Vision Statement and Program Proposals
Undergraduate Education
Subcommittee 3, Strategic Academic Planning Committee
May 16, 2008

Subcommittee 3 is charged with providing a vision of what UC Merced's undergraduate programs and core disciplines should aspire to become in the next two decades. This report presents a high-level view of that vision, based on two faculty forums, an extensive faculty survey and follow-up deliberations by members of the subcommittee.

The report is divided into two sections:

1. Vision statement – describing the contextual background for this task, the strategic response UC Merced must embrace and the beneficial outcomes that will result over the next 20 years.

2. Recommendations – four specific objectives the university should implement during the planning timeframe to achieve the vision. Supporting strategies and tactics for each objective are also suggested.

1. Vision

As the first new University of California campus in 40 years, UC Merced has an invitation to re-imagine the path to educational excellence within the UC system. The university can and should draw liberally from the rich traditions that distinguish the UC name – but that alone will not be enough. To achieve individual distinction and fulfill its mission to serve California and the world, UC Merced must create the world's first 21st century educational experience, one that is uniquely tailored to the backgrounds, needs and aspirations of a student population unlike any other in UC history.

Meeting this challenge must begin with a clear understanding of the contemporary student world.

- Students today little resemble the students who attended universities when the idea of a single course of study (i.e., a curriculum) was established centuries ago. Many in education lament this change as a problem; UC Merced must see it as an opportunity in that its students bring talents, experiences and perspectives that the world needs to utilize.

- The state of knowledge today little resembles the state of knowledge when the practices of universities were formed, in part because universities themselves have been so successful at transforming the base of human knowledge and in part because university graduates are asked to undertake so much more than they once were.

- The pace of change now is so fast, that the half-life of technical knowledge is rapidly decreasing at the same time the amount of cultural knowledge available is rapidly increasing. UC Merced still needs to prepare all of its students by teaching them cutting-edge knowledge and connecting them to as much of the human heritage as possible in the time available, but the university must do more than transmit current knowledge. The university must also prepare students by helping them develop intellectual structures and attitudes that open them to new learning as they go out into the world.

- The tools of learning for today's students are dramatically more advanced, varied and pervasive than for any previous generation. UC Merced is the first university in the world to be established during the era of ubiquitous technology. Its students not only embrace technology but fully expect their educational experience to be enriched and enabled by technology solutions at every turn.

UC Merced is uniquely positioned to capitalize on these trends. While other institutions struggle to adapt legacy practices and structures to today's needs, UC Merced can design a 21st century model from the start. Freedom to innovate is UC Merced's most powerful strategic advantage and a fundamental element of its vision for undergraduate education.

The foundation of UC Merced's educational environment will be a learner-centered undergraduate education structured less around the idea of a course of study and more around the model of a web or a network. Students will be encouraged to link different modes of thought and different bodies of knowledge through multidisciplinary "communities of inquiry," which will bring students together to explore topics of vital interest to the region and the world. In the process, they will learn to interact with students from outside their major fields, integrating ideas and skill sets and developing a deeper appreciation for the varied abilities and perspectives of others. Such an approach will encourage risk-taking and exploration, build analytical and critical-thinking capabilities, broaden perspectives, promote the communications skills essential to teamwork and collaboration, and otherwise reinforce the university's guiding principles of general education.

The undergraduate environment will blend general education, electives, majors, and the co-curriculum into a coherent, multi-dimensional experience. Students will focus on building skills and knowledge through traditional classroom, laboratory, and studio instruction as well as in work as scholarly apprentices and in community-based service-learning activities. Leadership opportunities, cultural programs, internships, and other co-curricular activities will complement and reinforce the learning that takes place in the classroom and lab.

Student experiences in such an environment will prepare them for success in everyday life, where their ability to understand and address complex issues will be highly valued. Their intellectual fitness will give them the strength and courage to seek challenges and strive for greatness in their chosen fields. A deep-seated love of learning will allow them to remain vital and contribute at a high level throughout their adult lives. They will prove

adaptable and resilient, secure in their ability to evaluate new information and change course as necessary while continuously growing and moving ahead.

Faculty members and administrators will cultivate an environment across campus that reinforces this multidisciplinary, integrative approach to learning. The university's highly diverse student body, reflecting the broad mix of cultures and ethnicities within the state and society as whole, will provide the perfect backdrop. Recognizing that students arrive on campus with varying levels of preparedness, the university will provide the necessary support structure to ensure every student has a chance to succeed.

The academic organizational structure will support and optimize this innovative educational environment. Faculty will be recruited, evaluated and rewarded for their ability to work effectively in collaborative networks that make student success a top priority. They will actively seek to improve their pedagogical skills and develop or refine techniques that ensure students are learning to the best of their abilities.

Teaching and research interests will be creatively interwoven to ensure students get the full benefit of enrollment at a cutting-edge research university. This exposure to research will trigger a heightened awareness and respect for the process of discovery and the intellectual rigor of knowledge creation. For some, this will lead to further educational pursuits through graduate or professional schools, for which they will be well prepared by their UC Merced undergraduate experience.

Students from all over the state will be drawn to UC Merced because its promise is their dream – a transforming experience resulting in confident, well-rounded, intellectually curious and enabled citizens not only capable of dealing with the future but determined to help shape it. As UC Merced graduates enter society and take increasingly important roles within the community, the university's approach to undergraduate education will be strongly affirmed. Other institutions will seek to emulate it. Faculty from leading universities around the world will want to become part of the UC Merced experience. Demand from top-level high-school students will increase, and UC Merced will be widely perceived as a rising star within the UC system.

2. Recommendations

To achieve this vision, the subcommittee strongly recommends establishing the following broad objectives as fundamentals of undergraduate education at UC Merced:

1. Integrating all aspects of the undergraduate experience around the model of a network or a web.

2. Making diversity a strength through "inclusive excellence."

3. Promoting best practices in teaching.

4. Defining effective criteria for developing future major and minor programs.

The balance of this report elaborates on these objectives and presents a range of proposals under each that, if implemented, will help achieve them during the planning timeframe.

Objective 1: Integrating all aspects of the undergraduate experience around the model of a network or a web.

Preparing students for success in the 21st century requires an educational experience that reflects the multi-dimensional character of today's world and helps students see how disparate elements come together to solve real problems. The traditional model of a narrowly defined course of study is not adequate for this purpose. The subcommittee recommends a learner-centered approach structured much like a network or web, spanning a wide range of learning "nodes." Students will be encouraged to forge connections across the multiple sites and sources of learning in a multidisciplinary context specifically designed to promote understanding and assimilation of diverse perspectives.

Strategies

A. Establish undergraduate "communities of inquiry" built on themes that have strong multidisciplinary and global characteristics. Implementation of this strategy could be achieved through the following tactics:

1. Make the CORE program or a modified equivalent a cornerstone of general education. By offering multiple themes, problems of scale could be overcome.

2. Better integrate the principles of general education into academic major programs, not as a replacement for CORE but in addition to CORE courses.

3. Create learning portfolios built around learning objectives in both general education and majors.

4. Promote student-to-student and faculty-to-student mentoring.

5. Offer integrative seminars or tutorials.

6. Encourage participation in the UC/DC, UC Sacramento and Education Abroad programs.

7. Strengthen international-student programs.

B. Facilitate the development and delivery of interdisciplinary programs among academic units and across schools.

1. Ensure the university's academic organizational structure is designed with this need as a primary consideration.

2. Provide faculty incentives to create and deliver cross-unit courses and programs (e.g., credit for team teaching, administrative support, teaching support).

3. Provide student support for interdisciplinary programs (e.g., student advising and mentoring, research experiences, career counseling).

C. Strengthen and promote the university's commitment to undergraduate research.

1. Offer a research experience to every undergraduate.

2. Provide support through the Research Experience for Undergraduates (REU) program, named grants, undergraduate research fund, other sources.

D. Use technology to promote academic excellence and extend reach.

1. Identify or hire education specialists in IT who can work with faculty and instructors to incorporate technological innovations into the student learning experience.

2. Provide support for technology to enhance experiential learning (e.g., virtual learning exercises, on-line tutorials, use of laboratory and field technologies) and to extend learning beyond the physical campus (e.g., on-line courses, UC cross-campus shared courses).

3. Support development of e-portfolios.

4. Promote innovations in delivery of course material (e.g., use of video, podcasts, WIKIs, virtual reality).

5. Offer programs in digital communications to facilitate student publication of research and artistic work.

E. Strengthen and promote experiential learning opportunities.

1. Adopt School of Engineering's successful model for service-learning programs for entire undergraduate population.

2. Stress hands-on, technology-enabled aspects.

3. Appoint a director of experiential learning.

F. Integrate in- and out-of-classroom learning.

1. Expand leadership programs.

2. Promote co-curricular initiatives (e.g., journalism/Prodigy; tutor training/peer training/Merced Reads program).

3. Establish academically themed residence halls.

4. Promote Cultural Center and programs.

5. Expand internship opportunities for students in all majors.

6. Expand speaker series, film series and dance/music and theatrical performances
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Objective 2: Making diversity a strength through "inclusive excellence."

UC Merced's highly diverse student body is a distinctive attribute even within a system that draws from an unusually diverse state population. Elements of that diversity extend beyond ethnicity to include many other dimensions, such as gender, orientation, national origin, academic gifts and preparation, economic background and family educational history.

As a powerful reflection of the world at large, this multi-cultural environment will enrich the lives of UC Merced students, broaden their perspectives and prepare them for success in everyday life. But the richness of the mix requires a broad institutional commitment to help all students achieve essential learning outcomes. A focus on "inclusive excellence" could make the UC Merced undergraduate environment a model for supporting academic progress and high achievement regardless of personal background.

Strategies

A. Ensure access.

1. Promote summer academies for high-achieving high-school sophomores and juniors.

2. Offer academic "bridge" programs for high-school freshmen and sophomores who are not on track for IGETC.

3. Openly engage with P-16 partners to ensure students encounter seamless academic transitions from high school to university-level work.

B. Increase retention through student success and persistence.

1. Diversify UC Merced faculty to reduce implicit prejudices and ensure students see themselves in their instructors.

2. Establish position of Vice Chancellor for Equity.

3. Establish a faculty structure for research in higher-education access and retention.

4. Reward faculty who participate in community-engaged scholarship focused on issues of equity and access.

5. Establish honors programs.

6. Provide student-to-student and faculty-to-student mentoring.

C. Increase outreach efforts.

1. Provide shadowing experiences for secondary-school students.

2. Offer internships for undergraduates in local secondary schools (part of major rather than for elective credit).

3. Expand participation in existing programs (e.g., Merced Reads program at Tenaya Middle School, Summer Humanities program with three local high schools).

***Objective 3: Promoting best practices in teaching*.**

A major component of a 21st century educational environment must be a commitment to the use of appropriate pedagogies by all faculty. Though faculty members may be widely recognized as authorities in their fields, many have had limited training in effective teaching techniques, and very few have worked in a setting with the breadth of student backgrounds seen at UC Merced. Defining and promoting best practices in teaching will be key to a successful focus on student learning outcomes.

Strategies

A. Establish a reward structure that promotes best practices in teaching – pedagogy of engagement.

B. Make assessment a priority.

1. Of individual faculty:
   a. Assessment must fit the reward structure.
   b. Reviews must be based on a teaching portfolio that includes student ratings, syllabi, assignments, examples of student work from student learning portfolios, faculty self-reflections on teaching, curricular adjustments based on evidence from student learning outcomes, and more.
   c. Peer reviews of teaching portfolios must be included, and must be formative and supportive well before critical evaluation points.

2. Of programs – assessed by alignment of goals and outcomes:
   a. Within a course.
   b. Among all courses in a major program.

c. Across programs within a school.
d. Among all schools at UC Merced.

3. Establish a formal research group for higher-ed assessment, supported by CRTE.

C. Support faculty in their efforts to acquire and use best practices.

1. Provide orientations for new faculty, lecturers and TAs.

2. Establish faculty mentoring programs:
a. Have faculty mentor faculty (both internal faculty and outside "objective" faculty).
b. Support faculty in their roles as mentors to students.

3. Have CRTE offer workshops and consultations for faculty members.

4. Obtain mini-grants, fellowships, etc. for faculty support.

5. Participate in research on teaching and learning (e.g., through assessment of student learning and development of outcomes-based criteria).

Objective 4: Defining effective criteria for developing future major and minor programs.

UC Merced's ability to attract large numbers of undergraduate students will be greatly influenced by the range and quality of major and minor programs it offers. Resource constraints limit the pace and volume of new program development. This makes it critical to define key criteria by which major and minor programs will be developed and offered to undergraduates.

Strategies

A. Respond to student demand for courses of study appropriate for a University of California. Following the guidelines of the California Master Plan for Higher Education to determine appropriateness, use national (Department of Education) and regional (UC) statistics on most popular courses when assessing demand.

B. Respond to societal needs and opportunities.

C. Ensure that general education can function successfully with adequate faculty involvement.

D. Ensure that foundational courses are in place and adequately resourced to support popular majors (e.g., physics and mathematics to support engineering, business, biology).

E. Use interdisciplinary questions of “communities of inquiry” to choose other majors important to these themes (e.g., develop a public-policy emphasis in political science or a biomedical ethics program in philosophy).

F. Offer an “Independent Study” major that allows students to combine elements from existing major programs.