Caucasian – 25.8% o Hispanic/Latino – 24.3% o Multicultural – Not available o Native American/Alaskan – 0.9% o Not provided – 4.3% o Other – 2.4%

* As of 3 week census for Fall 2005

Keeping in mind that a significant number of students did not report their ethnicity when registering on CCN, it does appear that work needs to be done to market the system more effectively to students of all ethnic backgrounds, particularly those who identify themselves as Asian and those who identify themselves as Caucasian.

- Number of Students by School

UCM Students Registered on CCN	Students Registered at UC Merced
o None – 76 o School of Social Sciences Humanities and the Arts - 120 o School of Natural Sciences - 98 o School of Engineering -34 * Students listed more than one major	Data not accessible at writing of this report

Once the data on the students registered at UC Merced by school is available, we will be able to determine if we are adequately promoting the CCN system to students at each of the three schools.

The data regarding student participation in the CCN system by ethnicity and school above provide us with a baseline on which to compare future years. This comparison will take into account the growth of the student populations and changes in the student populations' demographics. With this information, more targeted marketing efforts can be made to encourage student usage of the College Central Network system and to elicit information regard student interest in specific industries and employers.

The College Central Network system also allows the CSC to review and approve student resumes posted to the system. Student resumes not meeting CSC approval resulted in an invitation to the student to meet with the CSC staff to improve his/her resume. This service should enhance student usage of the CSC and an assessment will be done during the 2006-2007 academic year to determine if this in fact does so.

Tracking of On-Campus Student Employment –

Number of On-Campus Student Employment Position Announcements Posted	94
Number of Applications Submitted by Students	1946
Number of UC Merced Undergraduate Students Employed On Campus	272

This information will be used as baseline data to compare to future years.

Tracking of Workshop, Presentation and Event Participation –
Attendance at various CSC workshops, events and classroom presentations was tracked during the 2005-2006 academic year. An Excel spreadsheet was used to collect information. The name and date of the workshop, presentation or event, followed by the number of students, faculty/staff, community members, and/or career development professionals in attendance was entered.

For the 2005-2006 academic year the following information was gathered about workshop, presentation and events hosted or sponsored by the Career Services Center:

Total Number of Workshops, Classroom Presentations and Panel Discussions for UC Merced Students	**27**
• Students Attending Classroom Presentation	64
• Students Attending Workshops and Panel Presentations	346
• Students Attending Etiquette Dinner	50
• Students Attending Internship Fair	238
Total Number of Workshops/Presentations for Community Members conducted by CSC Staff	6
• Total Number of Community Members Attending	137
Total Number of Workshops/Presentations for Faculty Staff conducted by CSC Staff	9
• Total Number of Faculty/Staff Attending	114

This information provides us with baseline data by which to compare to future years. As the student population increases our hope is to both increase the number of programs and events offered and to increase the level of participation at each event or program.

Tracking of Employer Use of Services –
The College Central Network system and our own tally of opportunities not posted on College Central Network provided us with the following information:

Employers
- Number of Employers Registered on College Central Network (CCN) - 137
- Number of Employers on CCN by Major Sought
  o School of Social Sciences Humanities and the Arts -32
  o School of Natural Sciences -14
  o School of Engineering – 23
  o None Indicated – 75

Jobs

- Total Number of Jobs Posted for Students at UC Merced - 365
  - Full Time Jobs - 121
  - Posting Listing Multiple Opportunities - 4
  - Off-Campus Part-Time Jobs - 83
  - On-Campus Part-Time Jobs - 94
  - Summer Only Jobs - 9
  - Camps - 2
  - Internships - 52
- Number of Jobs Posted via CCN – 214
- Number of Jobs Posted via CNN by Job Type *
  - Full-Time – 128
  - Part-Time – 88
  - Internship – 24
  - Freelance – 3
  - Seasonal – 8
  - Volunteer – 8
    * One job could be listed as multiple types (i.e. full-time or part-time)
- Number of Jobs Posted by Major
  - School of Social Sciences Humanities and the Arts -73 or 34%
  - School of Natural Sciences -20 or 9%
  - School of Engineering – 30 or 14%
  - None Indicated – 135 or 63%
    * One job could be listed for multiple majors

Again, this data will provide us with baseline data upon which we can evaluate future years. Also, once we have the information regarding students by academic program and school we should be able to determine where we need to focus our efforts in employer relations for the 2006-2007 academic year.

Over time the CCN system should provide excellent information regarding recruiting trends specific to UC Merced and subsequently impact our efforts to attract and retain employer interested in recruiting UCM students. All jobs received by means other than the College Central Network system have been entered into the system if possible. Employers who fax, mail or email their announcements have been contacted by CSC staff to encourage them to use College Central Network for future postings.

In future years, as our on-campus recruiting increases, the following information will be gathered during recruiting events such as job fairs and on-campus interviews:

Job Fairs

- Total number of employers in attendance
- Industries represented
- Types of jobs available through the fair
- Total number of students in attendance
- Number of students who were offered positions as a result of the job fair

On-Campus Interviews

- Company name and industry
- Number and type of positions available
- Number of students who participated in the interviews
- Number of students who moved on to the next stage of the company's hiring process
- Number of students who were offered positions through this process

In February 2006, the Career Services Center hosted an internship and summer opportunity fair. Two hundred and thirty eight students participated in the event representing 28.4% of the undergraduate student population. Twenty-eight employers participated representing opportunities for students at each of the university's three schools.

Use of Information

The use of this year's and future year's tracking information regarding student use of individual services will assist the CSC in making decisions regarding:

- Staffing and the allocation of staff time

- Strategies for marketing services to students, ensuring that the students who use the CSC are representative of the university's student population

- Annual purchasing of resources such as assessment tools, books, software and web-based applications

The tracking of participation in workshops, presentations and events will be used to determine which topics are of most interest to students.

Tracking of the use of employer services and recruitment events will:

- Provide information regarding recruitment trends

- Assist in the development of targeted marketing to employers of interest to UCM students

- Enhance the CSC efforts to assist employers in the effective marketing of their opportunities to UCM students

- Assist in the decisions regarding the budget for recruitment activities and fees to employers for services

Reporting of Information – All tracking information will be reported in the CSC's Year-End Report which is submitted to the Vice Chancellor of Student Affairs in July of each year.

At the conclusion of the 2006-2007 academic year, special reports will be prepared for the deans of each of the university's schools and the Dean of Graduate Studies. These special reports will provide information regarding the career development activities of their students and employer recruitment trends. These reports will be prepared and disseminated in July of each year.

Plan for Needs Assessment and Results for 2005-2006

In order to ensure that programs offered by the Career Services Center are needed, wanted and effective a program of assessment to determine the UC Merced community's need for specific programs and services must be implemented. Rather than simply responding to anecdotal evidence or the latest musings at conferences or in the professional literature, a systematic program of assessment will determine what programs and services are developed or significantly changed.

The Career Services Center planed to address the following issues through needs assessment during the 2005-2006 academic year:

- **Internships –** What are the types of internships our students are or will be seeking? This will allow the CSC staff to focus their efforts on internship development. - This assessment was completed throughout the year. Students who entered the Career Services Center were asked to complete a brief questionnaire regarding their internship interests. This information is still be compiled at the time of this report and will be included in the Career Services Center Year End Report.

- **Career Fairs** – What type of job/career information fairs should be held on campus? If so, what are the needs and interests of students? What are the needs of employers? - This assessment will be implemented during the 2006-2007 academic year.

- **CSC Workshops/Presentations** – What workshops/presentations subjects are of greatest interest to students and what would motivate them to attend such workshops? – An evaluation sheet assessing needs and satisfaction was used at many of the workshops conducted by CSC staff. This data is still being compiled at the writing of this report. During 2006-2007, staff will be strongly encouraged to have participants complete evaluation sheets at every workshop.

- **Marketing**
  An additional assessment was completed via "man-on-the-street" interviews conducted by the Career Services Center student staff. This assessment was developed to determine the most effective marketing tools for CSC programs and services. Seventy-three students participated in the survey and indicated that they wanted information delivered in the following ways:

  - Email – 75%
  - UCMCROPS – 52%
  - Posters – 52%
  - Table Tents – 16%
  - Announcements Written White Boards – 8%

This information indicated that to reach students with information about events and programs, technology is the most effective strategy. Currently, university policy limits the ability of the CSC to conduct target marketing to students via email unless the student is registered via College Central Network. While significant efforts have been made to increase student participation in the system, only 30.1% of UC Merced students are registered on College Central Network. Students simply don't know what they don't know. Without the ability to provide targeted email to all student nearly 70% of students are potentially missing out on internship opportunities, workshops and events that would be of interest to them. The CSC will continue to work to increase students participation in the College Central Network and at the same time explore other options including pressing for the change to university communication policy.

The results of these assessments of need will be shared with the Vice Chancellor of Student Affairs as part of the CSC Year End report. The results will be used to determine what programs should be developed and if any programs that have been planned for the 2005-2006 academic year should be changed or eliminated in future years.

Presentation Evaluations – To assess the effectiveness of Career Services Center workshops and presentation, an evaluation form will be given to attendees at all CSC workshops/presentations given or sponsored by the Career Services Center. – As stated above, these evaluations were given at many of the workshops conducted by CSC staff. The results of these assessments were not available at the time of this report, but will be included in the CSC Year End Report.

On-Campus Recruitment/Job Fair Evaluations – In the future, to assesses the effectiveness of the Career Services Center's on-campus recruitment program and job fairs, employer and student participants will be surveyed concerning their satisfaction with these events. Focus groups of employers and students will also be conducted to provide more comprehensive qualitative assessment of the satisfaction with these programs.

This year an evaluation was given to participants or the Internship and Summer Job Fair held in February of 2006. This was the only job fair offered this academic year. The results of these evaluations completed by both students and employers will be included in the CSC Year End Report.

Comprehensive Assessment of Satisfaction with CSC Services - A comprehensive assessment of satisfaction, learning and needs will be developed. This web based assessment will be administered April of each academic year. – This assessment will be developed and administered during the 2006-2007 academic year.

The Office of Institution Planning and Analysis conducted a survey during November of 2005 of UC Merced's new students. 50.3% of undergraduate students responded to the survey and the sample who responded was reflective of the general student population. Results of the survey that provide useful information to the Career Services Center regarding both satisfaction and needs are as follows:

Needs -
- 55% of students indicated that there was a very good chance that they would participate in an internship during college. 37% stated that there was some chance that they would participate in an internship.

  These results confirm CSC staff's belief that significant time and resources need to be focused on the development of internship opportunities at the local, regional and national level. A full 92% of the first students at UC Merced are considering participation in an internship. This is in keeping with the strong desire of employers, as indicated on surveys conducted by the National Association of Colleges and Employers, that students have relevant practical experience through jobs or internships in addition to academic preparation.

- 63% of students indicated that there was a very good chance that they would get a job to help pay for college. 27% stated that there was some chance that they would do the same.

  With 90% of students indicating that there was some chance that they would work during their college career, this information confirms that the CSC staff needs continue its outreach to the local business community to encourage them to post their part-time

opportunities with the CSC. As part of this outreach, a part-time job and local internship fair is being scheduled for September 1, 2006. Both on-campus and off-campus employers with part-time jobs and paid internships will be invited to attend this event. There will be no charge to employers to participate.

- 42% stated that there was a very good chance that they would participate in volunteer or community service while in college. 40% stated that there was some chance that they would do so.

  Experience developed through volunteer and community service is a key component to the career development process. The Office of Student Life recently hired a staff member who will work closely and collaboratively with the Career Services Center to develop local volunteer opportunities and internships with area non-profit organizations. The results indicated in this survey show a good student interest in this form of service. The CSC will have to work at helping students see how volunteer service does relate to the future careers and how to incorporate that experience into their job search strategy.

- 34% of stated there was a very good chance that they would participate in service learning. 46% stated that there was some chance that they would do the same.

  While service learning is an academic program, the CSC staff believe strongly in its use as part of a good career development program. The CSC has offered its assistance to the Service Learning Program in the School of Engineering and to the Public Policy and World Cultures and History programs that are infusing civic engagement into their curriculum. Specifically, the CSC has provided workshops to engineering students on incorporating their service learning into their resumes. We assisted the Public Policy and World Cultures and History programs by assisting them in identifying appropriate placements with non-profit organizations in the community.

- 20% of students stated that there was a very good chance that they would change their career choice during college. 39% stated there was some chance of changing their career choice.

  59% of our new students indicate that there is at least some chance that they will change their career choice. This results highlight for the need to focus not only on job search, but to intervene early and often to assist students in making informed decisions regarding their choice of major and choice of initial career.

  Research conducted in 2000 by Ted Micceri, from the University of South Florida, found a 40% increase in retention for those students who changed their major compared to those who did not. Micceri concluded that efforts need to be made to assist, and not discourage students in fully exploring their options. The CSC, in collaboration with the Student Advising and Learning Center along with the academic advisors from each of the university's schools, is uniquely equipped to provide that assistance.

Satisfaction –

- 42% of students reported that they were very satisfied with the services offered by the Career Services Center. 54% indicated that they were somewhat satisfied. While the CSC did have the highest satisfaction rating of any Student Affairs office, research needs

to be conducted to determine what caused the 54% to state that they were only somewhat satisfied and remedy those issues if possible.

As more comprehensive assessments of both needs and satisfaction are developed the results will be used to identify any weaknesses in the programs or services of the Career Services Center as well as its successes. Assessment results will be reported to the Vice Chancellor of Student Affairs and included in the CSC Year End Report.

COUNSELING SERVICES

Plan for Use of Tracking Information and Results for 2005-2006

COUNSELING SERVICES tracks information on three major main areas of services: (1) counseling/clinical service, (2) educational programs/presentations to students, and (3) consultation to faculty, staff, and administrators

(1) Tracking of Student Use of Counseling/Clinical Services
To track student usage of counseling/therapy services and the severity of problems students face, the COUNSELING SERVICES currently utilize Microsoft Access Database to collect the data on each student. Information collected on each student includes:

- Name of student
- Contact information
- Emergency contact information
- Dates of therapy appointments
- Frequency of counseling sessions per student
- Prior counseling services received
- Demographic information – age, gender, ethnicity, class standing, major
- Presenting problems check-list
- Self-report of main reason(s) for seeking counseling
- Impact of current concerns on Academic activities
- Impact of current concerns on Social activities
- Outcome Questionnaire score (OQ-45) – this is a brief clinical evaluation tool that measures the student's functioning level (overall functioning, symptom distress, interpersonal relationship, social role, substance problems, and suicidality)

112 students (13 % of student population) were seen for crisis intervention, individual therapy, and group therapy at COUNSELING SERVICES during 2005-2006. *On average, about 8 – 10 % of the student population are seen during a 12-month period at university counseling services at UC campuses.*

Top 7 presenting problems as reported by the students:

% of Students Seen in Counseling
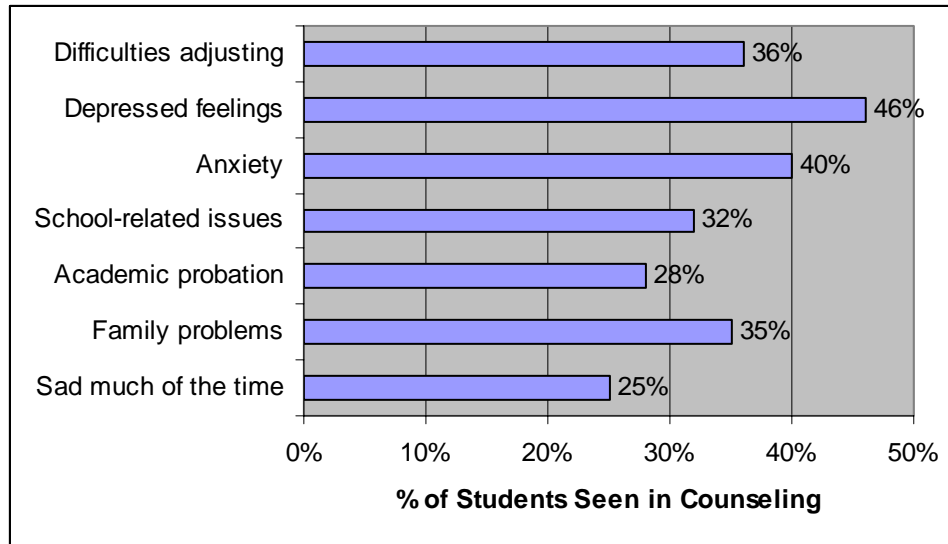
Significant student issues presented in counseling include:

- Suicide attempt and hospitalization
- Feeling suicidal (several students)
- Rape / sexual assault (current & past)
- Grief/loss
- Binge drinking / Substance abuse
- Legal problems
- Concurrent treatment with psychiatric medications
- Desire to leave UC Merced to go home

  - Impact of their presenting problems as reported by the students:

% of Students Seen in Counseling
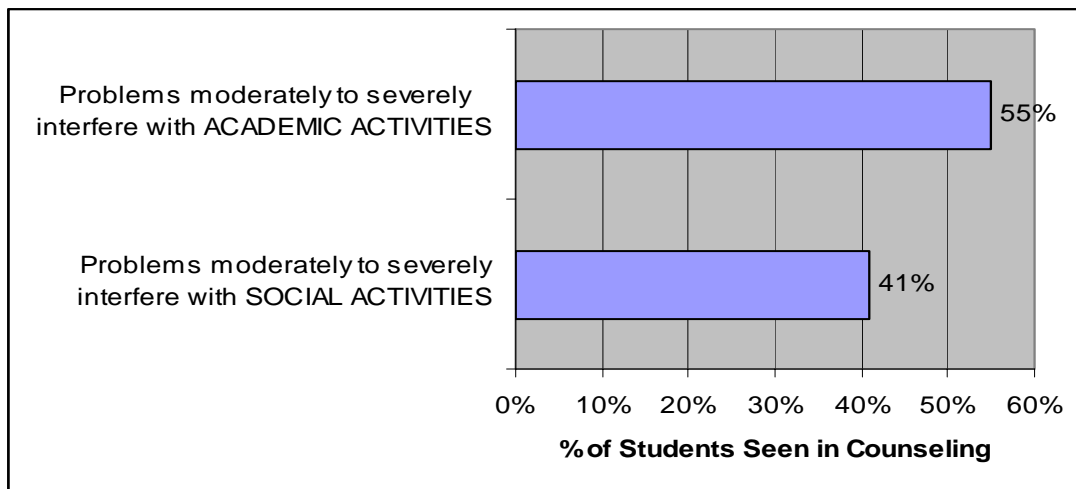
Student Demographic

- Average age: 18 year old (range: 17 – 29)
- Over 40% of the students seen are first-generation college students.

- 72% Students of color
- 55% Referred by Faculty or staff
- 57% female, 43% male

72%

Students of Color

55%

Referred by Faculty, Staff

Male 43%

Female 57%

Class Standing

Freshmen	72%
Transfer Students	22%
Graduate Students	3%

0% 10% 20% 30% 40% 50% 60% 70% 80%

% of Students Seen in Counseling

School

% of Students Seen in Counseling

Category	%
SSHA	51%
Natural Sciences	21%
Engineering	16%
College One	5%
Graduate	2%
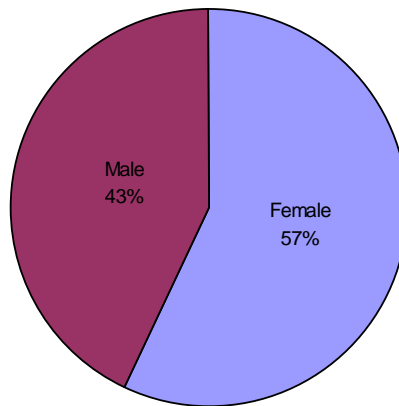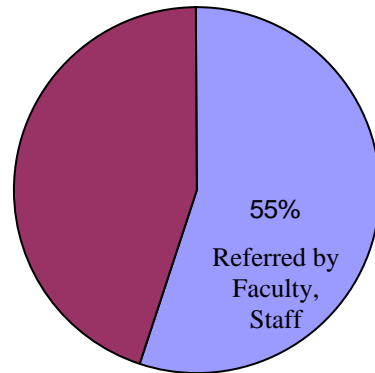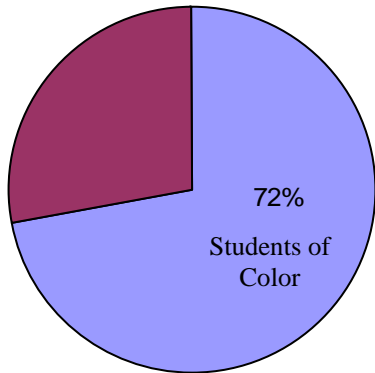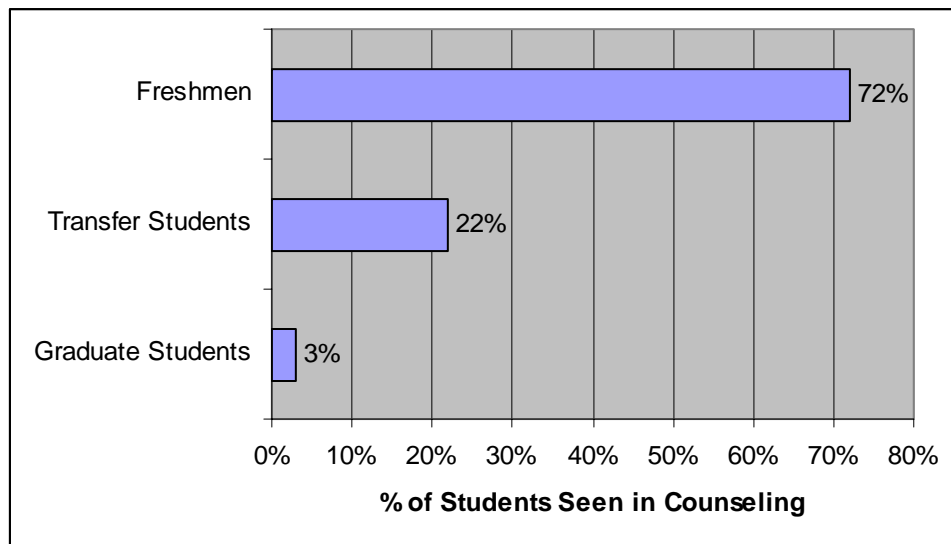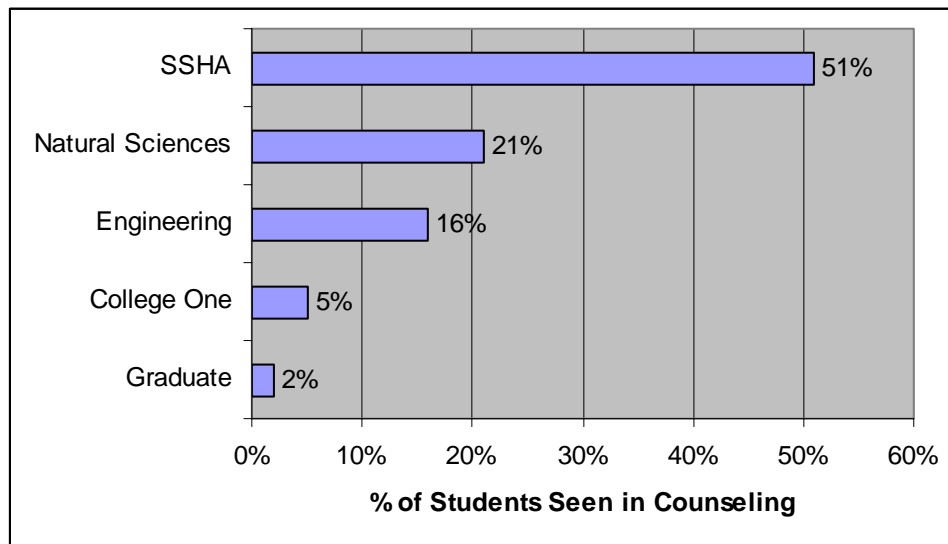
(2) Tracking of Educational Programs/Presentations to Students and (3) Tracking of Consultation to Faculty, Staff, Parents and Administrators

Attendance at various COUNSELING SERVICES educational program and presentations were tracked along with all consultation to faculty, staff, parents, and administrators. A Microsoft Excel Spreadsheet was used to collect information. The name and date of the educational program/presentation, followed by the number of students, faculty/staff, and/or community members in attendance will be entered.

COUNSELING SERVICES provided 321 consultations, programs, workshops, "house-calls" (totaling 504 hours) to faculty, academic departments, parents, students, Housing staff, Medical staff, and other staff/administrators. Consultation areas and time spent per area are listed below:

Consultation / Program Time (hours)

Area	Hours
Consultation: Staff	97
Community Partnership	51
Campus Consult / Meetings	55.5
Orientations	47
Consultation: Parents	46
Consultation: Housing Staff	49.5
Campus Crisis Consult	33
Workshops / Programs	27.5
Consultation: Faculty / Academic Dept.	45
Consultation: Medical Staff	22
Consultation: Students / House-calls	23
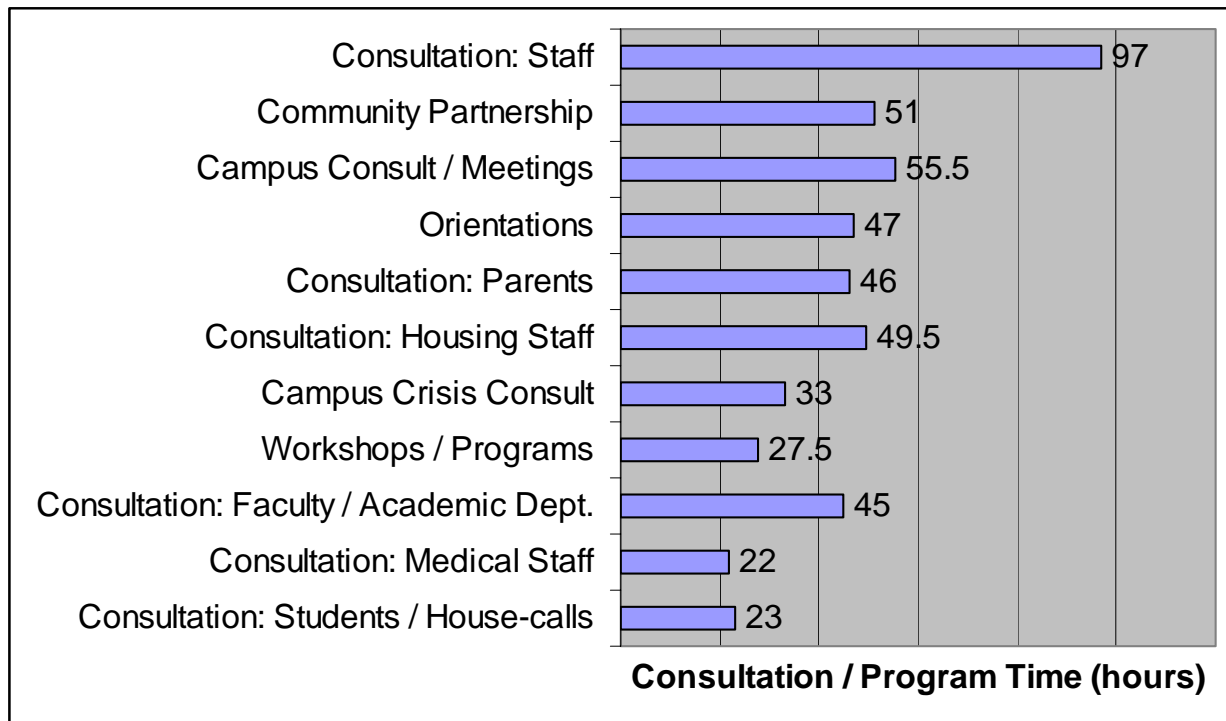
Sample consultation/program/workshop include:

- Crisis consultation regarding suicide attempt by a student in the Residence Hall
- Consultation to faculty regarding students' behavioral problem and other possible mental illness
- Sexual assault consult
- Parents phone consult regarding their concerns about their son/daughter's well-being
- "House-calls" to students in the Residence Hall to see how they are doing after reports of concerns from staff, faculty, or parents
- Coordination of care to students needing medical treatment
- Stress Management Workshop for students

Use of Information

Tracking the use of counseling/clinical services, educational program/presentation, and consultation to faculty, staff, parents, and administrators will assist COUNSELING SERVICES in making decisions regarding:

- Staffing and the allocation of staff time

- Programs and services to offer to students, faculty, staff, parents

- Strategies for marketing services to students, ensuring that the students who utilize COUNSELING SERVICES are representative of the university's student population

All tracking information, with the exclusion of any information that would identify individuals who have received services, will be reported in the COUNSELING SERVICES' Annual Report which is submitted to the Vice Chancellor of Student Affairs in July of each year.

Plan for Needs Assessment and Results for 2005-2006

Due to the legal and ethical commitment to confidentiality, assessing COUNSELING SERVICES presents more challenges than any other Student Affairs units. Assessing the therapy clients' needs is difficult using the traditional means such as focus groups.

COUNSELING SERVICES will focus on 3 methods of needs assessment. The first method explores the presenting problems of the therapy clients and the resources needed to help the students through these problems. The data on presenting problems will also be compared to the national data and those of comparable institutions.

The second method utilizes a clinical instrument to measure the severity of client's presenting problems and the needs of the client in therapy. The Outcome Questionnaire instrument (OQ-45) measures changes in client symptoms and functioning that result from mental health treatment. For clinicians, it provides assessment information and real-time feedback on client progress. This enables clinicians to calibrate treatment to the needs and responses of the clients. Students fill out the OQ-45 at the initial intake evaluation appointment, at the third therapy session, and at the last therapy session (if possible).

The third method captures information from therapy clients as well as the general student population. An on-line Client Satisfaction Survey (see Satisfaction Assessment) includes

questions on what the client believes the level of services COUNSELING SERVICES should offer in terms of individual and group psychotherapy as well as educational programs/presentations we should provide/facilitate. An on-line survey to the general population solicits ideas for educational programs, presentations, and other services that COUNSELING SERVICES should offer.

Due to the change in leadership in the Counseling Services this particular assessment project will be completed by June 2007. The results of these assessments will be used to determine the level of psychotherapy services and educational programs to offer to students at UC Merced in the year 2006-07. Assessment results will be reported to the Vice Chancellor of Student Affairs and included in the COUNSELING SERVICES' Annual Report.

Plan for Satisfaction Assessment and Results for 2005-2006

The plan developed for 2005-2006 will not be implemented until 2006-2007. This is due the change in leadership in the Counseling Services.

Counseling / Clinical Services – To assess the effectiveness of COUNSELING SERVICES' counseling / clinical services to students, all students who received counseling/clinical services will be e-mailed a web-based Client Satisfaction Survey form that can be completed on-line at the end of the treatment. –

Education Programs / Presentations – To assess the effectiveness of COUNSELING SERVICES' educational programs and presentations, student participants will be given a survey form to complete at the end of the program/presentation.

The results of these assessments will be used to continually improve the programs and services offered to students at UC Merced. Assessment results will be reported to the Vice Chancellor of Student Affairs and included in the COUNSELING SERVICES' Annual Report.

Plan for Use of Tracking Information and Results for 2005-2006

The Disability Services Center will track data on students served, by disability category as well as the types of services/accommodations provided to each student. The following information will be collected and maintained for each student served:

- Student Name
- Demographic Information (gender, ethnicity, etc.)
- Type of Disability (visual, hearing, mobility, etc.)
- Services provided

Demographic data for students will be collected from the University student information system (Banner).

At the time of this report, this data is not complete as the end of the academic year is June 30, 2006 and the Registrar's office has not yet released this information.

Data regarding the type of disabling condition will be provided to the Disability Services program by the student from a qualified health care provider, psychologist or other appropriate and licensed professional.

Data regarding the types of accommodations/services, along with the date of such services or accommodations will be maintained on an on-going basis for each student via the use of an electronic spreadsheet.

Plan for Needs and Satisfaction Assessment and Results for 2005-2006

Assessment of programmatic services provided to students with disabilities will focus on two levels of data collection and review:

1. A determination of the mandated accommodations and services to be provided to students with disabilities as required under federal and state law/regulation and University of California policy.
2. An on-going assessment and analysis of requested services and/or accommodations from current students of the University.

Periodically, data will also be collected and analyzed to determine the degree of student satisfaction with services, the timeliness of service provision and other indicators of the 'quality' of such services/accommodations.

Needs Assessment

I. Determination of Mandated Accommodations

    Federal and state law and UC policy regarding the provision of services to qualified students with disabilities were reviewed to determine the types and levels of services required.

    After this review and the determination of the mandated requirements, other UC campuses were surveyed to establish the types of services typically provided and the methods utilized to determine the appropriate types of accommodations to be made available to eligible students. Procedures for the provision of such services were established and structures put in to place to provide mandated services on a timely basis for each eligible student.

II. Services to Identified Students

    For the 2005-06 Academic Year a total of 12 students were self-identified as students with a qualifying disability. Ten of these students had been diagnosed as having a qualifying learning disability (ADD/ADHD and or other learning disability). Of these 10, seven students received one or more of the following services:

        Examination proctoring/extended examination time
        Text conversion to audio format
        One or more interviews/counseling sessions regarding disability related issues

    In addition to the students with learning disabilities as described above, two additional students (one with a diagnosis of Asperger's Syndrome and one with

multiple medical conditions were served through the Disability Services office. The services provided to these students included

Examination proctoring/extended examination time
Disability related counseling
Tutoring

Student Satisfaction Surveys

A simple survey instrument to determine the extent of student satisfaction with service provided through the Disability Services center is being developed and will be utilized for the 2006-07 academic year.

OFFICE OF FINANCIAL AID AND SCHOLARSHIPS

Plan for Use of Tracking Information and Results for 2005-2006

The Office of Financial Aid and Scholarships (OFAS) tracks three main types of services; outreach and yield activities, student contact services, and processing services for two major groups of constituents: students and prospective students.

Tracking of Outreach and Yield Activities-
(participation in workshops, presentations and events)

The OFAS staff participates in a variety of outreach and yield activities including, but not limited to, admit receptions, Bobcat Day, admission staff training and Cash for College workshops. For each activity the name and date of the workshop, presentation or event, followed by the number of students, faculty/staff, community members, and/or participants in attendance is collected.

The data for 2005-2006 is as follows:

Location	Date	Hours	Number Attended	Language Presented In
Gear UP Program (Mitchell)	12/12/05	1	10	English
Sonora High	1/5/06			
Merced High School	1/9/06	2	105	
Buchach High- GEAR UP	1/10/06	2	25	English
			20	Spanish
Livingston High School	1/11/06	2	80	Spanish
			102	English
Atwater High School	1/18/06	2	87	English
			30	Spanish
Golden Valley (Senior Class)	1/20/06	4	30	(diff. periods)
Golden Valley High School	1/25/06	2	90	English
			25	Spanish
Cash For College - Merced College	1/28/06	3	100	Spanish
Renewal FAFSA Workshop for Continuing Students	2/1/06	2		English

Cash For College - Fresno	2/4/06	4	10	English
Renewal FAFSA Workshop for Continuing Students	2/6/06	2		English
Delhi High School	2/7/06	2	40	Spanish/English
Off-Campus Housing Financial Aid Presentation for Continuing Students	2/7/06	3		English
Hoover High School – Fresno	2/15/06	2	30	English
Transfer Admissions Presentation	2/15/06	2		English
Cal Grant Radio Interview	2/17/06	1		Spanish
Renewal FAFSA Workshop for Continuing Students	2/27/06	7		English
Modesto JC	2/21/06	2	50	English
Wisdom Wednesday Financial Aid Table in Lantern	3/1/06	2		English
Transfer Admissions Lunch	3/10/06	1		English
Transfer Admissions Lunch	3/11/06	1		English
Educator's Breakfast-UC Merced	3/15/06	3	30+	English
EOPS Counselors Financial Aid Presentation	3/24/06	1		English
Admissions Presentation	3/29/06	2		English
Experience UC Merced	4/1/06	6		English
Bobcat Day-UC Merced	4/8/06	8	400+	English/Spanish
PIQE (Parent Institute)	4/12/06	2	40	Spanish
Admissions Presentation	4/18/06	1		English
Experience UC Merced	4/22/06	6		English
UC Merced Transfer Day	4/29/06	5		English

Tracking of Student Contact Services-
(telephone calls, e-mail inquiries, intake/reception contacts, walk-in counseling, and appointments)

Our office provides a number of individualized services to assist students throughout the financial aid process. These services include answering direct questions via phone and e-mail as well as a variety of in-person advising services.   For each contact, the following is collected:

- Date of student contact
- Name of student
- Time spent with the student in minutes
- How the service was provided – in person, via email or on the phone
- Demographic information – Gender, ethnicity, class standing, and residential status
- Type of question asked or assistance needed

For the 2005-2006 the software used to collect this information is still being refined. Staff has not been consistent with collecting information on each and every student but we will continue to work on this.

Tracking of Processing Services-
(number of applications processed, documents tracked, verifications completed,
folders/records prepared, professional judgment decisions)

The financial aid process is data-intensive. The Office of Financial Aid and Scholarships uses a number of resources to ensure that students are receiving the appropriate amount of financial aid and that the funds are processed in a regulatory compliant and fiscally responsible manner. It is important to understand the volume of data elements that are collected and reviewed during the aid process as well as the number of issues that require deviation from our automated processes. In order to assist us in this area, the OFAS tracked the following information for 2005-2006:

- Number of applications received/processed
  - 6205 applications received/processes
- Percentage of total students applying for financial aid (broken down in various ways including by gender, ethnicity, major, grade level, etc.)
  - Of the 875 enrolled students in 2005-06, 80% received offers of financial aid and 64% of that amount qualified for need-based financial assistance.
- Number of Professional Judgment decisions
  - 22 professional judgment decisions made
- Number of appeals submitted/granted
  - 10 on-time status appeals submitted/10 granted
  - 6 dependency override appeals submitted/6 granted
  - 4 continuing scholarship appeals submitted/1granted, 1 denied, 2 pending
- Number of students selected for verification
  - 1800 students selected for verification
  - 325 students verified
- Total dollars awarded/disbursed-Percentage of dollars disbursed from different agencies
  - $74,116,317 offered
  - $7,777,483 disbursed to undergraduates (as of May 31, 2006)
    - $1,028,713 in State Aid (13%)
      - $604,890 in Cal Grant A (7.8%)
      - $423,823 in Cal Grant B (5.4%)
    - $3,950,610 in Federal Aid (51%)
      - $1,091,901 in subsidized loans (14%)
      - $270,032 in unsubsidized loans (3.5%)
      - $6,890 in federal scholarships (.9%)
      - $1,011,102 in federal pell grants (13%)
      - $1,570,685 in federal PLUS loans (20.2%)
    - $2,413,002 in University aid (31%)
      - $1,986,166 in institutional grant (USAP) (25.5%)
      - $163,537 in work-study (2.1%)
      - $263,299 in institutional scholarships (3.4%)
    - $385,158 in other aid (5%)
      - $287,703 in external scholarships (3.7%)
      - $97,455 in alternative loans (1.3%)

  - $352,165 disbursed to graduates (as of May 31, 2006)
    - $257,196 in institutional grants (USAP)
    - $33,300 in Block Grant
    - $54,259 in tuition/fee remission
    - $7,410 in external scholarships

- Average total award package and grant vs. loan dollars
    - Undergraduates receiving grant/scholarship: average grant/scholarship package was $9,285
    - Undergraduate scholarship information:

	2005-06
Money available for new undergraduate scholarships	$263,299 (included one current-use gift of $200,000)
Applicants offered scholarships	591
Average offered	$1,862
SIR'd students accepted scholarships	135
Average accepted	$2,092
Enrolled students receiving scholarships	127
Average received	$1,940

Reporting of Information
All tracking information will be reported in the OFAS Year-End Report which is submitted to the Vice Chancellor of Student Affairs (VCSA) in July of each year. In addition, the VCSA receives monthly updates.

Plan for Needs and Satisfaction Assessment and Results for 2005-2006

The Office Financial Aid and Scholarships plays an important role in both the recruitment and retention of students. For many students, the financial aid process may be the deciding factor in whether or not they are able to attend the university and/or whether or not they are able to persist to graduation.

In order to ensure that services offered by the Financial Aid and scholarships Office are needed, wanted and effective, a program of assessment must be implemented. Following are problems that may hinder the true and accurate assessment of the Office of Financial Aid and Scholarships:
- Students may not understand the rules and regulations that govern the financial aid process and assume, incorrectly, that the reason they do not receive the amount of aid they expect is the fault of the Financial Aid staff.
- Financial Aid is cyclical and during the busiest times of the academic year, service cannot be provided to students as quickly as they would like.
- Decisions about who will receive institutional funds are not always made by the financial aid office but the office is placed in the position of having to explain why those decisions were made.

- Financial Aid is heavily regulated by both state and federal agencies. The regulations can be extremely complex and can change from year to year. Students may, incorrectly, blame OFAS staff for the regulatory hurdles encountered in administering financial aid programs.

With the above challenges in mind, we plan to begin implementing the following assessments for the 2005-2006 academic year:

Assess Student Needs-
We will develop quantitative measures that will assess the financial need of our students and measure the extent to which the institution is meeting those needs.

The following information was prepared for the 2006 UC Merced Enrollment Summit and address the issue of student needs–

Applying for Financial Aid
Students apply for all forms of financial aid through a national form called the Free Application for Federal Student Aid (FAFSA). The Department of Education calculates an Expected Family Contribution (EFC) based on the information submitted on the FAFSA. The formula used to calculate the EFC takes into consideration not just current income and assets but also the number of people in the household, number in college, and number of people working. It also protects certain assets including the primary home and a reasonable amount of retirement savings. The EFC tells the University what a family can reasonably be expected to contribute to a student's education for a given year.

Cost of Attendance
The Cost of Attendance (COA) is a standardized budget of what it might cost a student to attend the University for one year. The COA includes: tuition and fees, books and supplies, room and board, personal expenses, transportation and health insurance. The COA varies depending on whether a student lives on-campus, off-campus or at-home with parents.

UC Merced Cost of Attendance for Undergraduate California Resident

	2005-2006	2006-2007
On-Campus	$21,692	$22,511
Off-Campus	$19,252	$19,887
At-Home	$15,209	$15,621

Determining Financial Aid Eligibility
The COA minus the EFC determines the amount of need-based aid for which a student is eligible (this includes need-based scholarships).

If the EFC is greater than the COA, the student is eligible for unsubsidized and/or parent PLUS loans but is not eligible for need-based grants, need-based loans or need-based scholarship aid.

University Student Aid Program
Roughly one-third of all educational fee-revenue collected at the University of California goes into a systemwide grant program called the University Student Aid Program (USAP). As a result, the University of California uses a systemwide philosophy for the awarding of grant aid called the Education Financing Model (EFM). The EFM assumes a partnership for the financing of a student's education between the following:

STUDENTS are expected to work part time and borrow student loans. For the 2006-2007 academic year, the work/loan expectation of students at UC Merced is $8,500-$9,500.

PARENTS are expected to contribute based on their financial circumstances as calculated from the information submitted on the FAFSA:
- Low-income parents usually are expected to contribute nothing.
- Independent students' parents are not expected to contribute

THE UNIVERSITY provides grant assistance with the goal of making the University of California affordable for all eligible students.

The amount of grant money available to UC Merced is determined by the UC Office of the President each year. In 2005-06, UC Merced received $1,953,435 in undergraduate USAP funding. In 2006-07, UC Merced is expected to receive $3,413,004 in undergraduate USAP funding.

Scholarships at UC Merced
There are many types of scholarships (institutional, outside agency, need-based, merit-based, etc.) and they are all considered a form of financial aid.

One of UC Merced's "best practices" is that we award scholarships very early in the awarding process. Most UC Merced students find out about scholarship eligibility at the same time they find out about the rest of their financial aid. Many other campuses aren't able to notify students of scholarship eligibility until well into the Fall or even Winter terms. We are able to award even named-scholarships early because the restrictions on our scholarships are easily identifiable and in many cases can be automated. Awarding scholarships early in the process also means that we have the potential to influence a student's decision about whether or not to attend the University.

Scholarship Summary:

	2005-06	2006-07
Money available for new undergraduate scholarships	$263,299 (included one current-use gift of $200,000)	$282,000 (OP provided $254,000)
Applicants offered scholarships	591	620
Average offered	$1,862	$3,057
SIR'd students accepted scholarships	135	85
Average accepted	$2,092	$3,620
Enrolled students receiving scholarships	127	N/A
Average received	$1,940	N/A

Summary of Financial Aid Information for UC Merced

- The percentage of applicants applying for financial aid went down by 1%
- The percentage of financial aid applicants who received grant aid remained the same.
- The percentage of financial aid applicants who received scholarship aid increased by 1%.
- For those receiving grant and/or scholarship aid, the average total grant/scholarship package increased by $1,978.
- For those receiving scholarships, the average scholarship package increased by $1,196.
- Financial aid applicants with incomes under $100,000 went down by 5% and financial aid applicants with incomes over $100,000 went up by 4%.
- Scholarship funds did not have the impact on SIR decisions that we had hope

Assess Student Satisfaction with the Office of Financial Aid and Scholarships-We will develop both qualitative and quantitative measures to assess student satisfaction with the services offered by the Office of Financial Aid and Scholarships. We realize that given the relatively narrow bounds established by federal regulations, students may be unhappy with the OFAS when, in reality, their dissatisfaction should be focused elsewhere.

We have just begun to design our own student satisfaction survey that we plan to implement during 2006-07. However, several other campuswide surveys also include information about student satisfaction as it relates to the financial aid office and/or our presentations.

Assess the Extent to Which Financial Aid Facilitates Persistence-
Assessments will be developed to determine the future relative persistence of students who receive financial aid with those who do not receive financial aid and the relative persistence of students who participate in loan programs with those who do not.

We have not yet begun this process but plan to do so during the 2006-07 academic year.

The results of the assessments will be shared with the Vice Chancellor of Student Affairs and will be used to determine areas where improvements can be made to both financial aid programs and financial aid services.

Plan for Use of Tracking Information and Results for 2005-2006

The Office of the Registrar (OTR) tracks student use of services provided by the OTR through Outreach and Yield Activities, Self-Service and Direct Support Applications, and Student Contact Services.

Tracking of Outreach and Yield Activities-
(participation in workshops, presentations and events)

The OTR staff participates in a variety of outreach and yield activities including, but not limited to: Bobcat Day, Undergraduate and Graduate Orientations, Move-In Weekend, Family Weekend, Mid-Semester and Final Grade reporting workshops, etc. For each activity the name and date of the presentation or event, followed by the number of students, faculty/staff, community members, and/or participants in attendance is collected. The OTR is also responsible for posting all campus announcements to students via email or on the MyUCMerced Web Portal.

2005-2006 Event	Numbers Served
Bobcat Day	3,000
Undergraduate Orientations	881
Graduate Orientations	25
Move-In Weekend	586
Mass Email to Students	15
Mass Posting to Web Portal	32
Total Served:	4,539

2005-2006 Results: A start-up campus will typically see more students and families in person during its first year. We expect that the direct personal introductions will still be needed, although the numbers of electronic communications will increase dramatically as time passes. Most of the direct interactions that involve the OTR are ones that could be supplemented or even replaced by on-line training modules that help students learn how to use the self-service registration and add/drop functionality. Such tools will help the students learn at their own pace and at their convenience, which allows us to redirect staff energies to new initiatives that further personalize the student experience with administrative processes.

Self-Service and Direct Support Applications-
(Statement of Legal Residence, Banner Student Information Self-Service, Class Rosters via UCMCROPS, National Student Clearinghouse,)

The philosophy of the OTR is to engage and enable students and faculty to be able to accomplish a number of outcomes utilizing the latest in technology and on-line access. For example, the Statement of Legal Residence (see picture #1) is an application designed to ask all the pertinent questions needed to determine the residency for tuition status of all students attending U.C. Merced. The Banner SIS Self-Service application (see picture #2) is used for on-line registration, on-line add/drops, grade mode changes, address/phone number management, email address changes, marital status changes, emergency contact updates, viewing holds, and seeing mid-semester and final grades. Class rosters are made available via a real-time link between the Banner SIS application and U.C. Merced's course management system (UCMCROPS). U.C.

Merced has also entered into an arrangement with the National Student Clearinghouse to enable enrollment verifications, transcript ordering, and degree verifications via the web.

Statistical counts of many of these transactions can be tabulated by reports from various application databases. It would be fairly straight-forward to know the number of legal residence applications we processed in any given year; the number of registrations and/or add/drops managed on-line; the number of grades loaded each semester for mid-semester and final grade; the number of students who withdrew/PELPed, and the number of enrollment verification, transcripts, or degrees that were verified or ordered.
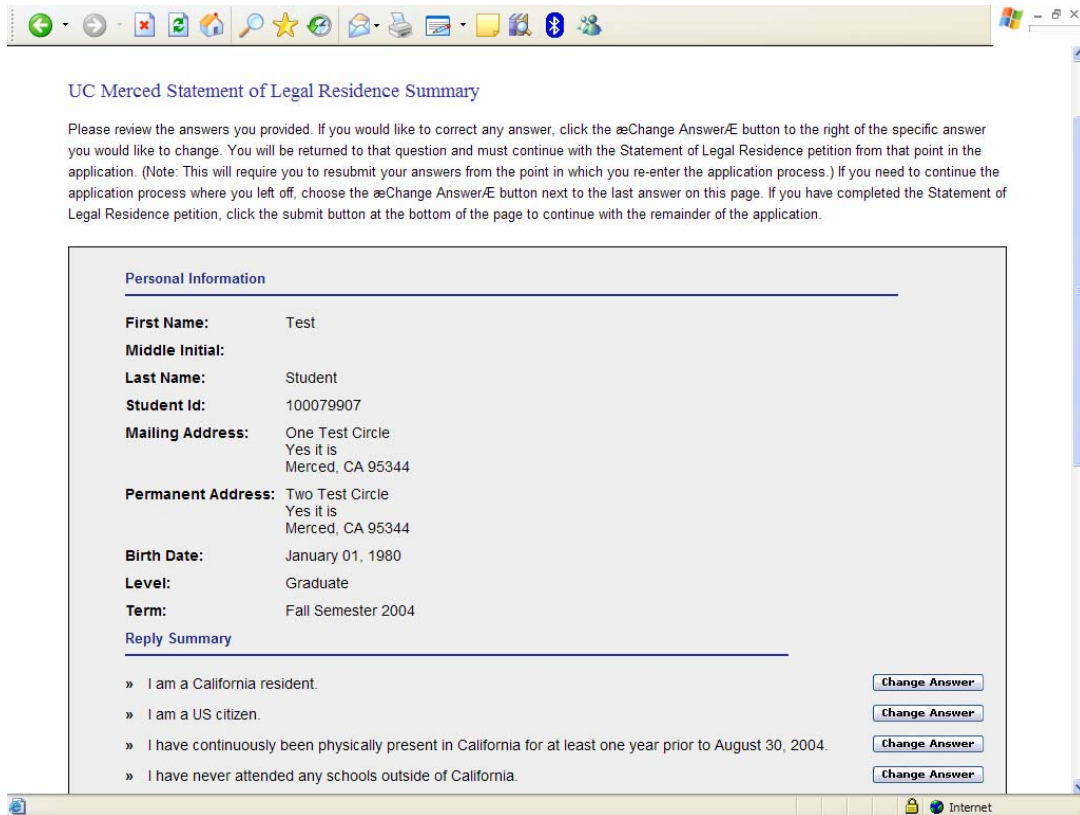
Picture #1
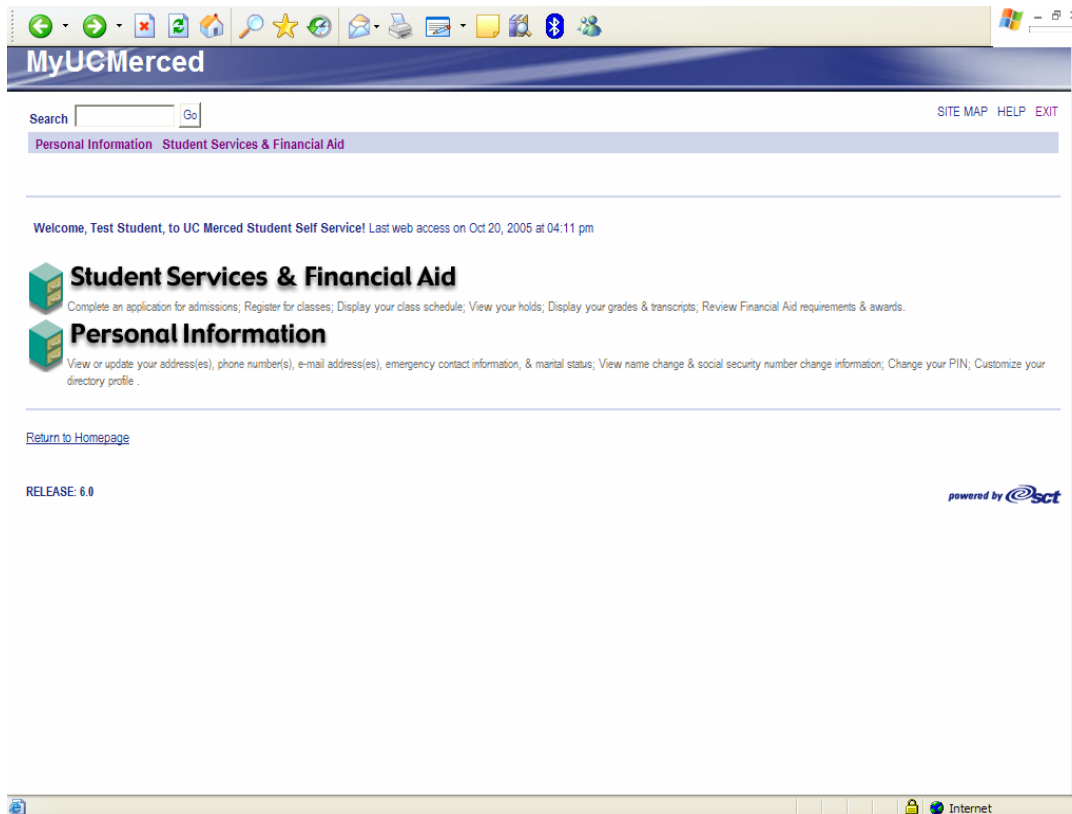
Picture #2

By Transaction	Counts for 2005-2006	Percent for 2005-2006
Registration Transactions		
Web Registered	**33,121**	90.22%
Registered Manually	**3,592**	9.78%
	36,713	100%
Drop Transactions		
Web Drop	**5,215**	70.31%
Drop Course Manually	**1,489**	20.08%
Drop/Delete	**481**	6.49%
Drop - No Show/No Payment	**232**	3.13%
	7,417	100%

2005-2006 Results: During the 2005-2006 academic year, a number of self-service and direct application transactions were logged and tabulated. These numbers demonstrate that a large majority of the registration/add/drop transactions are efficiently managed electronically and at the convenience of our students.

Tracking of Student Contact Services-
(telephone calls, e-mail inquiries, intake forms, walk-in counseling, and appointments)

The OTR provides support to students and faculty via phone, email, walk-in counseling, and appointments. Many of these services relate to legal residence petitions; course registration and special overrides; special programs (i.e., intercampus visitor/exchange programs); grade recording and changes; transfer articulation/posting; enrollment verifications; transcript orders; major changes, confidentiality/FERPA related protections and releases, veteran's fee waivers, veteran's enrollment certifications, and withdrawals and Planned Educational Leave processing. All of these contacts require forms to be turned into the OTR for processing. We will track

numeric counts for each. In addition, we also track the interpersonal contacts with students using the Student Time Tracking System (STTS) application (see picture #3). The STTS application tracks the following information:

- Date of student contact
- Name of student
- Time spent with the student in minutes
- How the service was provided – in person, via email or on the phone
- Demographic information – Gender, ethnicity, class standing, and residential status
- Type of question asked or assistance needed
- Comments associated with that interaction
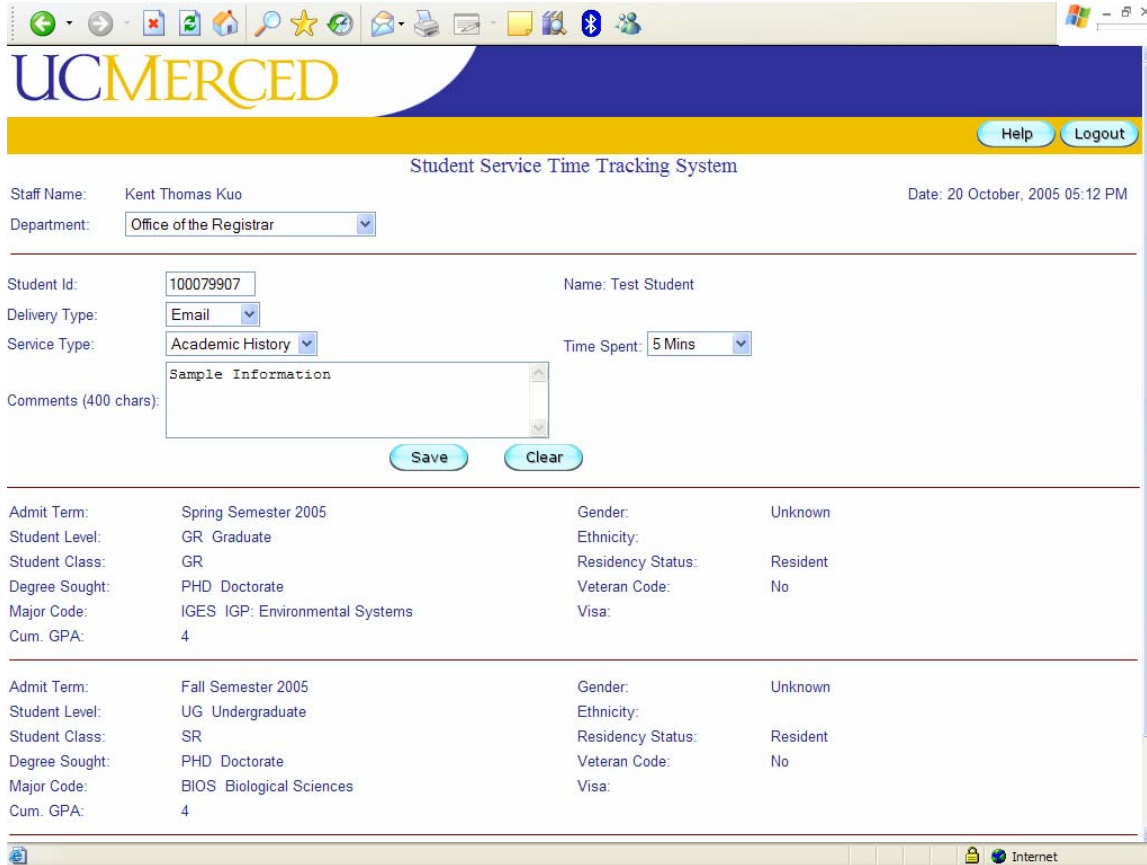
Picture #3

Misc. Forms Processed	Counts for 2005-2006	Percent for 2005-2006
Transfer Course Work		
AP Credits	**282**	49.82%
Community College Transfer Work	**208**	36.75%
Other Four Year Transfer Work	**76**	13.43%
	566	100%
Misc. Forms		
Change of Majors	**125**	13.72%
Petition to Change Name	**3**	0.33%
Intercampus Exchange/Visitor Forms	**12**	1.32%
"I" Grade Petitions	**48**	5.27%
Grade Change Petitions	**354**	38.86%
Requests for Official Transcripts	**113**	12.40%
Verification of Enrollments	**256**	28.10%
	911	100%

2005-2006 Results: The manual processing of transfer course work can only be alleviated by the implementation of a degree audit/transfer articulation system. Such a system would improve the registration process by eliminating issues with pre-requisites taken at another institution. It would also improve recommendations related to academic advising during a student's academic career. Many requests are in the process of being automated (enrollment verifications and transcript ordering), the rest require physical signatures and are part of the normal operations of a University. Additionally, we are still working on a standard tool for tracking other student service activities for 2006-2007.

Use of Information
The tracking of outreach and yield activities will be used to determine which activities are most useful for students and most worthy of staff time.

Tracking of Self-Service and Direct Support application services will be used to assess:
- How much are these applications used to perform various functions
- In combination with surveys, how useful did the students find these applications to be
- In combination with Student Contact Services, what could we offer on-line that would improve our services to students

Tracking the use of student contact services will assist the OTR in making decisions regarding:
- Staffing and the allocation of staff time
- Automated processing and system enhancements
- Strategies for marketing services to students, ensuring that students are aware of the services we offer

Reporting of Information
All tracking information will be reported in the OTR Year-End Report which is submitted to the Vice Chancellor of Student Affairs (VCSA) in July of each year. In addition, the VCSA receives end-of-semester updates.

OFFICE OF STUDENT LIFE

Overview of Services and Co-curricular Programs

Reviewing the tasks accomplished in the 2005 – 2006 academic year, the Office of Student Life has provided a myriad of programs, activities, and opportunities for student involvement. In the seven Student Life focus areas (Leadership development, intercultural programs, student government, clubs and organizations, activities and events, community service and involvement, and judicial affairs) there have been many successes and challenges throughout the year.

Several pertinent pieces of programmatic information have been tracked and assessed during the course of the year, while other pieces of information tracking and assessments are still in process. Below are some of the pieces of information tracked by the Office of Student Life:

<u>Office of Student Life Statistics</u>

- OSL Activities and Events: 194 events sponsored
- 23,973 participants attended the 194 events sponsored by OSL
- Including cosponsored programs OSL was involved in the planning and implementation of more 244 programs during the 05-06 academic year.
- 57 Student clubs and organizations were registered through OSL
- 30 community service and involvement events were sponsored by OSL.
- 2,801 individuals attended the 30 community service events.
- 435 students expressed interest in participating in student government.
- More than 70% of the UC Merced student body voted in the first Associated Student election process.
- 95 students signed up to participate in the first annual All-University Leadership conference and approximately 60 completed the program (participant feedback for this two day event was overwhelming positive).
- 35 students were referred to Student Judicial Affairs for campus policy violations or academic dishonesty violations.
- 15 academic dishonesty cases were handled by faculty.\
- 7 conduct related cases were adjudicated through Judicial Affairs.
- 6 students were placed on University probation.
- Approximately 1500 people participated in Intercultural programs including such programs as Rainbow festival, Black History Month, International festival, World Aids Day, Cultural Networking socials, and the Clothesline Project.

<u>Evaluation of the OSL program</u>

In most of the seven focus areas of Student Life the event coordinators conducted individual event evaluations assessing each event at its conclusion. For all of the focus areas, event coordinators have conducted some one on one evaluation meetings with students to gain feedback regarding particular elements of their program. For large scale events such as the All-University Leadership Conference, Family Weekend, and Rainbow Festival, written participant evaluations were collected as well as the acquisition of informal feedback from attendees. The data from these evaluations has been tabulated and this information will be used in the coming months to strengthen and improve the quality and participation in our large scale activities.

Currently the Office of Student Life is also in the process of creating and gathering student feedback through an online survey regarding office and supply accessibility, activity attendance, quality and quantity of activities, overall satisfaction with Office of Student Life programs, and their desired programs for the upcoming year. This information will be collected throughout the summer and will be assessed prior to the beginning of the 2006-2007 academic year to assist in strengthening the programs emanating from the seven functional areas of the Office of Student Life.

Due to the whirlwind non-stop pace of the year, the sheer volume of events coordinated by OSL, and a shortage of programming staff, the Office of Student Life was not able to implement the proposed assessment program as completely as we desired. The Office of Student Life staff is currently in the process of determining how we will implement our assessment plan for the upcoming year, and how we will work with other Student Affairs units to garner student feedback. With such a small population on campus we are concerned with students facing assessment burnout as each unit will be responsible for gathering student feedback.

Overall, the Office of Student Life is in process with our evaluation and assessment of our program areas. It has been a good year with many successes as well as many challenges. While our staff team has many accomplishments to be proud of there were many dynamics which provided roadblocks along the way. Challenges such as insufficient staffing for the tasks undertaken, insufficient programming space, facilities supply challenges, and insufficient funding for some desired events made completion of our goals incredibly difficult. However, even in the face of these obstacles our Student Life team worked tirelessly to provide quality programs and activities for students. I anticipate that the feedback gathered about our programs and services throughout the year and in the months to come will allow us to create even stronger programs to serve the outstanding UC Merced student body.

Plan for Use of Tracking Information and Results for 2005-2006

The Office of Student Life tracked information for students regarding the programs and services provided by our office. The Office of Student Life planned to track the following using an excel spreadsheet or basic database program:

- Date of student contact
- Nature of contact (phone, email, in person)
- Time spent with the student in minutes
- How many questions asked
- Program area identified in questions (leadership, clubs/orgs., student government, community service, intercultural programs, judicial affairs, activities and events, or other)

At the time of this report, this data is not complete as the end of the academic year is June 30. Some of this information was collected, but due to the high volume of contacts through our office some information was difficult to track. We are in the process of revising the basic information we track and will include that data in a future report.

Information tracked for the following areas:

Clubs and Organizations

How many clubs/organizations proposed vs. actually started?	**57**
How many students participating in clubs/organizations?	**687**
How many clubs/organizations fit under particular headings (political, social, ethnic, academic, recreational, etc.)?	**Academic/professional – 13** **Art/music/dance – 8** **Community service – 3** **Cultural – 6** **Religious – 5** **Special interest – 16** **Wellness - 5**
Number of students participating in each major heading area.	**In progress**
How many events were sponsored by clubs and organizations during the course of the year?	**No data available**
Average amount of money collected/spent by clubs/organizations through our accounting process?	**In progress**
Number of clubs who register for recognition during the second semester.	**3**

Community Service

How many events were sponsored by OSL?	**30**
Number of students participating in each event	**Information unavailable**
Number of community groups worked with to participate in/coordinate an activity	**45**
Number of students placed for one time volunteer opportunities (one day) vs. long term (multiple sessions)?	**240**

Judicial Affairs

How many incident reports were received (violations reported)**?**	**31**
Number and nature of violations reported?	**Academic dishonesty (17), sexual battery(1), drugs (3), alcohol (8) , theft (3), weapons (2), attempted suicide (1), unsportsmanlike conduct (1)**
Number of administrative resolution conferences held?	**7**
Number of Hearings held?	**0**
Number of cases appealed?	**0**
Number of Clery violations reported?	**0 (all were reported through housing or police)**
Number of repeat offenders?	**0**

Number of hours spent investigating/adjudicating cases?	**Approx 80 (includes consultation and administration)**

Intercultural Programs, Leadership Programs, and Activities and Events

Number of programs offered	**194**
Number of attendees	**23,973**
Breakdown of programs (social, educational, academic, etc.)	**To be determined**
Average amount of money spent on each program	**To be determined**
Number of volunteers needed to set up/facilitate program	**Varies (1 – 20) depending on event**

Student Government

Average attendance at committee/general meetings	**25**
Events sponsored by student government	**4**
Number of people attending student government sponsored events	**1000**
Breakdown of programs (social, educational, political, etc.)	**Student govt. presidential debates, fairy shrimp festival, student govt. open forums, elections**
Average cost of sponsored events	**$5000**
Percentage of students who voted in student government elections	**70%**

Plan for Needs Assessment for 2005-2006

The Office of Student Life provides a wide assortment of programs and services to UC Merced Students. In order to determine the needs of students in the various programs sponsored by the Office of Student Life, a comprehensive assessment program must be established.

During the 2005 – 2006 academic year, the Office of Student Life plans to address the following issues through needs assessment:

Leadership Programs, Intercultural Programs, Community Service, and Activities and Events

- **Interest Surveys** – (surveys for each of the following areas - Leadership Programs, Intercultural Programs, Community Service, and Activities and Events)
    - o What topics related to the identified program area are you interested in?
    - o What knowledge and skills would you like to gain as they relate to the identified program area?
    - o What format would you like the identified program areas information to be provided (workshop, lecture, film, discussion, volunteer opportunity, etc.)

- **Focus Group** - Conducting focus groups of 8 – 12 students that reach a cross section of the student population (freshmen, transfer students, and graduate students. These students will answer questions related to the type of activities and services provided by the Office of Student Life as they relate to the specific program areas identified above.
    - What kinds of programs would you like to see sponsored by OSL?
    - As a freshman/transfer/graduate student, what programs do you feel you need in the identified program area?
    - Would you be interested in coming to a program on the following topics …?
    - What days and times are best for you as a student to attend programs (weekdays, weeknights, weekends, beginning and ending times)
    - What needs of yours are being met by the Office of Student Life?
    - What needs of yours are not being met by the programs offered by OSL?

- **Pre-Program Assessment** – Students who attend an event in Student Life will be asked to fill out an event pre-assessment form.
    - Why did you choose to attend this program?
    - How did you learn about this program
    - What do you hope to gain/learn by attending this program?

- **One on One Meetings** – holding one-on-one meetings with students and asking them specific questions regarding the services provided by the Office of Student Life as they relate to the identified program areas. One-on-one meetings assist in hearing student opinions without being unduly influenced or prompted by other student input (focus group format).

Clubs and Organizations

- **Interest Surveys** –
    - What clubs are you interested in joining or creating on campus?
    - What knowledge and skills would you like to gain as they relate to the identified club or organization?
    - Are you interested in holding a leadership position in your club or organization?
    - What training would you need in order to successfully hold a leadership position in your organization?

- **Focus Group** - Conducting focus groups of 8 – 12 students that reach a cross section of the student population (freshmen, transfer students, and graduate students). These students will answer questions related to the type of activities and services provided by the Office of Student Life as they relate to clubs and organizations.
    - How was the process of starting a club at UCM?
    - As a freshman/transfer/graduate student, what programs do you feel you need your club or organization to provide?
    - Are you aware of all of the policies and procedures associated with club membership (accounting, advising, event hosting, etc.)?
    - What days and times are best for you as a student to attend programs hosted by your club/organization or the OSL (weekdays, weeknights, weekends, beginning and ending times).

- **One-on-One Meetings** – holding one-on-one meetings with students and asking them specific questions regarding the services provided by the Office of Student Life as they relate to the identified program areas. One-on-one meetings assist in hearing student opinions without being unduly influenced or prompted by other student input (focus group format).

Student Government

- **Focus Group** - Conducting focus groups of 8 – 12 students that reach a cross section of the student population (freshmen, transfer students, and graduate students. These students will answer questions related to the type of activities and services provided by the Office of Student Life as they relate to Student Government.
    o   Are you involved with the UCM Student Government?
    o   Why did you choose to get involved in Student Government?
    o   What skills do you hope to gain through your involvement with Student Government?
    o   What kind of programs would you like to see sponsored by Student Government?
    o   Are you aware of the purpose of Student Government Advisory Committee?
    o   What do you see as the role of the Student Government at UCM?
    o   Do you understand the structure of the proposed UCM government?
    o   Are you routinely informed about the meetings and functions of the Student Government?
    o   As a freshman/transfer/graduate student, what programs do you feel you need that would be sponsored by the Student Government?
    o   What days and times are best for you as a student to attend programs (weekdays, weeknights, weekends, beginning and ending times)
    o   What needs of yours are being met by the OSL or Student Government?
    o   What needs of yours are not being met by the programs offered by OSL or the Student Government?

- **One-on-One Meetings** - Holding one-on-one meetings with students and asking them specific questions regarding the services provided by the Office of Student Life as they relate to Student Government. One on one meetings assist in hearing student opinions without being unduly influenced or prompted by other student input (focus group format).

- **Suggestion Box -** A suggestion box will be placed in the Office of Student Life to solicit anonymous input from students at their convenience. The box will be checked weekly for student feedback, and the suggestions provided to the Student Government Advisory Committee.

- **Listserve and Website** - A technological tool that provides Student Government 24 hour access to discussion options and feedback delivery. Feedback provided by the listserves and website will be monitored by the Student Government Advisory Committee until a government is fully established and the officers are voted in, the Executive Committee will take over monitoring those sites.

Judicial Affairs

The Office of Judicial Affairs provides support for the University mission as it relates to academic honesty and social conduct. In order to determine the effectiveness of the Office of Judicial Affairs as it relates to student needs, students must be asked the following:

- Are students aware of the campus policies?
- Do students know where to access the campus policies (in print or on the web)?
- Do students who are referred to Judicial Affairs understand the alleged violation of student conduct or campus policies?
- Do students know their due process rights?
- Do students know the process for adjudication of conduct cases?
- Do students know where to go if they are charged with a violation to gain information about the case or their rights as students?

Answers to these questions will be ascertained via focus groups, written surveys, and one-on-one meetings with students.

Assessments of all of the areas listed above, both quantitative and qualitative will be developed to address the needs of students as they relate to the Office of Student Life. The results of these assessments will be shared with the Vice Chancellor of Student Affairs. These results will be used to assist in determining program development or alteration in for the 2006 – 2007 year. This assessment project will be completed by May of 2006.

Use of assessment information - Information gathered through the tracking process for the Office of Student Life programs and services will provide valuable insight as decisions are made with regards to:

- Staffing allocation
- Budget allocation
- Program marketing strategies
- Participant interest
- General service provision
- Programmatic revisions

All tracking information will be reported to the Vice Chancellor for Student Affairs and will be included in the year end report submitted to CSC. Additional program and services summary reports will be provided to the Vice Chancellor after the conclusion of the academic year in June.

Results of Needs Assessment

During the 2005 – 2006 academic year, pre-program interest surveys were collected from students to gain insight into student interests in the areas of programming and activities, student government, clubs and organizations, community service and campus jobs. The results of these interest surveys were utilized to shape the programmatic offerings during the 2005-2006 academic year.

While some assessment instruments were employed throughout this year such as one on one meetings, program evaluations, suggestion boxes and some interest surveys, for the 2006-2007 academic year, we are in the process of creating and implementing assessment tools to determine

student satisfaction in all of our focus areas, and to determine student needs for the upcoming year.

We plan to implement satisfaction and utilization surveys, and focus groups in addition to the other assessment methods utilized this year to gain more complete information in the year ahead.

The information gathered will aid us in determining facility and staffing needs, budget allocations, and future programmatic goals.

Plan for Satisfaction Assessment for 2005-2006

The Office of Student Life provides a wide assortment of programs and services to UC Merced Students. In order to determine the needs of students in the various programs sponsored by the Office of Student Life, a comprehensive assessment program must be established.

During the 2005 – 2006 academic year, the Office of Student Life plans to address the following issues through needs assessment:

Leadership Programs, Intercultural Programs, Community Service, and Activities and Events

- **Interest Surveys** – (surveys for each of the following areas - Leadership Programs, Intercultural Programs, Community Service, and Activities and Events)
    o What topics related to the identified program area are you interested in?
    o What knowledge and skills would you like to gain as they relate to the identified program area?
    o In what format would you like the identified program areas information to be provided (workshop, lecture, film, discussion, volunteer opportunity, etc.)?

- **Focus Group** - Conducting focus groups of 8 – 12 students that reach a cross-section of the student population (freshmen, transfer students, and graduate students). These students will answer questions related to the type of activities and services provided by the Office of Student Life as they relate to the specific program areas identified above.
    o What kind of programs would you like to see sponsored by OSL?
    o As a freshman/transfer/graduate student, what programs do you feel you need in the identified program area?
    o Would you be interested in coming to a program on the following topics …?
    o What days and times are best for you as a student to attend programs (weekdays, weeknights, weekends, beginning and ending times)?
    o What needs of yours are being met by the Office of Student Life?
    o What needs of yours are not being met by the programs offered by OSL?

- **Pre-Program Assessment** – Students who attend an event in Student Life will be asked to fill out an event pre-assessment form.
    o Why did you choose to attend this program?
    o How did you learn about this program?
    o What do you hope to gain/learn by attending this program?

- **One-on-One Meetings** – holding one-on-one meetings with students and asking them specific questions regarding the services provided by the Office of Student Life as they relate to the identified program areas. One-on-one meetings assist in hearing student opinions without being unduly influenced or prompted by other student input (focus group format).

Clubs and Organizations

- **Interest Surveys** –
  o What clubs are you interested in joining or creating on campus?
  o What knowledge and skills would you like to gain as they relate to the identified club or organization?
  o Are you interested in holding a leadership position in your club or organization
  o What training would you need in order to successfully hold a leadership position in your organization?

- **Focus Group** - Conducting focus groups of 8 – 12 students that reach a cross section of the student population (freshmen, transfer students, and graduate students). These students will answer questions related to the type of activities and services provided by the Office of Student Life as they relate to clubs and organizations.
  o How was the process of starting a club at UCM?
  o As a freshman/transfer/graduate student, what programs do you feel you need your club or organization to provide?
  o Are you aware of all of the policies and procedures associated with club membership (accounting, advising, event hosting, etc.)?
  o What days and times are best for you as a student to attend programs hosted by your club/organization or the OSL (weekdays, weeknights, weekends, beginning and ending times)?

- **One-on-One Meetings** – holding one-on-one meetings with students and asking them specific questions regarding the services provided by the Office of Student Life as they relate to the identified program areas. One-on-one meetings assist in hearing student opinions without being unduly influenced or prompted by other student input (focus group format).

Student Government

- **Focus Group** - Conducting focus groups of 8 – 12 students that reach a cross section of the student population (freshmen, transfer students, and graduate students. These students will answer questions related to the type of activities and services provided by the Office of Student Life as they relate to Student Government.
  o Are you involved with the UCM Student Government?
  o Why did you choose to get involved in Student Government?
  o What skills do you hope to gain through your involvement with Student Government?
  o What kind of programs would you like to see sponsored by Student Government?
  o Are you aware of the purpose of Student Government Advisory Committee?
  o What do you see as the role of the Student Government at UCM?
  o Do you understand the structure of the proposed UCM government?

- o Are you routinely informed about the meetings and functions of the Student Government?
- o As a freshman/transfer/graduate student, what programs do you feel you need that would be sponsored by the Student Government?
- o What days and times are best for you as a student to attend programs (weekdays, weeknights, weekends, beginning and ending times)?
- o What needs of yours are being met by the OSL or Student Government?
- o What needs of yours are not being met by the programs offered by OSL or the Student Government?

- **One-on-One Meetings** - Holding one-on-one meetings with students and asking them specific questions regarding the services provided by the Office of Student Life as they relate to Student Government. One-on-one meetings assist in hearing student opinions without being unduly influenced or prompted by other student input (focus group format).

- **Suggestion Box -** A suggestion box will be placed in the Office of Student Life to solicit anonymous input from students at their convenience. The box will be checked weekly for student feedback, and the suggestions provided to the Student Government Advisory Committee.

- **Listserve and Website -** A technological tool that provides Student Government 24 hour access to discussion options and feedback delivery. Feedback provided by the listserves and website will be monitored by the Student Government Advisory Committee until a government is fully established and the officers are voted in, the Executive Committee will take over monitoring those sites.

Judicial Affairs

The Office of Judicial Affairs provides support for the University mission as it relates to academic honesty and social conduct. In order to determine the effectiveness of the Office of Judicial Affairs as it relates to student needs, students must be asked the following:

- Are students aware of the campus policies?
- Do students know where to access the campus policies (in print or on the web)?
- Do students who are referred to Judicial Affairs understand the alleged violation of student conduct or campus policies?
- Do students know their due process rights?
- Do students know the process for adjudication of conduct cases?
- Do students know where to go if they are charged with a violation to gain information about the case or their rights as students?

Answers to these questions will be ascertained via focus groups, written surveys, and one-on-one meetings with students.

Assessments of all of the areas listed above, both quantitative and qualitative will be developed to address the needs of students at they relate to the Office of Student Life. The results of these assessments will be shared with the Vice Chancellor of Student Affairs. These results will be

used to assist in determining program development or alteration in for the 2006 – 2007 year. This assessment project will be completed by May of 2006.

Results of Satisfaction Assessment

Based on the information gathered during the 2005 -2006 year regarding the satisfaction with Office of Student Life programs, the following feedback was gathered:

- Students enjoyed the variety of programs provided in the OSL focus areas.
- Students enjoyed opportunities to get off campus and participate in community events.
- They enjoyed the opportunity to be involved in the planning of programs and events.
- Students enjoyed and wanted more theme activities such as the cultural celebration days or months.
- Students were excited about the opportunity to create clubs and organizations.
- Students felt that they wanted more activities on campus and off campus.
- Students wanted larger events like concerts, battle of the bands, and trips out of town.
- Students wanted more and easier access to programming space.
- Students wanted more information about what was happening on campus.
- Students wanted start-up funds for their club and organizations.
- They wanted less red tape and clearer procedures to do such things as reserving program space, securing equipment, bringing in outside vendors, and conducting fundraising activities.

In light of the information collected from students, in the upcoming year, we are working on creating clearer guidelines for student programming, creating easier access to facilities use, looking into fundraising opportunities, and trying to partner with the local community to provide more / larger community activities.

In response to student needs we also established a calendar of events that was widely distributed via e-mail and internet to students twice a month so that they were able to access activity and event information at a glance. We plan to continue with this mode of information sharing during the next academic year.

Additionally, we saw that we were in need of additional staffing to support the large number of events that we sponsored. We have requested additional funding and staffing and are awaiting approval for these. We are in the process of determining our student staffing and programmatic needs for next year based on student and staff feedback, and are working on a programming and assessment model for the 2006 -2007 year.

STUDENT ADVISING AND LEARNING CENTER

Plan for Use of Tracking Information and Results for 2005-2006

The Student Advising and Learning Center oversees three major areas of service: academic advising, tutoring, and orientation.

Academic Advising

In the area of Academic Advising, the SALC tracks the number of student contacts that occur, both in person and online; performance level of students who do and do not visit their advisor at least once each semester; student satisfaction with their advising services; correlations between student retention and utilization of advising services.

Tracking of these factors within the context of the SALC:

The Advisor page within Banner will be the primary tool for tracking data. Student online records will show dates of interaction with their advisor(s). Reporting on these topics will include:
- Number of visits per semester;
- Student academic standing (good standing, poor standing);
Student Grade Point Average;
- Enrollment status of student (continued or withdrawn from University);
- Numbers of students who declared their major, remained undeclared, or changed majors through the SALC;
- Data on students who improved their academic standing from their first grade report (at mid-semester) to the date of report;
- Other key issues as they develop over the course of the year in the area of advising.

All advisors maintain advising logs. Qualitative data from these records will reveal further information on a variety of topics: numbers of referrals made to Counseling Services, Student Activities, Financial Aid, and other resources. In collaboration with these other areas, Advising will be able to find out more about its efficacy in making referrals, as other Student Services survey their participating students about the source of their referral to the particular unit.

Collection of Information:

Most of the information is collected throughout the course of the year, in the student registration records. Paper based satisfaction surveys will be administered during the registration period for the upcoming semester, to students as they leave their advising appointment with SALC.

Use of Information:

Tracking the data listed above will assist in:
- Determining appropriateness of advising loads, in terms of student satisfaction with access to and availability of advisors;
- Adjusting marketing and outreach methods to promote more student utilization of advisors;

- Awareness on advisors' part with regard to retention trends and needs, in order to inform learning assistance and other programs;
- Improving ability of the SALC in general to design tutorials and other special workshops to meet student needs.

Reporting of Information:

End-of-year reports will be submitted in July to the Vice Chancellor for Student Affairs. These will include narrative and quantitative compilations of findings on the matters listed above, in addition to recommendations and plans to respond to areas of clearly defined needs or gaps within Academic Advising of the SALC, based on that year's student data. Periodic reports will also be shared with the Directors in Student Affairs, as requested, at Directors' meetings and retreats.

Outcomes -- June, 2006

The SALC succeeded in handing off some 30% of its students to different Schools, in response to the declaration of major for students who had entered UC Merced fully undeclared. As of June, 2006, the more than 140 freshmen who had no major was reduced to 96. It is important to note that data regarding majors are fluid, since a policy was enacted during the course of the year that prohibits change of major for students on any form of probation, and also, change of major is permitted only during the first three weeks of each semester.

A total of four academic advisors provided one-on-one advising to all undergraduate students at least once each semester throughout the year.

As of June, 2006, student standing is the following:

Undeclared:

Good Standing	58
Subject to Academic Disqualification	24
Academic Probation	10

Social Sciences, Humanities and Arts:

Good Standing	71
Subject to Academic Disqualification	40
Academic Probation	46

Natural Sciences:

Good Standing	144
Subject to Academic Disqualification	58
Academic Probation	37

Engineering:

Good Standing	79
Subject to Academic Disqualification	37
Academic Probation	14

Tutoring

Learning Assistance programs will be offered through the SALC, often in collaboration with Counseling Services. These programs include Student Success Workshops, and skills workshops such as time management, test preparation and test-taking techniques, and math fears, for example. For the first year of programs, two central elements of data will be tracked with regard to learning assistance programs: numbers of students participating along with the retention rates and academic performance of student participants.

Outcomes – June, 2006
Data show that a total of 277 students utilized the SALC's tutorial services, from 1-48 times each semester, per student. Usage rose slightly, from 580 hours in the fall to 632 hours in the spring, for a total of 1,212 hours spent by students with the SALC's peer tutors. Data on the academic performance of these students are not available.

Tracking of these factors within the context of the SALC:

Facilitators of workshops will collaborate with the Director of the SALC to design and implement surveys. Information surveyed will include:
- Source of student referral to the workshop;
- Overall satisfaction with the workshop;
- Student ID number for further tracking;
- Student suggestions to improve the workshop content;
- Student perception of improvement in self-understanding and willingness to further utilize student support services;
- Student participants' plans for improving performance in courses;
- Student statement of specific strengths and weaknesses of the workshop;
- Student suggestions for further workshops or new topics to offer.

The SALC staff will follow up on the progress of the student participants, with regard to their retention rates, and their academic standing, for a full year following participation in learning assistance programs.

Collection of Information:

Information will be collected by means of a paper survey, taken at the close of each workshop program, in addition to further information drawn from the students' registration records.

Use of Information:

Tracking the data listed above will assist in:
- Adjusting marketing and outreach methods to promote more student utilization of learning assistance programs;
- Sharing data with leaders of Student Affairs and Academic units throughout the campus to further develop SALC programs, advertise their effectiveness, and to continuously build connections with all units that serve students;
- Improving ability of the SALC in general to design special workshops to meet student needs.

Reporting of Information:

End-of-year reports will be submitted in July to the Vice Chancellor for Student Affairs. These will include narrative and quantitative compilations of findings on the matters listed above, in addition to recommendations and plans to respond to areas of clearly defined needs or gaps within learning assistance programs of the SALC, based on that year's student data. Periodic reports will also be shared with the Directors in Student Affairs, as requested, at Directors' meetings and retreats.

Outcomes, June 2006

All learning skills workshops issued the same evaluation survey at their close, throughout the year. Some workshops had as many as 36 present, and others had as few as 4 participants, in topics such as time management, test anxiety, note-taking, and test preparation. In all, 73 surveys were submitted by students, with the following responses:

5 – Strongly Agree
1 -- Strongly Disagree

	Strongly Disagree			Strongly Agree	
	1	2	3	4	5
1. I am glad that I came to this workshop.				37	36
2. This workshop gave me useful ideas.			5	14	54
3. I now feel better equipped to succeed in my classes.				21	52
4. This workshop was well-organized.				9	64
5. I will attend other workshops in the future.			1	4	68
6. I would recommend this workshop to a friend.			1	9	63
7. I now plan to try new methods of learning.				14	59

8. The most useful part of this workshop was…

(Various answers – mostly focused on "getting new ideas" or "confirming what I thought")

9. This workshop would be better if the following changes were made…
Common answers: "more hand-outs", "give more specific tips", "offer session at a different time"

10. Another idea that I have for a workshop is…
No substantive comments, other than "give more specific tips"

Orientation

New Student Orientation includes readiness testing and academic advising and registration for students' first semester at UC Merced. Additionally a day-long series of speakers and interactive activities presented to empower students with information about services and programs offered

by the University. All of this is done to enhance the students' success and well-being as learners, future professionals, and community citizens in general.

Orientation also includes a day-long series of sessions for parents and family members that familiarize them with the aims, programs and staff of UC Merced, in addition to building a partnership with parents toward enhancing student success. Assessment of New Student Orientation revolves around participant satisfaction with all aspects of the event, in addition to long-term tracking of correlations between participation in Orientation, and student persistence.

Tracking of these factors and Collection of Information:

Paper surveys are prepared for all students at Orientation, and each will be required to submit a completed survey before receiving their commemorative keepsake at the close of the event. Parents also will be given a survey, and asked to complete a survey during the final 15 minutes of their final session, and to submit the survey before departing.

Survey questions probe participants' satisfaction with the quality of food provided, thoroughness of information, appropriateness of information, quality of presentations, ease of event registration and navigation, and areas of strength and weakness, according to the participants' needs and expectations.

Student Identification Numbers are integrated into their Orientation registration and UC Merced registration records. This information will be used to track and compare retention rates of participants and non-participants in the program, over the course of the first year of enrollment, and beyond.

In the process of planning New Student Orientation for summer, 2006, the Orientation Coordinator will organize focus groups comprising student volunteers, and/or will distribute follow-up surveys to enlist the input of past participants, to further develop the Orientation program for the future.

Use of Information:

Tracking the data listed above will assist in:
- Sharing data with leaders of Student Affairs and Academic units throughout the campus to further develop New Student Orientation, advertise its effectiveness, and to continuously build connections with all units that serve students;
- Improvement of retention rates of new students by developing New Student Orientation to meet their needs more effectively;
- Continuous innovation and enhancement of relations with new students and their parents during their transition to the college years.

Reporting of Information:

End-of-year reports will be submitted in July to the Vice Chancellor for Student Affairs. These will include narrative and quantitative compilations of findings on the matters listed above, in addition to recommendations and plans to respond to areas of clearly defined needs or gaps within New Student Orientation programs, based on that year's student data. Periodic reports will also be shared with the Directors in Student Affairs, as requested, at Directors' meetings and retreats.

Outcomes, June 2006

The position of Orientation Coordinator was not filled until June 1, 2006, after a nearly year-long search process. Therefore, year-long follow-up assessment was not conducted. Numeric data were collected regarding the orientation participants' reactions to the event, but no further information is available at this time:

(scale of 1-5, with 5 being "excellent")

How helpful were the orientation brochures?	4.02
How informative was the orientation website?	3.26
How would you rate the level of service that you received from the orientation staff?	4.08
How comfortable and welcome did you feel at orientation?	4.60
Do you feel that orientation met your expectations and was worth your time?	4.32
Do you feel the price of orientation was reasonable?	3.73

Number responding: 676

Plan for Needs Assessment and Results for 2005-2006

Assessment of needs for the areas of **Advising** is tied directly to the student satisfaction evaluations, described below.

Needs with regard to Academic Advising are assessed, in addition, by the following means:

- Tracking changes in enrollment (rises or drops in popularity of certain majors, growth in the campus population in general)

- Tracking of areas where retention proves particularly challenging (attrition rates in each School are monitored, and high attrition may call for additional advising support).

Needs Assessment for Tutoring

Needs for **tutoring** and other forms of **learning assistance** are assessed by:

- Monitoring enrollment numbers in "ramp-up" courses; students in these courses are the most at-risk for academic success in general, and therefore most tutorial hours are given to such courses, at a rate of approximately 1-2 tutorial hours per section.

- Monitoring student performance levels in all disciplines and types of courses; faculty input is the key resource and indicator with regard to needs to expand tutoring to particular areas.

Needs for **New Student Orientation** are assessed by:

- Reviewing, with the Orientation Planning Committee, all participants' quantitative and qualitative evaluations of the program.

- Consultation with student focus groups, to be arranged by the Orientation Coordinator during the spring semester each year.

Plan for Satisfaction Assessment for 2005-2006

Plans for assessing satisfaction with services include the following methods:

Workshops: All student participants in learning skills workshops respond to surveys evaluating the experience and recommending further improvements and ideas.

Advising: Students are periodically administered surveys with regard to their satisfaction with the effectiveness of advising services. This matter is also addressed in the orientation evaluation survey.

New Student Orientation: Surveys are provided to parents and students at the close of each New Student Orientation session.

Outcomes – June, 2006
Please refer to information above in the "Use of Tracking Information" that outlines the feedback from the Student Success Workshop, along with the explanation of the SALC's responsiveness to students' reported needs.

STUDENT HEALTH AND WELLNESS SERVICES

Plan for Use of Tracking Information and Results for 2005-2006

Student Health & Wellness Services tracks information in two main areas: (1) medical services, and (2) educational programs/presentations to students.

Tracking of Student Use of Medical Services at the Student Health Center
To track student usage of medical services and the acuity of medical issues facing the students at UC Merced, the Student Health Center currently utilizes a manual encounter form to capture data elements to transfer to a Microsoft Access Database for analysis. Information collected on each student visit includes:

- Date of Service
- Name of Student
- Demographic Information – Date of Birth, Gender, ethnicity, class standing, and residential status
- Level of Services provided – Evaluation/Management of issue, procedures performed
- Diagnosis of Illness/Injury
- Follow-up or Recall appointment if indicated

Data for the fall semester of 2005 is available at the time of this report. The data for the spring semester of 2006 will be presented in the year end report to the Vice Chancellor for Student Affairs.

The Student Health Center (SHC) provided direct medical services and health promotion

TOTAL VISITS

MONTH	TOTAL	FEMALE	%	MALE	%	AVG	AVG FEMALE	AVG MALE	DAYS
SEP	97	60	61.86%	37	38.14%	5.1	3.2	1.9	19
OCT	164	97	59.15%	67	40.85%	7.8	4.6	3.2	21
NOV	145	87	60.00%	58	40.00%	7.6	4.6	3.1	19
DEC	99	57	57.58%	42	42.42%	6.6	3.8	2.8	15
TOTAL	505	301	59.60%	204	40.40%	6.8	4.1	2.8	74

services to registered students of UC Merced during Fall 2005 from September 6 to December 21, 2005, for 74 total service days with operations Monday through Friday from 8 am to 5 pm. During this period the SHC served 220 students, 209 undergraduate students and 11 graduate students. This represents 25.1% of the population based on a census of 875 registered students.

The UC Merced campus gender census[1] is equally split between female and male students, 50.06% and 49.94%, respectively. Student users of the SHC are slightly weighted towards females (127) with 57.73% and male (93) 42.27%.

These 220 students generated 505 visits to the Student Health Center, 489 undergraduate visits and 16 graduate visits.

UNDERGRADUATE VISITS

MONTH	TOTAL	FEMALE	%	MALE	%	AVG	AVG FEMALE	AVG MALE
SEP	92	57	58.76%	35	36.08%	4.8	3.0	1.8
OCT	160	95	57.93%	65	39.63%	7.6	4.5	3.1
NOV	141	85	58.62%	56	38.62%	7.4	4.5	2.9
DEC	96	56	56.57%	40	40.40%	6.4	3.7	2.7
TOTAL	489	293	58.02%	196	38.81%	6.6	4.0	2.6

GRADUATE VISITS

MONTH	TOTAL	FEMALE	%	MALE	%	AVG	AVG FEMALE	AVG MALE
SEP	5	3	3.09%	2	2.06%	0.3	0.2	0.1
OCT	4	2	1.22%	2	1.22%	0.2	0.1	0.1
NOV	4	2	1.38%	2	1.38%	0.2	0.1	0.1
DEC	3	1	1.01%	2	2.02%	0.2	0.1	0.1
TOTAL	16	8	1.58%	8	1.58%	0.2	0.1	0.1

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[1] Official 3rd Week Census provided by the UC Merced Office of the Registrar

Student Health Services
2005-06

	SEP	OCT	NOV	DEC
Male	37	67	58	42
Female	60	97	87	57

Months

Student Health Services
2005-06

	SEP	OCT	NOV	DEC	TOTAL
Male	1.9	3.2	3.1	2.8	2.3
Female	3.2	4.6	4.6	3.8	3.5
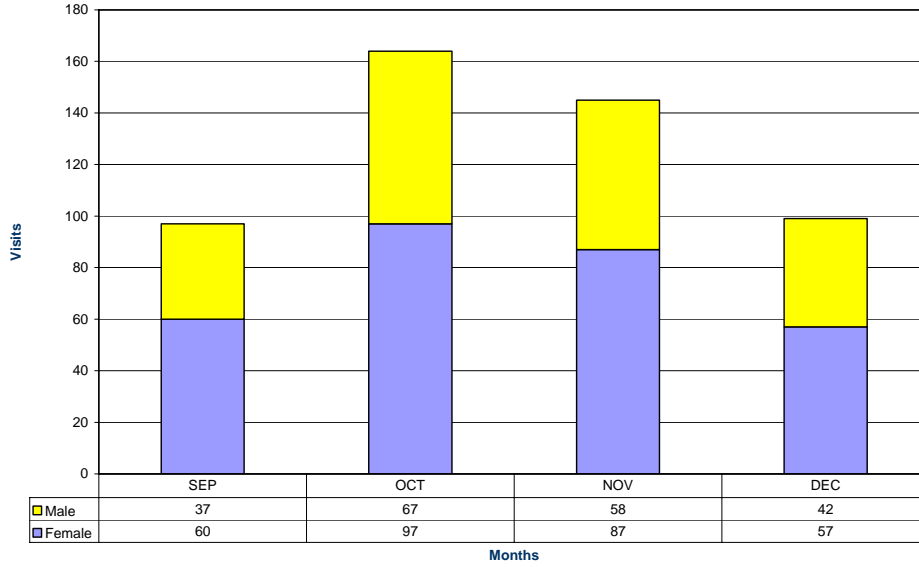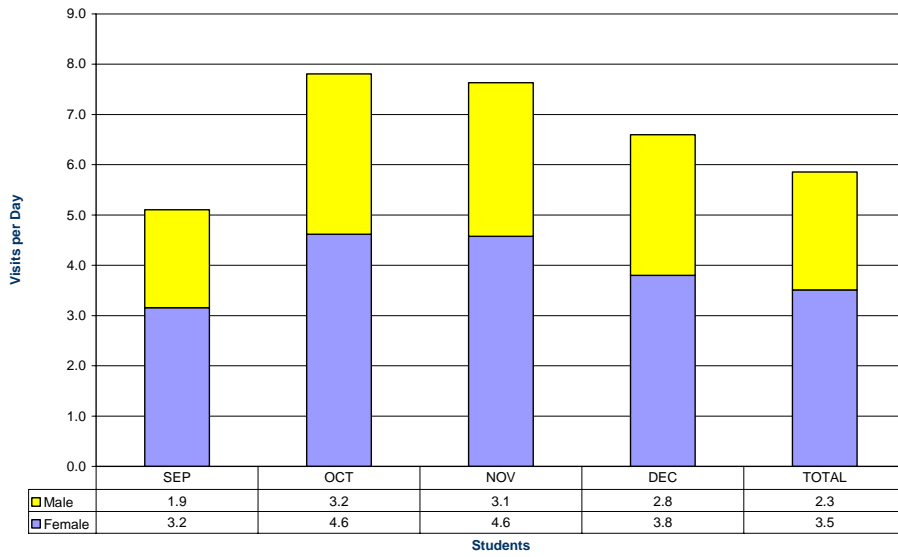
Students

Ethnicity

Ethnicity	Female				Male				TOTAL				UC Merced	
	Students	%	Visits	%	Students	%	Visits	%	Students	%	Visits	%	Headcount	%
AF	8	6.30%	42	13.95%	3	3.23%	8	3.92%	11	5.00%	50	9.90%	53	6.06%
AI	0	0.00%	0	0.00%	2	2.15%	3	1.47%	2	0.91%	3	0.59%	7	0.80%
AS	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.23%
CH	17	13.39%	34	11.30%	11	11.83%	24	11.76%	28	12.73%	58	11.49%	91	10.40%
EI	4	3.15%	10	3.32%	6	6.45%	17	8.33%	10	4.55%	27	5.35%	33	3.77%
FP	7	5.51%	15	4.98%	9	9.68%	15	7.35%	16	7.27%	30	5.94%	68	7.77%
JA	2	1.57%	3	1.00%	2	2.15%	5	2.45%	4	1.82%	8	1.58%	13	1.49%
KO	3	2.36%	8	2.66%	5	5.38%	7	3.43%	8	3.64%	15	2.97%	25	2.86%
LA	10	7.87%	18	5.98%	3	3.23%	10	4.90%	13	5.91%	28	5.54%	48	5.49%
MX	21	16.54%	39	12.96%	13	13.98%	27	13.24%	34	15.45%	66	13.07%	165	18.86%
OA	6	4.72%	16	5.32%	2	2.15%	7	3.43%	8	3.64%	23	4.55%	45	5.14%
OT	6	4.72%	13	4.32%	2	2.15%	3	1.47%	8	3.64%	16	3.17%	22	2.51%
PI	1	0.79%	1	0.33%	1	1.08%	2	0.98%	2	0.91%	3	0.59%	6	0.69%
VT	5	3.94%	9	2.99%	4	4.30%	4	1.96%	9	4.09%	13	2.57%	33	3.77%
WH	33	25.98%	85	28.24%	26	27.96%	68	33.33%	59	26.82%	153	30.30%	226	25.83%
Decline to State	4	3.15%	8	2.66%	4	4.30%	4	1.96%	8	3.64%	12	2.38%	38	4.34%
TOTAL	127	100.00%	301	100.00%	93	100.00%	204	100.00%	220	100.00%	505	100.00%	875	100.00%

Users	127	57.73%		93	42.27%	220
Census	437	50.06%		436	49.94%	873

Student Health Services
2005-06

	AF	AI	AS	CH	EI	FP	JA	KO	LA	MX	OA	OT	PI	VT	WH	UNK
Census	6.06%	0.80%	0.23%	10.40%	3.77%	7.77%	1.49%	2.86%	5.49%	18.86%	5.14%	2.51%	0.69%	3.77%	25.83%	4.34%
Health Center	5.00%	0.91%	0.00%	12.73%	4.55%	7.27%	1.82%	3.64%	5.91%	15.45%	3.64%	3.64%	0.91%	4.09%	26.82%	3.64%
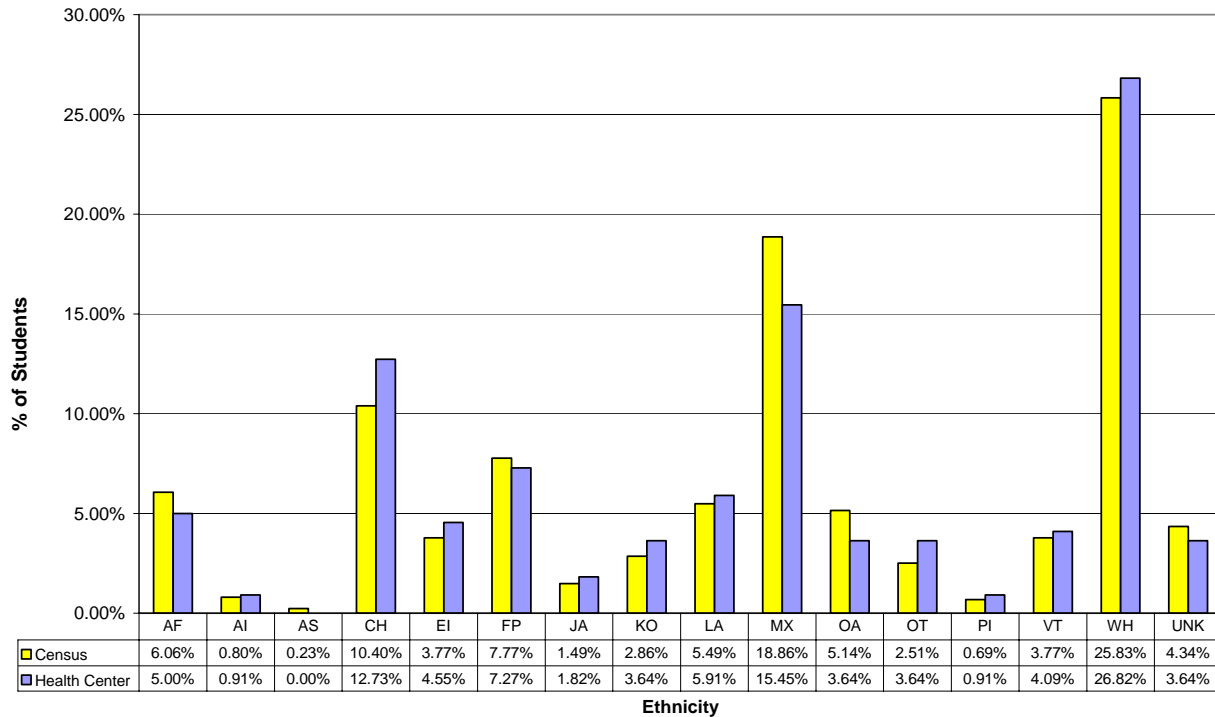
Schools

Visits

	TOTAL	%	M	%	F	%
Core	69	14.1%	25	5.1%	44	9.0%
Engr	52	10.6%	36	7.4%	16	3.3%
NS	163	33.3%	52	10.6%	111	22.7%
SSHA	205	41.9%	83	17.0%	122	24.9%
	489		196	40.1%	293	59.9%
GR	16		8	50.0%	8	50.0%
TOTAL	505		204	40.4%	301	59.6%

Headcount

	TOTAL	%	M	%	F	%
Core	29	13.9%	10	4.8%	19	9.1%
Engr	26	12.4%	16	7.7%	10	4.8%
NS	72	34.4%	27	12.9%	45	21.5%
SSHA	82	39.2%	33	15.8%	49	23.4%
	209		86	41.1%	123	58.9%
GR	11		7	63.6%	4	36.4%
TOTAL	220		93	42.3%	127	57.7%

Medical Services

The Top 20 presenting issues in the Student Health Center

Rank	Number of Diagnoses	Description of ICD-9 Code
1	76	Pharyngitis (sore throat)
2	35	Upper Respiratory Infection
3	22	Bronchitis, acute
4	21	Anxiety
5	20	Sprain/Strain
6	15	Gastroenteritis
7	13	GYN Exam
8	11	Depressive Disorder
9	10	Sinusitis, acute
10	10	Rhinitis, allergic (runny nose/chronic allergies)
11	10	Family Planning
12	10	Contraception, oral
13	10	Health Education
14	9	Eczema, contact
15	8	Constipation
16	6	Low back Pain
17	5	Urinary Tract Infection

18	5	Amenorrhea (no menses/no period)
19	5	Otitis Media, acute (earache)
20	4	Cellulitis, abscess (skin infection)

Tracking of Educational Programs/Presentations to Students
Attendance at various Student Health Services Educational programs and presentations will be tracked. A Microsoft Word document will be used to collect the information. Data elements will include: the name and date of the educational program or presentation, the number of students in attendance, the number of faculty/staff in attendance, and the number of community members in attendance.

Outreach Activities for Fall 2005

Collaboration	Event	Student Participation
Housing	Condom Revolution – Sexual Health Program	220
	Sip It Safely – Alcohol Program	20
	e-CHUG Alcohol Education	99
	e-CHUG Sanctions	20
Student Life	Clubs & Organizations Alcohol Education	210
Community	Bi-National Health Fair	175
	V-Day Women's Health Fair	120
Campus Outreach	Blood Drive – October 2005	79 registered – 58 donated
	Blood Drive – December 2005	49 registered – 40 donated

Use of Information
Tracking the use of Student Health medical services and educational programs/presentations will assist the Student Health Services in decision making regarding:

- Staffing and allocation of resources
- Programs and services to offer students, faculty/staff and parents
- Strategies for marketing services to students to ensure that students utilizing the services are representative of the university's student population

All tracking information will be reported in the Student Health & Wellness Services Annual Report which is submitted to the Vice Chancellor of Student Affairs in June of each year.

Plan for Needs Assessment for 2005-2006

In order to ensure that programs offered by the Student Health & Wellness Services are focused to meeting the needs of the students, a program of assessment will be implemented. Due to the nature of the Student Health Services, confidentiality will be maintained in accordance with federal HIPAA and State of California confidentiality laws.

The Student Health & Wellness Services originally planed to address the following issues through needs assessment during the 2005-2006 academic year, however, this plan will be implemented during the 2006-2007 academic year:

- **Track Utilization –** Utilization will be tracked through encounter data. This utilization data along with student demographic data will be used to make informed decisions about resource allocation.

- **Assess Student and University Community Needs** – The American College Health Association's *Healthy Campus 2010* will be used as a template to develop a specific plan for UC Merced to assess the health objectives for our campus. This will involve a multi-department process within the Student Affairs Division. This will assist Student Health & Wellness Services to prioritize student needs and provide campus-wide Wellness strategies.

- **Student Satisfaction** – A campus-wide survey drawing on a random sample of students will be administered during the 2006-07 academic year. The survey will provide information from users and non-users of the Student Health Center.

- **AAAHC Accreditation** – The Student Health Center will be preparing for accreditation through the Accreditation Association of Ambulatory Health Care during the 2006-07 academic year. Accreditation is a voluntary process to measure the quality of services and performance against nationally recognized standards. The Certificate of Accreditation is a symbol that we have a committed to providing high-quality care and we have demonstrated our commitment by measuring up to the AAAHC's high standards

This assessment project will be completed by June 2007. The findings will be shared with the Vice Chancellor of Student Affairs. The results will be used to determine what level of health services and educational programs should be offered to students at UC Merced for the 2007-2008 academic year. Assessment results will be reported to the Vice Chancellor of Student Affairs and included in the Student Health & Wellness Services Annual Report.

Plan for Satisfaction Assessment for 2005-2006

The Student Health & Wellness Services originally planed to address the following issues through satisfaction assessment during the 2005-2006 academic year, however, this plan will be implemented during the 2006-2007 academic year:

Education Programs/Presentations – To assess the effectiveness of Health Education programs and presentations, an evaluation form will be given to attendees at all education programs/workshops/presentations given or sponsored by Student Health & Wellness Services.

Medical Services – To assess the effectiveness of the medical services provided through the Student Health Services a web-based satisfaction survey will be distributed to users of the Student Health Center.

The findings from these assessments will be used to improve the programs and services offered to the students at UC Merced. Assessment results will be reported to the Vice Chancellor of Student Affairs and included in the Student Health & Wellness Services Annual Report.

STUDENT HOUSING AND RESIDENCE LIFE

Plan for Use of Tracking Information and Results for 2005-2006

Data will be collected to help us assess current and future needs and trends.

Interest and Demand for On-campus Housing
Using an excel spreadsheet, track annual Housing contract statistics to determine student interest and demand for on-campus housing. This information will be used to project trends, attrition rates, predict housing shortages or surplus, assist waitlisted students in predicting chances of being offered a contract, and justify demands for additional beds on- and off-campus. The type of data we will collect is as follows:
- Applications statistics
    - % of students who SIR and apply for housing on-time and those applying late
    - % of students who SIR late and apply for housing late
    - % of each of the above by class status (new freshman/new transfers/continuing)
- Contract Awards
    - Number and % of students awarded on-campus housing contracts
    - Number and % of awarded students who do not move-in
    - Number of awarded contract holders who do not show up to move-in without informing us
- Waitlists
    - Number of students on the waitlist by date
    - Number of waitlisted students awarded contracts by date
- Contract Cancellations
    - Number and % of contract cancellations by date
    - Reason(s) for cancellation

The contracting cycle began in April of 2006 for the 2006-2007 academic year. The spreadsheet has been developed and the information stated above is currently being gathered.

Types of Inquiries

We are in the process of implementing an electronic tool to track direct student contact both by topic and amount of time spent.   Additionally we will use focus group discussions and meetings with professional and student desk staff, to collect data to identify trends of the most common types of inquires we receive via phone, email, and in-person contacts. This data will be used to

assess and improve our application/contracting process, marketing strategies, information available via the website, and written materials sent to current and prospective students.

During the 2005 – 2006 academic year no progress was made in utilizing the electronic tool to track this data. We did collect information based on conversations with the front desk staff, RA's and the types of inquiries expressed via the general email account. These inquiries identified a need for more information about our program and services, as well as a desire for information to help customers plan ahead. As a result the following improvements have already been incorporated or are in process:

1. Clarified instructions and information on the on-line application to serve as a stronger resource to applicants.
2. We are in the process of updating the website to include a more comprehensive overview of the on-campus housing experience, adding a significant amount of information and resources for students interested in living off-campus.
3. Important dates are being communicated via email, on the website, through the RA's, and posted in announcements to help students plan ahead.
4. A one-page marketing piece on the housing program is being developed and will be made available at the Students First Center and in the housing office when visitors come to the campus.

Conduct Cases

Using an excel spreadsheet, the number of students participating in the conduct process along with policy violation and reasons they need to go through the conduct process will be tracked. This report is due to the Associate Director at the end of each semester. This information will be used to determine the effectiveness of our conversations with students around conduct, strengthen any weaknesses in the RA training program, assess and improve our effectiveness in communicating policies and expectations to residents, determine resident educational needs, submit Cleary report statistics, and justify the need for additional staffing. The type of data we will collect is as follows:

- Number of incidents by type of violation(s)
- Number of students placed through the conduct process
- Number of students who go through the conduct process more than once (sorted by repeated violation vs. new violation)
- Number of hours spent adjudicating conduct cases

During the 2005-2006 academic year the most common policy violations students were held accountable for were related to alcohol (110-78%) and drugs/marijuana (13-9%). Other types of policy violations, ranging between 1% and 4% of the total included noise, pets, smoking, and posting. 60 students were directed to complete educational sanctions of which 11% participated in an alcohol class, 56% completed the on-line E-chug program (alcohol education), 18% completed reflection papers of what they learning in the process, and the remainder participated in interviews, counseling, conversations with RA's, or community service projects.

The data indicates that alcohol is the most common violation with the use of marijuana being second. Process efficiencies need to be implemented to expedite communications with students and options for additional educational sanctions. Residence Life staff is committed to implementing the following improvements:

1. Increase the number of passive and active programs around alcohol and drugs
2. Distribute an alcohol educational piece at opening and make it available in the housing office.
3. Work with Health Education to develop an educational experience (class or workshop) that all alcohol violators will be required to participate in.
4. Develop sanctioning guidelines to improve consistency.
5. Implement a session for RA Training specifically around alcohol and drugs.
6. Shell letter are being created for each step in the conduct process to help expedite matters.
7. The Assistant Residence Life Coordinator will be trained to adjudicate conduct cases.
8. Additional support staff will be identified to assist with administrative tasks.

Resident Participation in Programs Offered by Residence Life Staff

In addition to the data collected according to the assessment plan developed in Fall of 2005, the information was gathered regarding residential programs. Overall, programs were fairly well attended and definitely rated highly. Considering everything that faculty contending with during our first year, I am proud to report that 23 faculty participated in programs hosted by housing staff.

Year End Statistics	Celebrating Community	Civic Leadership	Ethics & Decision Making	Leadership & Teamwork	Student Success	Total
# Programs Completed by Category	67	16	7	6	25	**121**
Total Resident Attendance	2856	1139	496	118	1377	**5886**
Total Funds Allocated	$5,258.50	$1,367.63	$595.56	$486.96	$1,703.80	**$9,412.45**
Avg. Cost per Resident	$1.84	$1.20	$1.20	$4.13	$1.24	**$1.60**
Programs w/ Faculty Involved	3	4	1	0	2	**10**
# of Faculty Attended	5	10	1	0	7	**23**
Avg. Student Evaluation Rating	4.55	4.76	4.38	4.52	4.44	**4.53**

Plan for Needs Assessment and Results for 2005-2006

Much of what is gathered through information tracking, formal and informal assessments, demographic profiles, and literature will be used to help determine resident needs.

Conduct Statistical Report
The data collected via the conduct reports will help to identify resident behaviors and areas where additional education may be beneficial. Staff will be directed to creative passive and active programs to provide residents with information and the tools to better understand issues they are experiencing and to hopefully make better decisions for them.

The data collected during 2005-2006 indicate the need for residents to receive more information on alcohol and drugs (marijuana specifically), a better understanding of the conduct process and the implications of probationary status, smoking policies and expectations, and the role of the Police on the UC Merced campus.

Plans are underway to implement the following improvements:
1. More detailed information about the conduct process is being included in RA training. RA's serve as a valuable information resource to residents.
2. The police will be involved in programming to develop a stronger understanding of their role and to enhance relations between the Police and residents.
3. Designated smoking areas will be marked.
4. Information about policies, the conduct process, and behavioral expectations will be included in the resident handbook.
5. Programs and workshops will be developed around alcohol and drugs.

The Community Satisfaction Survey
The community satisfaction survey will allow students to provide feedback on the quality of services provided by housing and residence life. This survey collects both quantitative and qualitative data to identify the student experience in housing as well as the overall strengths and weaknesses in our program. Areas rating in the weak to needs improvement range will be targeted for immediate improvement. If appropriate, focus groups will be facilitated to collect clarifying data and more specific ideas to better meet resident needs and expectations.

This assessment will be implemented at a later date.

Program Evaluation Forms
At the end of programs, residents will be asked to complete a short evaluation form which collects the following information: Evaluations Scale: 1-not applicable, 2- No, 3-somewhat, 4-definitely
1. The program met its intended goal.
2. This program benefited you as a student.
3. You learned something by attending this program.
4. The program was worthwhile.
Narrative Response:
5. What would have made this program better? _____
6. Please describe the types of programs you would attend if offered. _____

This information, along with total attendance and an assessment of quality of advertisement methods will be used in two ways; 1) to determine the usefulness of the program and whether or

not it could be improved or should not be offered in the future and 2) to solicit resident needs and interests for events they would actually participate in.

The data collected during 2005-2006 found that on average programs facilitated by housing staff was rated 4.53 on a 5 point scale. Narrative comments expressed a desire for entertainment venues such as trips, concerts, and movie nights. The Residence Life staff is evaluating the financial feasibility of hosting these costly opportunities. Additionally, residents are not making the connection between RA educational programs and out-of classroom learning. Residence Life is working to develop a tool to help residents recognize and better understand the value of participating in these workshops.

Focus Group Needs Assessments
As issues become apparent or as questions arise regarding preferences, opinions and ideas will be solicited through focus groups on an as-needed basis. The Resident Assistant staff serves as an easily accessible group to collect resident opinions. As soon as the Student Housing Association is operational, this will serve as another barometer for resident opinions. Examples of information solicited to date:
1. Would we prefer our vending machines to be coin only, CatCard only, or both?
2. What are our residents doing after hours to keep entertained?
3. How are residents thinking and feeling about their experience to date?
4. What expectations are not being met?
5. How can we as staff help to positively influence and mold the culture at UC Merced?

The RA's were the primary group we spoke with during the 2005-2006 academic year to gather information about the resident experience. Once the Student Hall Government got established in February, they too were able to provide us information about the resident experience. The following issues have been identified:
1. A desire to provide shelter at the designated smoking areas. Waiting for cost estimate.
2. A desire to permit the use of hookahs in housing. Proposing to permit on a trial basis.
3. More furniture in the Den (recreation room). Plans are underway.
4. Although their preference is for vending machine to accept both coins and CatCard, using the CatCard only was deemed satisfactory.
5. Concerns regarding the resident meal plan were addressed in focus groups with the Dining staff. Significant improvements were made in response to feedback.
6. More cable channels. Plans are underway to expand the service.

Plan for Satisfaction Assessment and Results for 2005-2006

Housing and Residence Life routinely solicits feedback from residents using both formal and informal discussion and survey methods.

RA Performance Effectiveness
In November of each year an on-line survey will be conducted to solicit resident feedback on their perceptions of their RA's performance effectiveness. This information will be used to determine the RA's strengths, whether or not the RA is meeting their resident's expectations, establish performance improvement goals, help determine whether or not an RA is eligible to return the following year, and if a follow-up survey is needed within the next 2-3 months. The tool will assess the RA's effectiveness in the following areas:
- Availability and approachability
- Facilitates community

- Helps to create environment conducive to study and sleep
- Develops positive relations with residents
- Serves as a resource and referral agent
- Sensitivity to individual and group needs and human differences
- Positive role model
- Facilitates programs to meet student needs and interests
- Understanding of policies and procedures and ability to communicate expectations
- Conflict resolution

This on-line survey was conducted in late November/early December of 2005 using Survey Monkey and yielded 245 responses. We offered as incentive a candy/treat that could be picked up at the office.

Individual results was sorted and shared with each Resident Assistant as part of their performance evaluations in January. In addition to statistical data, residents offered qualitative information on what they considered their RA's strengths and improvements areas as well as ideas for programs and activities to help their RA get a sense of their needs and interest areas. In consultation with their supervisors, individual RA's developed goals for the areas needing improvement which were monitored during the spring term.

The data was also used to determine whether or not an RA would be supported to return to the position the following year. In one case an RA whose results did not support their returning to the position, was allowed to implement improvement strategies before we reassessed their residents. Unfortunately the reassessment results did not support their candidacy as a returning staff member.

Overall between 83-86% of the residents indicated satisfaction with their RA's approachability, availability, sensitivity to diversity, ability to create an environment of mutual respect, and ability to serve as positive role models. 85% believed living on campus helped them transition to university life, 82% felt a strong sense of community living here, and 90% of the students indicated they would recommend living on-campus other students. The areas identified for improvement with a 16%-21% dissatisfaction rate included serving as a campus resource, the number of programs and programs of interest to the residents.

The following improvement strategies are being implemented:
1. Incorporate a campus resource fair into RA training to ensure staff are aware of resources.
2. The program model is being redeveloped to better define learning outcomes of the first-year experience. As part of the new first-year experience model, a tool (e.g. icon or symbol.) will be created to help students connect the learning goal area with the program attending.
3. Program evaluation tools are being redeveloped to assess whether or not the learning outcome was achieved.
4. Needs assessment information, tools, and strategies will be included in RA training to help RA's program to better meet the needs of their students.

RA Supervisor Effectiveness
In January, the RA's will be expected to complete an evaluation tool to assess the effectiveness of their supervisor's performance. This information will be used to determine whether or not the supervisor is meeting the needs of the RA's and to establish performance improvement goals if appropriate. The skill areas to be assessed are:

- Approachability and availability
- Effectiveness as a supervisor
  - Provides sound advice/effective coaching
  - Serves as a positive role model
  - Motivates and inspires staff to perform
  - Fair and consistent
- Conflict Resolution Skills
- Maturity
- Consistency in approach

No progress on this assessment, however the tool will be developed and implemented during the 2006-2007 academic year.

Community Assessment Satisfaction Survey

In January each year, conduct an on-line survey to assess resident satisfaction with the services offered by Student Housing. This information will be used to determine necessary changes/improvements in staff performance, customer service approaches, communication effectiveness, quality of services provided, response timeliness, and most importantly, whether or not there is a need for focus groups to further define any problem areas.

- Community Atmosphere: feel a sense of community, living here helped me make friends, suitemates are respectful
- Academic Support: benefit academically living on campus, able to study/sleep,
- Safety
- Office Staff availability, approachability, response to service requests
- Effectiveness in communicating information to residents
- Maintenance - response quality, timeliness, and whether or not they submitted a work request
- Custodial staff quality and response timeliness
- Internet services
- Dining Service
- Satellite TV service – channel options, quality of service
- Resident Information: GPA, hours spent studying, hours spent working, how often leave on weekends
- Demographics – gender, ethnicity, class status

This on-line survey was conducted in April/May of 2006. The service areas assessed include maintenance, custodial, IT (cable and internet), dining, staff, and safety. Resident satisfaction with the services and opportunities available through housing was well received with most areas reflecting less than 9% dissatisfaction.

Use of information:
The areas where residents expressed dissatisfaction include the dining commons hours of operation (46.1%) and variety of foods (on a scale of 1-5 "5" being the highest, 29.5% selected a 1 or 2 rating), reliability of wireless service (20.4%), mail services (12.4%), and the variety of cable channels(18.5%). Feedback has been shared with the appropriate service providers who are assessing the data and making the effort to implement improvements. Again financial viability is a factor with raising the level of service offered through some areas.

S T U D E N T S   F I R S T   C E N T E R

Plan for Use of Tracking Information and Results for 2005-2006

The services provided by the Students First Center are tracked at three different levels depending on the individual and type of service accessed – Intensive Student Services, Tally of General Services, and Interest Cards for Admissions.

Tracking of Intensive Student Services -
Intensive Services include provision of services to admitted and current students that requires access to the Student Information System BANNER and necessitates the collection of their student ID number. These services include, but are not limited to, inquiries into the status of financial aid awards, outstanding financial aid requirements, class schedule details, adding or dropping a class, section changes, account balance inquiries, transcript receipt status, and student holds.

Information collected for this level of service includes:
- Staff Name
- Date
- Form of Contact
- Length of Time
- Student Name
- Student ID#
- Student Class Status
- Type of Service

This information is currently tracked via a simple spreadsheet. The information will eventually be added to the online Student Services Tracking application developed by the Office of the Registrar. The online tracking application will then match up this service data with the student's record in BANNER.

Tally of General Services –
The Tally of General Services serves to collect data on the overall number of people served in all areas of service sorted by method of service. Intensive Student Services are also incorporated into the tally sheet in order to have an overall count for all services provided.

The following information is collected via the SFC Tally Form:
- Date
- Service Method – In person, phone, e-mail
- Type of Service:
  - Admissions (prospective)
  - Career Services
  - Cat Card
  - Facilities
  - Financial Aid / Student Business Services
  - Information Technology
  - Library
  - Lost & Found
  - Parking / TAPS
  - Registrar
  - Special Student Services (Health, Disability & Counseling Services)

- o Student Advising & Learning
- o Student Life/Housing/Dining
- o Visitor Info (directions, maps, brochures)
- o Other

Interest Cards for Admissions –

Interest Cards are used to collect specific data on a person-by-person basis of individuals who are potentially interested in admissions to UC Merced. Any information provided to the prospective student is also counted on the Tally of General Services.

The Interest Card for Admissions collects the following data:
- Date
- Name
- Current Address
- E-mail Address
- Home Number
- Cell Number
- Year in School/Education Level
- Major Interested in Studying
- Best Way to Contact (current address, e-mail, home number, or cell number)
- School of Transfer

Use of Information

Tracking the use of Intensive Student Services will serve to:

- Help determine the usefulness of services provided by comparing the level of services accessed to the student's success based on indicators available via BANNER such as satisfactory academic progress

- Guide the SFC in determining the scope and depth of services to be offered

- Guide the SFC in determining the best methods of service delivery and emphasis on various points of access to service

- Determine the variety of resources and information available

Tracking of services via the Tally of General Services will serve to:

- Assess the effectiveness of the SFC by determining how many students are served at the frontline and thereby freeing up the individual units to focus on more in-depth concerns and issues

- Guide the SFC in determining the scope and depth of services to be offered

- Guide the SFC in determining the best methods of service delivery and emphasis on various points of access to service

- Establish the variety of resources and information that should be available at the SFC

Tracking of services via admissions interest cards will serve to:

- Provide concrete information for follow up by the Office of Admissions on potential candidates for recruitment

- Guide Admissions in outreach to high schools and community colleges by giving them a sense of which schools prospective students are currently attending

- Guide Admissions in type of recruitment materials and topics to cover based on the academic area of interest or major stated by the prospective students

Reporting of Information – All three levels of service tracking will be compiled into monthly reports to be submitted to the Vice Chancellor of Student Affairs. These reports will provide statistical data on use as and a narrative assessment of operations. These monthly reports will then feed into the year-end report to be submitted in June. The year-end report will also include the results of assessments conducted during the course of the year.

2005-06 Results of Tracking Information

Tracking of Intensive Student Services

The Students First Center staff have maintained daily records of intensive student services that require the collection of their student ID number, however these records have remained in their manual format. These services have not been entered into the online student service tracking system due to issues with the online tracking system as well as limited staff time. The first hurdle was the inclusion of a date field in the program that would allow us to enter services at a later date, but accurately identify the date of service. This enhancement was added. Secondly, in order for the tracking system to be useful to the Students First Center, the ability to pull this information out into reports would be necessary. This second enhancement has not yet happened. Once the online tracking system in enhanced to meet the SFC needs, the records from 2005-06 will be entered and analyzed.

Tally of General Services

The tally of general services has been compiled for 2005-06 for the academic year from September 2005 to May 2006. Charts detailing the total number of contacts by department and by week are attached to this report. The number of contacts by department and delivery method are summarized below.

	%	in person	%	by phone	%	e-mail	TOTAL
Admissions	14%	469	86%	2,838	0%	0	**3,307**
Financial Aid	80%	2,019	20%	502	0%	0	**2,521**
Registrar	93%	2,283	7%	165	0%	3	**2,451**
Other SA (1)	93%	789	7%	58	1%	5	**852**
Other SA (2)	86%	3,477	14%	546	0%	3	**4,026**
TOTAL	**69%**	**9,037**	**31%**	**4,109**	**0%**	**11**	**13,157**

Total contacts from September 2005 to May 2006

The total number of contacts would tend to indicate that the Students First Center has served one of its primary objectives, which was to free up the specialist staff in the core enrollment services units (Admissions, Financial Aid and Registrar) by handling the majority of routine service needs.

Delivery Methods

The predominant service delivery method for all issues other than Admissions was **in person** with 80% to 93% of service delivered in person. In stark contrast, 86% of all Admissions-related contacts were **by phone**. This information will help guide us in staffing patterns for coverage of

the Students First Center. The staff on the phones should be well versed in the area of Admissions.

Given that 69% of all service was provided in person, nearly twice as much as by phone, the installation of the self-service computer kiosks in the Students First Center lobby will be all the more critical. Plans are underway to finalize this installation that had been planned for the beginning of 2005-06.

Only 11 people were served via the SFC e-mail address during the academic year, however, approximately 100 more students were assisted via e-mail in the summer months prior to the start of the school year. This reflects that fact that all units have a unique e-mail address for questions specific to their area. The extremely low number of e-mail contacts by the Students First Center tends to indicate that department-specific e-mail addresses were utilized more regularly by students.

Area of Service

The high level of service provided outside of the core enrollment services units was not anticipated. This reflects the high usage of the Students First Center as a central location for all campus questions. The level of need in each area will help determine the type of information and expertise that the Students First Center needs to offer.

The area with the largest demand in 2005-06 was Admissions with 25% of all contacts related to this area. Financial Aid and Registrar issues constituted 19% each of all contacts. The other areas of service were surprisingly high at 37% of all contacts.

The sub-issue within Financial Aid that required the highest level of service was Student Business Services issues at 62% of all Financial Aid contacts. This may be due to the general lack of awareness of payment deadlines. For this reason, next year the Students First Center will collaborate with other units to inform parents and students of important deadlines, both financial and otherwise.

The sub-issue within Admissions that required the most attention was service to prospective students and families with 30% of all Admissions contacts related to this constituency. This is a reflection of the Students First Center informal role as a campus visitor center. In response to this high demand, SFC has stocked its shelf with ample information to outside visitors on all aspects of the campus and the local community.

The demand for visitor information was also fairly significant with 16% of all contacts related to campus visitors. These services peaked at the beginning of the academic year just after the campus opened its doors to the public for the first time. SFC actively pursued information on the local community to serve this need and worked closely with the Visitors Bureau to maintain comprehensive information on the local area.

Of all other services outside the core enrollment services areas, the majority of the demand for services was for issues outside of Student Affairs. Visitor information topped the charts with 44% of "Other Services" and parking and transportation issues constituted 11% of all "Other Services." The demand for parking and transportation services has spurred closer collaboration between the Student First Center and Transportation and Parking Services (TAPS). The issuance of parking permits required an immense about of time and attention at the beginning of each semester.

Time Period

It is evident looking at the graph of contacts by week that the time period when demand for services is greatest is at the beginning of the school year and to a lesser degree at the beginning of the semester. It also appears that services were slightly inflated at the end of each semester. These trends were expected and reinforce our plan to incorporate staff from other units into the front counter coverage during these peak periods.

Interest Cards for Admissions

Interest cards were collected as a mechanism for follow-up by Admissions, however, the collection and use of these cards was not quantified. In the future, we will track the number of referrals, basic demographics from the referral and how they are used by Admissions.

Plan for Needs Assessment for 2005-2006

The Students First Center (SFC) is designed to serve current students, prospective students and the public with questions about admissions, financial aid, registration and enrollment. Additional information and resources are also available based on the perceived needs of the SFC's constituents.

The SFC plans to assess the needs for frontline services during the 2005-06 academic year in the following areas:

- **Hours of Service –** Based on data gathered on number of students served and time of service, the hours of service may be adjusted to better meet the needs of our constituents – current students, prospective students, and the public. A method of assessing the need for additional evening or weekend hours will be developed and implemented by the end of the 2005-06 academic year.

- **Scope of Services** – For the opening semester the services offered have been focused on admissions, financial aid, registration and enrollment. An assessment will be developed by May 2006 and implemented in the following semester to determine the need for more intensive service and/or additional services. Areas of inquiry might include advising, application assistance, and financial aid application assistance.

- **Information & Resources** – In the absence of an official visitor's center on campus, the SFC has somewhat filled that void with the provision of campus and community resources such as catalogs, maps, transportation schedules and visitor guides along with brochures and pamphlets from various units throughout campus.

- **Service Delivery Method / Access Points** – The access points for service include walk-in, phone and e-mail. Plans are also in place for a comprehensive website. The usefulness of each delivery method will be assessed in order to direct the future development of these delivery methods.

The results of the assessments will be shared with the Vice Chancellor of Student Affairs and will be used to determine the scope of services and delivery logistics that will be established for subsequent semesters and academic years.

Survey of Services – A survey will be developed to assess the satisfaction of SFC constituents with the services offered. Areas to be addressed in the survey will include hours of operation, types of services available, knowledge of staff, convenience, speed of service, quality of customer service, accessibility, and types of information/resources available. The proposed survey content and protocol will be submitted to the Vice Chancellor of Student Affairs by the end of the Fall Semester. A random method of surveying the range of SFC constituents (current students, prospective students, staff, faculty, and community) will be developed with the full survey proposal.

The results of these assessments will be used to identify any areas where SFC services could be enhanced or improved. Results will be submitted to the Vice Chancellor of Student Affairs and included in the Year-End Report.

2005-06 Results of Needs Assessment & Satisfaction Assessment

Needs Assessment and Satisfaction Assessment for Students First Center services did not take place during the 2005-06 academic year. The challenge regarding assessment is that our small student population seemed to be over-assessed by the various groups on campus and by the campus as a whole. Assessment efforts should be coordinated within Student Affairs in order to concentrate the greatest effort for the greatest benefit of all units. Students First Center plans to participate in future collaborative efforts to assess student needs and student satisfaction.

University of California, Merced
Writing Program

1. Writing Program Assessment Activities Overview

2. Course Learning Outcomes

3. Learning Outcomes for WRI 1 Courses

4. Needs Assessment Survey

5. Faculty Assessment of Student Needs

6. WRI 1 Midterm Evaluation

7. Collaborative Teaching Practices Pre-Observation Form

The Merced Writing Program (MWP) conducts extensive student-based, teacher-based, and program-based assessment of our WRI 1 and WRI 10 curriculum, courses that essentially all first-year students must complete. We also collaborate in assessment of Core 1 and Core 100, courses like ours that fulfill university requirements. As part of a project funded by the Spencer Foundation, next academic year we plan to extend this collaboration to relevant courses in natural sciences and mathematics.

This assessment is essential for a new university if we are to understand better the instructional needs of our undergraduates and obtain clear evidence of successful teaching practices.   To establish a baseline of information about our first year of classes, the MWP had students in WRI 1 and WRI 10 complete the following assessment activities during AY 2005-2006: semester initial, midterm, and semester final questionnaire surveys (teachers also completed similar forms for comparative purposes); pre- and posttest essays; and focus-group interviews. We also had students submit portfolios of all work completed in each course.

As a routine assessment of teaching, the Director of Writing observed all MWP faculty at least twice during AY 2005-2006, took comprehensive notes of each observation, and wrote a summary report. During biweekly MWP meetings, the Director discussed these observations to highlight specific examples of teaching effectiveness.   In addition, to establish shared standards for essay evaluation, the Director had MWP faculty review and grade sample essays during MWP meetings. For AY 2006-2007, the Director will continue this effort to develop reliable grading and effective teaching across the MWP curriculum.

For similar reasons, all MWP faculty met throughout the semester in small three-person teams to discuss course objectives and collectively to align those objectives with learning outcomes specified in the course syllabi. Each MWP course has an outcomes-based syllabus that provides detailed, class-by-class information about specific objectives and broad goals for that day, that week, and for the entire semester.   In their teams, MWP members observed one another using an evaluation matrix that was then discussed by team members. Each observer also wrote a supportive evaluation that noted a teacher's best practices.   By learning from one another, these teachers aim to become better practitioners who are also better able to promote student success.

Following the same procedures modeled in MWP general meetings, team members exchanged and evaluated student writing so that they could affirm the consistency of their grading standards. At the end of the semester, each instructor in each teaching team then identified a low, mid, and high example of student performance exemplified by that student's cumulative work submitted in a course portfolio.   After exchanging these portfolios, colleagues in each team would attempt to confirm the low, middle, and high assessment without knowing beforehand how each portfolio had been rated. This assessment provided baseline information about failing, average, and high

quality student writing in WRI 1 that was completed in Fall semester, 2005. A subsequent study, not yet finished, will match ratings for selected portfolios with students' course grades.

For program assessment purposes, all MWP faculty participated in a "double blind" evaluation of student writing that had been completed in WRI 10, Spring semester, 2006. Nearly 550 pre- and posttest samples were randomly selected for this review, a total that represented about 50% of all students taking WRI 10 in the spring. Using a six-point rating system, at least two faculty readers judged the quality of students' writing without knowing if the sample being evaluated was a pretest or posttest and without any indication of a colleague's prior rating. Preceding this review, all readers had participated in a norming session that had established a high degree of consistency in ratings assigned to sample essays. During the actual review of essays, readers maintained a relatively high degree of consistency at .82 for identical or contiguous assignment of ratings (the latter might be a 4 and 5 or 1 and 2).

Results of Assessment Activities and Discussions:

The results of our pre- and posttest assessment show that, overall, students in WRI 1 improved as writers, averaging a gain of .6 on the six point rating scale. This result is a statistically significant gain ($\geq$ .05) but one that initially may appear quite modest. However, two factors must be considered when interpreting this result. An impromptu, in-class writing assignment is just a snapshot of student performance on a single type of writing; moreover, it is generated as impromptu writing in 50 minutes rather than a finished essay produced over several days or weeks in several stages of revision. Compared to similar pre- and posttest evaluations conducted at other universities, we can affirm that a .6 gain is a robust effect; moreover, by comparing our results from Fall semester to those from Spring Semester, we can also infer that our students' improvement as writers is due to instruction offered in WRI 10.

Before Fall semester 2006 begins, MWP faculty will meet for several days of retreat preparing for our second year of classes. As part of that preparation, results of AY 2005-2006 student and faculty questionnaires will be considered, with specific attention to these items:

- Course-initial and midterm questionnaires that students and faculty completed; these results will help us to determine how well students are prepared for our courses and how closely course grades correspond to student/faculty judgments of writing ability.

- An end-of-semester questionnaire survey that students and faculty completed; the results will enable us to gauge what students and faculty believe has been taught and learned; we can also consider changes they have recommended to improve a course. These surveys are in addition to the university-required survey of instructor performance.

- Student-focus groups that were convened the semester after students had completed WRI 1 and WRI 10; from summary reports of these meetings we will have additional information about the transition from WRI 1 to WRI 10.

- One purpose of the MWP's teaching teams has been to refine course syllabi, and for AY 2006-2007, this effort has produced a new "theme-based" design for the WRI 10 curriculum. During our August retreat we will discuss proposed themes for science fiction, nature writing, medical science, and language policies, among other options.

- A related outcome for the design of WRI 1 will be reconsideration of its thematic focus on diversity. From our surveys of first-year students, we have learned that a majority of freshmen wrote papers in high school on the topic of diversity. Although familiarity with this topic is not necessarily a problem, we will be discussing at the August retreat if WRI 1 should be entirely devoted to issues of linguistic diversity rather than cultural diversity. That adjustment would minimize overlap with high school coverage of cultural diversity, but it would also potentially require adoption of a new textbook for this course as well.

As the university develops other tools and procedures for assessment of teaching and learning, we will adapt our efforts to complement those broader initiatives.

COURSE LEARNING OUTCOMES

- Increase your awareness of and expertise in the conventions of academic discourse (i.e., recognize the expectations that exist about how we think, write, and speak at the university level, while you develop your own abilities in this context)
- Communicate your ideas well to various audiences for a variety of purposes
- Understand issues of linguistic diversity (such as dialect variation, bilingual education)
- Understand issues of cultural diversity (such as race, ethnicity, cultural heritage)
- Provide helpful, supportive evaluation of peers' writing
- Revise writing assignments by incorporating relevant advice for changes
- Support classmates as members of the same learning community
- Demonstrate increasing proficiency in implementing the writing process

Learning Outcomes, Merced Writing Program
Assessment tools demonstrate that the course has achieved the stated outcomes and should be distinguished from grading tools, although in many instances the same instrument is used for both purposes.

Outcome	Course Assessment Tool	
Upon completion of the course, students will demonstrate the following capabilities:	*Team*	*Individual*
Increased awareness of and expertise in the conventions of academic discourse	Portfolio evaluation	Overall student work; surveys and focus groups
Communicate your ideas well to various audiences for a variety of purposes	Portfolio evaluation	Overall student work

Understand issues of linguistic diversity	Portfolio evaluation	Overall student work
Understand issues of cultural diversity	Surveys; focus group interviews	Surveys
Provide helpful, supportive evaluation of peers' writing	Surveys; focus group interviews	Overall student work; surveys
Revise writing assignments by incorporating relevant advice for changes	Portfolio evaluation	Surveys

Support classmates as members of the same learning community	Portfolio evaluation	Overall student work; surveys
Demonstrate increasing proficiency in implementing the writing process	Pre- and post-test evaluations; portfolio evaluation	Overall student work

Learning Outcomes for WRI 1 Courses:

COURSE LEARNING OUTCOMES (excerpted from WRI 1 Syllabus)

A list of weekly outcomes (see page 7) will complement those listed below:
- Develop ability to read and write academic discourse
- Develop ability to analyze and express complex ideas
- Understand issues of linguistic diversity in such topics as dialect variation, bilingual education, literary expression, language policy, and social status
- Understand issues of cultural diversity in such topics as race, ethnicity, cultural heritage, college admission, test taking, generational differences, and sense of place
- Provide helpful, supportive evaluations of peers' writing
- Revise writing by incorporating relevant advice for changes
- Collaborate successfully on group tasks and class projects
- Support your classmates as members of the same learning community

Sample of Objectives, Assignments, and Outcomes for Weeks 2 and 3:

TEACHING OBJECTIVES:
> Review the writing process (and post-process issues of culture/context)
> Define purpose and audience
> Explain factual and evaluative forms of academic writing
> Demonstrate strategies for effective reading
> Examine and discuss dialect features of Hurston's prose
> Assign first draft of Essay One

> For M or Tu: Read pages 2-35 (ch 1, 2, and 3) in *LA*; pages 23-40 in *WI*; chap 1-3 in Hurston's novel, *Their Eyes Were Watching God*
> Complete exercises in *WI*, write a directed summary (p.29) and a thesis statement (p.31). Answer factual questions about Hurston reading.

> For W or Th: In *LA*, read p. 131 – 143. Write a practice essay (p. 33), complete a peer review (p. 39); read and discuss Hurston text, chap 4 - 6.   Discuss topic options for Essay One and bring to class an initial draft of Essay One.

LEARNING OUTCOMES:
> Produce samples of prewriting, draft revision, and final writing
> Write a directed summary and an evaluative summary so that each form exemplifies difference(s) between factual assertion and development of a personal opinion or "thesis."
> Discuss reactions to the Hurston text and support comments with textual reference/evidence.
> Identify purpose and audience in selected readings and peer writing
> Submit evidence of annotated reading assignments
> Translate nonstandard dialect into conventional English.

Your response to the following questions will help guide the development of programs to assist future UC Merced students. Please answer them as thoughtfully and accurately as possible.

Before I entered elementary school, the primary language spoken by my

parent(s) and the caregiver(s) in my home was: _____

_____

While I was in school, I received additional English language assistance.

(Circle one)   Yes   No

If "no," proceed to question #1. If "yes," for approximately how many years?

_____

What type of support did you receive? (Check all that apply)

☐ ESL classes   ☐ Bilingual classes (teacher taught in my home language <u>and</u> in English)

☐ Mainstream class, pulled out to get ESL support ☐ Other – describe

_____

For the following statements, please circle the choice that most closely

reflects your opinion.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
1	2	3	4	5

<u>**Answer questions 1 - 14 thinking about the abilities you had during your high school career:**</u>

1. I understood the directions for all assignments when they were clearly presented.
    1   2   3   4   5

2. I managed my time well enough to submit all my assignments when they were due.
    1   2   3   4   5

3. I was able to read my course textbooks and find the main ideas they contained.
    1   2   3   4   5

4. I was confident in my reading comprehension skills.
    1   2   3   4   5

5. I knew how to take notes effectively when listening to teachers' lectures.
    1   2   3   4   5

6. As I read, I was able to take notes that helped me write papers based on those readings.
    1   2   3   4   5

7. I thought I was a good writer of academic papers.

1	2	3	4	5

8. I understood how to summarize and paraphrase the ideas of authors well.

1	2	3	4	5

9. I knew exactly what plagiarism is, the seriousness of it, and tactics to guard against it in my writing.

1	2	3	4	5

10. I felt confident in sharing my ideas in classroom discussions.

1	2	3	4	5

11. I often shared my ideas in classroom discussions.

1	2	3	4	5

12. I knew how to create an effective classroom presentation.

1	2	3	4	5

12. I was able to give feedback to my peers in a way that helped their writing skills become better.

     1   **2**   **3**   **4**   **5**

13. I was able to talk to my teachers about my classroom and learning concerns.

     1   **2**   **3**   **4**   **5**

14. I knew when I needed to seek assistance and was able to find the right resources to help me.

     1   **2**   **3**   **4**   **5**

Answer questions 15-27 while thinking about your first semester at UC Merced.

Strongly Disagree   Disagree   No Opinion   Agree   Strongly Agree

15. I understood what was required to complete all classroom assignments successfully

     1   **2**   **3**   **4**   **5**

16. I submitted all assignments on the due dates.

     1   **2**   **3**   **4**   **5**

17. I was able to keep up with all the readings and understand what I read.

     1   **2**   **3**   **4**   **5**

18. I took effective notes when in class.

     1   **2**   **3**   **4**   **5**

19. I took notes of my course readings in a manner that helped me write and take tests successfully.

     1   **2**   **3**   **4**   **5**

20. I was a good writer of academic papers in the university setting.

     1   **2**   **3**   **4**   **5**

21. I was effective in avoiding any instances of plagiarism in my writing.

     1   **2**   **3**   **4**   **5**

22. I contributed significantly to classroom discussions.

     1   **2**   **3**   **4**   **5**

23. I gave presentations in a confident and professional manner.

     1   **2**   **3**   **4**   **5**

24. I gave helpful feedback on papers or projects to my peers.

     1   **2**   **3**   **4**   **5**

25. I knew when and where to get assistance with academic concerns.

     1   **2**   **3**   **4**   **5**

26. I sought help from professors when I had learning or classroom concerns.

	1	2	3	4	5

27. I knew how to interact with professors in and out of the classroom (face-to-face and through e-mail).

	1	2	3	4	5

Please give your name if you would be willing to answer follow-up questions as the planning for these programs advance:_____

_____

Needs Assessment – Student Writing Abilities
Faculty Responses

Please complete the following questions based on the abilities of your students in WRI 01. Your responses will be useful in planning future courses in the English Language Institute, as well as possible curricular changes for WRI 01. **Please circle the choice that most closely reflects your opinion, using the following scale:**

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
1	2	3	4	5

Consider the abilities your students demonstrated when the semester began for questions 1-9.

1. My students were able to understand the course texts, discerning the thesis and supporting points.
        1   2   3   4   5

2. My students demonstrated the ability to effectively annotate their readings.
        1   2   3   4   5

3. My students could accurately summarize and paraphrase their readings
        1   2   3   4   5

4. My students integrated readings successfully into their essays.
        1   2   3   4   5

5. During class discussions, students demonstrated the ability to think critically about diverse topics.
        1   2   3   4   5

6. Students exhibited respect and tolerance for diverse opinions.
        1   2   3   4   5

7. Students demonstrated proficiency in the writing process – from planning to to final submission.
        1   2   3   4   5

8. Students wrote with an awareness of audience concerns.
        1   2   3   4   5

9. Students provided sufficient evidence and development for their thesis.
        1   2   3   4   5

Consider the abilities your students demonstrated when the semester began for questions 10-17.

10. Students wrote consistently within the conventions of academic discourse.
        1   2   3   4   5

11. Intentional plagiarism did not occur.
        1   2   3   4   5

12. Unintentional plagiarism did not occur.
        1   2   3   4   5

13. Students provided helpful feedback to their peers.
        1   2   3   4   5

14. Students attended to peers' feedback.
        1   2   3   4   5

15.   Students attended to instructor's feedback.
       1   **2**   **3**   **4**   **5**

15.   Students completed assignments by the due date.
       1   **2**   **3**   **4**   **5**

16.   Students attended office hours to receive assistance on a regular basis.
       1   **2**   **3**   **4**   **5**

17.   Students managed their time effectively to meet all course demands
successfully.
       1   **2**   **3**   **4**   **5**

List three or four of the most common writing deficiencies you noted among your
students.

What skills do you think your students needed before coming to UC Merced?

Are there any changes you did or would have implemented in your planned syllabus
for Writing 01?

Name of Instructor:_____ **Section**_____ **Semester**_____
Please circle the appropriate number for the following questions. Your thoughtful responses are appreciated and may help shape the direction of this course in the future.

1. I complete the assigned readings and homework on schedule.

> RARELY   1   2   3   4   5   ALWAYS

2. I participate actively in class discussions and activities.

> RARELY   1   2   3   4   5   ALWAYS

3. I have made use of the instructor's office hours to get assistance with my writing.

> RARELY   1   2   3   4   5   ALWAYS

4. How interested were you in taking this course at the beginning of the semester?

> LOW   1   2   3   4   5   HIGH

5. Now that you are mid-way through the course, how would you rate your level of improvement as a writer?

> LOW   1   2   3   4   5   HIGH

Please Explain:

6. How clear are instructions for:

a) Formal Papers: Not at All   1   2   3   4   5   Always

b) In-class Activities: Not at All   1   2   3   4   5   Always

7. My instructor discusses my writing in ways that help me to improve.

> NOT AT ALL   1   2   3   4   5   ALWAYS

Please Explain:

8. My instructor seems:

	NOT AT ALL				ALWAYS
Willing to answer questions	1	2	3	4	5
Available to students	1	2	3	4	5
Enthusiastic in teaching writing	1	2	3	4	5
Committed to helping me learn	1	2	3	4	5
Organized	1	2	3	4	5
Knowledgeable about writing	1	2	3	4	5
Respectful	1	2	3	4	5
Fair	1	2	3	4	5

9. This course has provided information and support in developing the following skills:

	NOT AT ALL				VERY WELL
Reading critically	1	2	3	4	5
Thinking creatively	1	2	3	4	5
Developing a topic	1	2	3	4	5
Composing an argument	1	2	3	4	5
Crafting an essay (writing process, and revision strategies)	1	2	3	4	5
Writing to an audience	1	2	3	4	5
Giving and attending to feedback	1	2	3	4	5

10. The following activities have been useful to me:

	NOT AT ALL				VERY MUCH
Peer review	1	2	3	4	5
Assessing my own writing	1	2	3	4	5
Class discussions	1	2	3	4	5
Feedback from instructor	1	2	3	4	5

11. Describe the aspects of the course that were especially helpful to you (e.g., course organization, specific readings, writing assignments).

12. Describe aspects that you would change, if you had the opportunity.

Collaborative Teaching Practices - Pre-Observation Form[1]

This form is to be completed by the teacher and submitted to the faculty or peer observer at least one day before the observation.

Teacher: Mary S. Smith   Date: 11/09/05
Course: WRI 01 Section 05   Room: 360
Observer: Bob Ochsner

_____

1. <u>Learning Objectives/Outcomes</u>: At the end of the lesson, I will have helped my students to....

a. Evaluate the role of verbs in facilitating expressive writing

b. Gain experience in recognizing ways that literature can reflect cultural gender norms or

   expectations

2. <u>Lesson Plan</u>: I intend to achieve the outcomes listed above by leading the following activities (list briefly).

Using various versions of <u>Little Red Riding Hood</u>, groups will first list the verbs of their respective books. Next, they will compare lists to note the differences and distinctions in usage.

Each group will then read their text again to note the author's description of the various characters, determining the role gender plays in that particular version, if at all. In plenary, compile variations & note any cultural/historical trends evident.

3. <u>Prior Learning</u>: These objectives are related to the following materials presented and/or skills practiced in the previous lesson:

Although we have talked about verbs in the context of expressing purpose of writing and the focus the choice of verb allows, this lesson is the first concentrated look at this subject. Furthermore, this lesson also initiates the topic of gender and language.

Ss were assigned the readings in <u>Language Awareness</u> on gender and language over the last week.

4. <u>Future Learning</u>: The lesson that I'm planning will relate to subsequent lessons in this way:

Ss will have an opportunity to rewrite a fairy tale in keeping with examinations of verbs and gender roles. The next lesson will expand on this discussion of gender as we explore their fairy tales and then move into a more general examination of gender, culture, and language.

_____

[1] adapted from Monterey Institute of International Studies Practicum

5. <u>Learner Population Profile</u>: On a scale of 1 (low) to 5 (high), I would rate these aspects of my students' performance and behavior this way:

a. Preparedness	1	2	**3**	4	5
b. Motivation	1	2	3	**4**	5
c. Participation	1	2	3	**4**	5

This rating, of course, is variable for particular days and particular Ss. ☺

6. <u>Constraints</u>: These factors might compromise the success of my lesson:

Time, as always!

The groupings for this activity are initially based on "feedback families" that have been created. A few of those families experienced difficulty in completing their out-of-class peer feedback, in spite of intervention and prodding from all involved. I hope to have this more relaxed activity build a little cohesiveness in these groups. On the other hand, the negative interaction they are bringing to this activity may thwart that desired result.

These Ss may be so familiar with the story (or so captivated by the different versions) that they are unable to focus on the task at hand.

My circulating while groups work will keep the latter in hand and may be enough for the former risk. I may find, however, a need for more direct intervention, e.g., moving groups around for the second step of this lesson.

7. <u>Observation foci</u>: I would like my observer to place particular focus on the following aspects of my teaching (specify two or three aspects):

For whichever portion of the lesson you observe:

- Degrees of participation among groups – i.e., dominating Ss.

- Clarity of my directions.

- Anything that may detract from Ss' successfully completing/understanding concepts or tasks.

Thanks for your set of eyes, ears, and the expertise you'll bring to this lesson.

Experimental Curricular Programming: Learning Outcomes, Assessment and Revision: Core Course Sequence

> "The results of the lack of communication between scientists and nonscientists is worth examining. A good deal of the future may spring from it." –C.P. Snow.

Faculty members at UC Merced set out to accomplish many things in their journey to develop the Core Course Sequence. Faculty wanted an interdisciplinary general education experience that would not only introduce students to the UCM guiding principles, but would provide a venue through which students could bring to bear the skills and perspectives of their own background and educational journey at UC Merced. As a requirement, Core was intended to satisfy a portion of the first year college writing requirement but incorporate other assignments that would offer training in scientific literacy, decision-making, and aesthetic understanding. The initial proposal, which came from the 2003 General Education draft developed by the UCM Asheville Institute Team, was a one-year freshman course. The report indicated that the experience would be, "a team-taught two-semester, signature core course…organized through College One…It will involve strong participation of a faculty team throughout the year…The course will introduce students to the major domains of knowledge…" Although the structure for the general education experience was not ultimately adopted in its proposed form, the spirit behind the concept remained. In 2003, a Senate Task Force approved the UC Merced General Education Program, which included the concept of a core course. Then, towards the latter half of 2003, a pre-planning committee was formed.

The pre-planning committee found that the proposed one-year freshman course structure would not accomplish all of their intended objectives. One of the reasons the initial model would not work was because of the influx of large numbers of transfer students. This presented an additional need-how UC Merced could adequately introduce transfer students to general education at UC Merced. General Education is a symbolic foundation representing the educational directions, mission, and culture of an institution. Transfer students often miss out on this kind of experience and the Core faculty wanted a requirement that would provide the opportunity for proper socialization of transfer students. The most difficult obstacle was the need to formulate a structure that would accomplish all of the objectives. Models were proposed and rejected. Ideas were tossed around and tossed out. In 2004, a new structure was proposed. The new structure would be two semesters as previously proposed, but the first semester would be taken in the student's freshman year and the second semester would be taken during the student's junior year. In order to conceptualize the model, the Core Course Planning Committee was developed. This Committee consisted of an interdisciplinary group of faculty, including:

- Gregg Herken, SSHA (co-chair)
- Christopher Viney, Engineering (co-chair
- Henry Forman, Natural Sciences
- Valerie Leppert, Engineering
- Dunya Ramicova, SSHA
- Wil Van Breugel, Natural Sciences
- Ex-Officio Members:
  - Karen Merritt
  - James Ortez

The ultimate mission was to develop an innovative and interdisciplinary general education experience. The Committee began by establishing the following objectives and delivery parameters for the course as a foundation for moving forward with the specific structure.

Table 1. Objectives & Delivery Parameters for Core Course Sequence

Objectives	Delivery Parameters
• Provide a foundation in the skills and ideals articulated in the UCM Guiding Principles for General Education (i.e., scientific literacy, decision-making, communication, self and society, ethics and responsibility, leadership and teamwork, aesthetic understanding and creativity, and development of personal potential) • Provide a common intellectual experience for all UC Merced students, including transfer students • Convey the academic standards and expectations of UC Merced • Provide a context for knowledge to be taught in majors • Fulfill a portion of the writing/quantitative reasoning requirement • Be the signature course for College One • Act as a vehicle to build bridges between School and Faculty • Inform students about different educational choices at UCM	• Deliver large lectures AND small discussions • Organize Core Course into thematically linked modules • Make every module multidisciplinary • Have high profile outside lecturers on specific topics • Emphasize experiential learning to intellectually engage the students • Use advanced technologies-simulations, WWW, etc • Emphasize team assignments and activities • Where possible have the projects involve the community • "Core Friday" events to promote aesthetic understanding and creativity

Using these initial parameters, the College One CORE Course sequence "The World at Home: Planning for the Future in a Complex World," was born. The Core Course Sequence is future-oriented and focused on devising solutions to real-life problems. Core 1 and Core 100 are "signature" courses for UC Merced, unique in the UC system in that they draw on the disciplines and faculty of all three UCM Schools—Natural Sciences; Engineering; and Social Sciences, Humanities, and Arts—to introduce students to the fields in which they will first major and later may make their career. The Sequence is interdisciplinary (in that faculty from several disciplines introduce a topic from the perspective of their field) and integrative and experiential (in that the second semester is focused entirely on a team problem). The first semester, Core 1, is required by all freshmen and the second semester, Core 100 is required of all juniors.

The Core Course Sequence is driven by a focus on contemporary issues that an informed citizen needs to consider in a culturally, technologically, ethically, morally and aesthetically literate manner. Students are engaged from the outset with questions that are relevant to them, and the course structure offers a flow of ideas that makes it easy for students to know why they are being asked to learn something, how they arrived at that point, and where the discussion is headed. Both courses, Core 1 and Core 100, use the eight Guiding Principles of General Education as basis for the development of their respective learning objectives.

Although what has ultimately resulted is an innovative general education experience, it is not without obstacles. A required course, particularly one that is intended for general education, is often criticized by students would prefer to use the two courses for other classes they may wish to take. Faculty found that UC Merced's largely-freshman first class arrived without an idea of what general education was or why they needed to take required courses that satisfied it. For

juniors, the required course aspect presents an even greater problem, because as a rule, campuses do not have a specific required course for all juniors. Further, for both Core 1 and Core 100, logistics of offering and supporting the course have been especially complicated. As a way to alleviate impacts from obstacles, both Core 1 and Core 100 have an active focus on continuous improvement and assessment. The unique structure of the Core Course Sequence is such that mid-course, end of semester and end of year revisions were both necessary and advocated by faculty. Both courses began with little to no formal assessment mechanisms and both have implemented changes for Spring and Fall that not only implement assessment strategies, but such strategies are directly tied to the learning objectives. Some initial data has been collected, faculty have communicated their experiences teaching the course to one another, and suggestions for changes have been made, and in some cases, implemented. This section of the report will provide a look into these two courses—learning outcomes, course structure, assessment, progress & results, and next steps. Each course will be described in accordance with the faculty-proposed structure for Fall 2006 (for Core 1) and Spring 2007 (for Core 100). Obviously, the structure proposed for Fall 2006 incorporates revisions, changes, feedback from students and lessons learned. The sections describing progress and result will be focusing on how the course's program improvement mechanisms have contributed to the positive changes in each course. In the context of providing an overview for each course individually, data will be presented where available.

Core 1: The World at Home: Planning for the Future in a Complex World
Core 1 highlights issues facing citizens in the 21st century, and develops skills that promote informed reading, writing, reasoning, and decision-making. The Core 1 faculty members show how their disciplines identify and define a problem, emphasizing intersections and contrasts between their diverse intellectual constituencies. Core 1 capitalizes on this interdisciplinary approach to show how different experts, from what has been called "the two cultures" (humanist and scientist), view the world, analyze information, and attempt to solve problems. The intent is to demonstrate, through examples, that complex questions are best understood not from a single, decoupled perspective, but by insights gained from different – even seemingly disparate – approaches. As Professor Christopher Viney told freshmen at the first Core 1 lecture, "You leave here as a specialist in something, but also as a citizen of the world. You need to be able to communicate with other people who are not in your field."

The course engages and motivates the students by raising several major issues that have recently been on the ballot in California, or are likely to be on the ballot in the near future. Students are introduced to some of the skills, tools and rules that pertain to the acquisition, analysis and dissemination of relevant knowledge. The motivating issues lead us to examine our physical and cultural origins; consider the evolution and purpose of life; explore human rights and civic responsibilities; assess various types of consequences and causes of conflict; and apply an understanding of the past and present to influence the future.

When it comes to beneficial outcomes, Core 1 is not just a course for students. As a student-centered research university, faculty members are also gaining opportunities to promote their disciplines and collaborate with other faculty through their participation in Core 1. Faculty members are not restricted to contributing material from within their specialty, but can explore new connections and directions by interacting with any or all colleagues involved in teaching this

course. Core 1 faculty members also have a forum in which to stimulate student interest in their majors.

Core 1 Goals
- Gain familiarity with interdisciplinary concerns and interests
- Cultivate intellectual curiosity and the exchange of ideas
- Develop an ability to synthesize and express complex ideas
- Develop effective approaches to learning, reading, and writing
- Review and refine effective study skills, for managing information
- Collaborate successfully on group tasks and class projects

Core 1 Learning Outcomes
The following learning outcomes were developed at the Core 1 retreat in the Summer of 2006. Although the course was originally based on an initial set of learning outcomes, experiences over the course of the year and a focus on aligning the course further with the general education guiding principles resulted in the following revised outcomes:
- Demonstrate an understanding of scientific, technological and quantitative information
- Interpret scientific information and apply quantitative tools
- Appreciate the various and diverse factors bearing on decisions
- Able to assemble, interpret and apply information for problem-solving
- Convey information to multiple audiences using advanced written communication skills
- Understand and value diverse perspectives in both global and community contexts
- Work knowledgably and effectively in an ethnically and culturally rich setting
- Follow ethical practices in their professions and communities
- Work effectively in both leadership and team roles, sharing expertise
- Appreciate creative expression, including literature and the fine arts

The revised syllabus template for Fall 2006 communicates these objectives to students. See Appendix A: Core 1 Fall 2006 Syllabus.

Core 1 Course Outline & Structure
The outline of topics for Core 1 is as follows:

Background, "Points of Engagement": UCM's unique Core Course combines the viewpoints of a wide range of academic disciplines, to provide insights into the condition of today's world. Challenges that humankind must face – and our ability to deal with them – are then explored from this interdisciplinary base. The course provides a focus for developing the cultural, technological, ethical and aesthetical literacy of the informed citizen.

Module 1, "Origins of the Universe": Throughout history, humans have had a choice of explaining the natural world by faith, or through reason by testable hypotheses, The conflict between these two approaches may be seen, for example, in the life of Galileo. In addition to scientific explanations of the universe, various cultural narratives describing origins are included. All descriptions of the universe are limited by the tools of a field and reflective of cultural beliefs.

Module 2, "Origins of Life": This module will extend the earlier theme of faith vs. reason to today's ongoing debate over life's origins. Specifically addressed will be competing answers proposed by scientists, humanists, and ethicists to the key questions regarding: "Where and when does life begin?" and "What and whose life is sacred?"

Module 3, "Origins of Societies and Cultures": For centuries, humans have coalesced into societies for pragmatic reasons – food production, shelter, companionship, and defense – evolving distinct cultures as a result. Whereas all societies eventually face the same basic challenges – resource depletion, crime, epidemics, and environmental despoliation, among them – this is balanced by the creative contributions of their diverse cultures, in the arts and literature.

Module 4, "Language and Communication": Societies, like individuals, depend upon an ability to communicate for survival – to express needs and wants, to warn of danger, and to persuade others to join their cause. This module will look at the various ways that humans, and societies, learn to communicate and persuade: through words, symbols, and even unconscious gestures.

Module 5, "Needs of Individuals and Societies": Unlike societies, human beings have needs and desires that are unique to individuals, and cannot – or should not – be met by the society at large. The need for recreation in a setting of natural beauty is one of these; as are religion, art and music, and even sex. Likewise unique to each individual are the ethical choices that each of us makes in fulfilling these needs. Balanced with individual needs and desires are community considerations and ethical duties.

Module 6, "Conflict": Conflict is common not only between but within societies, and between society and the individual. This module will address the full spectrum of conflict – from global war to today's debate over protection of the environment – taking the perspective of how and why conflicts occur, how they might be avoided, and how, traditionally, they have been resolved.

Module 7, "The Future": The final module will revisit the major themes of the course, from the perspective of how they might be affected by changes already underway, or predicted in the foreseeable future. Both threats and prospects will be examined: from the possibility of a global pandemic, to the implications of genetic engineering and nanotechnology, and the impact of the rapidly changing demographic makeup of California.

Core 1 Assessment
Consistent with promoting a diverse set of learning objectives and as the hallmark of general education at UC Merced, students are assessed using a variety of methods. However, given the culture of continuous improvement in Core 1, faculty members are also provided an opportunity for assessment through a peer-review teaching evaluation. The table below describes the updated assessment strategy for Core 1. Although some strategies have certainly remained, the 2005-06 year provided the Core 1 faculty with much information on how better to structure the course to achieve the desired learning outcomes. In the Core 1 Course Improvement Process section below, the continuous improvement efforts will be described along with an overview of changes made to Core 1 throughout the year.

Table 2. Assessment Strategy for Core 1: Fall 2006

Category	Strategy	Description
Course	Quantitative Assignments	Sample quantitative assignments include such tasks as, determining the mass and age of planets and black holes; the probability and rate of mutation of genetic traits associated with AIDS; the melting points of various metals and trade relationships between countries that produce them; etc. See a sample quantitative assignment in Appendix B.
	Essay Assignments	The essay assignments ask students to respond to two modules at a time. This cumulative approach to course material is designed to forge connections between lectures, discussion sections, readings, and disciplines. Among the topics on which students wrote were the ways in which we've learned to imagine the universe over time; the history and ethics of UC government-sponsored research; the ethics and practicalities of water use and conservation along the US-Mexico border; etc. See a sample essay assignment in Appendix C.
	Cumulative Writing Assignment	The cumulative writing assignment is an integrative essay that will ask students to address a common theme or thread in the course. This assignment draws on lectures, readings, and core texts to explore themes, and amounts to 8 pages. The goal of the smaller writing assignments and discussions is to prepare students for this longer project. See Appendix D for a Sample Cumulative Writing Assignment.
	Reflective Journal	The journal is intended to encourage student and freedom of expression. Some faculty members offer this as an opportunity for free association, while others provide specific prompts to help students develop ideas in certain areas. See Appendix E for a few sample journal prompts.
	In-Class Writing Assignments	In-Class writing assignments provide an opportunity for students to develop quick critical analysis skills and communicate their thoughts in a timed writing period. See Appendix F for sample in-class writing assignments.
	CORE Friday	A CORE Friday event is held each week. These events include films, documentaries, distinguished speakers, discussion panels, and staged productions. See Appendix G for a list of Core Friday topics.
Surveys	Mid-Semester Course Review	This survey attempts to collect valuable formative evaluation data from students on a variety of issues related to the course, including: interest in the course, understanding of general education, course involvement, clarity of assignments, instructor and student perception about how Core 1 has improved their skills in relation to the course objectives. See Appendix H for the mid-semester and final course review surveys.
	Final Course Review	This is the same survey given at mid-semester. The only difference is the addition of some different qualitative comment questions. See Appendix H.
Faculty	Peer-Review Teaching Evaluation	Using a peer teaching evaluation procedures developed by the UC Merced Writing Program, faculty members in Core 1 have found the process useful in evaluating their own teaching practices. Using this procedure, a faculty member is provided with a pre-observation form in which they indicate responses to a range of questions include what the learning objectives are for that day of teaching, the lesson plan, and any other issues. The goal is to further use of this peer review evaluation process. To review a copy of the pre-observation form and write-up, see Appendix I.

Core 1 Course Improvement Process
Core 1 has been described above as it stands in its current form. The goals, learning objectives, and assessment strategy herein represent the course as it will be delivered in the Fall of 2006. This point in the journey of the course is most certainly not the end, but nor does it symbolize where the course began. Core 1 faculty have been dedicated to continuous improvement of Core 1 since the course was first offered in the Fall of 2005. Over the first semester offering, problems were identified and significant changes were made based on a team effort from the Core 1 faculty. After the Spring 2006 offering of Core 1, faculty evaluation of the course along with other evaluation mechanisms were used to further refine the course for its Fall 2006 offering. The Core Course Sequence is an experiential, and in many ways an experimental, undertaking. The interdisciplinary focus and new approaches are bound to produce challenges, but acknowledgement of the dynamic quality of the course allowed for significant improvements. The following sections offer a glimpse about the evolution of Core 1, the journey that faculty and students have taken to improve the course. The mechanisms deployed to undergo this process also are important to understanding how future continuous improvement will be undertaken.

Core 1 Course Improvement From Fall 2005 to Spring 2006
The Core 1 faculty spent a considerable amount of time between Fall and Spring in an attempt to improve Core 1. Armed with only their own observations, classroom dynamics and student satisfaction surveys, the Core 1 faculty worked together as a team to determine key problems from the Fall offering and how such problems could be addressed in the Spring offering. The Faculty worked in module teams in order to tailor assignments and readings to the goals of lectures. These teams would write the quantitative and essay assignments, as well as answer any questions about the materials during faculty meetings. This created more synthesis between materials and teams of experts to help faculty with materials outside of our fields (particularly the sciences and quantitative components). The following table summarizes their dedicated efforts in improving the course for the Spring 2006 offering:

Table 3. Problems & Solutions: Fall 2005 to Spring 2006

Problems Identified from Fall 2005 Core 1 Offering	Solutions Implemented in Spring 2006 Core 1 Offering
• Pacing of materials	• Reduced and focused reading materials. • Biweekly quizzes to maintain lecture attendance as well as track content knowledge. • Revision of quantitative and essay assignments to more directly connect them to readings and lectures as a means to offer better synthesis of materials.
• Connections between modules	• Weekly essay assignments were revised to cover two modules, which allowed students to formulate responses that would integrate lectures, modules, and disciplines. • Enhanced focus on the cumulative writing assignment as a means to help students keep a big picture understanding of course and connections between topics. • Revision of quantitative and essay assignments to more directly connect them to readings and lectures as a means to offer better synthesis of materials.
• Lack of assessment data from students	• Developed and implemented mid-semester and final course evaluation survey to gather student perceptions about the course. • Implemented collaborative peer teaching evaluation process.

The primary mechanism for undergoing the continuous improvement process between the Fall and Spring offering was discussions and work amongst the Core 1 faculty. Given the minimal amount of formal feedback that faculty received from the Fall offering, the problems identified and solutions implemented came directly from the experiences of the Core 1 faculty. As a team, they developed a revised course that would help students achieve the objectives of the course. Consistent with their belief in a culture of continuous improvement, the Spring offering of the course would bring them student assessment data, formal feedback mechanisms, and a retreat that would all contribute to development of an improved course for Fall 2006.

Core 1 Course Improvement From Spring 2006 to Fall 2006
With the addition of several new assessment strategies, faculty had much more data to work with when they turned to revising the course for the upcoming Fall 2006 offering. One of the interesting outcomes from what was instituted in the Spring 2006 semester was the solid curricular foundation from which to build. Changes from the Fall allowed for broad and general global changes that were critical for the course, particularly in terms of synthesis of content and articulation o disciplinary approaches. All of these changes have remained in place, but with the addition of assessment feedback from the Spring offering, faculty have been able to further specify problems and identify solutions to be implemented in the coming year. The course has come a long way because of its mission of continuous improvement. The table below summarizes the Core 1 faculty efforts in identifying problems from the Spring offering and identifying solutions that will be implemented for the Fall 2006 offering:

Table 4. Problems & Solutions: Spring 2006 to Fall 2006

Problems Identified from Spring 2006 Core 1 Offering	Solutions to be Implemented for Fall 2006 Core 1 Offering
• Need better integration of course content (i.e., link between course modules) • Need more cumulative and integrative assignments	• Module structure will remain similar, despite changes in lecturers; however the module descriptions will be revised to more closely match course content and additional context will be added to the assignments to guide students in drawing the connections between modules. • The "Shifting the Origin of the Universe" lecture will be shifted to the beginning of Module 1 to setup the lectures and pace the course better. • Will give more depth to the quantitative assignments and allow more focus. Quantitative assignment will "set up" the writing assignment, and module teams will write each set of questions so that the essay applies the quantitative project. This way that math carries over into the writing, and it has more application and allows students to make better connections.
• Students need more guidance on course assignments, grading procedures-better comm. of expectations	• Additional rubrics that are tied to learning outcomes will be developed as guides for students in the development of their assignments. • A more formal set of learning objectives were developed and will be included on the Fall 2006 syllabus.
• Need to revise and/or shorten the reading list • Reading list needs to be more tailored to the course content to help students make connections	• A reading list has been circulated and faculty will determine which readings are recommended and which are required. The reading list will be tailored such that the readings will address the module theme, but not necessarily the lecture topics. Based on the feedback, the breakdown should be around 10 pages of critical reading and 20 pages of reference material.
• Something needs to address the role of technology in	• One of the Skills Sessions will include technology as a topic.

students' everyday lives.	
• Grading of individual assignments is too coarse grained. A larger grade scale is needed to help motivate student performance	• The grading scale will be increased to provide more flexibility in grading for faculty and increased motivation for students. Core 1 faculty wanted to avoid students working really hard on an assignment that is only worth 5 points. The new grading scale will attempt to alleviate some of this problem.

The primary mechanism for undergoing the continuous improvement process between the Spring 2006 and the next offering included:
- Discussions and work amongst the Core 1 faculty, similar to that underwent after the initial offering of the course.
- Formal assessment data from students as a result of instruments implemented during the Spring 2006 course offering.
- Instructional analysis conducted by Dr. Sara Terheggen, which evaluated alignment of the course activities and assessment with the professed goals. See Appendix J.
- Reflection process questionnaire, which sought independent feedback from each Core 1 faculty through the use of a questionnaire document. See Appendix K. Fostered by their culture of improvement, the Core 1 faculty agreed to participate in a reflection process questionnaire after the Spring 2006 offering of Core 1 as a way to define the learning objectives, identify how Core 1 is meeting general education principles, refining the assessment methods, and reflecting on the continuous program improvement mechanisms used throughout the year. This survey process resulted in a rich set of feedback that the Core 1 faculty used at their June retreat as a basis for discussing how to improve upon the course for Fall 2006.
- On June 26, 2006, the Core 1 faculty had a retreat that was completely focused on ways in which Core 1 can be improved upon. Areas covered by the retreat included feedback from the Spring Semester offering, updating assignments and the reading list, improving assessment, and various other logistical matters related to the course. Results from the Spring 2006 data, the questionnaire process and the retreat were used to develop an action plan for revising Core 1 for its Fall 2006 offering.

Core 1 Results: Quantitative & Qualitative Student Feedback
In addition to informal feedback received by Core 1 faculty, data was collected via a Final Course Review. Although this is the first time that quantitative results were obtained regarding Core 1, the data provides useful baseline information for improving the course and collecting data next semester. Further, we thought it would be useful to establishing evidence supporting course improvements. Below is a summary of the key data results from the Final Course Review. The total number of students who completed this survey was 382.
- 11% of students indicated a high interest in taking Core 1 at the beginning of the semester, compared to 27% of students who indicated a high interest in taking the course at the end.*
- After completing Core 1, 44% of students indicated a high degree of understanding regarding general education compared to 19% who indicated a low degree of understanding.
- 54% of students spent 1-2 hours on quantitative assignments and 47% of students spent 3-4 hours on essay assignments.
- 67% of students found the written and verbal instructions for the written instructions clear.
- 73% of students found the written and verbal instructions for the in-class activities clear.

- 52% of students indicated that there are always clear connections between the discussion section and lectures.
- Overall, students found that Core 1 provided information and support in developing skills. When asked to rank the extent to which Core 1 helped students achieve a list of skills, students indicated their responses on a scale from A(Not at all) to E(Very Well). Most notably, Core 1 helped students develop in the following areas:
  - Thinking creatively: 42% (Very Well) compared to 22% (Not at all)
  - Solving intellectual problems: 41% (Very Well) compared to 23% (Not at all)
  - Developing interdisciplinary perspectives: 45% (Very Well) compared to 22% (Not at all)
  - Understanding the value of different perspectives: 53% (Very Well) compared to 17% (Not at all)

*Note: Unless otherwise indicated, the survey results were based on a five-point scale. The middle data point was considered neutral. Points 1 and 2 were collapsed to represent the "low" end of the scale and points 4 and 5 were collapsed to represent the "high" end of the scale.
**Note: The five point scale on these two questions were broken down into hours, A (less than 1 hour), B(1-2 hrs), etc.

The final course evaluation revealed a general picture as to what students perceived to be the benefits and the drawbacks of being in Core 1. Qualitative data was also collected on the final course evaluation. A thematic summary of responses is provided in the table below. Core 1 faculty took this data into account in their decisions regarding course improvement.

Table 5. Qualitative Thematic Summary

Question	Thematic Summary of Responses
Describe the aspects of the course that were especially helpful to you.	- Discussions were helpful as they are smaller and allow more student participation - Course organization and writing assignments - Core Friday
Describe aspects of Core 1 that you would change, add or subtract if you had the opportunity.	- Discussion should be shorter - More interaction with professors - Examine topics in more depth - Remove half of the readings - Remove or refine the quantitative assignments - Include more humanities

In addition, the UCUES survey was administered through the Office of Institutional Research. One of the questions on this survey asked undergraduates to specify the most valuable course they took over the past academic year, and then to indicate what make the course valuable to them. Several students responded that Core 1 was the most valuable. In general, students commented that Core 1 opened up their minds to different perspectives, issues, and disciplines. Some students indicated that Core 1 helped them develop skills, such as writing, that helped them in other areas. Students expressed that they had acquired a new view of the world and that Core 1 helped them value important things like diversity and issues affecting the world. All of the responses are provided in Appendix L.

Next Steps for Core 1
Some of the documents, such as the course syllabus, have already been revised for the Fall of 2006. In August, the Core 1 faculty will work together to make necessary changes to other areas targeted for improvement, including the reading list, quantitative and essay assignments, and the development of rubrics. A new discussion section time frame is being implemented in the Fall. To this end, students will participate in two 50-minute sessions per week v. one 2 hour block of time. Faculty will evaluate how this new set-up affects the course and its objectives. At the retreat, the Core 1 faculty determined that there are some issues to consider for implementation in the Spring 2007 offering, including the use of portfolios, additional writing workshops, and team-taught sections. The Fall 2006 offering will be used as a basis for evaluating the addition of these things for the next offering.

In addition to improving upon the course in the ways indicated above, the Core 1 faculty will continue to focus on continuous quality improvement. Mechanisms such as maintaining open communication amongst Core 1 faculty, evaluating incoming assessment data, conducting retreats when needed, and participating in formal reflection processes, will provide Core 1 faculty with the means necessary to continue identifying problems and developing solutions to improve the learning environment.

Streamlining and improving assessment is another goal of the faculty in the coming year. One of the goals is to determine what is necessary to put the mid-semester and final course evaluation surveys on-line. The assessment instruments have already been revised to reflect the formal set of learning objectives developed and future enhancement of rubrics will follow a similar pattern. This focus on aligning learning objectives, course activities, and assessment strategies is a process that is underway.

Core 100: The World at Home: Planning for the Future in a Complex World
Core 100 is UC Merced's second course in the College One Core Course Sequence, "The World at Home II." Students in Core 100 apply what they have learned during their first two years towards shaping their own perspectives on how to answer these questions. Every society needs people who can solve problems, and increasingly, problem-solving is accomplished by many professions through multidisciplinary team efforts. The goal of Core 100 is to teach students problem-solving skills through the experience of working on a multidisciplinary team to formulate a solution for a societal problem. The teams are composed of students from several majors to provide the breadth needed for a multidisciplinary approach; and will address the pros and cons of proposed solutions from scientific, cultural, ethical, and economic perspectives. By its "real life," issue-based approach, the course will challenge students to think about ways in which the problems facing society might be amenable to solution, through modules varying in length from one to three-weeks, on topics such as energy, water, regional conflict, cultural intersection, and immigration. The emphasis throughout the course is upon active, rather than passive, learning.

Unlike Core 1, Core 100 was only offered one time in the previous year (Spring 2006). There was much attention on improving Core 1 as it has the potential for impacting the most number of students initially, while it will be some time before Core 100 has the full impact that it will have in future years. This is merely a process of ramp-up with respect to enrollments. Nevertheless, despite the intense focus on Core 1 over the previous year and the fact that Core 100 was only offered once and therefore, was only provided with one opportunity to gather feedback, this did not stop Core 100 faculty from making significant improvements to the course. Core 100 started with a very simple conceptualization of outcomes, a syllabus and a course structure. Recognizing the need for a more comprehensive structure, the Core 100 faculty made changes to the course during the course of the semester. The Course Improvement Process section will walk through the changes made.

Core 100 Learning Outcomes & Assessment Measures
The Core 100 faculty chose to link course objectives and means for assessing each objective. This was developed during the course of the semester as a means for solidifying the direction of the course and understanding how student achievement would be measured.

Table 6. Core 100 Learning Outcomes & Assessment Tools

Learning Outcome	Course Assessment Tool	
Students will demonstrate the following capabilities:	Team	Individual
Scientific literacy: To have a functional understanding of scientific, technological and quantitative information, and to know both how to interpret scientific information and effectively to apply quantitative tools.	Report	Notebook Exit survey
Decision-making: To appreciate the various and diverse factors bearing on decisions and the know-how to assemble, evaluate, interpret and use information effectively for critical analysis and problem-solving.	Report	Notebook Exit survey
Communication: To convey information to and communicate and interact effectively with multiple audiences, using advanced skills in written and other modes of communication.	Report Presentation	Individual component of the report Exit survey

Self and Society: To understand and value diverse perspectives in both the global and community contexts of modern society in order to work knowledgeably and effectively in an ethnically and culturally rich setting.	Report	Notebook Self-evaluation
Ethics and Responsibility: To follow ethical practices in their professions and communities, and care for future generations through sustainable living and environmental and societal responsibility.	Report	Notebook Exit survey
Leadership and Teamwork: To work effectively in both leadership and team roles, capably making connections and integrating their expertise with the expertise of others.	Report	Notebook Exit survey
Aesthetic Understanding and Creativity: To understand the historical roots of the present situation.	Report	Notebook Exit survey
Development of Personal Potential: To have the confidence and capabilities to engage in independent learning throughout their lives. Students will develop an understanding of their intellectual strengths and weaknesses, with greater appreciation for intellectual boundaries that can limit personal growth. This understanding will enable them to seek knowledge more broadly and more critically too.		Exit survey

Core 100 Course Outline & Structure

Students attend two one-hour lectures and one two-hour discussion section per week. They work in groups of eight students. Writing instructors, a statistician, (and in future years, previous outstanding students) are available for the group discussions. The work products of each group were as follows:
1. Pre-proposal
2. Final presentations
3. Final project
4. Individual journals

As they are working in teams, roles are vital to the success. Students are assigned roles which are used to assess individual grades. Sample roles include: team leader, editor, art director, library researcher/archivist, policy interviewer, website designer / manager, statistician, and economist. Students can tailor a set of roles to their specific project. Students were told that roles should be thought of as a team-member's primary area, but all team members collaborate on every aspect of the project.

Lectures from the course outline included the following:
- Introduction of Course: Case study methodology
- Team building, project selection, conflict resolution (valuing diverse perspectives)
- Collaborative writing presentation, by writing faculty
- Introduction to a sample case: Process
- Introduction to a sample case: Content
- The Library
- The scientific method applied to public policy
- Surveys: use and misuse in public policy

- Assessing the history and status of a complex issue
- Economics of public policy
- Ethics of public policy
- Interview techniques
- Real example: The Role of Public Policy in the Competitiveness of the Semiconductor Industry; Guest Speaker: Daryl Hatano, UC Merced Foundation Trustee, Vice President, Public Policy Semiconductor Industry Association
- Real example: Hetch Hetchy; Guest Speaker: Steve Shackleton, Chief Ranger, Yosemite National Park
- Real example: Regulation of nanotechnology; Speaker: Valerie Leppert
- Real example: Bilingual education; Speaker: Kenji Hakuta
- Real example: National health care; Guest speaker: Dr. Philip Hinton, former CEO of Community Medical Centers, Central California
- How to give an effective presentation; Lecturer: Christopher Viney
- Real example: Should we go to Mars? Speaker: Wil van Breugel
- Real example: Technology, Privacy, and Big Brother; Speaker: Gregg Herken
- Last Third of Course: Dedicated to Team Presentations

The purpose of the course structure and outline is to provide skill-related lectures and discussions that not only teach students about skills they need to acquire, but also provide definitive examples of model projects. This type of structure is flexible enough to allow maximum time for groups to work on their projects.

Students could choose from a variety of interdisciplinary topics or develop their own topic. Examples that faculty provided include:
- Stem cells- Should extra embryos from in vitro fertilization be used for stem cell research?
- Mass Transportation (e.g. high speed rail) - What are the costs and benefits for high speed rail for the San Joaquin Valley?
- Terrorism / National Security - Is technologic spying on individuals justified for national security?
- Genetically Modified Foods - Are genetically modified foods safe?
- Space Exploration & Its Current Feasibility - Should we go to Mars?
- Health care - What are the costs and benefits for a national health care system?
- A Vision for UC Merced - How should UC Merced grow?
- Nanotechnology - Should the government regulate nanotechnology?
- Energy / Global warming - What alternative energy sources should be developed?
- Air Pollution - How do we deal with air pollution to improve public health?
- Science education - What investment should the government make in science education?
- Science education - Should intelligent design be taught in the public high schools?
- Water-What should be the balance between maintaining farming and city development in the San Joaquin Valley?
- Bilingual education - Should bilinqual education be used in public education?
- Hetch Hetchy. Should we restore Hetch Hetchy?
- Urban (& Suburban?) Development - Should there be limits on the size of urban or suburban development?

- Smoking- Should there be an absolute ban on smoking?

Core 100 Course Improvement Process
Similar to Core 1, Core 100 has been described above as it stands in its current form. The goals, learning objectives, and assessment strategy herein represent the course as it will be delivered in the Spring of 2007. Core 100 made several changes to the course as the course was underway in an attempt to formalize the structure and lay an appropriate foundation for assessing outcomes and determining successes and areas of weakness that need to be addressed prior to offering the course again. Upon completion of the first offering, several changes have been proposed for next year.

It is important to note as context to the course improvement process the fact that Core 100 faced a number of significant challenges, including but not limited to, faculty time, lack of support, and minimal funding. Most of the responsible faculty who taught the course did so as an overload (most working with double or triple teaching loads the semester before delivering the course and in the semester the course was delivered) so there was not much opportunity to fine-tune it prior to the course offering. Thus, the Core 100 faculty had to develop much of the course policy, and instruction and example documents, as the course was underway as this was an entirely new type of course. Some of the way the process was undertaken can be attributed to the unique nature of the course and it being the first time it was taught; but the rest of it can be attributed to a lack of resources. In many respects, Core 100 used the service-learning model in Engineering as a guide in developing the course as both have a similar focus on transferable skills like communication, decision making, project management, etc. However, problems with funding made this very difficult. The operating budget for the Core Courses did come from the university, but it was minimal. A Packard grant did provide monies towards Core Friday events. Core 100 faculty recognize that strategies need to be developed to provide the resources necessary to ensure the success of both Core 100 and Core 1.

Ultimately, with severe resource constraints, the overall purpose and broad design of the course was successful and remain sound, even if the implementation will have to be adjusted. One of the Core 100 faculty expressed the following, "The students broke into interdisciplinary teams and addressed a societal problem. This taught teamwork, appreciation for interdisciplinary work, social responsibility, and the skills required to bring off a big research project. And the students really did it. It's a great idea and though we suffered this year in a variety of ways, I think it has the potential to evolve into a signature course."

Core 100 Course Improvements Made During First Offering
Given that much of the course improvements were made "during" the first offer, the faculty first put together a plan of action that would enable to solidify the goals and methods of assessment for Core 100. The assessment plan developed was as follows and the progress to date on each is indicated in the status box:

Table 7. Core 100 Assessment Plan

Step	Assessment Task	Status
1	Identify outcomes for course. See "Learning Outcomes & Assessment Measures" table above.	Completed
2	Structure course content to map to outcomes. See "Learning Outcomes & Assessment Measures" table above.	Completed
3	Explicitly identify components of the course that map to the outcomes. See Appendix M for the Core 100 Instructional Consistency and Congruence Analysis.	Completed
4	Evaluate student products to see if the outcomes have been achieved. See Appendix N for the Core 100 Final Report & Presentation Evaluation Matrix.	Completed
5	Evaluate the effectiveness of the course in delivering the outcomes by administering a survey to students at the end of the class. See Appendix O for the Final Course Evaluation.	Completed
6	Identify an external advisory group to rate how well Core 100 is meeting the stated objectives, and set a review schedule. Reviewers need materials such as the stated outcomes, map between outcomes and course content, samples of the range of student work, grading matrices for assignments, and student course evaluations.	In Progress

As seen above, the Core 100 faculty members have completed steps 1-5. In addition to further defining how Core 100 meets the general education principles, the faculty worked together to develop an evaluation matrix rubric for consistent grading of the final report and presentation. A mid-semester and final course review was developed based off of the survey given for Core 1. A rubric was also developed for peer evaluation of students. See Appendix P for the Core 100 Peer Evaluation Rubric.

Core 100 Course Improvements Identified for Next Offering
Through the process of developing the materials during the first offering, much was learned about what worked and did not work and changes could be made in real-time. This was valuable in closing any gaps and improving the course. However, the Core 100 faculty are also looking ahead to the next offering and have identified problems found in this offering of the course and recommended solutions for moving forward. These are provided in the table below:

Table 8. Problems & Solutions: Spring 2006 to Spring 2007

Problems Identified from Spring 2006 Core 100 Offering	Solutions to be Implemented for Spring 2007 Core 100 Offering
• Course was team-taught, but message from individual faculty was not always consistent • Lack of course organization • Gaps in course material that would have been useful	• Need to establish better communication mechanisms amongst the responsible faculty and writing instructors. • Reconsider lecture content and sequence of lecture/discussion topics. • Consider compacting the "how to" and putting them after an introductory lecture about the expectations and rules of the game, which would be followed by having the examples from the outside people before the students choose topics. • Need to include at least one lecture on teamwork and management, led by someone who is a manager in a business. Indeed, no single issue was more difficult for the students than that of dealing with one another. Dealing with power conflicts, irresponsible teammates, personality issues, etc.
• Lack of guidelines regarding how students should choose problems • Lack of guidance about expectations	• Develop guidelines that will guide students through problem selection. • Develop more rubrics to help communicate expectations to students. • Perhaps past team leads could co-present with past faculty early on, orienting students about what needs to be accomplished and pitfalls. • Formal grading apparatus needs to be developed.

• Resentment of teamwork-based grading	• Need to develop thorough rubrics that help students to understand team and individual expectations and help to alleviate anxieties. • Opportunities for faculty to learn more about PBL need to be provided-Teaching & Learning Center will be a resource here. • Need to have a better system for recognizing individual contribution.
• No formal process for assigning students to teams	• Pre-assigned teams may make more sense in order to ensure maximal disciplinary diversity, create a more realistic work environment, and minimize social distractions.
• Implementation of peer evaluation process was awkward	• Implement online peer evaluation system.
• Journals were not initially monitored and many students waited until the end to complete	• Journals need to be turned in at regular intervals to check progress.
• Poor writing skills for junior-level students	• Gaining proficiency in writing needs to be strongly emphasized. Students would have benefited by having the chance to turn in multiple drafts, revise and resubmit for an improved grade. Instructional resources for this were nonexistent.
• Lack of understanding about team-teaching process	• Need guidance on team teaching process. Teaching & Learning Center could be a resource here.
• Lack of overall resources to implement the kinds of instructional support needed to ensure the success of the course	• Need to gain support of faculty and staff. Faculty and advising staff in some disciplines did not understand the nature of the course and misinformed students about it or cast the course in a negative light. Some information that advisers gave was entirely inaccurate. • Need a full or at least half-time staff member to ensure that the nuts and bolts of the course are in order (e.g., course policies, due dates, etc).

Core 100 Results: Quantitative & Qualitative Student Feedback

In addition to informal feedback received by Core 100 faculty, data was collected via a Final Course Review. Although this was only the first offering of Core 100, this initial baseline data will be useful to evaluating the success of the course moving forward. Below is a summary of the key data results from the Final Course Review. The total number of students who completed this survey was 122.

- After completing Core 100, 60% of students indicated a high degree of understanding regarding general education compared to 20% who indicated a low degree of understanding.
- 70% of students indicated that their contribution to the group project was always equal to other team members, while 14% indicated that their contribution was rarely equal to that of their team members.
- 57% of students responded that there were few or no clear connections between the discussion section and lectures.
- 52% of students responded that there were few or no clear and logical connections between the lectures and the team project.
- Overall, students found that Core 100 provided information and support in developing skills. When asked to rank the extent to which Core 100 helped students achieve a list of skills, students indicated their responses on a scale from A(Not at all) to E(Very Well). Most notably, Core 100 helped students develop in the following areas:
  - Understanding the value of different perspectives: 46% (Very Well) compared to 26% (Not at all)

- Solving intellectual and ethical problems: 42% (Very Well) compared to 29% (Not at all)
- Composing an argument: 38% (Very Well) compared to 28% (Not at all)
- Using evidence responsibly and appropriately: 43% (Very Well) compared to 25% (Not at all)
- Working collaboratively: 43% (Very Well) compared to 25% (Not at all)

*Note: Unless otherwise indicated, the survey results were based on a five-point scale. The middle data point was considered neutral. Points 1 and 2, or A and B as it may be, were collapsed to represent the "low" end of the scale and points 4 and 5, or D and E, were collapsed to represent the "high" end of the scale.

Due to the problems experienced in administering the quantitative surveys, the qualitative data collected from students through their journals and the UCUES survey provided in-depth and valuable feedback regarding areas of the course that need improvement.

Individual journals were one of the course assignments. Students used the journal to document their work process, express thoughts about the team/project process, and relay any information about the course. The data revealed through the journal provided for both the identification of problems and an understanding of what students found beneficial about the course.

Data from students revealed some frustration with the course, due mostly to the lack of resources allocated to the course and an unclear understanding as to why the course is a requirement. One engineering student who had also participated in service-learning called Core 100 a "poor man's service learning." Students contemplating professional careers in areas like medicine, law and business were resentful of the fact that their course grade was dependent on someone else's performance or the lack of it. Other students came in with positive expectations but the lack of organization created some frustration.

Some students absolutely loved the course because of its focus on developing team-based multidisciplinary solutions to societal problems. These were students who came in with an interest in civic engagement. To support their enthusiasm, Core 100 faculty wanted to develop a website to post their solutions and background information, but lacked the resources. A substantial fraction of the students really learned something in the course, as reflected in their journals. An example was one student who was uncomfortable with public speaking, and indicated, "this is very much out of my comfort zone and very much a growing experience." It turned out that was very effective at public speaking and was asked by her teammates to be the leader, a role she did not see herself fulfilling until she took the course. Other students expressed similar experiences.

In addition to journals, one student even went so far as to develop his own evaluation report for the course. Nolan J. Noble developed a short summary report based upon feedback he obtained regarding Core 100 through an on-line survey he developed and implemented. In his report, he summarized feedback in various areas including attendance, journals, lectures, groups and grading expectations. The summary of Mr. Noble's report provided the following feedback:

"The attendance policy achieved its goal of getting a majority of the students to not miss more than three times (either physically or according to the role). While it achieved this goal, it may not have achieved the goal of ensuring that a majority of the students learned about current events. Core 100 did ensure that a majority of the students became highly knowledgeable in their particular policy field and of how to write a good policy (or research) paper. The course succeeded in enabling students to make policy presentations of UC quality. The course exposed students to group work, it attempted to prepare students for such work, and succeeded in training a majority of the students for collaborative projects. This notion may be met with opposition by some of the more vocal students, but by and large by having students work across disciplines reinforced their prior habits of group work. Spring 2006's Core 100 although not the best version of the course, succeeded in its goals of having students produce policy papers and presentations with an interdisciplinary perspective while increasing their knowledge of their world."

Similar to Core 1, some students responded on the UCUES survey administered through the Office of Institutional Research that Core 100 was the most valuable course they took. In general, students commented that Core 100 helped them think outside the box by enabling them to analyze a situation from different perspectives. Students were impressed with the interdisciplinary approach and they welcomed the opportunity to speak in front of a large group about an interesting topic.

Next Steps for Core 100
Core 100 has made significant strides in establishing the foundation for a successful course, particularly in a hectic first year and under enormous resource constraints. Nevertheless, the Core 100 faculty members recognize there is still work to be done and improvements to be made to the course. Further, there is much success to be had from improving Core 100. For example, recently introduced system-wide UCUES survey indicates an extremely low level of civic engagement for UC students. A recent system-wide symposium on Civic engagement resulted in a call to the UC Senate to implement courses emphasizing civic engagement across the curriculum. The same UCUES report also shows that minority students do not feel adept at using the political system to their advantage. White, upper income students feel a higher degree of confidence in this ability. Since the Core 100 project report is also required to address how solutions to societal problems will be implemented, minority students may have the opportunity to learn how the political system can be used to implement desired change. Opportunities such as this are available and Core 100 is poised to take on the challenge.

Prior to the next offering, the Core 100 faculty members intend to take the identified problems and solutions and determine which are feasible to implement for the next course offering. They will work on these changes during the Fall semester. Consistent with Core 1, Core 100 assessment will be streamlined and further mapped to the course objectives. With the hiring of the new Director for the Teaching & Learning Center, some of the resources needed by the Core 100 faculty, such as PBL and team-teaching resources, can be utilized.

Appendix A: Core 1 Fall 2006 Syllabus Template

Name:
Office Hours:
Office Location:
Email Address:
Office Phone: xxx-xxx-xxxx

Course Description:
Core 1 is a colloquium series designed to introduce you to UC Merced's faculty, our research, and the academic fields in which we work. Core discussion sections are designed to facilitate more intimate learning communities and writing instruction, so as to process and advance ideas introduced in lectures. To this end, discussion sections will be conversational, collaborative, and writing-intensive, entailing active participation in activities that engage course materials. Your questions and ideas will be central to the learning process. Among the questions we will address are: What is a university, and what role do we have in shaping it? What counts as knowledge? How is knowledge produced and assembled? In what ways do academic disciplines intersect? In what ways do they differ? The answers to such questions will guide us as we work together to forge an entirely new and unique academic community.

Learning Objectives:
- Gain familiarity with interdisciplinary concerns and interests
- Cultivate intellectual curiosity and the exchange of ideas
- Develop an ability to synthesize and express complex ideas
- Develop effective approaches to learning, reading, and writing
- Review and refine effective study skills, for managing information
- Collaborate successfully on group tasks and class projects

Learning Outcomes:
- Demonstrate an understanding of scientific, technological and quantitative information
- Interpret scientific information and apply quantitative tools
- Appreciate the various and diverse factors bearing on decisions
- Able to assemble, interpret and apply information for problem-solving
- Convey information to multiple audiences using advanced written communication skills
- Understand and value diverse perspectives in both global and community contexts
- Work knowledgably and effectively in an ethnically and culturally rich setting
- Follow ethical practices in their professions and communities
- Work effectively in both leadership and team roles, sharing expertise
- Appreciate creative expression, including literature and the fine arts

Our Procedures and Guidelines:
As the focus of the course, lecture notes will become the basis of many discussions. So take detailed notes, bring them all to our class, and come to class with questions and observations.

As we process material presented in lectures and in course reading, throughout the semester we will concentrate on all aspects of the writing process, including study skills, note-taking, annotation, responsive reading, brainstorming, drafting, peer review, and revision.

Because discussion sections subscribe to a workshop format, you cannot fulfill the requirements of the course unless you attend regularly. Also, since we only have the opportunity to meet once a week, our time together is limited. For these reasons, unexcused absences will negatively affect your final grade. **For each absence beyond the allowed <u>two</u> you will be penalized three points. Excessive absences will result in failure of the course.** You are responsible for material covered in class, whether you are present or not. Note that in-class work cannot be made up.

Assignments: After the first week, there will be nine assignments that correspond to the biweekly modules. In general, every two modules will include one writing task (20 points each) and two quantitative tasks (10 points each). We will build towards a **cumulative writing assignment** that addresses recurring themes in Core 1, particularly those questions listed in the course description. This essay will draw on lectures, readings, and core texts to explore these themes, and should amount to 8 pages. The goal of the smaller writing assignments and discussions will be to prepare you for this longer project. **Note: All work must be submitted on the assigned due date, in person. Late work will not be accepted, except in documented cases of sufficient emergency.**

Evaluation: Grading basis for Core 1 will not be by percentages but out of a total of 350 points:
- Up to 60 points for three 20-point essays
- Up to 60 points for six 10-point quantitative exercises
- Up to 40 points for completion of the reflective journal (due finals week)
- Up to 30 points for attendance and participation in discussion section and Core Friday Events
- Up to 52 points for in-class writing activities
- Up to 48 points for weekly 2-point in-class writing quizzes
- Up to 40 points for cumulative/integrative essay (due finals week)
- Up to 20 points for Skills Assignments

Academic Integrity: Plagiarism is an issue that is as complicated as linguistic expression is nuanced. Though we will occasionally discuss it conceptually and consider it in relation to the semantics of writing, for our purposes plagiarism entails passing off another's work as your own. Note that plagiarism includes:
- Submitting work that is done in part by someone else
- Paraphrasing or summarizing any source without referencing it
- Copying any source without using quotation marks or block indentation

In sum, if you submit your own work—i.e., you don't include text that is not your own without also noting the source—you will avoid all serious types of plagiarism. Please do not insult me, your classmates, this university, and above all <u>yourself</u>, by plagiarizing. I regularly consult online search engines and identification services if I suspect plagiarism. And I've the uncanny ability to remember individual student essays over the course of many terms

(because I appreciate your writing and treat it very seriously), so I can spot recycled work a mile away. I reserve the right to fail plagiarized work and to assign plagiarists failing grades for the course. If you have any questions about plagiarism, feel free to ask me or to consult http://www.library.ucla.edu/bruinsuccess. For further information about academic integrity, see http://cai.ucdavis.edu/aip.html.

Final Note: Your instructors realize that Core 1 can be an exciting but overwhelming course. Please feel free to keep in touch with us via email, office hours, and class discussions. We welcome your input and questions**.**

Appendix B: Sample Quantitative Assignment

Core 1: The World at Home
Quantitative Assignment, Module 2

There is a mutation in the CCR-5 gene that has a protective effect against HIV-infection. Being heterozygous for the gene appears to reduce the transmission rate of HIV by about 33.3%. Being homozygous for the gene appears to reduce the transmission rate of HIV by >99%. [Hint: Start by designating two alleles, one for the mutant CCR-5, *A*, and one for the wild-type CCR-5, *a*.]

Question 1
About 1% of Americans are homozygous for the CCR-5 mutation.

a) Using the Hardy-Weinburg equation (Ridley, pp. 98-101), calculate the total frequency of the mutant allele in the American population.

b) Calculate the total frequency of the normal allele in the American population.

c) Calculate the percentage of the American population that is heterozygous for the CCR-5 mutation.

d) Calculate the percentage of the population that is homozygous for the wild-type CCR5.

Question 2
Without medication for HIV, the transmission rate of HIV from an infected man to an uninfected woman during consensual intercourse is about 0.15% (among women carrying the wild-type CCR5 gene). The transmission rate of HIV from an infected, unmedicated mother to a child is about 5% if the child is breast fed.

a) What is the probability of the transmission of HIV from an infected man to an uninfected woman who is heterozygous for the CCR5 mutant allele during consensual intercourse?

b) Assume that a woman heterozygous for the CCR5 mutant allele has unprotected consensual intercourse with an unmedicated, HIV infected man who is homozygous for the wild-type CCR5 allele – and she becomes pregnant. Assume also that she delivers and decides to breastfeed the child. What is the probability that the child will be
   i. homozygous for the CCR5 mutant allele.

   ii. heterozygous for the mutant allele.

   iii. homozygous for the wild-type allele.

iv. infected with HIV if s/he (the baby) is heterozygous for the mutant allele.

v. infected with HIV is s/he is homozygous wild-type.

(Remember, we are not necessarily assuming that the mother of this child contracts HIV. This too is a matter of probability. Also assume that the woman has no additional exposures to potential HIV infection.)

Question 3
a) What will happen to the CCR5 mutant allele over time if HIV continues to afflict human populations?

b) What is the cultural and/or socioeconomic significance of the answer to 3a for human civilization?

Glossary:
Allele – any of the alternative forms of a gene that may occur at a given locus (e.g. A, a)
Heterozygous - Having two different alleles for a single trait. (e.g. Aa)
Homozygous – Having the same alleles for a single trait. (e.g. AA, aa)
Wild-type – the "normal" allele (as opposed to the "mutant"

Appendix C: Sample Essay Assignment

Core 1: The World at Home
Essay One

Choose one of the following prompts and write a 4-5 page thesis-driven essay (double-spaced, in reasonable, 12-point font). Your essay should integrate ideas found in Module 1 (Origins of the Universe) and Module 2 (Origins of Life); reference to readings and/or lectures is highly encouraged. To demonstrate engagement and cultivate perspective, include ample support and/or evidence in your essay: provide specific details and/or examples; quote phrases, sentences and passages; integrate your evidence into your argument; and show how your examples illustrate your thesis. Consult your section instructor for due dates and other requirements for completing this assignment.

1. Galileo Galilei and Charles Darwin each made discoveries that radically altered our understanding of our place in the universe, both on a cosmological scale and on a personal level. After them, looking into the night sky or even into one's own backyard would never be the same. In a thoughtful, thesis-driven essay, compare and contrast popular reception of Galileo's and Darwin's discoveries in select historical periods. Consider both the circumstances surrounding their initial reception and how they are understood and appreciated (or *not* appreciated) today. Consider also their reception within the realm of science and in the world outside science.

2. Our readings and lecturers have presented many models of the universe, from those elaborated by the Ancient Greeks to those debated by the Darwins, Hubbles, Hawkings and van Breugels of today. With reference to examples from readings and/or lectures, compare and contrast at least three (but not more than five) "pictures" of the universe. Develop a thesis that describes a continuum of specific hopes, fears, beliefs, values, perspectives, theories, and/or calculations that underlie these models, explaining the significance of details, structure and presentation in each case. For instance, what might it say about the prevailing cultural imagination of eras that believed that the sun revolved around the earth, or those that conceptualized planetary orbits in terms of circles (and not ellipses)? What hopes or fears might these models play upon? Trace a historical tradition among the models you choose, to show how our visions of the universe—and our place within it—have progressed (or, alternatively, devolved).

3. Darwin, Galileo, and the Maidu Indians were concerned with how earthly things came to be. Similarly, we live in a world full of stuff, the origin of which we often cannot fathom. Drawing on beliefs and superstitions as well as science, write an "origin myth" that explains where personal computers came from and why they work the way they do. Rather than considering the hard facts alone (i.e., "computers are everywhere and I don't what I'd do without them"), try to integrate feeling and fact. Consider what role humans have played in the origination and ubiquity of personal computers like notebooks or desktops. Your myth can focus on the positive or negative effects of these machines.

4. You're taking a long, stress-relieving walk along Bear Creek when you find a strange life form blocking the path in front of you. As you examine it, its skin quickly changes from a reflective, oily surface to one that looks dry and cracked, almost like dusty asphalt. The being moves away

from you very slowly and completely silently. Drawing on our understanding of evolution and intelligent design, use both perspectives to explain the existence of this new life form. How did it get here, and why? Interpret your observations of its behavior and anatomy: Why does it act in this manner? After you have discussed both perspectives, choose one that seems most plausible to you. Finally, discuss how you would go about announcing your findings to the general public. Show how you would deal with sensitive audience(s) that may respond unfavorably to your announcement (e.g., Galileo and the Catholic Church).

Appendix D: Sample Cumulative Writing Assignment

Core 1: The World at Home
Cumulative Essay Assignment

From the Core 1 syllabus: "The Cumulative Writing Assignment is an integrative essay that will ask students to address a common theme or thread in the course (details and instructions will be given later in the term). This exercise will give students an opportunity to improve their writing skills during the course through continual revision based on constructive feedback from discussion section instructors. The cumulative essay will be worth up to 15 points."

You are encouraged to identify a thread that you see running through the course. This could be a combination of a few lectures and readings, or a common idea that appears in each module. One topic suggested by the committee, for example, is 'the unintended consequences of innovation.' Because of the distinct challenge of such an assignment – in essence, your job is to connect human history from its origins to its uncertain future – you are highly encouraged to start looking for and developing threads around midterm. The following are some suggestions for how you might brainstorm a thread to explore in your essay:

- Browse through your journal: Are there any patterns of thought? Connections between materials? Implicit themes between entries?
- Check out the Core 1 syllabus and the "Topics Synopses" document on CROPS for brief descriptions of the modules and lectures (see Resources Folder).
- Look over your weekly assignments. Which ideas or assignments interested you the most? Is there a way to expand a smaller project into a larger one? Do any of the projects fit together in some way?

The cumulative essay should be about 1800 words (roughly 6-8 pages) and will be due during finals week. More information about the essay will be provided throughout the term. As always, feel free to contact your section instructor, members of the Core 1 Committee (the "Responsible Faculty" listed on the syllabus), and/or individual lecturers for guidance as you complete this project.

Appendix E: Sample Journal Prompts

Core 1: The World at Home
Journal Prompts

1) Ever since non-violent protests have begun, significant things have happened such as the Independence of British India under Ghandi and the Vietnam War during the 60's. Do you agree or disagree that non violent protests can be a better alternative to violent crackdowns?

2) Referring to the question above, if you do decide to do a nonviolent protest, which method would you choose? (sanctions, boycotts, lawsuits, etc.) And why?

3) The University of California system has witnessed the secret experimentation of radiation on humans for many years before something was done, even though people knew about it and still did nothing. Do you think that the excuses done by the people who knew about it was justified? And if not, how should they be brought to justice? [consider the greatest good for the great number argument, for example]

4) Plutonium, as we all know, is a very highly radioactive and deadly substance. Yet it is used for both scientific discoveries and power (power plants and weapons). Do you think that the "downwinders" were justified in bringing their lawsuit to the production facilities in Hanford, Washington? [Or, is this another example of "the unintended consequences of innovation?"] Explain why or why not?

5) Think about the quote "The only thing necessary for the triumph of evil is for good men to do nothing." Explain what you feel about this quote and how it relates to the readings.

Appendix F: Sample In-Class Writing Assignment

Core 1: The World at Home
In-Class Writing Assignment

Pythagoras: "Everything is number"

"Geometry" by Rita Dove (from *Selected Poems*)

I prove a theorem and the house expands:
the windows jerk free to hover near the ceiling,
the ceiling floats away with a sigh.

As the walls clear themselves of everything
but transparency, the scent of carnations
leaves with them. I am out in the open

and above the windows have hinged into butterflies,
sunlight glinting where they've intersected.
They are going to some point true and unproven.

1.   In what way is a poem mathematical?

2.   In what way is this poem mathematical?

3.   In what ways is poetry something else? What is it?

Appendix G: Sampling of Core Friday Events from Spring 2006

Date	Topic
February 24	Screening of the film "The Gods Must be Crazy". Brief introductory remarks will be made to provide necessary historical, geographical and cultural background; draw your attention to controversial aspects of the film, and set the film within the context of Core 1.
March 3	Screening of two episodes of the documentary "Guns, Germs and Steel." These highlight aspects of the book that are relevant to our current module on Society and Culture.
March 10	Screening of the film "A Night to Remember."
March 17	Screening of two episodes of the PBS documentary "The Human Language." We will see Part 2 (Acquiring the Human Language) and Part 3 (The Human Language Evolves). Prof. Kenji Hakuta, Dean of the School of Social Sciences, Humanities and Arts, will make some brief introductory remarks to set the documentaries within the context of Core 1.
March 24	We will take a look at the thought-provoking play "Copenhagen" by Michael Frayn. The play won a Tony Award in 2000. We will first hear an introduction to the play and its historical and societal context by Prof. Gregg Herken. We will then watch a DVD recording of a staged reading of excerpts from the play, as performed for us last semester by Playhouse Merced.
April 7	We will host a visit by poet and performance artist Shailja Patel. Described as a "Godiva bonbon laced with LSD and packed to the suicidal wazoo with potent truth and imagery," Patel's work has rocked stages from New York to Nairobi to Vienna. She will perform slam poems and spoken-word-theater excerpts from her one-woman show, *Migritude*.
April 14	Panel discussion with a focus on *Conflict*. Panelists will include Professors Forman, Hothem, Mostern, Ramicova, Traina, van Breugel and Viney. Prof. Winder will be the Chair.
April 21	We will see a DVD recording of *DNA and the Dancing Fool*, a (literally) fast-moving play written and performed by Alex Podulke and produced by Playhouse Merced. In this 2001 *Best New Play* winner from the Minneapolis Fringe Festival, an interpretive dancer seeks to live his dream of fame and success. The play intersects several ideas that are relevant to our current module on "Conflict."
April 28	Star Party: This lecture, titled *Our Universe: Watch Out* will take place regardless of local atmospheric conditions. Then, at approximately 8:00, we will make our way to the south parking lot at Lake Yosemite, where a number of telescopes will be set up to allow us a view of interesting celestial objects.
May 5	We will be treated to a presentation by Larry Salinas, UC Merced's Founding Director of Government Relations. The subject of this presentation will be: *If Pigs Can Fly, Anything's Possible – An Odyssey of The Process and Politics of UC Merced.* Mr. Salinas serves as the campus liaison with elected officials in local, state and federal offices. He has been in the political field for more than 25 years, working in a variety of areas from campaigns to staff positions in the State Assembly and in the U.S. Congress.

Appendix H: Mid-Semester & End of Semester Course Evaluation Surveys

* Please take about 15 minutes to respond to this evaluation. Given that Core is an experimental course, your comments are especially vital to its development and improvement. *

* For your answers to be registered by the scantron machine, you must make dark marks with the pencil, fill in the segments completely, and erase completely to change an answer. *

General Questions:
1. How interested were you in taking this course at the beginning of the semester?

             LOW   A   B   C   D   E   HIGH

2. How interested are you in the course now?

             LOW   A   B   C   D   E   HIGH

3. Now that you have completed Core 1, how would you rate your understanding of general education?

             LOW   A   B   C   D   E   HIGH

Student's Course Involvement:
4. I complete the assigned readings and homework by the assigned due date.

             RARELY   A   B   C   D   E   ALWAYS

5. I participate actively in class discussions and activities.

             RARELY   A   B   C   D   E   ALWAYS

6. I have made use of my discussion instructor's office hours to gain assistance with my writing and assignments.

             RARELY   A   B   C   D   E   ALWAYS

7. I have made use of the responsible faculty's office hours (Christopher Viney, Gregg Herken, Valerie Leppert, Dunya Ramicova, Henry Forman, and / or Wil van Breugel)

             RARELY   A   B   C   D   E   ALWAYS

8. How much time do you typically spend on quantitative assignments? Rate in terms of hours:

             A (less than 1)   B (1-2)   C (3-4)   D (5-6)   E (more than 6)

9. How much time do you typically spend on essay assignments? Rate in terms of hours:

             A (less than 1)   B (1-2)   C (3-4)   D (5-6)   E (more than 6)

10. Have the quantitative assignments enhanced your understanding of the Core materials?

             RARELY   A   B   C   D   E   ALWAYS

11. Have the essay assignments enhanced your understanding of the Core materials?

             RARELY   A   B   C   D   E   ALWAYS

12. I spend the same amount of time preparing and completing coursework for CORE as I do with my other courses:

RARELY   A   B   C   D   E   ALWAYS

Discussion Section Assessment:

How clear are the written and verbal instructions from your discussion section instructor for:

13. Written Assignments: Not at All   A   B   C   D   E   Always

14. In-class Activities: Not at All   A   B   C   D   E   Always

15. My discussion instructor discusses my writing and ideas in ways that help me to improve.

     NOT AT ALL   A   B   C   D   E   ALWAYS

My discussion instructor seems: NOT AT ALL   ALWAYS

16. Willing to answer questions   A   B   C   D   E

17. Available to students   A   B   C   D   E

18. Committed to helping me learn   A   B   C   D   E

19. Organized   A   B   C   D   E

20. Knowledgeable about writing   A   B   C   D   E

21. Fair   A   B   C   D   E

22. Are you able to ask questions and receive clear answers in discussion section?

     NOT AT ALL   A   B   C   D   E   ALWAYS

Lecture Component and Overall Assessment of Core 1:

23. There are clear connections between my discussion section and lectures.

     NOT AT ALL   A   B   C   D   E   ALWAYS

24. There is a clear and logical connection between the lectures, assignments, and readings.

     NOT AT ALL   A   B   C   D   E   ALWAYS

25. I am able to ask questions and receive clear answers in lecture.

     NOT AT ALL   A   B   C   D   E   ALWAYS

26. I have a clear understanding of the material presented in lecture.

     NOT AT ALL   A   B   C   D   E   ALWAYS

This course (in sum) has provided information and support in developing the following skills:

     NOT AT ALL   VERY WELL

27. Understanding of scientific information   A   B   C   D   E

28. Application of quantitative tools   A   B   C   D   E

29. Appreciation of decision-making complexity   A   B   C   D   E

30. Interpretation of information for problem-solving   A   B   C   D   E

31. Audience-focused writing and communication   A   B   C   D   E

32. Understanding of local and global perspectives   A   B   C   D   E

33. Application of ethical practices and theory   A   B   C   D   E

34. Ability to share expertise and work on teams   A   B   C   D   E

35. Appreciation of creative expression   A   B   C   D   E

Qualitative Questions Included on Final Course Evaluation

* The first four digits of the identification number (on the right-hand side of the scantron form):
— — — —

* Note that this written questionnaire is double-sided, please complete both sides *

What is your major? _____

Upon completion Core 1, how would you rate your understanding of general education? Please explain:

My discussion instructor discusses my writing and ideas in ways that help me to improve. Please explain:

Describe the aspects of the course that were especially helpful to you (these aspects could include but are not limited by: course organization, lectures, module descriptions, readings, writing assignments, Friday Events).

Which type of event for Core Friday did you find most stimulating? (plays, films, guest speakers, panel discussions, live performances) Similarly, which lecturers or lecture topics were especially enlightening?

Which aspects of Core have you found most useful for your ongoing education? Upon the completion of Core 1, how do you see yourself applying the principles of general education to other courses?

Describe aspects of Core 1 that you would change, add or subtract if you had the opportunity.

Appendix I: Peer Review Teaching Evaluation: Pre-Observation Form & Write-Up

This form is to be completed by the teacher and submitted to the faculty or peer observer at least one day before the observation.

Teacher: Date:
Course: Core 1   Room:
Observer:
_____

1. Learning Objectives/Outcomes: At the end of the lesson, I will have helped my students to....

2. Lesson Plan: I intend to achieve the outcomes listed above by leading the following activities (list briefly).

3. Prior Learning: These objectives are related to the following materials presented in lecture and / or the related readings:

4. Future Learning: The lesson that I'm planning will relate to subsequent lessons in this way:

5. Learner Population Profile: On a scale of 1 (low) to 5 (high), I would rate these aspects of my students' performance and behavior this way:

a. Preparedness	1	2	3	4	5
b. Motivation	1	2	3	4	5
c. Participation	1	2	3	4	5

6. Constraints: These factors might compromise the success of my lesson:

7. Observation foci: I would like my observer to place particular focus on the following aspects of my teaching (specify two or three aspects):

Example of Observation Write-Up:

Core 1 discussion section
Attendance: 22/25

      Class began with a quiz and returned assignments. Initially it seemed as though the classroom constraints would pose difficulties during discussion, given that the seats are fixed and the room seats about 70 people (so students were spread out in clusters). Despite these potential challenges, your class covered a lot of ground regarding language, communication and technology. The basis of the learning was almost completely student response based, and this relied on a well executed discussion / activity. The class started on a quiet note and built towards an animated discussion about communication.

      The quiz is designed to benefit students who take detailed notes, as this rule of thumb was announced as the materials were distributed. I have framed my quizzes more in terms of how much students remember from the readings and lectures, so I found this approach useful for my future reference. What was really interesting about the quiz activity was how many people had copious and detailed notes on hand. It was evident that they understand the importance of being consistent and detail-oriented. The quiz questions were reasonable and addressed every lecture so as not be random. From what I could tell from the back corner of the room, about 25-30% of the students had detailed notes. One student even had typed notes in a binder! I imagine that these students succeed with the quizzes as do others who attend lecture and read (and may not have needed to check notes). The structure of this activity clearly supported consistent study skills.

      Similarly, the expectations of the quantitative assignment were described with specific details. The answer key that was provided emphasized the importance of understanding the question before responding. Throughout this discussion of how grades were awarded, you provided a solid overview of not only your rationale but also reminded students of the principles and definitions behind the assignment. I really liked the paragraph you shared towards the end of that discussion because it showed what you were looking for in the assignment. To build on that principle of sharing student models, it might be helpful to show the paragraph on the screen. The student who questioned your docking some points on his writing might have found it more difficult to question the rationale if the stronger paragraph were available on screen (though he seemed grumpy and unreasonable, regardless). In general, it is easier to pause and really look at the writing if it is on the screen. Given our IT constraints this year, I am not sure if that is an option in your classroom, so disregard this suggestion if it isn't feasible. Above all, you gave a detailed and meticulous description of what you were looking for with this assignment. Ending with encouraging remarks about the improvement you saw in their work rounded off your points nicely.

      An open discussion about the lectures on "Communication and Language" followed. Students opened up relatively quickly and offered useful ideas from which to build discussion. It seemed to lead really naturally to your activity, and you developed their comments into something more connected to the lectures and readings throughout the discussion. One aspect of your teaching style that I really like is the way that you setup a discussion and then quietly step back. This is a low pressure approach to discussion that actually solicits a lot of natural participation and commentary. About half of your students spoke during this activity, which is really impressive. This style of teaching is really subtle and can be difficult to maintain because

there will inevitably be some odd silences or awkward moments; however, the benefit is that students respond to the materials earnestly. The other challenge to this approach is providing enough direction to push the conversation to certain outcomes and intellectual concepts. You did that really well, which made this method solid because 1. most students contributed to the discussion 2. all students were clearly paying close attention 3. the discussion was focused and structured 4. a lot of nuance developed about cultural communication from the student examples of language and gesture. You asked questions at the right moment to push discussion and allowed students to take charge where they needed to. In sum, this was a rigorous but not hurried discussion that developed genuine complexity and engagement over the hour.

Appendix J: Core 1 Instructional Consistency & Congruency Analysis
Developed by: Sara L. Terheggen, Ph.D. & The Core 1 Faculty Committee

Gen. Ed. Guiding Principles	Statements of Evidence	Topics	Assessments
Scientific Literacy: To have a functional understanding of scientific, technological and quantitative information, and to know both how to interpret scientific information and effectively apply quantitative tools.	"Think analytically"[1] "process is a fundamental component of both quantitative and qualitative reasoning"[4] "Develop an ability to synthesize and express complex ideas"[5] "Learn to think analytically and communicate effectively in a context of issues that will affect your lives as world citizens" & "Learn different ways of looking at the world and its problems"[8] "Develop a trans-disciplinary understanding of what is involved in substantiation and proof"[8]	Math Skills Primer[14] Origins of the Universe; Origins of Life; Conflict; The Future[3] Core Fridays[7] ▪ "Guns, Germs, & Steel" ▪ "Copenhagen" ▪ "Lecture & Star Party: Our Universe: Watch Out"	Quantitative Assignments 1-6[1,9] "any quantitative exercise that clearly describes its process, uses the tools provided by the assignment, and shows evidence of sincere engagement"[4] Essay Assignment One[1,6,10] "present information accurately and make logically sound arguments" & "engage course readings in sufficient depth"[4] Cumulative Writing Assignment[11] Mid-Semester Course Review (Question 3 & Question 21 B,E,F)[12] Final Course Review (Ques 3, 28, 31, 32 & Qualitative Ques 1, 5)[13]
Decision Making: To appreciate the various and diverse factors bearing on decisions and the know-how to assemble, evaluate, interpret and use information effectively for critical analysis and problem solving.	"Informed Reasoning"[1] "Informed Decision making"[1] "Review and refine effective study skills, for managing information"[5] "Learn different ways of looking at the world and its problems" & "Develop a trans-disciplinary understanding of what is involved in substantiation and proof"[8]	Logic Primer[2] Needs of Individuals and Societies[3] The Future[3] Peer Review Activities[14] All Core Fridays[7]	Reflective Journal[1] Quantitative Assignments 1-6[1,9] "any quantitative exercise that clearly describes its process, uses the tools provided by the assignment"[4] Essay Assignments One, Two, and Three[1,10] "approach issues and problems from creative angles"[4] Cumulative Writing Assignment[11] Mid-Semester Course Review (Question 3 & Question 21 A,B,C,D,F)[12] Final Course Review (Questions 3, 27, 28, 29, 30, 32 & Qualitative Ques 1, 5)[13]

Communication: To convey information to and communicate and interact effectively with multiple audiences, using advanced skills in written and other modes of communication.	"Informed Reading & Writing"[1] "Communicate effectively"[1] "Revise writing by incorporating relevant advice for changes"[5] "Develop an ability to synthesize and express complex ideas"[5] "Cultivate intellectual curiosity and the exchange of ideas"[5] "Develop effective approaches to learning, reading, and writing"[5] "Develop your writing skills"[8] "Learn different ways of looking at the world and its problems"[8]	Language and Communication[3] Discussion Section Participation[14] All Core Fridays[7]	Reflective Journal[1,14] Essay Assignments One, Two, and Three[1,10] "develop ideas fully and in an organized fashion"[4] "display complexity of thought"[4] "are noteworthy for their overarching focus and coherence"[4] Cumulative Writing Assignment[11] "improve their writing skills during the course through continual revision based on constructive feedback"[1] Directed In-Section Writing Assignments[1] Quantitative Assignments 1-6[9] Mid-Semester Course Review (Question 3 & Question 21 C,D,F,G)[12] Final Course Review (Questions 3, 29, 30, 32, 33 & Qualitative Ques 1, 5)[13]
Self and Society: To understand and value diverse perspectives in both the global and community contexts of modern society in order to work knowledgeably and effectively in an ethnically and culturally rich setting.	"Demonstrate, through examples, that complex questions are best understood not from a single decoupled perspective, but by insights gained from different-even seemingly disparate-approaches"[1] "Gain familiarity with interdisciplinary concerns and interests"[5] "Develop an ability to synthesize and express complex ideas"[5] "Learn different ways of looking at the world and its problems"[8]	All topics[3] All Core Fridays[7]	Reflective Journal[1,14] Essay Assignments One, Two, and Three[10] "designed to forge connections between lectures, discussion sections, readings, and disciplines"[1] "display appreciation of various perspectives"[4] "approach issues and problems from creative angles"[4] Quantitative Assignments 1-6[9] Cumulative Writing Assignment[11] Mid-Semester Course Review (Question 3 & Question 21 A,C,G)[12] Final Course Review (Questions 3, 27, 29, 33 & Qualitative Ques 1, 5)[13]

Ethics & Responsibility: To follow ethical practices in their professions and communities, and care for future generations through sustainable living and environmental and social responsibility.	"Learn different ways of looking at the world and its problems"[8] "Develop a trans-disciplinary understanding of what is involved in substantiation and proof"[8]	Needs of Individuals and Societies; Conflict; The Future[3] Core Fridays[7] ▪ "Gods Must be Crazy" ▪ "A Night to Remember" ▪ "Copenhagen"	Reflective Journal[1] Quantitative Assignments 4, 5, 6[9] Essay Three[10] Cumulative Writing Assignment[11] Mid-Semester Course Review (Question 3)[12] Final Course Review (Questions 3 & Qualitative Ques 1, 5)[13]
Leadership & Teamwork: To work effectively in both leadership and team roles, capably making connections and integrating their expertise with the expertise of others.	"Support your classmates as members of the same learning community"[5] "Collaborate successfully on group tasks and class projects"[5] "Provide helpful, supportive evaluations of peers' writing"[5] "Learn different ways of looking at the world and its problems"[8]	Needs of Individuals and Societies[3] Conflict[3] Core Fridays[7] ▪ "The Human Language" ▪ "Conflict" ▪ "DNA & Dancing Fool" ▪ Salinas	Cumulative Writing Assignment[11] From my understanding, students who may be knowledgeable about a particular area because of their majors, etc are asked to step up in class and participate when that topic is discussed. In this way, students are asked to take on a leadership-like role during course lectures. Students are invited to participate in online chat rooms as respondents to lectures. They are also invited to serve as panelists for an end-of-semester Core Friday event.[14] Mid-Semester Course Review (Question 3)[12] Final Course Review (Questions 3 & Qualitative Ques 1, 5)[13]
Aesthetic Understanding and Creativity: To appreciate and be knowledgeable about human creative expression, including literature and the arts.	Somewhat relevant here: "Cultivate intellectual curiosity and the exchange of ideas"[5] "Broaden your intellectual horizons"[8] "Learn different ways of looking at the world and its problems"[8] "Develop a trans-disciplinary understanding of what is involved in substantiation and proof"[8]	Origins of Societies and Cultures[3] Needs of Individuals and Societies[3] The Future[3] All Core Fridays[7]	Reflective Journal[1,14] "Encourage student creativity and freedom of expression"[1] Essay Assignments, Essay Two[1, 10] "approach issues and problems from creative angles"[4] Students discuss aesthetic topics in class and in groups.[14] Cumulative Writing Assignment[11] Mid-Semester Course Review (Question 3 & Question 21 A,C,G)[12] Final Course Review (Questions 3, 27, 29, 33 & Qualitative Ques 1, 5)[13]

Development of Personal Potential: To be responsible for achieving the full promise of their abilities, including psychological and physical well-being.	"Students connecting what they have just learned with what they will learn"[1] "Cultivate intellectual curiosity and the exchange of ideas"[5] "Develop effective approaches to learning, reading, and writing"[5] "Broaden your intellectual horizons"[8] "Acquire useful, transferable skill that equip you for a lifetime of learning"[8] "Learn different ways of looking at the world and its problems"[8] "Develop a trans-disciplinary understanding of what is involved in substantiation and proof"[8]	Potentially all topics[3] All Core Fridays[7]	Reflective Journal[1,14] "Encourage student creativity and freedom of expression"[1] Quantitative Assignments 1-6[9] Essay One, Two, and Three[10] Cumulative Writing Assignment[11] Mid-Semester Course Review (Question 3 & Question 21 A-G)[12] Final Course Review (Questions 3, 27-33 & Qualitative Ques 1, 5)[13]

Core 1 Source Documents

1. College One CORE 1 Course Syllabus. Spring Semester 2006 (v.2006.01.23). File Name: 060123 CORE1 GenInfo.pdf.

2. CORE 1 Course Schedule. Spring 2006 (Draft 060108). File Name: 060108 CORE1 Schedule.doc.

3. CORE 1 Topic Summaries. Spring 2006. File Name: 060108 CORE1 Topic Synopses.doc.

4. Evaluation of CORE One Assignments. Spring 2006. File Name: Core1 Evaluation Rubric.doc.

5. CORE 1 Section Syllabus. File Name: Core1 section syllabus template.doc.

6. CORE 1: The World at Home Essay 1 Assignments. File Name: Essay 1 S06.doc.

7. CORE Friday Events. This document was created using the Announcements page from the Core 1 Web site.

8. Introduction, January 17. File Name: Dr. Viney – January 17.pdf.

9. Quantitative Assignments 1-6. I obtained these from the Resources page on the Core 1 Web site, listed under Assignments.

10. Essay Assignments 1-3. I obtained these from the Resources page on the Core 1 Web site, listed under Assignments.

11. Cumulative Writing Assignment. I obtained this document from the Resources page on the Core 1 Web site, listed under Assignments.

12. Mid-Semester Course Review for CORE 1. Spring 2006. The only two questions on the mid-semester course review that were particularly relevant to assessing student perceptions about the guiding principles was question 3 and question 21. Question 3 is somewhat vague but I noted it as an assessment measure on all of the guiding principles. As for question 21, I labeled each of the skills A through G and then noted which of these applied to assessing the perceptions of students on the various guiding principles.

13. Final Course Review for CORE 1. Spring 2006. Question 3, and Questions 27-33 were relevant. As you know, Questions 27-33 match up to A through G on Question 21 from the Mid-Semester Course Review. I also included questions 1 and 5 from the qualitative portion of the final course review.

14. Questionnaire Reflection Process.

Appendix K: CORE 1 Reflection Process Questionnaire

Introduction: The attached CORE 1 Instructional Consistency & Congruency Analysis is the final version of what I had sent you previously. After conducting this analysis, I think the primary area in which CORE 1 could improve is to develop a more specific set of learning objectives that can be mapped to each of the general education guiding principles. The document contains a table of the following items:

- Column 1: "General Education Guiding Principles"
- Column 2: "Statements of Evidence": These statements have been pulled from CORE 1 documentation and represent what I believe are the ways in which the course is communicating outcomes (documentation reviewed is included in the source list on the last page of the attachment).
- Column 3: "Topics": Of the topics contained in CORE 1, I chose those topics and Friday events that seemed to map best to each of the principles.
- Column 4: "Assessments": Of the various ways in which students are assessed in CORE 1, this column lists those assessments that map most closely to each of the principles.

Learning objectives are a critical component to any class. They provide students with valuable information about what will be covered in the course and what to expect. The idea is that objectives should stay the same, and course activities and assessments can be adjusted over time to better reflect how we go about teaching and assessing those objectives. Developing specific objectives is also useful for you as the CORE 1 team because a clear statement of learning objectives will ensure that you are well prepared to make quick course decisions, design changes, and updates.

Instructions: To complete this reflection process, refer to the attached CORE 1 Instructional Consistency & Congruency Analysis. The work that your team has done thus far is excellent and the goal of this questionnaire is to ask each member of the team to reflect on how we might develop specific learning objectives for CORE 1.

Question 1. Review the Instructional Analysis and comment on any changes you might make to the way in which I have mapped the statements of evidence, topics, and assessments to each of the guiding principles. For example, if I did not include a topic that you believe is reflective of one of the principles, please note any changes. You are welcome to edit the table directly and send your revised version back to me. Feel free to also add statements, topics, or assessments that you feel I have overlooked.

Question 2. Using the attached analysis as a reference, write a set of learning objectives for each of the guiding principles below. Depending upon the principle, you may have one learning objective or a series of them. The idea is to write statements of objectives that are specific.

To do this, think about what a student would have to "know AND do" to demonstrate they had achieved each of the principles?

Scientific Literacy?

Decision Making?

Communication?

Self & Society?

Ethics & Responsibility?

Leadership & Teamwork?

Aesthetic Understanding and Creativity?

Development of Personal Potential?

Question 3. Given your reflection in question 1 and 2, is there anything that you would change about the course assignments and/or course content?

Question 4. Describe your experience with designing essay and quantitative assignments within a module. What were the challenges of this collaborative writing process? Conversely, what were some of the benefits with respect to student outcomes?

Question 5. Describe classroom activities that you designed to foster discussion and the synthesis of ideas. Which activities were particularly successful, and in what way with respect to the general education principles listed in question 2?

Question 6. Please use the below space to write down any additional comments, reflections, concerns, etc that you have regarding CORE 1.

Appendix L: Student Responses on UCUES Survey

- It was very interesting, and helped me to understand social class better, and see the different varieties found here at UC Merced.
- It covered a diverse amount of topics that can not be covered in any other class. It offered me the opportunity to become familiar with subjects outside the major and faculty as well.
- It is very interesting.
- It gave me the chance to be open to other material. Be aware of the different things that are going on around our time.
- I am becoming a well-rounded individual thanks to this course because during the course, I've been introduced to a variety of areas of study. Core has helped me become a better critical thinker.
- I learned alot about different subjects and it sparked my mind
- It makes you realize more about the world. With that knowledge, it helps provide the basis of having what it takes to make a difference.
- I enjoy this course because it lets you experience other areas of study other than your own.
- It brings information from all areas of the intellectual spectrum and demands your attention. There are many things of interest that illuminates itself and helps you understand the world.
- It took elements from all these different areas and made it fit together cohesively. I loved the fact that we looked at current topics/issues from various viewpoints.
- Taught me a lot about a range of subjects, made me more well-rounded.
- It introdyced so many different topics. It made me think about all the different options I have for a career.
- It cover almost every courses briefly. It relate discussion and topic to today lives.
- Although there are some disagreements with the course, I believe and appreciate the several different types of ways that we are being taught to become more aware of the world and our own surroundings. It allows us to become a more well-rounded person, pre
- The synergy of all of the broad and abstract concepts is elegant and interesting to me. From a member-of-modern society's standpoint, I have learned more applicable information in this class than in any other. However, I do find that the assignment format
- I'd say that MATH 22 taught me well but CORE 01 showed me many different things and I've learned to appreciate many more realms of study outside of my major. Rather than a specific cirriculum, CORE 01 aims to teach themes common throughout life and how t
- It was a course involving various subjects, such as math, bieology, economics, astonomy and others. during this class I learned a little bit of everything.
- The course tied so many different areas of academics to present idea's that relate to the present.
- All of the different material and issues discussed
- It exsposed me to all sorts of knowledge that I wouldn't have known before.
- It helps develop a sense of well roundedness to my knowledge and it is interest when you meet someone that knows something about everything.
- I learned a lot about very diverse subjects. Some topics covered, I may not have taken a course in, ever, but I did learn a bit about everything.

- I enjoyed the ability to go ut into merced and experience ifne arts in perosn. i have never experienced things like this before and it was a new and exciting experience. CORE fridays were the best.
- It allowed me to learn about different aspects of society.
- I had Mcdonnell for writing 1 and he is a fun teacher...i actually want to go to class...he makes class topics intersting
- its diversity in material
- It helps me among all my other skills such as writing, math and sometime chemistry
- it helped to me to better understand the world around me.
- It had a very wide perspective
- The lectures, and the Friday events.
- Gave me a good idea of what other social, political, and economical issues there are out in the world. Most importantly allowed me to gain an opinion on the topics.
- We learned how to appreciate the value of the world.
- This course ties together what we believe and what we know and tries to tie them together using conflict and the future.

Appendix M: Core 100 Instructional Consistency & Congruency Analysis
Developed by: Sara L. Terheggen, Ph.D. & Core 100 Faculty

Guiding Principles	Core 100 Objectives	Core 100 Topics	Core 100 Assessments
Scientific Literacy: To have a functional understanding of scientific, technological and quantitative information, and to know both how to interpret scientific information and effectively apply quantitative tools.	"to formulate a solution for a societal problem" "Correctly interprets scientific information and effectively applies quantitative tools"[3]	Scientific method applied to public policy Surveys: Use and misuse Economics of public policy	Pre-proposal Final presentations Final project
Decision Making: To appreciate the various and diverse factors bearing on decisions and the know-how to assemble, evaluate, interpret and use information effectively for critical analysis and problem solving.	"teach students problem-solving skills" "equip students with the knowledge and tools necessary to grapple with the complex problems that they will encounter in a rapidly changing world" Consists of the ability to apply skills and concepts to solving problems; analyze and interpret information; identify, formulate and solve problems; and appraise progress on the project.[4]	Project selection Problem solving a case	Pre-proposal Final presentations Final project
Communication: To convey information to and communicate and interact effectively with multiple audiences, using advanced skills in written and other modes of communication.	Uses high quality visual material[3] Speaks clearly and at an understandable pace and volume[3] Manages time well (transitions and allocated time)[3] Presentation is well-organized[3] Demonstrates knowledge of material and responds articulately to audience questions[3] Engages the audience[3] Consists of the ability to make presentations clearly and effectively, be confident in expressing opinions, explain concepts to others, write effectively, present position with adequate supporting details, and provide clear and complete documentation.[4]	Conflict resolution Collaborative writing How to give an effective presentation	Pre-proposal Final presentations Final project

Self and Society: To understand and value diverse perspectives in both the global and community contexts of modern society in order to work knowledgeably and effectively in an ethnically and culturally rich setting.	"multidisciplinary team" "to formulate a solution for a societal problem" Consists of the ability to apply knowledge of discipline, knowledge of contemporary issues, and understanding of the relationship between theory and the real world.[4]	Assessing history and status of complex issue Economics of public policy Applied topics, like national healthcare, bilingual education	Pre-proposal Final presentations Final project
Ethics & Responsibility: To follow ethical practices in their professions and communities, and care for future generations through sustainable living and environmental and social responsibility.	"Demonstrate understanding of ethical implications of decisions"[3] Consists of ability to manage time, gather needed resources, appreciate real-world constraints in addressing problems, and use resources that are readily available.[4]	Ethics of public policy	Final project
Leadership & Teamwork: To work effectively in both leadership and team roles, capably making connections and integrating their expertise with the expertise of others.	"through the experience of working on a multidisciplinary team" Consists of the ability to make presentations clearly and effectively, be confident in expressing opinions, explain concepts to others, write effectively, present position with adequate supporting details, and provide clear and complete documentation.[4]	Team-building Conflict resolution Collaborative writing	Pre-proposal Final presentations Final project Peer evaluation
Aesthetic Understanding and Creativity: To appreciate and be knowledgeable about human creative expression, including literature and arts.	"Demonstrate understanding of the historical roots of the problem"[3]	How to give an effective presentation	Final presentations Final project
Development of Personal Potential: To be responsible for achieving the full promise of their abilities, including psychological and physical well-being.	"apply what they have learned during their first two years towards shaping their own perspectives"[1] "equip students with the knowledge and tools necessary to grapple with the complex problems that they will encounter in a rapidly changing world"[1] Consists of ability to manage time, gather needed resources, appreciate real-world constraints in addressing problems, and use resources that are readily available.[4]	All Topics	Individual diaries

Core 100 Source Documents

1. College One Core 100 Course Syllabus. Spring Semester 2006.

2. Core 100 Course Schedule. Spring 2006.

3. Core 100 Final Presentation Evaluation Matrix.

4. Core 100 Peer Evaluations Scoring Matrix.

Appendix N: Core 100 Final Report (R) & Presentation (P) Evaluation Matrix

Grading Criteria	Possible		Points	
	R	P	R	P
Scientific literacy: Demonstrates functional understanding of scientific, technological and quantitative information	5	5		
Scientific literacy: Correctly interprets scientific information and effectively applies quantitative tools	5	5		
Decision-making: Appreciates the various and diverse factors bearing on decisions	5	5		
Decision-making: Assembles, evaluates, interprets and uses information effectively for critical analysis and problem-solving	5	5		
Communication: (presentation) 1. Uses high quality visual material 2. Speaks clearly and at an understandable pace and volume 3. Manages time well (transitions and allocated time) 4. Presentation is well-organized 5. Demonstrates knowledge of material and responds articulately to audience questions 6. Engages the audience Communication: (written report) 1. Demonstrates functional ability to use Standard Written English 2. Synthesizes concepts and information from divergent perspectives 3. Adapts technical, complex language and ideas for a nonexpert's comprehension 4. Collaborates responsibly in creating multi-authored texts 5. Embeds an argument within other valid points of view and respects alternative perspectives 6. Uses supporting evidence selectively and appropriately	30	30		
Self and Society: Demonstrates understanding of and values diverse perspectives in both the global and community contexts of modern society	10	10		
Ethics and Responsibility: Demonstrates understanding of ethical implications of decisions	10	10		
Ethics and Responsibility: Demonstrates care for future generations by proposing sustainable, and environmentally and socially responsible solutions	10	10		
Leadership and Teamwork: Team works to make connections and integrate individual member's expertise	10	10		
Appreciation of the Past: Demonstrates understanding of the historical roots of the problem.	10	10		

Appendix O: Core 100 Final Course Survey
* Please take about 15 minutes to respond to this evaluation. Given that Core 100 is an experimental course, your comments are especially vital to its development and improvement. *

* For your answers to be registered by the scantron machine, you must make dark marks with the pencil, fill in the segments completely, and erase completely to change an answer. *

* This survey is double-sided, please answer scantron questions 1-31 as well as the written questionnaire.

General Questions:
1. How interested were you in taking this course at the beginning of the semester?

        LOW   A   B   C   D   E   HIGH

2. How interested are you in the course now?

        LOW   A   B   C   D   E   HIGH

3. At this point, how would you rate your understanding of general education?

        LOW   A   B   C   D   E   HIGH

Student's Course Involvement:

4. I complete aspects of the project by the assigned due date.

        RARELY   A   B   C   D   E   ALWAYS

5. I attend lecture and discussion section regularly.

        RARELY   A   B   C   D   E   ALWAYS

6. I have made use of my discussion instructor's office hours to gain assistance with my writing and assignments.

        RARELY   A   B   C   D   E   ALWAYS

8. How much time each week do you typically spend on your team project? Rate in terms of hours:

        A (less than 1)   B (1-2)   C (3-4)   D (5-6)   E (more than 6)

9. I spend the same amount of time completing and preparing for CORE 100 as I do with my other courses:

        RARELY   A   B   C   D   E   ALWAYS

10. My contribution to the group project was equal to other team members.

        RARELY   A   B   C   D   E   ALWAYS

Discussion Section Assessment:

My discussion instructor seems:

            NOT AT ALL   ALWAYS

11. Willing to answer questions   A   B   C   D   E

12. Available to students	A	B	C	D	E
13. Committed to helping me learn	A	B	C	D	E
14. Organized	A	B	C	D	E
15. Fair	A	B	C	D	E

16. Are you able to ask questions and receive clear answers in discussion section?

NOT AT ALL   A   B   C   D   E   ALWAYS

Lecture Component and Overall Assessment of Core 100:

17. There are clear connections between my discussion section and lectures.

NOT AT ALL   A   B   C   D   E   ALWAYS

18. There is a clear and logical connection between the lectures and our project.

NOT AT ALL   A   B   C   D   E   ALWAYS

19. I am able to ask questions and receive clear answers in lecture.

NOT AT ALL   A   B   C   D   E   ALWAYS

20. I have a clear understanding of the material presented in lecture

NOT AT ALL   A   B   C   D   E   ALWAYS

This course (in sum) has provided information and support in developing the following skills:

	NOT AT ALL		VERY WELL		
21. Understanding of scientific, technological and quantitative information	A	B	C	D	E
22. Interpreting scientific information	A	B	C	D	E
23. Applying quantitative tools	A	B	C	D	E
24. Understanding the value of different perspectives	A	B	C	D	E
25. Solving intellectual and ethical problems	A	B	C	D	E
26. Synthesizing complex concepts	A	B	C	D	E
27. Adapting technical language for a general audience	A	B	C	D	E
28. Developing interdisciplinary perspectives	A	B	C	D	E
29. Composing an argument	A	B	C	D	E
30. Using evidence responsibly and appropriately	A	B	C	D	E
31. Working collaboratively	A	B	C	D	E

Appendix P: Core 100 Peer Evaluation Rubric

Instructions: List the students on your team, including yourself. Assign a score (1=low, 5=high) for each of the skills. Try to consider your own abilities as you see them in relation to your team members. Be honest in your ratings. **SKILL**	**Student Names** (list each student on the team, **including yourself**)									
Communication (Oral & Written) Consists of the ability to make presentations clearly and effectively, be confident in expressing opinions, explain concepts to others, write effectively, present position with adequate supporting details, and provide clear and complete documentation.										
Teamwork Consists of ability to work cooperatively with others, function on a multi-disciplinary team, be a responsible team member, assist others into assimilating into the team, and to lead others as necessary.										
Problem Solving Consists of the ability to apply skills and concepts to solving problems; analyze and interpret information; identify, formulate and solve problems; and appraise progress on the project.										
Application of Disciplinary Knowledge Consists of the ability to apply knowledge of discipline, knowledge of contemporary issues, and understanding of the relationship between theory and the real world.										
Project Management Consists of ability to manage time, gather needed resources, appreciate real-world constraints in addressing problems, and use resources that are readily available.										
Ethical and Community Responsibility Consists of ability to understand ethical responsibilities, impact societal problems, recognize and engage in life-long learning, appreciate different cultures, describe how the solution will benefit the community, and demonstrate basic ethical behavior towards team members and project.										

University of California, Merced- Engineering Service Learning Program

Overview
Service Learning is a pedagogy that combines academic rigor with activities that address human and community needs. Benefits to the students include an application of concepts learned in their course work, an understanding of the social context of the topic they are studying, the development of critical thinking and problem-solving skills, and an examination of professionals' responsibilities as good citizens [Voss & Post 1988; Lynch 1996; King 1992]. In addition, students gain a service ethic and a habit of participation in public life that may contribute to the choice of careers. The reciprocity and symbiotic nature of the partnership formed between the university and the community is stressed [Leiderman et al. 2003]. While service learning is an increasingly popular way to reform higher education, it is just beginning to be used in Engineering disciplines, having recently been shown to be effective in Environment Science [Ward 1999; Brubaker & Ostroff 2000] and Engineering [NSF 1996; Lord 1999; Tsang 2000]. Service learning is a significant innovation in the teaching of Engineering. Engineering, and specifically considering ABET accreditation, is focused on such outcomes as designing systems, applying knowledge, functioning on a team, communicating, understanding professional and ethical responsibility, and solving problems. [ABET 2003]. Traditional curriculum structures do not lend themselves to accomplishing these outcomes; rather, an active experiential education framework is required.

UC Merced's first service learning team, funded by an NSF sub-award through Purdue University's Engineering Projects in Community Service (EPICS) program, was deployed in the summer of 2004, and the Service Learning Program was implemented in both Fall and Spring. The success of the initial project was instrumental in obtaining a $1M endowment (to be paid over the next five years), plus operating funds for the next four years, from the Foster family (of Foster Farms fame), towards establishing the Foster Family Center for Engineering Service Learning - A National EPICS Site at UC Merced. This gift represents a significant contribution to the estimated $5M in endowment funding that is needed to permanently establish the service-learning program at UC Merced. This funding, along with funding obtained through the National Science Foundation, allowed for the development of a comprehensive assessment system that has provided the means necessary to track the program's success over the course of the year. The program started successfully and has continued to thrive.

At UC Merced, Engineering students from all majors participate in the SL program for up to 10 units of credit. Students work in laddered multidisciplinary teams of 8-15 students (freshman through senior), with a faculty advisor, to design, build, and implement an Engineering-based solution to a real-world problem for a non-profit community partner. Further, SSHA students are being recruited to participate in specific SL teams for next year. These include economics students and World Cultures and History students who may be able to use Engineering SL to fulfill internship requirements within their own majors. This opportunity provides students with several benefits, including: enhanced employability; a chance to apply concepts learned in your course work; improved skills in engineering, leadership, and project management; understanding of the social context of the topics you are studying; development of critical thinking and problem-solving skills; a service ethic and a habit of participation in public life; the opportunity to make a direct impact on the community as well as establish valuable contacts; and a chance to

have fun. Even further, Engineering SL develops the kind of transferable skills that always fall within the top 10 skills valued by ALL employers (e.g., communication, teamwork, project management, problem solving, ethics). Thus, SL is valuable to UC Merced students regardless of where their career paths lead them. The benefits are many, but such benefits can only be realized through a well-developed program with a culture of continuous improvement. Our program was built using models from some of the best SL sites in the country. Coupled with our comprehensive assessment system, our program is poised to be a national example for others. Herein, we will provide information about the SL program's learning objectives, sample projects, assessment plan, an overview of the continuous improvement of the program, and a glimpse of our next steps.

Learning Objectives
The goal of the SL program is to create a pedagogical experience with a positive impact on Engineering education. For each goal, we have defined specific objectives, which are provided in the table below. In addition, we have mapped the SL goals and objectives to the general education guiding principles. It is important to realize that although service learning is happening in engineering, the skills obtained are applicable to the development and growth of our students' potential. Skills like communication, scientific literacy, and decision-making are critical to being a successful engineer, a responsible and engaged citizen, and an ethical human being. The following table provides an overview of this mapping:

Guiding Principles	SL Learning Objectives
Scientific Literacy	Students gain a functional understanding of scientific, technological, and quantitative information and learn how to apply this information in formulating an engineering solution for the client's needs. • Ability to apply knowledge of mathematics, science, and Engineering • Ability to design and conduct experiments, as well as to analyze and interpret data • Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability • Recognition of the need for, and ability to engage in life-long learning
Decision Making	Students learn to appreciate diverse factors bearing on decisions and how to use information effectively for problem-solving in the course of assessing the client's real needs and developing a solution. • Ability to identify, formulate, and solve Engineering problems • Ability to use techniques, skills, and engineering tools necessary for Engineering practice • Knowledge of contemporary issues
Communication	Students learn oral and written communications skills through client presentations and reports. • Ability to communicate effectively
Self & Society	Through their interactions with the client and community, students learn to understand and value diverse perspectives. • Broad education necessary to understand the impact of Engineering solutions in a global, economic, environmental, and societal context • Increase awareness of social, community, and diversity issues in science/Engineering
Ethics & Responsibility	Students learn to follow ethical practices in their professions and communities through learning ethical principles and constraints of their client and in proposing an ethically responsible solution to the client's needs. • Understanding of professional and ethical responsibility • Increase student examination of professionals' responsibilities as good citizens • Increase student service ethic & participation in public life that may influence career choice

Leadership & Teamwork	Students learn and practice leadership and teamwork in the context of team-based engineering projects in service to the community. • Ability to function on multi-disciplinary teams

Example Projects
Students have worked very hard over the year implementing projects for several clients in
Merced and surrounding areas. Some of the clients and example projects are provided below:

- California State Mining and Mineral Museum, Mariposa: Design a natural lighting system
  for gem and mineral display in new building. Assess other energy needs. Emphasis on solar
  optics, energy science and engineering, and mechanical engineering.
- Castle Science and Technology Center, Atwater: Design and build exhibits aimed at
  middle-school children for CSTC museum. This year's focus is on an interactive
  nanotechnology exhibit. We will be building a model of the space elevator and designing
  interactive learning software. Emphasis on bioengineering, materials engineering, computer
  science and engineering, and mechanical engineering.
- Resources Management and Science Division, Yosemite National Park: Design a digital
  library for the client. The initial focus is on water quality data. Emphasis on environmental
  engineering, and computer science and engineering.
- Merced County Office of Education, Merced: Design curricular materials for K-12 students
  to teach physics, chemistry, and biology principles in a materials engineering context. The
  initial focus is on bioengineering examples.
- A Woman's Place, Merced: Design and implement solutions to information technology
  needs for battered women and their children, and victims of sexual violence. Emphasis on
  computer science and engineering.
- Engineering Projects in Community Service, UC Merced: Implement and on-line program
  and student assessment system for adoption at UC Merced and the National EPICS program.
  Emphasis on computer science and engineering.
- Family Resource Council: Design and implement solutions to information technology needs
  of client. Client is a consortium of local non-profits.

Assessment
Several studies have documented the positive impacts of service learning on students [e.g., Astin
et al. 2000; Astin & Sax 1998; Eyler & Giles 1999], commonly exploring one or more of the
following factors: academic performance, service values, self-regulation, leadership, teamwork,
critical thinking, interest in subject matter, ongoing commitment to service, and choice of career.
Although these studies have been valuable in highlighting which outcomes appear to most
positively benefit from a service learning experience, they also present a gap in research and our
understanding of service learning. These studies represent two primary methodological
approaches: (1) qualitative program evaluation, and (2) large research studies (with no
connection to specific programmatic mechanisms). As a result, they are limited in their ability to
provide a comprehensive understanding of service learning outcomes [Gelmon 2000]. Further,
the current research has provided little basis for dissemination of evaluation tools or replication
so that such tools can be used in other education assessment contexts. Nevertheless, this research
has been critical to laying the foundation for the comprehensive approach outlined in this
proposal. Here, we used a merger between the traditional program evaluation approach and the
basic research study. In addition, we offer this approach through the medium of an information
management system that can be disseminated across programs and institutions. The graphic
below provides a pictorial representation of the service learning assessment framework. The
purpose of this graphic is to underline the fact that our assessment data comes from many
sources and allows us to evaluate all aspects of the program. Most importantly, the graphic

symbolizes our commitment to continuous improvement.

Figure 1.
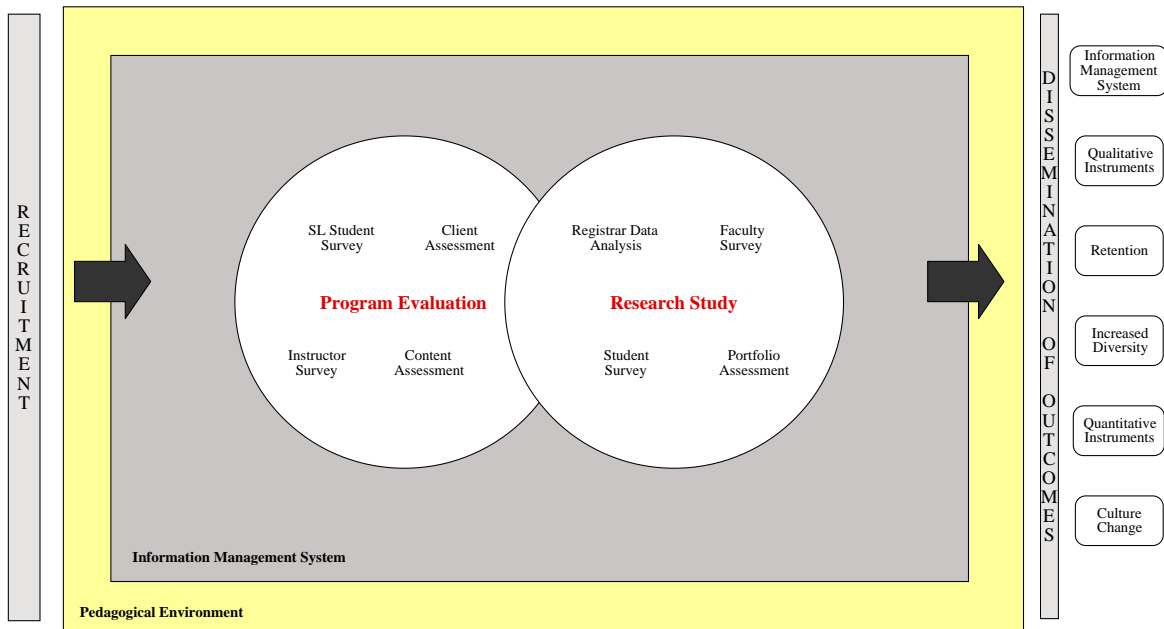
Assessment Measures
Evaluating the impact of service learning on these outcomes is a challenging task that will require extensive formative and summative evaluation methods. By using a variety of tools and techniques, we expect to capture positive impacts and deficiencies in spite of the inherent variation in individual methods. Each program evaluation method will be described in the table below. The Progress & Results section will provide information as to what measures have been implemented thus far.

Assessment Measure	Description of Assessment Measure	Status
Service Learning Student Survey	All students enrolled in service learning complete a pre and post survey. See Appendix A for the Pre Service Learning Survey and see Appendix B for the post-survey. The pre- and post-surveys collect demographic information, but are also focused on obtaining student information on six factors: (1) Personal Development (empowerment, skills, and career) (2) Social Development (teamwork and cultural awareness) (3) Ethical Responsibility Development (4) Perceptions of the Engineering Culture (5) Civic Participation (6) Academic Achievement Each question on the survey maps to one of the above factors and each of the factors is linked to the goals of	The pre and post survey were implemented in both the Fall and the Spring. Data will be provided in the results section.

	service learning. Our goal is to go beyond the traditional program evaluation that is focused on assessing satisfaction and quantitatively assess service-learning students on meaningful factors. This has allowed us and will continue to allow us information that will help us to improve the program and also provide a means through which to develop conceptual models of the impacts of service learning.	
Content Assessment	To assess the substantive, content-related ABET outcomes, UC Merced will go beyond the traditional self-report mechanisms and satisfaction surveys. As Eyler [2000] indicates, "what is needed are measures that allow students to show, rather then tell us, that they have attained greater understanding." The most direct measurement of our outcomes will be the student work product ratings for those students enrolled in service learning. The work product ratings will be provided through self and peer evaluation, faculty and client evaluation, and the SL Executive Committee. By using these different methods of content assessment, we will be capable of collecting and assessing quantitative feedback on both process and substantive content. To do this, we are implementing an evaluation rubric, which will focus on the Engineering process. See Appendix C.	A longer version of the rubric was used in the Fall; however, we found that students complained that the process of peer evaluation took too long and thus provided little motivation to complete. Given the amount of assessment involved with just this one course, we did not want to overwhelm students. Thus, we developed a condensed version and used that in the Spring. This was successful with the students.
Instructor Survey	UC Merced instructors who teach the service learning courses will also complete a survey See Appendix D.	Instructor surveys were also not implemented until the end of the Spring semester.
Client Assessment	A client survey was adapted from the existing EPICS Partners Questionnaire. See Appendix E. Evaluation of those clients involved in our service-learning program is critical. [Ferrari & Worrall 2000]. The survey focuses on the project and student performance in terms of client satisfaction with (1) communications with the team, (2) responsiveness of the team to the problem, (3) student skill level, (4) work quality, and (5) professionalism. Comments will be solicited as to how the project could have been better executed and how the SL experience could have been improved from the client's perspective. Finally, as mentioned above, clients will participate in the evaluation of student work products and outcomes.	We implemented the client survey at the end of Spring semester. Fall was a hectic semester and much of the programmatic issues were being worked out with respect to client visits, project parameters, etc. We worked closely with the clients during Fall semester and sought feedback from them qualitatively. This better prepared us for implementation of a survey at the end of Spring semester.
Student Survey	The student survey will be very similar to the survey given to service learning students; however, certain questions will be added in order to determine whether the student has participated in service learning, for how many credits, and whether their high school environment required any type of community or service learning. See Appendix F. Students will be recruited from all Engineering majors to participate in this study.	The original plan was to implement the survey at the end of Fall 2005; however, due to a lack of funding, the research student survey was put off until we could obtain the necessary funding to continue. With this survey, we anticipate being able to quantitatively answer critical questions about the role and impact of SL and other educational innovations in the Engineering curricula as compared to those students who do not enroll in SL. Further, by asking specific questions regarding a student's experience with service learning and in Engineering, we

		will be capable of analyzing the data in such a way as to determine short-term and long-term impacts of such innovations, including changes over time.
Registrar Data Analysis	In order to build in an additional level of evaluation and research, as well as an internal check of our data, we plan on conducting a registrar data analysis. Through cooperation with the UC Merced Registrar, we have established an online system that provides students with the opportunity to consent to the use of their data by filling out a consent form when they register for their courses. The data requested include: gender, ethnicity, age, high school rank, high school GPA, SAT score, ACT score, major, residency, citizenship, major GPA, overall GPA, financial aid, courses enrolled in, and credits earned. The registrar data analysis adds a level of complexity and comprehensiveness to our system that allows us to assess additional outcomes. Further, by analyzing these data in relation to the data we collect from surveys, we can ensure the accuracy and consistency of our data overall.	We worked over this year to establish the mechanism that would allow us to collect the data. This required obtaining the necessary Institutional Review Board approval, working with the registrar to both obtain the data and administer consent forms, and put up the online system. This is now complete and ready for implementation.

Information Management System: UCM Online

The centerpiece of our plan is the information management system. Currently, we have put both the pre and post surveys online. The peer evaluation process was done electronically but the process is not fully operational within the information management system. Methods are available that perform statistical analysis on objects such as calculating means between properties of object sets without returning individual object's data to the user. More generally, users will have access to the information in the database though a Web-based content management system built using an open and scriptable applications development environment. Consequently, students will have the ability to design, develop, implement, and use their own personalized information systems supported by these data as appropriate.

Another important feature of the information management system is to prevent over-assessment of students. By compiling student responses to assessment in one place, we can avoid asking students the same question multiple times and reduce the number of assessment instruments they fill out. This will improve response rate and help to ensure accurate outcomes.

Results

The University of California at Merced provides a unique intellectual environment for defining an academic culture without having to expend money, time or effort to dismantle pre-existing departmental structures or boundaries. The interdisciplinary founding Engineering faculty are strongly and unanimously committed to maintaining a non-departmental structure for Engineering, as well as to innovation in teaching, high quality research and effective outreach, a combination of skills that is ideally suited to implementing progressive education as well as quantitatively evaluating and disseminating its success. Within this context, a service learning (SL) experience was created for all undergraduate students. The unique circumstances at UC Merced were ideal for testing the effectiveness of the goals. From the outset, there existed the opportunity to develop a comprehensive, versatile, expandable, web-based evaluation and

tracking system, and to develop an information management framework that can facilitate complementary efficiencies in faculty outreach efforts to schools and junior colleges, assessment of success in student recruitment, assessment of student performance and satisfaction in individual courses, compliance with accreditation criteria, and tracking of student retention, progress and career pathways.

Over the course of the previous year, we have been able to obtain much feedback. The following is a glimpse at the data from service-learning. These results represent data from the Spring 2006 surveys.

Quantitative Data
The results in this section provide a comparison between student responses on the pre and post survey. For each question, a graph will be provided.

Rate yourself on each of the following traits or skills as compared with the average undergraduate science or engineering student:
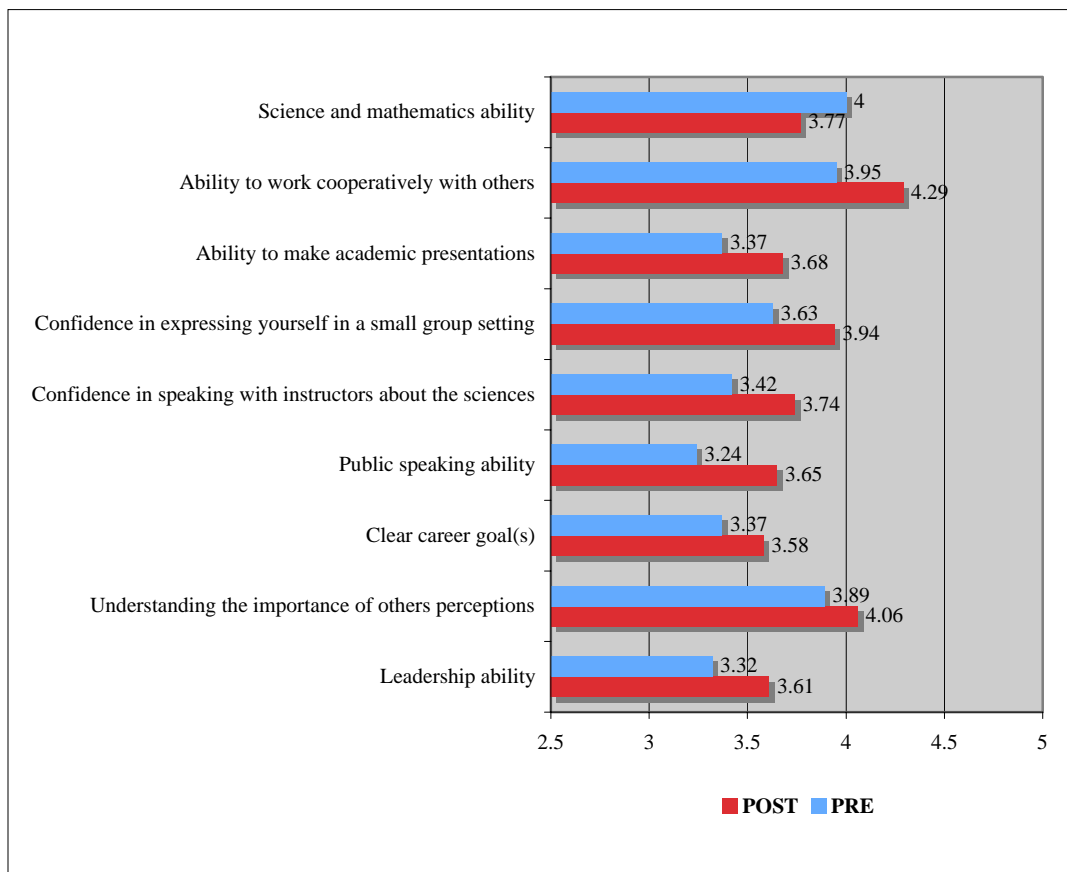
It is interesting to note that the data indicates that students rated their skills higher on the post-test, except with respect to science and mathematics ability. Given the specificity of this skill as compared to other more general skills, like leadership ability, it is possible that students over-estimated their ability in science and math on the pre-test. Then, through participation in the

service-learning project came to a more realistic expectation of their abilities. Although not a positive result if only viewed in the context of this pre/post survey comparison, recognition by students in this regard is a positive outcome. If students can more accurately judge their own abilities, they will be better prepared to address their weaknesses, obtain help when needed, and grow their abilities in areas where they need the most help.

Consider your thoughts about science and engineering, and indicate the extent to which you agree or disagree with each of the following statements:
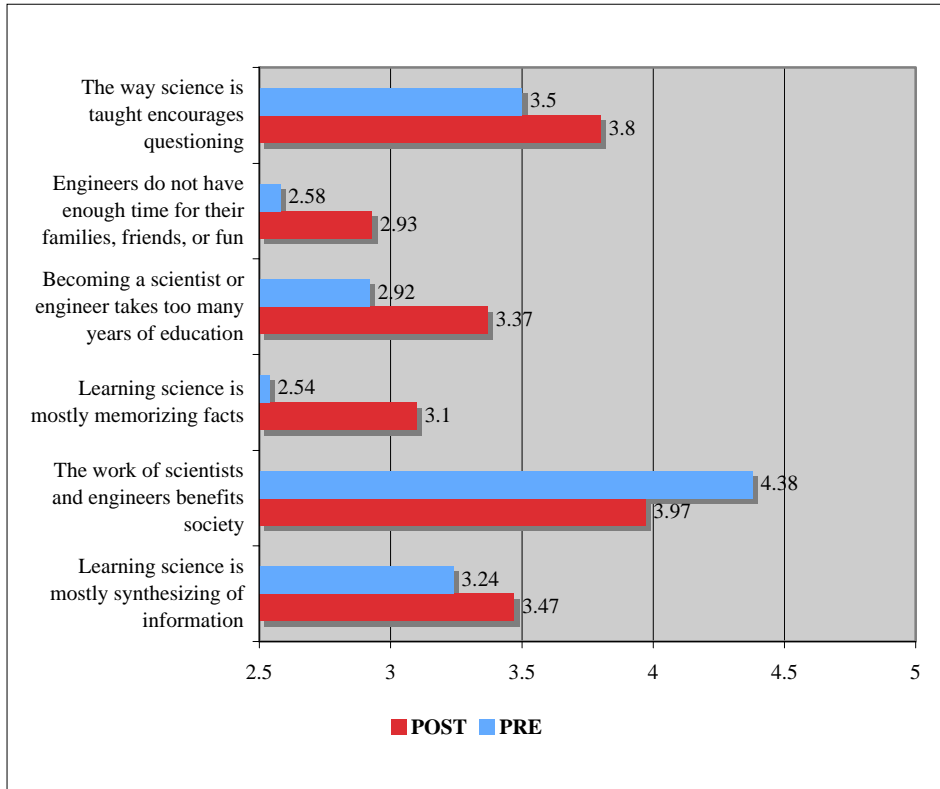
Think about your own learning style and the ways in which you manage your life decisions. Then, indicate the extent to which you agree or disagree with each of the following statements:
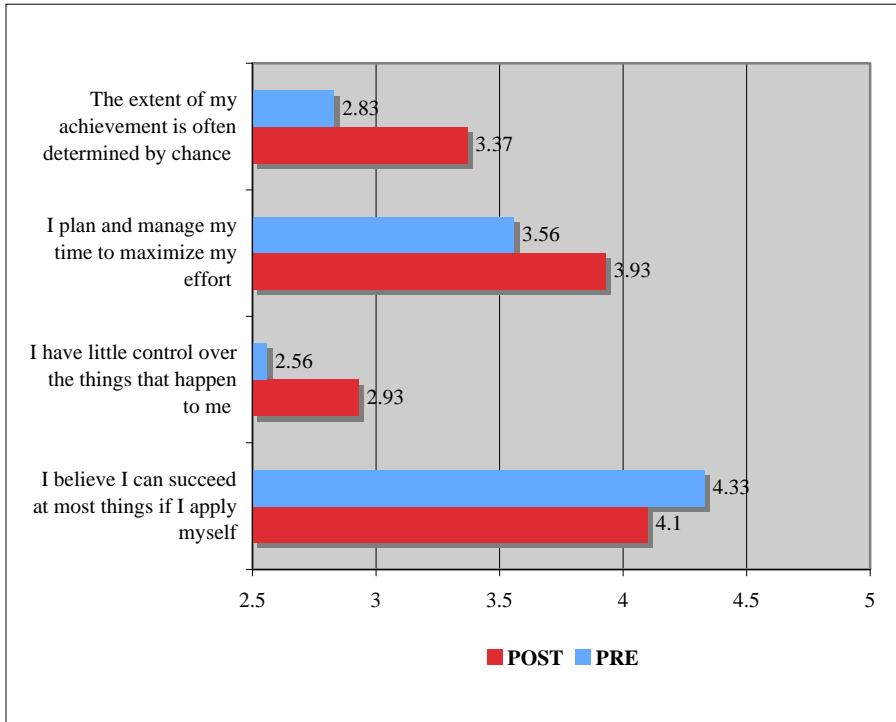
Reflect on your past learning experiences and involvement with the community. Then, indicate the extent to which you agree or disagree with each of the following statements:

As a result of working on the service-learning project, please rate your skill level in the following areas:

Chart showing PRE and POST skill level ratings:

- Ability to identify, formulate and solve engineering problems: PRE 3.51, POST 3.73
- Understanding of ethical and professional responsibilities: PRE 3.77, POST 3.93
- Ability to communicate effectively: PRE 3.57, POST 3.77
- Ability to use techniques, skills and modern engineering tools: PRE 3.37, POST 3.63
- Ability to manage an engineering project: PRE 3.37, POST 3.57

Legend: POST, PRE

Reflect on your experience with individuals from other cultures and indicate the extent to which you agree or disagree with each of the following statements:

Chart showing PRE and POST ratings:

- My academic and professional experiences have influenced my attitude towards communities that are different than my own: PRE 3.76, POST 4

Legend: POST, PRE
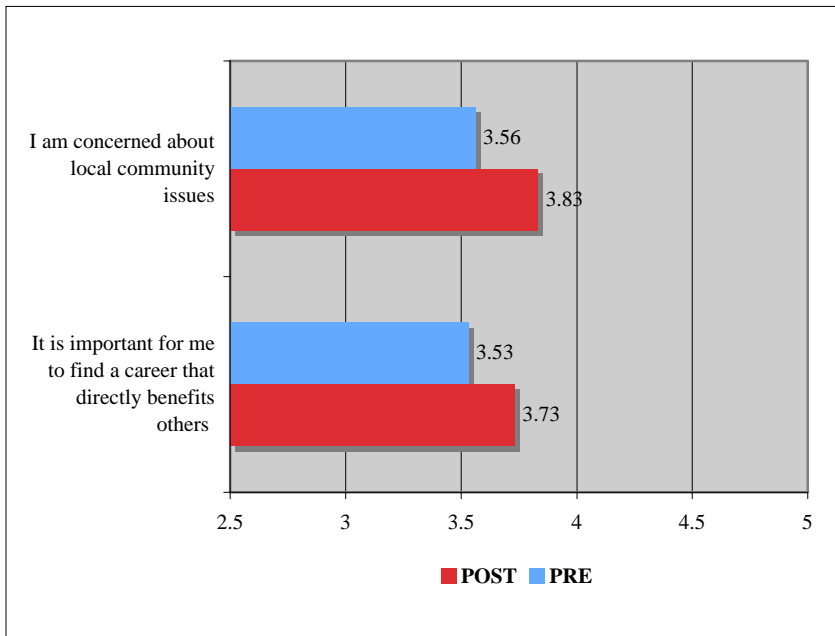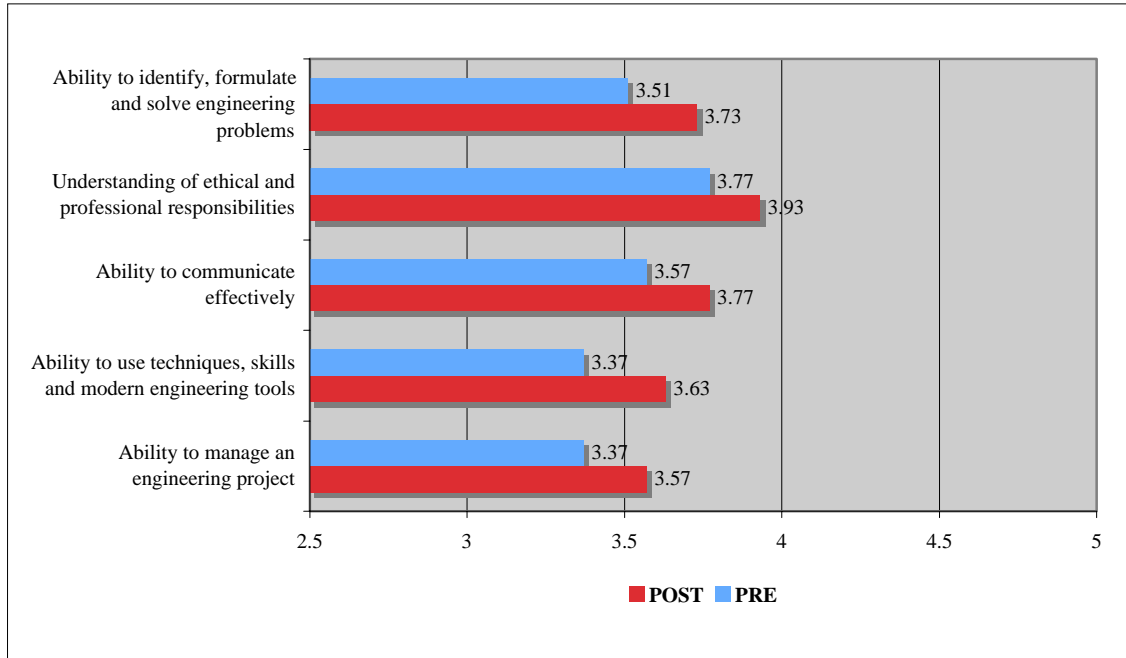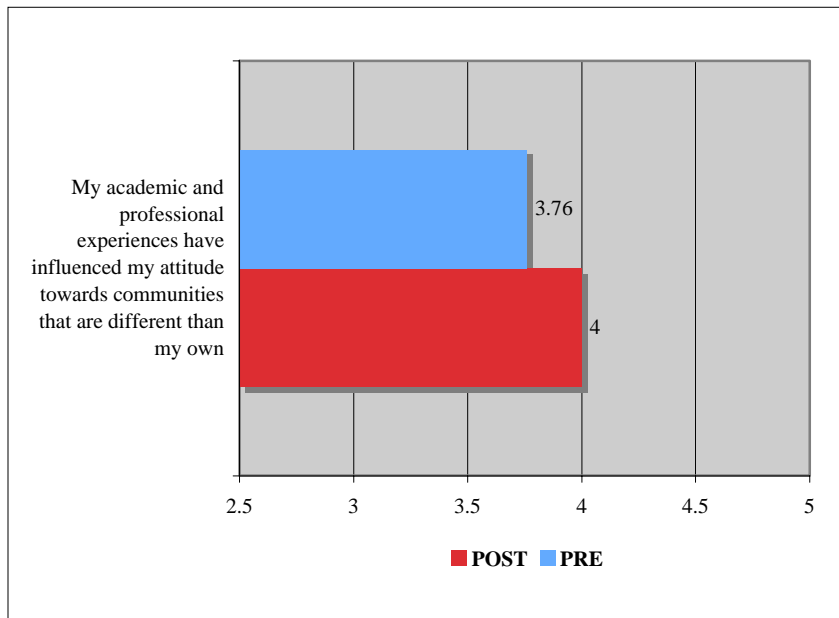
Qualitative Data
Some qualitative responses provided by students from each semester are provided below.

Question	Summary of Responses- Fall 2005	Summary of Responses- Spring 2006
Discuss how SL did or did not meet your expectations	▪ "I expected less planning, and more doing, but we just ran out of time." ▪ "It met my expectations in helping the community and a certain organization." ▪ "I think the class was great. There were just too many high expectations and very little guidance." ▪ "Service Learning took more of my time than planned. Knowing this I think I will be better prepared for next semester."	▪ "My experience totally exceeded my expectations. It was fun, but also educational. I really got to dive into the real world of acting as an engineering firm."
What suggestions, if any, do you have for improving the SL program?	▪ "Encourage more communication within the teams." ▪ "Provide more direction." ▪ "Provide better defined goals and materials to meet those goals."	▪ "Keep working hard with what we have right now and establish roots in the community." ▪ "Give the students a better incentive to work harder and go to class."
Describe your overall level of satisfaction with SL.	▪ "I'm satisfied with my service-learning project experience because we got a lot done." ▪ "We weren't given as much responsibility as I'd expected. We were given specific tasks to complete, as if it were a regular class, with assigned work. I was not very satisfied with that."	▪ "It was a great experience because I was able to get real-life experience." ▪ "I could not ask for a better experience."

One important thing to note is that team experiences, such as the degree of direction provided, depended upon the mentor, even though mentors participated in a training session at the start of the last academic year that emphasized allowing the students to be self-directed. Allowing students to be self-directed is difficult with so many incoming Freshman on the teams, who simply did not possess many of the necessary skills. Allowing for self-direction is an important aspect to the implementation of SL as it teaches students valuable lessons and skills about how real-world projects operate. Thus, comments asking for more direction may be counter to the goals of SL projects.

Service-Learning Next Steps: Improving Upon a Good Thing
Starting seven teams this year was quite a challenge and despite obstacles, the program was successful. The hallmark of any good program is recognizing that it can always be improved. Using the quantitative and qualitative data obtained from students, along with feedback from faculty on their experiences with the course, several changes have been suggested for next year. The following table summarizes the changes to be made to service-learning for next year.

Problems Identified from Service-Learning, 2005-06	Solutions to be Implemented in 2006-07
• Lack of infrastructure	• Development of policies and procedures to provide for smoother logistical operation, efficient scheduling and appropriate delegation of administrative tasks.

• Need for a better team registration process	• A system is being developed where teams choose their own new members.
• Need better scheduling of skills session	• Putting together a more efficient schedule to allow for better course management.
• Need all of the assessment tools on-line	• We started the year with no assessment tools on-line. We managed to get the SL surveys up for Spring semester, but there is still a need to get the peer evaluations on-line and generate an on-line team sign-up tool among other resources. These on-line tools are being developed and implemented.

The primary concern from this year was the lack of infrastructure. The biggest focus for the coming year is to improve this so that the program can run smoother. A continuing challenge for service learning is devise projects that engage faculty. If you look at the stakeholders, faculty benefit the least. The course is generally viewed as an overload. The Director of Service Learning currently addresses this by working with faculty and clients to devise projects that tie in to faculty personal interests or research. For example, new teams for next year in planning include: blood bank, wetlands, campus and community radio station, and a combined daycare/senior center. Further, with the arrival of a new bioengineering faculty, Michelle Khine, we also have the opportunity to put more emphasis on the entrepreneurial aspects of service learning. Michelle started a company at the end of her graduate studies and is very interested in developing this part of the program.

After only one year, the Service Learning Program at UC Merced has made great strides. A significant groundwork has been laid and results indicate positive outcomes. As we identify areas of improvement and work towards change, we know our results will be indicative of our efforts. The goal of the SL program is to create a pedagogical experience with a positive impact on Engineering education. Given the discussion of our progress over the last year coupled with data from our assessment efforts, the SL program is well on its way to meeting its goals.

Appendix A: Service Learning Survey (Pre)

Directions:
This survey is intended to gather your perceptions about science and engineering, your thoughts about your current level of skills and abilities, and gather information about your general academic and professional careers.

Your individual answers are completely confidential. Please respond to all of the questions as honestly as possible. **Pay close attention to the scale being used for each question and answer accordingly.**

Thank you in advance for your time.

Demographic & Background Information:

Your Sex:
☐Male
☐Female

As of today how old are you?

Is English your native language?
☐Yes
☐No

What is your citizenship status?
☐U.S. Citizen
☐Permanent Resident
☐Neither

Your Ethnicity:
☐African-American/Black
☐American Indian/Alaskan Native
☐Chinese/ Chinese-American
☐East Indian/Pakistani
☐Filipino/Filipino-American
☐Hmong/Hmong-American
☐Japanese/Japanese-American
☐Korean/Korean-American

☐Mexican/Mexican-American/Chicano/Latino
☐Pacific Islander
☐Vietnamese/Vietnamese-American
☐White/Caucasian (Non-Hispanic)
☐Decline to State
☐Other (Please Specify)_____

Do you have a disability, as defined by Rehabilitation Act, 1973, or the Americans with Disabilities Act, ADA, 1990?
☐Yes
☐No
☐Decline to State

Are you married?
☐Yes
☐No

Do you have any children?
☐No
☐1 or more on the way
☐1
☐2
☐3
☐More than 3

How far is your permanent home from UC-Merced?
☐In the same town   ☐Within California
☐In the district   ☐Within the US
☐In the county   ☐Other
☐Same geographic region (i.e. Central
California)

Have you ever participated in the UC Merced service-learning program?
☐Yes
☐No

If so, how long ago were you involved in the UC Merced service-learning program?
☐Last term   ☐5 terms ago
☐2 terms ago   ☐6 terms ago
☐3 terms ago   ☐Over 6 terms ago
☐4 terms ago

How many units/credits of service-learning credits do you have?
☐1
☐2
☐3
☐4
☐More than 4

Have you ever participated in a service-learning program in high school?
☐Yes
☐No

Have you participated in a college/university service-learning program, other than UC-Merced?
☐Yes
☐No

Last High School Attended:

Did you graduate from high school?
☐Yes   ☐State Diploma
☐No   ☐Other
☐GED

If so, what type of high school did you graduate from?
☐Public School   ☐Religious School
☐Private School   ☐Magnet School
☐Charter School

What was the average letter grade you received in high school?

During high school, how many years did you take the following subjects and what was your average grade(s) received:

	Zero	.5	1	1.5	2	2.5	3	3.5	4	More than 4	Average Grade
Biological Science	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Computer Science	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
English	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Foreign Language	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
History	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Math	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Physical Science	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Political Science	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
The Arts	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

What is your enrollment status?
☐Full-time
☐Part-time
☐Non-degree seeking student

Year in school:
☐Fr
☐So
☐Jr
☐Sr
☐5th yr

In terms of college selection, UC-Merced was your:
☐First choice   ☐Third choice
☐Second choice   ☐Less than third choice

Are you a transfer student?
☐Yes
☐No

Your Major(s):

Overall UC-Merced GPA:

Major(s) GPA:

SAT Verbal Score:
SAT Math Score:
ACT Composite Score (If applicable):

What is your final degree objective?
☐None   ☐MD
☐Vocational certificate   ☐JD
☐Associate of Arts (or equivalent)   ☐PhD
☐Bachelors   ☐Other (Please Specify):
☐Masters

What is your career objective upon graduation?
☐Industry   ☐Government
☐Faculty   ☐Military
☐Academia (other than faculty member)   ☐K-12
☐Research   ☐Other (Please Specify):
☐Non-profit

What is your parent(s) or legal guardian(s) present income level?
☐Less than $15,000   ☐ $75,001-$90,000
☐$15,000-$30,000   ☐$90,001-$100,000
☐$30,001-$45,000   ☐Over $100,000
☐$45,001-$60,000   ☐Don't Know
☐$60,001-$75,000

Father's Highest Education Level:
☐Did not Graduate High School   ☐Master's Degree
☐High School Graduate   ☐Professional Degree
☐Some College   ☐Doctoral Degree
☐Associate Arts   ☐Not Applicable/Don't Know
☐Bachelors

Mother's Highest Education Level:
☐Did not Graduate High School   ☐Master's Degree
☐High School Graduate   ☐Professional Degree
☐Some College   ☐Doctoral Degree
☐Associate Arts   ☐Not Applicable/Don't Know
☐Bachelors

Currently, my parents are:
☐Married/living together
☐Divorced/separated/not living together
☐One or both deceased

Do you qualify for federal work-study?

☐Yes

☐No

☐Don't Know

Do you receive federal work-study?

☐Yes

☐No

☐Don't Know

Do you receive federal student loans?

☐Yes

☐No

☐Don't Know

Are you concerned with your ability to finance your college education?
☐No
☐Somewhat
☐Yes

Survey Questions:

Rate yourself on each of the following traits or skills as compared with the average undergraduate science or engineering student:

	Well Below Average	Below Average	Average	Above Average	Well Above Average
Overall academic ability	☐	☐	☐	☐	☐
Science and mathematics ability	☐	☐	☐	☐	☐
Ability to apply skills and concepts to solving problems	☐	☐	☐	☐	☐
Capacity to carry out own investigations and inquiries	☐	☐	☐	☐	☐
Time Management	☐	☐	☐	☐	☐
Familiarity with scientific techniques and instrumentation	☐	☐	☐	☐	☐
Public speaking ability	☐	☐	☐	☐	☐
Computer programming skills	☐	☐	☐	☐	☐
Confidence in expressing yourself in a small group setting	☐	☐	☐	☐	☐
Clear career goal(s)	☐	☐	☐	☐	☐
Ability to find resources on a scientific topic	☐	☐	☐	☐	☐
Ability to explain scientific concepts to others	☐	☐	☐	☐	☐
Leadership ability	☐	☐	☐	☐	☐
Confidence in speaking with instructors about the sciences	☐	☐	☐	☐	☐
Ability to apply what learned in college to real world problems	☐	☐	☐	☐	☐
Self-confidence	☐	☐	☐	☐	☐
Understanding the importance of others perceptions	☐	☐	☐	☐	☐
Writing ability	☐	☐	☐	☐	☐
Ability to make academic presentations	☐	☐	☐	☐	☐
Ability to work cooperatively with others	☐	☐	☐	☐	☐

Please indicate the importance of each of the following in your decision to pursue science and/or engineering as a career:

	Very Unimportant	Unimportant	No Effect	Important	Very Important
Making a contribution to society	☐	☐	☐	☐	☐
Making a theoretical contribution to science	☐	☐	☐	☐	☐
Securing a financially stable or profitable career	☐	☐	☐	☐	☐
Interest in experimental discovery	☐	☐	☐	☐	☐
Interest in solving problems	☐	☐	☐	☐	☐
Interest in understanding natural phenomena	☐	☐	☐	☐	☐
To be a community leader	☐	☐	☐	☐	☐
Interest in the subject matter	☐	☐	☐	☐	☐
Interest in technology	☐	☐	☐	☐	☐
Parent/legal guardian is in the field	☐	☐	☐	☐	☐
Sibling is in the field	☐	☐	☐	☐	☐
Other family member is in the field	☐	☐	☐	☐	☐
Friend is in the field	☐	☐	☐	☐	☐

Consider your thoughts about science and engineering, and indicate the extent to which you agree or disagree with each of the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The way science is taught encourages questioning	☐	☐	☐	☐	☐
Sometimes scientists cannot find the answers to their questions	☐	☐	☐	☐	☐
Engineers do not have enough time for family, friends, or fun	☐	☐	☐	☐	☐
It may be said that scientific ideas evolve in their development	☐	☐	☐	☐	☐
Becoming a scientist or engineer takes too many years of education	☐	☐	☐	☐	☐
When I think of an engineer, I think of a confident person	☐	☐	☐	☐	☐
Science promotes collaboration	☐	☐	☐	☐	☐
As an engineer you are given a great deal of opportunity to apply theory	☐	☐	☐	☐	☐
Learning science is mostly memorizing facts	☐	☐	☐	☐	☐
The work of scientists and engineers benefits society	☐	☐	☐	☐	☐
Learning science is mostly applying theories or concepts to new and/or practical situations	☐	☐	☐	☐	☐
Learning science is mostly synthesizing of information	☐	☐	☐	☐	☐
Hands-on learning is important to learning new concepts	☐	☐	☐	☐	☐

Think about your own learning style and the ways in which you manage your life decisions. Then, indicate the extent to which you agree or disagree with each of the following statements:

	Never	Rarely	Sometimes	Frequently	Always
I work hard to do well, even if I don't like a task	☐	☐	☐	☐	☐
I try to understand the tasks before I attempt to solve them	☐	☐	☐	☐	☐
I am willing to do extra work on tasks to improve my knowledge	☐	☐	☐	☐	☐
I try to figure out my goals and what I need to do to accomplish them	☐	☐	☐	☐	☐
I check my accuracy as I progress through a task	☐	☐	☐	☐	☐
I make my own decisions regarding what to do with my life	☐	☐	☐	☐	☐
I can have a positive impact on local social problems	☐	☐	☐	☐	☐
The extent of my achievement is often determined by chance	☐	☐	☐	☐	☐
I try to learn from my success and failures	☐	☐	☐	☐	☐
I plan and manage my time to maximize my effort	☐	☐	☐	☐	☐
I have little control over the things that happen to me	☐	☐	☐	☐	☐
I believe I can succeed at most things if I apply myself	☐	☐	☐	☐	☐

Think about your experiences working in a team and indicate the extent to which you agree or disagree with each statement below:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I help to solve problems by using information provided by the team	☐	☐	☐	☐	☐
I focus on completing the team task successfully	☐	☐	☐	☐	☐
I attempt to change incorrect information immediately	☐	☐	☐	☐	☐
I respect the thoughts and opinions of others in the team	☐	☐	☐	☐	☐
I lead when appropriate, mobilizing the group for high performance	☐	☐	☐	☐	☐

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Working on a team helps me to learn	☐	☐	☐	☐	☐
I enjoy working on teams	☐	☐	☐	☐	☐

Reflect on your past learning experiences and involvement with the community. Then, indicate the extent to which you agree or disagree with each of the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I think people should find time to contribute to their community	☐	☐	☐	☐	☐
Being involved in a program to improve my community is important	☐	☐	☐	☐	☐
I am concerned about local community issues	☐	☐	☐	☐	☐
It is important for me to find a career that directly benefits others	☐	☐	☐	☐	☐

Consider your academic and professional experiences and reflect on the skills you have obtained. Then, rate your skill level in the following areas:

	Well Below Average	Below Average	Average	Above Average	Well Above Average
Ability to apply knowledge of mathematics, science and engineering	☐	☐	☐	☐	☐
Ability to design and conduct experiments, and analyze and interpret data	☐	☐	☐	☐	☐
Ability to design a system, process or component to meet desired needs	☐	☐	☐	☐	☐
Ability to function on a multi-disciplinary team	☐	☐	☐	☐	☐
Ability to identify, formulate and solve engineering problems	☐	☐	☐	☐	☐
Understanding of ethical and professional responsibilities	☐	☐	☐	☐	☐
Ability to communicate effectively	☐	☐	☐	☐	☐
Ability to impact global and societal engineering problems	☐	☐	☐	☐	☐
Recognition and ability to engage in life-long learning	☐	☐	☐	☐	☐
Knowledge of contemporary issues	☐	☐	☐	☐	☐
Ability to use techniques, skills and modern engineering tools	☐	☐	☐	☐	☐
Ability to work effectively with a client	☐	☐	☐	☐	☐
Ability to manage an engineering project	☐	☐	☐	☐	☐
Appreciation of real-world constraints on engineering solutions	☐	☐	☐	☐	☐
Ability to understand the relationship between theoretical models and applied field work	☐	☐	☐	☐	☐

Reflect on your experience with individuals from other cultures and indicate the extent to which you agree or disagree with each of the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I have interacted with people from different cultures	☐	☐	☐	☐	☐
I have an appreciation for different cultures	☐	☐	☐	☐	☐
I have acquired relationships with people from different cultures	☐	☐	☐	☐	☐
I have experienced different social and economic environments	☐	☐	☐	☐	☐
My academic and professional experiences have influenced my attitude towards communities that are different than my own	☐	☐	☐	☐	☐

Appendix B: Service Learning Survey (Post)

Directions:
This survey is intended to gather your perceptions about science and engineering, your thoughts about your current level of skills and abilities, and gather information about your general academic and professional careers.

Your individual answers are completely confidential. Please respond to all of the questions as honestly as possible. **Pay close attention to the scale being used for each question and answer accordingly.**

Thank you in advance for your time.

What is your final degree objective?

☐None   ☐MD
☐Vocational certificate   ☐JD
☐Associate of Arts (or equivalent)   ☐PhD
☐Bachelors   ☐Other (Please Specify):
☐Masters

What is your career objective upon graduation?

☐Industry
☐Faculty
☐Academia (other than faculty member)
☐Research
☐Non-profit
☐Government
☐Military
☐K-12
☐Other (Please Specify):

Survey Questions:

Rate yourself on each of the following traits or skills as compared with the average undergraduate science or engineering student:

	Well Below Average	Below Average	Average	Above Average	Well Above Average
Overall academic ability	☐	☐	☐	☐	☐
Science and mathematics ability	☐	☐	☐	☐	☐
Ability to apply skills and concepts to solving problems	☐	☐	☐	☐	☐
Capacity to carry out own investigations and inquiries	☐	☐	☐	☐	☐
Time Management	☐	☐	☐	☐	☐
Familiarity with scientific techniques and instrumentation	☐	☐	☐	☐	☐
Public speaking ability	☐	☐	☐	☐	☐
Computer programming skills	☐	☐	☐	☐	☐
Confidence in expressing yourself in a small group setting	☐	☐	☐	☐	☐
Clear career goal(s)	☐	☐	☐	☐	☐
Ability to find resources on a scientific topic	☐	☐	☐	☐	☐
Ability to explain scientific concepts to others	☐	☐	☐	☐	☐
Leadership ability	☐	☐	☐	☐	☐
Confidence in speaking with instructors about the sciences	☐	☐	☐	☐	☐
Ability to apply what learned in college to real world problems	☐	☐	☐	☐	☐
Self-confidence	☐	☐	☐	☐	☐
Understanding the importance of others perceptions	☐	☐	☐	☐	☐
Writing ability	☐	☐	☐	☐	☐
Ability to make academic presentations	☐	☐	☐	☐	☐
Ability to work cooperatively with others	☐	☐	☐	☐	☐

Please indicate the importance of each of the following in your decision to pursue science and/or engineering as a career:

	Very Unimportant	Unimportant	No Effect	Important	Very Important
Making a contribution to society	☐	☐	☐	☐	☐
Making a theoretical contribution to science	☐	☐	☐	☐	☐
Securing a financially stable or profitable career	☐	☐	☐	☐	☐
Interest in experimental discovery	☐	☐	☐	☐	☐
Interest in solving problems	☐	☐	☐	☐	☐
Interest in understanding natural phenomena	☐	☐	☐	☐	☐
To be a community leader	☐	☐	☐	☐	☐
Interest in the subject matter	☐	☐	☐	☐	☐
Interest in technology	☐	☐	☐	☐	☐
Parent/legal guardian is in the field	☐	☐	☐	☐	☐
Sibling is in the field	☐	☐	☐	☐	☐
Other family member is in the field	☐	☐	☐	☐	☐
Friend is in the field	☐	☐	☐	☐	☐

Consider your thoughts about science and engineering, and indicate the extent to which you agree or disagree with each of the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The way science is taught encourages questioning	☐	☐	☐	☐	☐
Sometimes scientists cannot find the answers to their questions	☐	☐	☐	☐	☐
Engineers do not have enough time for family, friends, or fun	☐	☐	☐	☐	☐
It may be said that scientific ideas evolve in their development	☐	☐	☐	☐	☐
Becoming a scientist or engineer takes too many years of education	☐	☐	☐	☐	☐
When I think of an engineer, I think of a confident person	☐	☐	☐	☐	☐
Science promotes collaboration	☐	☐	☐	☐	☐
As an engineer you are given a great deal of opportunity to apply theory	☐	☐	☐	☐	☐
Learning science is mostly memorizing facts	☐	☐	☐	☐	☐
The work of scientists and engineers benefits society	☐	☐	☐	☐	☐
Learning science is mostly applying theories or concepts to new and/or practical situations	☐	☐	☐	☐	☐
Learning science is mostly synthesizing of information	☐	☐	☐	☐	☐
Hands-on learning is important to learning new concepts	☐	☐	☐	☐	☐

Think about your own learning style and the ways in which you manage your life decisions. Then, indicate the extent to which you agree or disagree with each of the following statements:

	Never	Rarely	Sometimes	Frequently	Always
I work hard to do well, even if I don't like a task	☐	☐	☐	☐	☐
I try to understand the tasks before I attempt to solve them	☐	☐	☐	☐	☐
I am willing to do extra work on tasks to improve my knowledge	☐	☐	☐	☐	☐
I try to figure out my goals and what I need to do to accomplish them	☐	☐	☐	☐	☐
I check my accuracy as I progress through a task	☐	☐	☐	☐	☐
I make my own decisions regarding what to do with my life	☐	☐	☐	☐	☐
I can have a positive impact on local social problems	☐	☐	☐	☐	☐
The extent of my achievement is often determined by chance	☐	☐	☐	☐	☐
I try to learn from my success and failures	☐	☐	☐	☐	☐
I plan and manage my time to maximize my effort	☐	☐	☐	☐	☐
I have little control over the things that happen to me	☐	☐	☐	☐	☐
I believe I can succeed at most things if I apply myself	☐	☐	☐	☐	☐

Think about your experiences working in a team and indicate the extent to which you agree or disagree with each statement below:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I help to solve problems by using information provided by the team	☐	☐	☐	☐	☐
I focus on completing the team task successfully	☐	☐	☐	☐	☐
I attempt to change incorrect information immediately	☐	☐	☐	☐	☐
I respect the thoughts and opinions of others in the team	☐	☐	☐	☐	☐
I lead when appropriate, mobilizing the group for high performance	☐	☐	☐	☐	☐

Working on a team helps me to learn	☐	☐	☐	☐	☐
I enjoy working on teams	☐	☐	☐	☐	☐

Reflect on your past learning experiences and involvement with the community. Then, indicate the extent to which you agree or disagree with each of the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I think people should find time to contribute to their community	☐	☐	☐	☐	☐
Being involved in a program to improve my community is important	☐	☐	☐	☐	☐
I am concerned about local community issues	☐	☐	☐	☐	☐
It is important for me to find a career that directly benefits others	☐	☐	☐	☐	☐

As a result of working on the service-learning project, please rate your skill level in the following areas:

	Well Below Average	Below Average	Average	Above Average	Well Above Average
Ability to apply knowledge of mathematics, science and engineering	☐	☐	☐	☐	☐
Ability to design and conduct experiments, and analyze and interpret data	☐	☐	☐	☐	☐
Ability to design a system, process or component to meet desired needs	☐	☐	☐	☐	☐
Ability to function on a multi-disciplinary team	☐	☐	☐	☐	☐
Ability to identify, formulate and solve engineering problems	☐	☐	☐	☐	☐
Understanding of ethical and professional responsibilities	☐	☐	☐	☐	☐
Ability to communicate effectively	☐	☐	☐	☐	☐
Ability to impact global and societal engineering problems	☐	☐	☐	☐	☐
Recognition and ability to engage in life-long learning	☐	☐	☐	☐	☐
Knowledge of contemporary issues	☐	☐	☐	☐	☐
Ability to use techniques, skills and modern engineering tools	☐	☐	☐	☐	☐
Ability to work effectively with a client	☐	☐	☐	☐	☐
Ability to manage an engineering project	☐	☐	☐	☐	☐
Appreciation of real-world constraints on engineering solutions	☐	☐	☐	☐	☐
Ability to understand the relationship between theoretical models and applied field work	☐	☐	☐	☐	☐

Reflect on your experience with individuals from other cultures and indicate the extent to which you agree or disagree with each of the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I have interacted with people from different cultures	☐	☐	☐	☐	☐
I have an appreciation for different cultures	☐	☐	☐	☐	☐
I have acquired relationships with people from different cultures	☐	☐	☐	☐	☐
I have experienced different social and economic environments	☐	☐	☐	☐	☐
My academic and professional experiences have influenced my attitude towards communities that are different than my own	☐	☐	☐	☐	☐
My service-learning experience has increased my interpersonal skills	☐	☐	☐	☐	☐

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My service-learning experience has given me an appreciation for what I have	☐	☐	☐	☐	☐
My service-learning experience has caused me to view people and communities in a different context	☐	☐	☐	☐	☐

Think about your service-learning experience and indicate the extent to which you agree or disagree with each of the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I was able to apply the concepts I have learned in my classes to the service learning experience	☐	☐	☐	☐	☐
The service learning experience helped me better understand some of the concepts presented in the course	☐	☐	☐	☐	☐
I would recommend the class to other students	☐	☐	☐	☐	☐
The service-learning project has taught me valuable experiences	☐	☐	☐	☐	☐
I spent much more time on the service-learning project than expected	☐	☐	☐	☐	☐
Enough time was spent in class preparing me for my service-learning experience	☐	☐	☐	☐	☐
The time spent on the service-learning project was reasonable	☐	☐	☐	☐	☐
Overall, I am satisfied with the service-learning experience	☐	☐	☐	☐	☐
The active learning in the project was challenging	☐	☐	☐	☐	☐
The service-learning experience incorporated theory into practice	☐	☐	☐	☐	☐
Service-learning provided me with connections between the classroom and the real world	☐	☐	☐	☐	☐
The service-learning experience made it easier to understand class material	☐	☐	☐	☐	☐
The service-learning experience enhanced and expanded the importance of class lectures	☐	☐	☐	☐	☐
The service-learning experience provided the opportunity to practice what is learned in class	☐	☐	☐	☐	☐
The service learning experience has increased my interest in science/engineering	☐	☐	☐	☐	☐

Please rate your instructor on the opportunities afforded to you in the course:

	Never	Rarely	Sometimes	Frequently	Always
a) The instructor tied together the concepts taught in class with the project	☐	☐	☐	☐	☐
b) The instructor provided me with feedback on my performance throughout the project	☐	☐	☐	☐	☐
c) The instructor was available for guidance on the project	☐	☐	☐	☐	☐
d) The instructor provided opportunities to apply what we learned in class to the project	☐	☐	☐	☐	☐
e) The instructor encouraged us to interact with the clients	☐	☐	☐	☐	☐
f) The instructor was enthusiastic about the service learning component of the course	☐	☐	☐	☐	☐

Open-Ended Questions:

Do you intend to continue to serve in your community in the future? ☐Yes   ☐No   ☐Unsure

Discuss how your service-learning project did or did not meet your expectations.

What have you learned about yourself or others since becoming involved in the service-learning project?

What suggestions, if any, do you have for improving the service-learning program?

Describe your overall level of satisfaction with your service-learning experience.

What were some of the challenge(s) of your project?

What advice would you give to a student who is thinking about participating in a service-learning project?

Are there question(s) we should have asked on this survey? We are looking for questions that will help us understand your service learning experience and can be used to improve the program. If you have any suggestions, please list them here.

THANK YOU FOR YOUR TIME

Appendix C: UC Merced Service Learning Evaluation Rubric

Purpose: The purpose of using this evaluation rubric is to provide you with an opportunity to evaluate yourself and a sub-set of peers on your service learning team. Use of a rubric of this sort is to offer an additional means to gauge your own performance as well as that of your classmates. This means that you have more information about your progress in the course, as well as more detailed information about what your instructor will be considering in his/her evaluation. Further, the skills you are obtaining in this course are critical to your success upon graduation. Whether going on to graduate school, the workforce, or other pursuits, development of your skills in these areas will be essential. We hope you appreciate this opportunity to provide and receive additional feedback.

Instructions: Begin by entering the list of student names you are responsible for evaluating in the far left column of each table on the following pages (you should have received a list of students you are responsible for evaluating). Make sure to include your name on the list, as you will be evaluating yourself using this same rubric. Then, use the following scoring guideline and the checklist to evaluate your sub-set of team members and yourself on the primary criteria presented (i.e., communication, teamwork, etc). Try to consider all of the characteristics listed on the checklist when deciding your overall score. Reflect on your own abilities as you see them in relation to your team members. Be honest in your ratings.

Scale:

5=Well Above Average
4 = Above Average
3 = Average
2 = Below Average
1 = Well Below Average

N/A = Not Applicable

Note: If you assign the <u>same</u> score to <u>every</u> team member on all listed criteria, you will lose points. You must make an effort to differentiate between your team members and assign appropriate ratings.

Checklist

Communication (Oral & Written)
- Presentations are made clearly and effectively
- Confidence in expressing opinions in a group setting
- Able to explain scientific concepts to others
- Writing ability
- Able to communicate effectively
- Able to present position with adequate supporting details
- Documentation is well written, clear, complete and concise

Teamwork
- Leadership ability
- Able to work cooperatively with others
- Able to function on a multi-disciplinary team
- Able to be a responsible team member

Community Awareness & Ethical Responsibility
- Understanding of ethical and professional responsibilities
- Ability to impact global and societal engineering problems
- Recognition and ability to engage in life-long learning
- Appreciation for different cultures
- Able to describe how the project will benefit the community
- Demonstrates basic ethical behavior toward team members/project

Project Management
- Time Management
- Works effectively with a client
- Able to gather needed resources
- Appreciation of real-world constraints on engineering solutions
- Able to use resources that are readily available
- Able to manage an engineering project

Technical Skills
- Familiarity with scientific techniques and instrumentation
- Computer programming skills
- Ability to find resources on a scientific topic
- Ability to use techniques, skills and modern engineering tools

Design Process
- Ability to apply skills and concepts to solving problems
- Ability to design & conduct experiments, & analyze/interpret data
- Ability to design a system, process or component to meet desired needs
- Ability to identify, formulate and solve engineering problem
- Able to appraise progress on the project(s) relative to the design process

Application of Engineering Knowledge
- Ability to apply knowledge of mathematics, science and engineering
- Knowledge of contemporary issues
- Ability to understand the relationship between theoretical models and real-world applications

Student/Team Name	Communication (Oral & Written)	Teamwork	Community Awareness & Ethical Responsibility	Project Management	Technical Skills	Design Process	Application of Engineering Knowledge
Name	Rating						

Comments: In the space provided, please provide any overall comments you have regarding your project and any respective team members. Please note your thoughts on overall skill level of your team, any problems with members and how they were solved, and any other additional thoughts you might have:

Final Question: In the space provided below, write in the names of **ALL** group members (including yourself). For this question, you are considering your ENTIRE team, not just the list of team members you have been assigned to evaluate. Depending on the size of your group, add additional lines if necessary. You have been given $1,000 to allocate among your group members (including yourself) such that the amount of money awarded indicates your judgment of the overall value of each member's relative contribution. Consider factors such as effort, evidence of advance preparation for group meetings, quantity of contribution, quality of contribution, and meeting of deadlines. The total dollar amount must add up to $1,000 and you **cannot** spread the money evenly over the group members.

Team Member Name	Dollar Amount Allocated:
	Total: $1,000

Appendix D: Service Learning Instructor Survey

Directions:
This survey is intended to gather your feedback about the most recent service-learning course you taught.

We are always looking for ways to improve the program and better serve our instructors, clients, and students. Please complete the following survey as candidly as possible. Your individual answers are completely confidential.

Thank you in advance for your time.

This survey was developed using some questions from the following instruments:

1. The Western Region Campus Compact Consortium Faculty Email Questionnaire (2002) was developed by A. Furco, M. S. Ammon, A. Kornfield, & E. Middaugh at the Service-Learning Research & Development Center, University of California, Berkeley.

2. The College of Natural Resources Faculty Email Survey (2003) was developed by M. S. Ammon, E. Middaugh, & Kyra Naumoff at the Service-Learning Research & Development Center, University of California, Berkeley.

What is your academic discipline?

What is your academic position?
☐Professor
☐Associate Professor
☐Assistant Professor
☐Adjunct Professor
☐Instructor/Lecturer
☐GSI/GSR/TA
☐Other

Is this your first time teaching a service-learning course?

☐Yes

☐No

Have you used service-learning techniques in your teaching <u>prior</u> to this year?

☐Yes

☐No

How long have you been involved with service-learning?
☐Less than 1 year
☐1-3 years
☐4-6 years
☐7 or more years

From what sources have you become informed about service-learning? (Check all that apply.)
☐Not previously heard about service-learning
☐Colleague at UC Merced
☐Colleague elsewhere
☐Administrator
☐Presentation
☐Journal/Book
☐Newspaper/TV
☐Conference
☐Service-learning Coordinator/ Center
☐Student
☐Own Academic Training
☐Other (please specify)

Please indicate which types of projects were conducted in your service-learning course: (Check all that apply)
☐Teach K-12 grade students in local schools
☐Design hands-on examples, lessons, or demonstrations for other settings
☐Assist community agencies/organizations in their basic operations
☐Collect (and maybe organize) environmental/agricultural/nutritional data for agency/org
☐Analyze community issue and offer recommendations or design/plan program to address need
☐Organize/Lead/Work with community members to craft solution to particular problem
☐Other (please specify)

I am interested in developing a service-learning component in one or more of my regular courses.
☐Yes
☐No
☐Maybe

Service-learning might fit with one or more courses that I teach.
☐Yes
☐No
☐Maybe

Service-learning might fit with other courses in my discipline or school.
☐Yes
☐No
☐Maybe

I think other faculty members in my discipline would advocate for the use of service-learning or a similar technique.
☐Yes
☐No
☐Maybe

What kind of support for service-learning have you received from your institution?   (Check all that apply.)
☐Curriculum Development
☐Course Assessment
☐Public Recognition of Efforts
☐Credit toward Promotion/Tenure
☐Assistance with Student Placement
☐Assistance with Student Recruitment
☐Grant/Funding
☐Transportation Assistance for Students
☐Other
☐None

What kind of support for service-learning have you received from the community organizations where students are involved in service? (Check all that apply.)

☐Orientation for Students
☐Training of Students
☐Transportation Assistance for Students
☐Documentation of Student Participation (e.g., hours served)
☐Evaluation of Students
☐Other
☐None

Please rate the importance of each the following with respect to your <u>own</u> involvement in service-learning:

	Very Unimportant	Unimportant	No Effect	Important	Very Important
To become better engaged in the local community	☐	☐	☐	☐	☐
To maintain previous connections in the local community	☐	☐	☐	☐	☐
To improve student academic learning	☐	☐	☐	☐	☐
To fulfill institutional obligations	☐	☐	☐	☐	☐
To collaborate with colleagues	☐	☐	☐	☐	☐
To advance my own career	☐	☐	☐	☐	☐
To further my own research	☐	☐	☐	☐	☐
To reenergize my teaching	☐	☐	☐	☐	☐
To offer students new societal perspectives	☐	☐	☐	☐	☐

Please rate the importance of each type of support necessary for your future involvement in service-learning:

	Very Unimportant	Unimportant	No Effect	Important	Very Important
Strong support provided by my dean/department/division chair	☐	☐	☐	☐	☐
Credit given toward promotion and tenure	☐	☐	☐	☐	☐
Recognition afforded by own professional organizations/associations	☐	☐	☐	☐	☐
Ideas provided for linking service-learning to my own research	☐	☐	☐	☐	☐
Opportunities provided to publish articles on use of service-learning	☐	☐	☐	☐	☐
Support provided by colleagues in my discipline	☐	☐	☐	☐	☐
Access provided to community partners	☐	☐	☐	☐	☐
Concrete examples provided of how service-learning might be incorporated in my courses	☐	☐	☐	☐	☐
Professional development available on service-learning issues	☐	☐	☐	☐	☐
Funding available to support course-based service-learning activities	☐	☐	☐	☐	☐
Assistance given with student placement and supervision	☐	☐	☐	☐	☐
Assistance with assessment	☐	☐	☐	☐	☐

Based on your perspective and experience with your service-learning course this quarter, indicate the extent to which you agree or disagree with each of the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I feel that the service my students completed through this class was beneficial to the community	☐	☐	☐	☐	☐
Using service-learning required more of my time as a teacher; but it was worth it	☐	☐	☐	☐	☐
I feel that the service the students completed interfered with their academic responsibilities	☐	☐	☐	☐	☐
The idea of combining service to the community with college course work should be practiced in more classes	☐	☐	☐	☐	☐
I received enough assistance with the logistics of service-learning (identifying placement sites, follow-up with students, etc)	☐	☐	☐	☐	☐
I will not use service-learning as a teaching strategy in future courses	☐	☐	☐	☐	☐
I have a basic understanding of service-learning strategies	☐	☐	☐	☐	☐
The amount of time needed to supervise and/or support the student teams was often burdensome	☐	☐	☐	☐	☐
I am satisfied with the level of support provided by the UC Merced service-learning staff	☐	☐	☐	☐	☐
I have a basic understanding of how to develop, implement, and evaluate a service-learning activity	☐	☐	☐	☐	☐
I understand the place of service-learning in higher education	☐	☐	☐	☐	☐
The agency/organization was satisfied with the work of the student teams	☐	☐	☐	☐	☐

Rate the activities and/or services provided by the UC Merced Service Learning Program in the following areas:

	Well Below Average	Below Average	Average	Above Average	Well Above Average
Assistance with service-learning technical resources/information	☐	☐	☐	☐	☐
Placement and support services for your students	☐	☐	☐	☐	☐
Recognition for your efforts	☐	☐	☐	☐	☐
Learning materials/forms for your students	☐	☐	☐	☐	☐
Communication between you and the staff	☐	☐	☐	☐	☐
Community service site development/maintenance for students	☐	☐	☐	☐	☐
Placements which are directly related to your academic coursework	☐	☐	☐	☐	☐
Resources and information to incorporate the pedagogy of service-learning into your classes	☐	☐	☐	☐	☐
Materials to assess and monitor students who learn in a service mode	☐	☐	☐	☐	☐
Overall support	☐	☐	☐	☐	☐

Open-Ended Questions:

Briefly describe your goals for the service-learning course students.

How does the quality of learning with a service-learning component compare to traditional classroom learning?

Describe the strengths of the service-learning course.

Describe any challenges you had with regard to the service-learning course.

What recommendations would you give to other faculty who are about to teach a service-learning course for the first time?

Would you teach another service-learning course? Indicate the reasons for your response.

Is there anything else you would like to comment on that was not asked?

<div align="center">

THANK YOU FOR YOUR TIME

</div>

Appendix E: Service Learning Client Survey

Directions:
We appreciate your utilization of student service-learners and are grateful for your participation in the UC Merced Service Learning Program. This survey is intended to gather your feedback about the most recent service-learning project conducted at your agency and your experience with UC Merced students.

We are always looking for ways to improve our program and better serve our clients. Please complete the following survey as candidly as possible. Your individual answers are completely confidential.

Thank you in advance for your time.

General Information:

Give a brief description of the project conducted for your agency.

_____
_____
_____

Is this the first service-learning project that your agency/organization has been involved with?

☐Yes

☐No

Has your agency participated in a college/university service-learning program, other than UC-Merced?

☐Yes

☐No

Would you have been able to carry out the project without assistance from the UC Merced Service Learning Student Team?

☐Yes

☐No

☐Maybe

Was the project completed?

☐Yes

☐No

Did the project meet your agency/organization expectations?

☐Yes

☐No

☐Somewhat

Would you be willing to serve as a client for a future service-learning team from UC Merced?

☐Yes

☐No

☐Maybe

Based on your perspective and experience, consider the service-learning project and team as a whole and indicate the extent to which you agree or disagree with each of the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The student team worked collaboratively to carry out the objectives of the project	☐	☐	☐	☐	☐
I would like more faculty/staff contact or participation from UC Merced	☐	☐	☐	☐	☐
The students were dedicated and committed to the service-learning project	☐	☐	☐	☐	☐
There was sufficient communication between the Service-Learning staff at UC Merced and our agency/organization	☐	☐	☐	☐	☐
The student team worked effectively with the staff at our agency/organization	☐	☐	☐	☐	☐
We want to continue to provide service-learning projects for the UC Merced	☐	☐	☐	☐	☐
The student team had sufficient skills and abilities to fulfill the project tasks and responsibilities	☐	☐	☐	☐	☐
The amount of time needed to supervise and/or support the student team was often burdensome	☐	☐	☐	☐	☐
I am satisfied with the level of support provided by the UC Merced Service Learning Staff	☐	☐	☐	☐	☐
The service-learning project benefited the community	☐	☐	☐	☐	☐
The student team was reliable and could be counted on to perform their assigned duties	☐	☐	☐	☐	☐
I am satisfied with the outcomes of the service-learning project as carried out by the student team	☐	☐	☐	☐	☐
The service-learning project made an impact on the ability of our agency/organization to meet community needs	☐	☐	☐	☐	☐
Our agency/organization was provided with sufficient resources on how best to design and implement a project for the student team					

Consider the service-learning team as a whole, and rate their skill level in the following areas:

	Well Below Average	Below Average	Average	Above Average	Well Above Average
Ability to apply knowledge of mathematics, science and engineering	☐	☐	☐	☐	☐
Ability to design and conduct experiments, and analyze and interpret data	☐	☐	☐	☐	☐
Ability to design a system, process or component to meet desired needs	☐	☐	☐	☐	☐
Ability to function on a multi-disciplinary team	☐	☐	☐	☐	☐
Ability to identify, formulate and solve engineering problems	☐	☐	☐	☐	☐
Understanding of ethical and professional responsibilities	☐	☐	☐	☐	☐
Ability to communicate effectively	☐	☐	☐	☐	☐
Ability to impact global and societal engineering problems	☐	☐	☐	☐	☐
Recognition and ability to engage in life-long learning	☐	☐	☐	☐	☐
Knowledge of contemporary issues	☐	☐	☐	☐	☐
Ability to use techniques, skills and modern engineering tools	☐	☐	☐	☐	☐
Ability to work effectively with our agency/organization	☐	☐	☐	☐	☐
Ability to manage an engineering project	☐	☐	☐	☐	☐
Appreciation of real-world constraints on engineering solutions	☐	☐	☐	☐	☐
Ability to understand the relationship between theoretical models and applied field work	☐	☐	☐	☐	☐
Ability to meet deadlines	☐	☐	☐	☐	☐
Ability to demonstrate leadership	☐	☐	☐	☐	☐

Open-Ended Questions:

How did or will the outcomes of this project benefit your organization?

What were the strengths of the service-learning program, project, and/or team?

Describe any challenges you had with regard to the service-learning program, project, and/or team.

What recommendations would you give to other clients who are about to do this for the first time?

Is there anything you would have liked from UC Merced that you did not receive (resources, guidance, etc)?

Would you participate in the UC Merced Service Learning program as a client again? Indicate the reasons for your response.

Is there anything else you would like to comment on that was not asked?

THANK YOU FOR YOUR TIME

Appendix F: Research Study Student Survey

Directions:
This survey is intended to gather your perceptions about science and engineering, your thoughts about your current level of skills and abilities, and gather information about your general academic and professional careers.

Your individual answers are completely confidential. Please respond to all of the questions as honestly as possible. **Pay close attention to the scale being used for each question and answer accordingly.**

Thank you in advance for your time.

Demographic & Background Information:

Your Sex:
☐ Male
☐ Female

As of today how old are you?

Is English your native language?
☐ Yes
☐ No

What is your citizenship status?
☐ U.S. Citizen
☐ Permanent Resident
☐ Neither

Your Ethnicity:
☐ African-American/Black
☐ American Indian/Alaskan Native
☐ Chinese/ Chinese-American
☐ East Indian/Pakistani
☐ Filipino/Filipino-American
☐ Hmong/Hmong-American
☐ Japanese/Japanese-American
☐ Korean/Korean-American

☐ Mexican/Mexican-American/Chicano/Latino
☐ Pacific Islander
☐ Vietnamese/Vietnamese-American
☐ White/Caucasian (Non-Hispanic)
☐ Decline to State
☐ Other (Please Specify)_____

Do you have a disability, as defined by Rehabilitation Act, 1973, or the Americans with Disabilities Act, ADA, 1990?
☐ Yes
☐ No
☐ Decline to State

Are you married?
☐ Yes
☐ No

Do you have any children?
☐ No
☐ 1 or more on the way
☐ 1
☐ 2
☐ 3
☐ More than 3

How far is your permanent home from UC-Merced?

☐In the same town   ☐Within California

☐In the district   ☐Within the US

☐In the county   ☐Other

☐Same geographic region (i.e. Central California)

Have you ever participated in the UC Merced service-learning program?

☐Yes

☐No

If so, how long ago were you involved in the UC Merced service-learning program?

☐Last term   ☐5 terms ago

☐2 terms ago   ☐6 terms ago

☐3 terms ago   ☐Over 6 terms ago

☐4 terms ago

How many units/credits of service-learning credits do you have?

☐1

☐2

☐3

☐4

☐More than 4

Have you participated in a college/university service-learning program, other than UC-Merced?

☐Yes

☐No

Last High School Attended:

Did you graduate from high school?

☐Yes

☐No

☐GED

☐State Diploma

☐Other

Have you ever participated in a service-learning program in high school?

☐Yes

☐No

If so, what type of high school did you graduate from?

☐Public School   ☐Religious School

☐Private School   ☐Magnet School

☐Charter School

What was the average letter grade you received in high school?

During high school, how many years did you take the following subjects and what was your average grade(s) received:

	Zero	.5	1	1.5	2	2.5	3	3.5	4	More than 4	Average Grade
Biological Science	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Computer Science	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
English	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Foreign Language	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
History	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Math	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Physical Science	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Political Science	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
The Arts	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

What is your enrollment status?
☐ Full-time
☐ Part-time
☐ Non-degree seeking student

Year in school:
☐ Fr
☐ So
☐ Jr
☐ Sr
☐ 5th yr

In terms of college selection, UC-Merced was your:
☐ First choice   ☐ Third choice
☐ Second choice   ☐ Less than third choice

Are you a transfer student?
☐ Yes
☐ No

Your Major(s):

Overall UC-Merced GPA:

Major(s) GPA:

SAT Verbal Score:
SAT Math Score:
ACT Composite Score (If applicable):

What is your final degree objective?

☐None   ☐MD
☐Vocational certificate   ☐JD
☐Associate of Arts (or equivalent)   ☐PhD
☐Bachelors   ☐Other (Please Specify):
☐Masters

What is your career objective upon graduation?

☐Industry   ☐Government
☐Faculty   ☐Military
☐Academia (other than faculty member)   ☐K-12
☐Research   ☐Other (Please Specify):
☐Non-profit

What is your parent(s) or legal guardian(s) present income level?

☐Less than $15,000   ☐ $75,001-$90,000
☐$15,000-$30,000   ☐$90,001-$100,000
☐$30,001-$45,000   ☐Over $100,000
☐$45,001-$60,000   ☐Don't Know
☐$60,001-$75,000

Father's Highest Education Level:

☐Did not Graduate High School   ☐Master's Degree
☐High School Graduate   ☐Professional Degree
☐Some College   ☐Doctoral Degree
☐Associate Arts   ☐Not Applicable/Don't Know
☐Bachelors

Mother's Highest Education Level:

☐Did not Graduate High School   ☐Master's Degree
☐High School Graduate   ☐Professional Degree
☐Some College   ☐Doctoral Degree
☐Associate Arts   ☐Not Applicable/Don't Know
☐Bachelors

Currently, my parents are:
☐Married/living together
☐Divorced/separated/not living together
☐One or both deceased

Do you qualify for federal work-study?

☐Yes

☐No

☐Don't Know

Do you receive federal work-study?

☐Yes

☐No

☐Don't Know

Do you receive federal student loans?

☐Yes

☐No

☐Don't Know

Are you concerned with your ability to finance your college education?
☐No
☐Somewhat
☐Yes

Survey Questions:

Rate yourself on each of the following traits or skills as compared with the average undergraduate science or engineering student:

	Well Below Average	Below Average	Average	Above Average	Well Above Average
Overall academic ability	☐	☐	☐	☐	☐
Science and mathematics ability	☐	☐	☐	☐	☐
Ability to apply skills and concepts to solving problems	☐	☐	☐	☐	☐
Capacity to carry out own investigations and inquiries	☐	☐	☐	☐	☐
Time Management	☐	☐	☐	☐	☐
Familiarity with scientific techniques and instrumentation	☐	☐	☐	☐	☐
Public speaking ability	☐	☐	☐	☐	☐
Computer programming skills	☐	☐	☐	☐	☐
Confidence in expressing yourself in a small group setting	☐	☐	☐	☐	☐
Clear career goal(s)	☐	☐	☐	☐	☐
Ability to find resources on a scientific topic	☐	☐	☐	☐	☐
Ability to explain scientific concepts to others	☐	☐	☐	☐	☐
Leadership ability	☐	☐	☐	☐	☐
Confidence in speaking with instructors about the sciences	☐	☐	☐	☐	☐
Ability to apply what learned in college to real world problems	☐	☐	☐	☐	☐
Self-confidence	☐	☐	☐	☐	☐
Understanding the importance of others perceptions	☐	☐	☐	☐	☐
Writing ability	☐	☐	☐	☐	☐
Ability to make academic presentations	☐	☐	☐	☐	☐
Ability to work cooperatively with others	☐	☐	☐	☐	☐

Please indicate the importance of each of the following in your decision to pursue science and/or engineering as a career:

	Very Unimportant	Unimportant	No Effect	Important	Very Important
Making a contribution to society	☐	☐	☐	☐	☐
Making a theoretical contribution to science	☐	☐	☐	☐	☐
Securing a financially stable or profitable career	☐	☐	☐	☐	☐
Interest in experimental discovery	☐	☐	☐	☐	☐
Interest in solving problems	☐	☐	☐	☐	☐
Interest in understanding natural phenomena	☐	☐	☐	☐	☐
To be a community leader	☐	☐	☐	☐	☐
Interest in the subject matter	☐	☐	☐	☐	☐
Interest in technology	☐	☐	☐	☐	☐
Parent/legal guardian is in the field	☐	☐	☐	☐	☐
Sibling is in the field	☐	☐	☐	☐	☐
Other family member is in the field	☐	☐	☐	☐	☐
Friend is in the field	☐	☐	☐	☐	☐

Consider your thoughts about science and engineering, and indicate the extent to which you agree or disagree with each of the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The way science is taught encourages questioning	☐	☐	☐	☐	☐
Sometimes scientists cannot find the answers to their questions	☐	☐	☐	☐	☐
Engineers do not have enough time for family, friends, or fun	☐	☐	☐	☐	☐
It may be said that scientific ideas evolve in their development	☐	☐	☐	☐	☐
Becoming a scientist or engineer takes too many years of education	☐	☐	☐	☐	☐
When I think of an engineer, I think of a confident person	☐	☐	☐	☐	☐
Science promotes collaboration	☐	☐	☐	☐	☐
As an engineer you are given a great deal of opportunity to apply theory	☐	☐	☐	☐	☐
Learning science is mostly memorizing facts	☐	☐	☐	☐	☐
The work of scientists and engineers benefits society	☐	☐	☐	☐	☐
Learning science is mostly applying theories or concepts to new and/or practical situations	☐	☐	☐	☐	☐
Learning science is mostly synthesizing of information	☐	☐	☐	☐	☐
Hands-on learning is important to learning new concepts	☐	☐	☐	☐	☐

Think about your own learning style and the ways in which you manage your life decisions. Then, indicate the extent to which you agree or disagree with each of the following statements:

	Never	Rarely	Sometimes	Frequently	Always
I work hard to do well, even if I don't like a task	☐	☐	☐	☐	☐
I try to understand the tasks before I attempt to solve them	☐	☐	☐	☐	☐
I am willing to do extra work on tasks to improve my knowledge	☐	☐	☐	☐	☐
I try to figure out my goals and what I need to do to accomplish them	☐	☐	☐	☐	☐
I check my accuracy as I progress through a task	☐	☐	☐	☐	☐
I make my own decisions regarding what to do with my life	☐	☐	☐	☐	☐
I can have a positive impact on local social problems	☐	☐	☐	☐	☐
The extent of my achievement is often determined by chance	☐	☐	☐	☐	☐
I try to learn from my success and failures	☐	☐	☐	☐	☐
I plan and manage my time to maximize my effort	☐	☐	☐	☐	☐
I have little control over the things that happen to me	☐	☐	☐	☐	☐
I believe I can succeed at most things if I apply myself	☐	☐	☐	☐	☐

Think about your experiences working in a team and indicate the extent to which you agree or disagree with each statement below:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I help to solve problems by using information provided by the team	☐	☐	☐	☐	☐
I focus on completing the team task successfully	☐	☐	☐	☐	☐
I attempt to change incorrect information immediately	☐	☐	☐	☐	☐
I respect the thoughts and opinions of others in the team	☐	☐	☐	☐	☐
I lead when appropriate, mobilizing the group for high performance	☐	☐	☐	☐	☐

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Working on a team helps me to learn	☐	☐	☐	☐	☐
I enjoy working on teams	☐	☐	☐	☐	☐

Reflect on your past learning experiences and involvement with the community. Then, indicate the extent to which you agree or disagree with each of the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I think people should find time to contribute to their community	☐	☐	☐	☐	☐
Being involved in a program to improve my community is important	☐	☐	☐	☐	☐
I am concerned about local community issues	☐	☐	☐	☐	☐
It is important for me to find a career that directly benefits others	☐	☐	☐	☐	☐

Consider your academic and professional experiences and reflect on the skills you have obtained. Then, rate your skill level in the following areas:

	Well Below Average	Below Average	Average	Above Average	Well Above Average
Ability to apply knowledge of mathematics, science and engineering	☐	☐	☐	☐	☐
Ability to design and conduct experiments, and analyze and interpret data	☐	☐	☐	☐	☐
Ability to design a system, process or component to meet desired needs	☐	☐	☐	☐	☐
Ability to function on a multi-disciplinary team	☐	☐	☐	☐	☐
Ability to identify, formulate and solve engineering problems	☐	☐	☐	☐	☐
Understanding of ethical and professional responsibilities	☐	☐	☐	☐	☐
Ability to communicate effectively	☐	☐	☐	☐	☐
Ability to impact global and societal engineering problems	☐	☐	☐	☐	☐
Recognition and ability to engage in life-long learning	☐	☐	☐	☐	☐
Knowledge of contemporary issues	☐	☐	☐	☐	☐
Ability to use techniques, skills and modern engineering tools	☐	☐	☐	☐	☐
Ability to work effectively with a client	☐	☐	☐	☐	☐
Ability to manage an engineering project	☐	☐	☐	☐	☐
Appreciation of real-world constraints on engineering solutions	☐	☐	☐	☐	☐
Ability to understand the relationship between theoretical models and applied field work	☐	☐	☐	☐	☐

Reflect on your experience with individuals from other cultures and indicate the extent to which you agree or disagree with each of the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I have interacted with people from different cultures	☐	☐	☐	☐	☐
I have an appreciation for different cultures	☐	☐	☐	☐	☐
I have acquired relationships with people from different cultures	☐	☐	☐	☐	☐
I have experienced different social and economic environments	☐	☐	☐	☐	☐
My academic and professional experiences have influenced my attitude towards communities that are different than my own	☐	☐	☐	☐	☐