CORE 1: The World at Home; Section #; CRN ####
Discussion: DD 0:00–0:00; Classroom Building 2##
Lecture: T *or* R 11:00–11:50; Classroom Building 102

Section Instructor: *Your Name* **Email: yname@ucmerced.edu**
Office: Classroom Building # **Office hours: DD 0:00–0:00**

CoreOne General Information and Schedule

Course Description:
Core 1 is a lecture and discussion course that is designed to introduce you to UC Merced's faculty, our research, and the academic fields in which we work. The course capitalizes on an interdisciplinary approach to explore how different experts, from what have been called "the two cultures" (humanist and scientist), view the world and analyze information. 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. ¶ 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 are 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, assembled and disseminated? 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 (instructors will):
- Introduce students to the spectrum of scholarly inquiry
- Cultivate intellectual curiosity and exchange of complex ideas
- Survey real-world issues from a variety of interconnected interdisciplinary perspectives
- Draw parallels between the sciences and the humanities
- Promote information literacy for managing and representing evidence
- Demonstrate interdisciplinary analytical thinking, problem-solving, and decision-making
- Examine epistemological bases of knowledge in academic disciplines
- Review effective strategies for learning, reading, writing, and computation

Learning Outcomes (students will be able to):
- Manage and assess information by refining study skills and cultivating scholarly habits
- Collaborate in sharing expertise, making connections, and assembling knowledge
- Demonstrate scholarly processes characteristic of creative/critical problem-solving
- Critique diverse perspectives from scientific, historical, artistic, and personal standpoints
- Apply appropriate qualitative and quantitative methods in analyzing information
- Craft written arguments that draw connections between the arts and sciences
- Appreciate ethical considerations and decision-making in local and global contexts
- Elaborate an enhanced sense of educational purpose in a broader intellectual context

Our Procedures and Guidelines:
As the focus of the course, lectures will be the basis of our discussions; your attendance at lecture each week (on the specified Tuesday or Thursday) is required. **Please take detailed lecture notes, bring notes to all discussion sections, 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. **To ensure that you are attending lecture and processing information satisfactorily, discussion sections will frequently include quizzes and related writing prompts.**

Because discussion sections subscribe to a workshop format, you cannot fulfill the requirements of the course unless you attend regularly. Also, our time together is limited (only two 75-minute sessions each week). For these reasons, **absences in section will negatively affect your final grade. For each absence beyond the allowed <u>four</u> you will be penalized 5 points. Excessive absences (8 or more, for any reason) will result in failure of the course.** You are responsible for material covered in class, whether you are present or not. In-class work cannot be made up.

<u>Readings</u>: Weekly reading assignments are available online or on the Core 1 UCMCROPS course page, **F10-CORE 001 LEC** (via https://ucmcrops.ucmerced.edu/portal, which can also be accessed via your *MyUCMerced* student account, https://my.ucmerced.edu), as well as in **Rebecca Skloot's *The Immortal Life of Henrietta Lacks***, which is UC Merced's Common Read this year (all incoming freshmen receive a copy; copies can also be purchased at the UCM Bookstore, at Barnes & Noble on Olive Avenue, or via www.bookfinder.com or www.amazon.com). **Assigned reading is to be <u>completed</u> for the week it scheduled.**

<u>Core Fridays</u>: You are required to sign up for, attend, and report on <u>five</u> CoreFriday events of your choice. These events occur Fridays, 3:00–4:50, in COB 102. Attendance will be taken at each event when you present an attendance card (your "CoreFriday Passport") to be stamped at the event's beginning and end.

<u>Assignments</u>: In general, every two modules will include one essay and one quantitative assignment. We will build towards a **cumulative writing assignment** that addresses recurring themes in Core 1, particularly those questions listed in the course description. This "capstone" essay will draw on lectures, readings, and core texts to explore these themes, and should amount to 6-8 pages. A goal of the smaller writing assignments and discussions will be to prepare you for this longer project. **Note: All work must be <u>original</u> (i.e., completed by you solely for Fall 2010 Core 1) and submitted in hard copy, on the assigned due date, in person, as well as virtually via www.turnitin.com (see below for further explanation). Late work will not be accepted, except in documented cases of emergency. Written work not submitted to www.turnitin.com will not be considered.**

<u>Evaluation</u>: Grading basis for Core 1 will be based on a total of 300 points:

- ≤ 75 points for three 25-point essays (1-Argument; 2-Application; 3-Synthesis)
- ≤ 75 points for three 25-point quantitative exercises (1-Theory; 2-Practice; 3-Proposal)
- ≤ 25 points for five 5-point reflections (journal entries) of 500 words each
- ≤ 25 points for five 5-point quizzes on lectures and readings
- ≤ 50 points for class participation, in-class work, and Core Friday Event attendance
- ≤ 50 points for the Cumulative essay (due finals week)

Grade brackets: A = 278-300; A– = 269-277; B+ = 260-268; B = 248-259; B– = 239-247; C+ =

230-238; C = 218-229; C– = 209-217; D+ = 200-208; D = 188-199; D– = 179-187; F = <179

Academic Integrity: Your instructor expects that all your work is your own, completed solely for Core 1 this semester, and that you know how to avoid plagiarism. Plagiarism is an issue that is as complicated as linguistic expression is nuanced. For our purposes, **plagiarism entails representing another's work as your own; it is a very serious offense that can result in failure of the course and even expulsion from the university.** Plagiarism includes:

- submitting work that is done in part by someone else
- copying text from another source without properly quoting and citing it
- paraphrasing or summarizing any source without referencing it

In sum, **if you submit your own work with all outside sources and ideas properly documented you will have maintained academic honesty.**

Your instructors take your ideas and writing very seriously, which is why we support academic integrity through online resources. **Core 1 students are required to submit all written assignments to www.turnitin.com.** This program will help you protect your ideas and instructors maintain a fair and open learning environment.

If you have any questions about academic honesty, please feel encouraged to ask your instructor, or to consult www.library.ucla.edu/bruinsuccess, an interactive guide to avoiding plagiarism concerns. See also UC Merced's Academic Honesty Policy (http://studentlife.ucmerced.edu/what-we-do/student-judicial-affairs/academicy-honesty-policy).

Disabilities Statement

Students with disabilities who need staff or time-intensive accommodations (e.g., reader services, interpreter services, text conversion, etc.) should contact the Disability Services Office and notify your instructor as soon as possible to make necessary arrangements for these services. It is the student's responsibility to assure that such notification occurs in a timely fashion. Failure to do so may delay or in some cases preclude UCM's—or your instructor's—ability to provide certain accommodations. For further information or to make disability services arrangements, contact the Disability Services Office, 113 Kolligian Library (Gold Wing), First Floor. Email: disabilityservices@ucmerced.edu. Phone: 228-6996.

Core 1 Course Planning Committee (CCPC)

- **Wil van Breugel (Co-Chair),** Natural Sciences; wvanbreugel@ucmerced.edu; 209-658-6392
- **Tom Hothem (Co-Chair),** Writing Program; thothem@ucmerced.edu; 209-217-7247
- **Martha Conklin,** Engineering; mconklin@ucmerced.edu; 209-228-4349
- **Robert Ochsner,** Writing Program; rochsner@ucmerced.edu; 209-217-7186

Final Note: Your instructors realize that Core 1 can be an exciting albeit overwhelming omnibus course that rewards creativity while demanding discipline and organization. Please keep in touch with us via email, office hours, and class discussions. As fellow scholars, we welcome your input and questions, and in many ways are fellow voyagers with you on the journey.

The Eight Guiding Principles of General Education at UC Merced

- Communication
- Scientific Literacy
- Ethics and Responsibility
- Aesthetic Understanding and Creativity
- Self and Society
- Decision Making
- Leadership and Teamwork
- Development of Personal Potential

Evaluation of Core 1 Assignments

Those of us who teach Core 1 are often asked about how we grade assignments. Having established specific criteria—and matching point systems—to govern our evaluations of these assignments, we present our rationale to you here in hopes of demystifying what some might consider a "mysterious" process.

With respect to **quantitative assignments**, a correct answer must be supplied in order for the assignment to receive full credit. However, we believe that process is a fundamental component of both quantitative and qualitative reasoning, and that explanation is essence of both. Therefore, any quantitative exercise that clearly (and creatively) describes its process and the significance thereof, uses the tools provided by the assignment, and shows evidence of sincere engagement can still receive a high grade, even if an incorrect answer is provided at the end.

Qualitative assignments (essays) are slightly different in nature. Essays rarely have a "correct answer," after all. Nevertheless, we will only give top marks to essays that:

- present information accurately and make logically sound arguments;
- develop ideas fully and in an organized fashion;
- display complexity of thought and appreciation of various perspectives;
- approach issues and problems from creative angles;
- are noteworthy for their overarching focus and coherence; and
- engage course readings and/or lectures in sufficient depth.

Essays do not have to receive perfect scores in all of these areas to receive full points, but coming up short in one criterion or another will likely affect your grade.

We hope that this clarifies what we look for when evaluating these assignments. If you have any questions while working on either a qualitative or a quantitative assignment, contact your instructor promptly so as to stay on the right track.

CORE 1 COURSE SCHEDULE

(Readings are to be completed in preparation for the week they are listed.)

(Unless otherwise noted, all readings—including those with dedicated urls listed below—can be accessed or downloaded from the "Resources" section of the F10-CORE 001 LEC UCMCROPS page, via https://ucmcrops.ucmerced.edu/portal)

Week 1 (23 – 27 August)

Lecture: Christopher Viney, Wil van Breugel, Martha Conklin, and Tom Hothem, "Introduction to Core 1: Points of Engagement"

Reading:
- Sagan, "Can We Know the Universe?" <http://www.stephenjaygould.org/ctrl/sagan_science.html>
- Descartes, Part One from *A Discourse on Method* <http://www.gutenberg.org/files/59/59-h/59-h.htm>

Discussion: Introductions, Course Overview, and On the Nature of Knowledge

Core Friday: 8/27 Tom Hothem, "What Do We Know?" (interactive lecture about knowledge and Core 1, with tips for how to manage information in the course)

MODULE 1: "Origins of the Universe"

Week 2 (30 August – 3 September)

Lecture: Wil van Breugel (Astronomy), "Masks of the Universe: Cosmologies Since the Beginning of Time"

Reading:
- Hawking, "Our Picture of the Universe"
- From Maidu creation myths: "The Creation" (pp. 18-30)
- Harrison, "Creation of the Universe" (pp. 515-28)

Discussion: On Models of the Universe

Core Friday: 9/3 Henrik Jul Hansen, "The Music of the Spheres" (interactive lecture, with musical performance, about intersections between music and science)

Week 3 (7 – 10 September)

Lecture: Christopher Viney (Engineering), "Shifting the Origin: The Legacy of Copernicus, Galileo and Newton"

Reading:
- Freedman, "When is a Planet Not a Planet?" Two web pages, starting on: <http://theatlantic.com/doc/199802/pluto>
- Perlman, "Pluto Demoted—From 9th Planet to Just a Dwarf" <http://www.sfgate.com/cgi-bin/article.cgi?f:/c/a/2006/08/25/MNGCJKP5T01.DTL&hw:pluto&sn:005&sc:675>
- Rincon, "Pluto Vote 'Hijacked' in Revolt" <http://news.bbc.co.uk/2/hi/science/nature/5283956.stm>
- Frank, "The Roots of Conflict: Science and Religion before Divorce"

Discussion: **Quiz 1;** + discussion of what constitutes a "planet," what such a classification implies about knowledge, and how to calculate Pluto's mass

Due: **Reflection 1**

Core Friday: 9/10 *Life of Galileo* (biographical play by Berthold Brecht)

MODULE 2: "Origins of Life"

Week 4 (13 – 17 September)

Lecture: Tom Hothem & Anne Zanzucchi (Writing), "The Literature of Natural History and the Idea of Evolution"

Reading:
- Foucault, from *The Order of Things*
- Thomas, "Classification"
- Darwin, selections from Chapters III, IV, and XIV of *Origin of Species*
- Linnaeus, from Introduction to *Systema Naturae*

Discussion: Toward Essay 1

Due: **Quantitative Assignment 1 ("Theory")**

Core Friday: 9/17 Wil van Breugel, "What Is Life, and Where Is It?" (lecture about life in the universe)

Week 5 (20 – 24 September)

Lecture: Laura Martin (Center for Research on Teaching Excellence) & Mike Dawson (Biology), "Evolutionary Biology: All Things Great from Small?"

Reading:
- Ridley, from *Evolution* Chapter 4 (pp. 72-81, 87-89)
- Sampson, "Evoliteracy"
- Gould, "What Does the Dreaded 'E' Word Mean Anyway?"

Discussion: **Quiz 2;** Essay 1 ("Argument") workshopped

Due: **Reflection 2**

Core Friday: 9/24 *Inherit the Wind* (film about the 1925 "Scopes Monkey Trial" and the politics of evolutionary thought in 20th C. America)

MODULE 3: "Origins of Societies and Culture"

Week 6 (27 September – 1 October)

Lecture: Paul Almeida (Sociology), "The Sociology of Social Movements"

Reading:
- Browne, "Introducing Sociology"
- King, "Letter from a Birmingham Jail"
- Hebdige, from *Subculture: The Meaning of Style:* "Holiday in the Sun" and "Boredom in Babylon"

Discussion: Essay 1 ("Argument") workshopped; toward Quantitative 2

Due: **Essay 1 ("Argument")**

Core Friday: 10/1 *Twelve Angry Men* (courthouse drama [i.e., play] about a jury that reconsiders its unanimous decision in a murder trial complicated by race relations and father-son relationships)

Week 7 (4 – 8 October)

Lecture: Jared Stanley (Writing), "A Portrait of the Artist as Researcher"

Reading:
- Shahn, "Artists in Colleges"
- Bronson & Merryman, "The Creativity Crisis"

• DiCarlo, "Smell Is Other People"

• Mono.Kultur, "Sissel Tolaas"

Discussion: On Quantitative 2 ("Practice")

Core Friday: 10/8 *Waking Life* (animated film about the extents of the imagination with respect to dreaming)

MODULE 4: "Language and Communication"

Week 8 (11 – 15 October)

Lecture: Michael Spivey (Cognitive Science), "The Sciences of Mind: Cognition and Language"

Reading: • Baker, "Changes of Mind"

• Spivey, from *The Continuity of Mind*

• Lakoff & Johnson, from *Metaphors We Live By* (1-"Concepts We Live By," 2-"The Systematicity of Metaphorical Concepts," 3-"Metaphorical Systematicity: Highlighting and Hiding," 4-"Orientational Metaphors," 5-"Metaphor and Cultural Coherence," 6-"Ontological Metaphors")

Discussion: **Quiz 3**; + Essay 2 ("Application") workshopped

Due: **Quantitative 2 ("Practice")**

Core Friday: 10/15 Tom Hothem, et al, "But Is It Art?" (interactive lecture / panel discussion)

Week 9 (18 – 22 October)

Lecture: Arnold Kim (Mathematics), "The Language of Mathematics"

Reading: • Devlin, "Tapping into Our Math Instinct"

• Huff, "How To Talk Back to a Statistic"

Discussion: Essay 2 ("Application") workshopped

Due: **Reflection 3**

Core Friday: 10/22 *Copenhagen* (play about nuclear physicists Niels Bohr and Werner Heisenberg and atomic bomb)

MODULE 5: "Individuals and Societies"

Week 10 (25 – 29 October)

Lecture: Keith Alley (Biology), "Research Ethics"

Reading:
- Milgram, "Some Conditions of Obedience and Disobedience to Authority"
- Skloot, *The Immortal Life of Henrietta Lacks*, particularly: "A Few Words About This Book" (pp. ix-x); "Prologue: The Woman in the Photograph" (pp. 1-7); "The Exam" (pp. 13-17); and "Diagnosis and Treatment" (pp. 27-33).

Discussion: On research and ethics

Due: **Essay 2 ("Application")**

Core Friday: 10/29 Panel Discussion on *The Immortal Life of Henrietta Lacks*

Week 11 (1 – 5 November)

Lecture: Anna Song (Psychology), "Health Psychology and Public Health"

Reading:
- Skloot, *The Immortal Life of Henrietta Lacks*, particularly "The Death and Life of Cell Culture" (pp. 56-62); "The HeLa Factory" (pp. 93-104); "Helen Lane" (pp. 105-109); "Illegal, Immoral, and Deplorable" (pp. 127-36); "It's Alive" (pp. 179-90); "The Secret of Immortality" (pp. 212-17); "'All That's My Mother'" (pp. 259-67); and "Afterword" (315-28).

Discussion: On Quantitative 3 ("Proposal")

Core Friday: 11/5 Performance by Merced Symphony Orchestra

MODULE 6: "Conflict"

Week 12 (8 – 12 November)

CATCH-UP WEEK: NO LECTURE OR CORE FRIDAY THIS WEEK

Regular discussion section class meetings. No classes on Thursday, 11/11 (Veterans Day). Core Friday will occur on Tuesday.

"Core Tuesday" (11/9): Tom Hothem, et al: "Approaches to Writing the Core 1 Cumulative Essay"

Due: **Quantitative 3**

Week 13 (15 – 19 November)

Lecture: Martha Conklin (Engineering), "California Water Wars"

Reading:
- Mount, from *California Rivers and Streams*: "Chapter 8: Climate and the Rivers of California" and "Chapter 10: Rivers of California: The Past 200 Years"
- Holland, "Yosemite's Hetch Hetchy Could Go on Ballot"

Discussion: Essay 3 ("Synthesis") workshopped

Due: **Reflection 4**

Core Friday: 11/19 John Elliott, "Sustainability" (interactive lecture)

MODULE 7: "The Future"

Week 14 (22 – 24 November)

Lecture, 11/23 (Tuesday class attending): Christopher Viney (Engineering), "Technology: Boon without Bane?"

Reading:
- Diamond, "The World As a Polder"
- Weisman, "Polymers Are Forever"

Discussion: **Quiz 5**

Due: **Essay 3 ("Synthesis")**

NO CORE FRIDAY ON 11/26

Week 15 (29 November – 3 December)

Lecture: Dan Hirleman (Dean, Engineering), "Geoengineering, Climate Change, and Ethics"

Reading:
- Levitt & Dubner, from "What Do Al Gore and Mount Pinatubo Have in Common?"
- Despommier, "The Rise of Vertical Farms"

Discussion: Cumulative Essay workshopped

Core Friday: 12/3 *Blade Runner* (futuristic science fiction film about the rights of lifelike robots and the meaning of human existence)

Week 16 (6 – 8 December)

Lecture, 12/7 (Thursday class attending): Christopher Viney (Engineering), "Technology: Boon without Bane?"

Reading:

- Diamond, "The World As a Polder"
- Weisman, "Polymers Are Forever"

Discussion: **Quiz 5**

NO CORE FRIDAY ON 12/10

Week 17 (13 – 17 December): **Cumulative Essay & Reflection 5 due**

APPENDIX

Course Overview: CORE 1 Module Synopses, with Associated Objectives and Outcomes

CORE 1: The World at Home covers a lot of ground—billions of years, in fact. As you read the module summaries, note that the course is structured with a very broad chronology, moving from the very beginnings of the universe to the problems of our current civilization, now and in the near future. Beyond this basic structure, the challenge of this course is for each of us to find ways our history can be linked together, to examine how the past influences the future, and to study how thought and innovation have developed over the millennia.

Background: "Points of Engagement"

During the first week of the course, we sample some of the broad themes of the course, such as the productive interplay that occurs between disciplines and the challenges of the modern university. Some of the questions we'll start out with include: What counts as knowledge? How is knowledge produced and assembled? In what ways do academic disciplines intersect/diverge?

Objectives (instructors will):
• Provide overview of subjects, modules, lectures, discussion sections, and assignments
• Survey strategies of acquiring and managing information
• Review critical reading skills (pre-writing, annotation, finding patterns, journaling, etc.)
• Cultivate statistical savvy and quantitative awareness

Outcomes (students will be able to):
• Summarize major themes and protocols of the course
• Use course materials reflexively
• Annotate and critique short reading
• Take effective lecture notes

Module 1: "Origins of the Universe"

In developing myriad "origin myths," humankind has had to balance accounts of the natural world in terms of faith (spiritual knowledge) and reason (testable hypotheses). The conflict between these two approaches may be seen, for example, in the life of Galileo, and in debates that continue today, in rival explanations of our place in the Universe. The scope of this first module literally covers billions of years—from "scientific cosmology" and its Big Bang theory (of the formation of galaxies, stars and planets) to "functional cosmology" (which attempts to explain our personal connection to the universe)—to explore that most fundamental of questions: *How did we get here?*

Objectives (instructors will):
• Survey scientific and mythological models of the universe
• Introduce problems of classification inherent in constructions of knowledge
• Review formative moments in intellectual history
• Explore socio-historical issues that accompany the scientific imagination

Outcomes (students will be able to):
• Explain ways in which different cultures imagine the universe
• Identify cultural values embedded in the history of astronomy
• Reflect on significance of intellectual history for contemporary notions of knowledge
• Assess the idea of scientific classification (for instance, by arguing for and/or against Pluto's planetary status)

Module 2: "Origins of Life"

This module extends the theme of faith vs. reason to today's ongoing debate over life's origins, specifically the debate between evolution and creation. To better understand what is at stake in this debate, we consider competing theories proposed by scientists and ethicists, and their answers to the key questions: "What constitutes life?" and "What life is sacred?" Just as the life of Galileo focuses the discussion in Module 1, the life and work of Charles Darwin is the reference point for this module. We examine such things as the origins and value of the scientific method and biological classification, the geologic history of Earth, the evolution of the theory of evolution, the genetics of natural selection, and the philosophy of religion and intelligent design.

Objectives (instructors will):
• Explore earth's origins in the context of the universe's history
• Present and critique scientific systems of classification
• Introduce biological concepts of natural selection and speciation
• Survey history of and challenges to evolutionary thinking

Outcomes (students will be able to):
• Synthesize arguments about origins of universe with those about origins of life
• Evaluate limits of scientific classification
• Explain and apply concepts of natural selection and speciation
• Analyze texts such as *Origin of Species* to assess evolutionism in historical context

---

Module 3: "Origins of Societies and Cultures"

Societies tend to coalesce for pragmatic reasons—food production, shelter, companionship, and defense—evolving distinct cultures in the process. Whereas all societies eventually face the same basic challenges—resource depletion, crime, epidemics, and environmental despoliation, among them—the creative contributions of their diverse cultures, in the sciences and arts, often remain unique. This module (perhaps the most protean of them all) examines a wide range of topics, each a way of understanding how and why people form into groups, cities, and cultures, and the potential positive and negative consequences of such activities. Some of the challenging questions we consider are: "What is 'culture'?" "What is art and why do we have it?" "What obligations do we have to the environment, to each other, to our successors?"

Objectives (instructors will):
• Examine history and theories of social formations and movements
• Survey aspects of intercultural communication
• Illustrate dynamics of classification and stereotyping in psychology and media
• Explore art as a means of understanding culture

Outcomes (students will be able to):
• Critique previous course themes and foci in terms of social movements and societal change
• Articulate extents to which common classification schemes lend themselves to stereotyping
• Analyze cultural artifacts by attending to characteristics of painting, music, literature, etc.
• Assess parallels between artistic creation and scientific or scholarly investigation

---

Module 4: "Language and Communication"

Societies, like individuals, depend upon communication—to express needs and wants, to warn of danger, and to persuade. This module looks at the ways we have learned to communicate—through words, symbols, music, and even unconscious gestures—including how we acquire and develop language skills, and progress into the use of metaphor and purely symbolic languages (such as mathematics). Through the study of the languages of mathematics and music, we might cultivate a broader understanding of what we mean by "language."

Objectives (instructors will):
• Explore socio-historical aspects of communication
• Elaborate theories of language acquisition and communicative practice
• Survey communicational logic of—and affinities among—forms of expression (language, music, film, mathematics, etc.)
• Examine the nature of knowledge with respect to cross-disciplinary communication

Outcomes (students will be able to):
• Summarize and apply theories of language acquisition and use
• Analyze cultural values embedded in language and alternative forms of expression (literature, music, film, mathematics, etc.)
• Elaborate commonalities among forms of expression
• Explain bases of mathematical logic

Module 5: "Individuals and Societies"

Unlike societies, individuals have unique needs and desires, many of which cannot (or should not) be met by the society at large. Unique to each individual are the ethical choices that each of us makes in fulfilling these needs. Alternately, society often makes demands on individuals—often with or without their consent—that challenge codes of ethics we may consider implicit and universal (such as restricting the pursuit of happiness, or freedom from pain). In the absence of a truly homogenous society, we learn to manage the tension between the one and the many. This module explores such tension by surveying political science, social experimentation, economic issues, public health concerns, and theories of ethical decision-making.

Objectives (instructors will):
• Introduce ethics as source of scholarly focus
• Examine ethical tensions between individuals and societies
• Survey ethical considerations in politics, public health and history
• Present ethical issues in methods of scientific research

Outcomes (students will be able to):
• Apply schools of ethical thought to contemporary concerns
• Elaborate ethics implicit in common public health and historical issues
• Assess ethical considerations in scientific research designs
• Analyze statistical data from ethical standpoints

Module 6: "Conflict"

Conflict is common not only between but within societies. It comes in many forms, not just violence and war, but in everyday conflicts of interest, ideology, and belief. As such, conflict may be necessary for civilization to evolve and progress. This module considers the full spectrum of conflict—from global war to political process and debates over protection of the environment—to explore how and why conflicts occur, how they might be avoided or managed, and how, traditionally, they have been resolved.

Objectives (instructors will):
• Present historical and ethical contexts for contemporary conflicts
• Explore local and global implications of political issues
• Suggest means of managing or ameliorating current conflicts
• Examine science behind historical developments

Outcomes (students will be able to):
• Apply ethical frameworks to modern conflicts
• Summarize and critique a current political conflict
• Elaborate historical, ethical and scientific contexts for contemporary conflicts
• Assess primary and secondary sources for characterizations of contemporary conflicts

---

Module 7: "The Future"

The final module revisits 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 are examined, from the possibility of a global pandemic to the implications of genetic engineering and nanotechnology. The course concludes with reflection on what we've learned over the semester and addresses our ongoing hopes and fears for the future, speculating on what we can do with this knowledge.

Objectives (instructors will):
• Survey costs and benefits of scientific and/or technological innovation
• Examine ethical considerations in contemporary scientific research
• Identify problems of and solutions to current scientific debates
• Explore implications of technological innovation for personal identity

Outcomes (students will be able to):
• Apply concepts of classification and ethics to current scientific debates
• Elaborate unforeseen consequences of innovation
• Assess role of technology in everyday life
• Synthesize course material by applying it to future concerns