

ART 101A (3 credits)

Introduction to Visual Arts

Instructor: Laura Ruby
Time: MWF 10:30-11:20
Location: Art 137

Course Objectives:

- To discover the purpose of the visual arts;
- To develop an awareness of and appreciation for the diversity of human visual responses;
- To become aware of and involved in the act of creativity; and;
- To become a motivating force for bettering your visual environment.

Course Content:

There are 16 items, 2 exams, plus 4 participation credits (including an office visit) that will constitute your grade (and the class may decide to give more weight to some items at a later time).

- Written Entries/Great Debates
- Visual Entries/Artworks/Global Art History Archive
- First Exam (Part Take-Home, Part In-Class)
- Second Exam (Part Take-Home, Part In-Class)
- Participation

Texts:

- *The Humanistic Tradition*, Vols. 3 & 6, Gloria Fiero
- *Art Basics*--published by Thompson and Wadsworth (no author, 2004)
- Packet of 101 handouts at Campus Center Copy Service

For more information, check out the following website:

www.hawaii.edu/lruby/

CHEM 181A/181L (5 credits)

Honors General Chemistry and Lab

Instructor: Roger Cramer
Time: TTh, 1:30-2:45 and W, 1:30-2:20
Lab Time: F 2:30-5:20 (all sections)
Location: Bil 335
Lab Locations: BilA 118, 115, or 106

Rigorous, in-depth introduction to chemical principles with an emphasis on experimental and applied aspects of modern chemistry. Recommended for physical science majors and engineers.

Laboratory experiments will illustrate chemical principles involving advanced techniques and modern instrumentation.

ENG 100A, sec. 1 (3 credits)

Composition I

Instructor: Richard Lessa
Time: MWF 9:30-10:20
Location: Kuy 411

This course proposes to develop and refine your ability to write clear, effective, university-level prose. It assumes that you already have the basic skills needed to write fully competent sentences, paragraphs and short essays in Standard English. (If any of these skills is missing, you will have to do some catch-up work early in the semester.) In other words, our concerns in Eng 100A will be improvement and refinement of skills, rather than their initial acquisition. To this end, you can expect to do a lot of writing, and to talk and even to write about writing.

To make this course as responsive as reasonably possible to your needs as a writing student, assignments will try to anticipate the writing requirements of typical university courses. We will spend time on description and analysis (of both things and other writings), on argument and persuasion (as called for in many types of paper assignments and essay-type exams), and on the techniques and format of a research paper (incorporating library research). This is a fully "interactive" course, so we will typically use a workshop format in the Critique Lab, where you will respond to your classmates' writing and they will respond to yours. This type of format is only effective if each class member is present and prepared to participate. For this reason faithful attendance and timely completion of all assignments is mandatory. You can also expect frequent one-on-one conferences with the instructor.

ENG 100A, sec. 2 (3 credits)

Composition I

Instructor: Frank Stewart
Time: TTh 1:30-2:45
Location: Kuy 409

This course is primarily for honors students in English. Students will write 6-8 papers of various kinds-description, narrative, comparison-each focusing on some aspect of the natural history, landscape, and people of Hawaii. These papers will become the basis for a final research paper.

Students are expected to work hard and find subjects for their papers that personally engage them: things they love and what to know more about.

Grades will be based on each of the papers and on the final research paper.

Books to be announced.

HIST 161A, sec. 1 (3 credits)

World Cultures in Perspective

Instructor: William Farris
Time: MWF 1:30-2:20
Location: Kuy 313

History 161A covers the development of the human community from earliest times to about 1500. Some themes are: the interaction between nomadic and settled peoples; the creation of four "heartland civilizations" in China, India, the Middle East, and the Mediterranean/Europe; the rise of sophisticated systems of thought and religion, as well as distinctive patterns of social structure, in each civilization; and the growing interdependency of the world from about 100 BCE to 1500.

The format is lecture/discussion, and participation is an important part of each student's grade. There are also a mid-term and final (all essay) and a paper. Besides the text, students will be asked to read 3 monographs on Chinese ways of thought, Islam, and the Black Death.

HIST 161A, sec. 2 (3 credits)

World Cultures in Perspective

Instructor: Edward Davis
Time: MWF 10:30-11:20
Location: Sakam A411

This course offers students a large-scale analysis of human development and cultural traditions from all parts of the world from prehistory to 1500CE. Class sessions emphasize discussion of selected topics based on assigned readings, which include: Gilgamesh; Samuel 1 and 2 (Old Testament); Saint Augustine, Confessions; Murasaki Shikibu, The Tale of Genji; and Alfred Crosby, Ecological Imperialism: The Biological Expansion of Europe, 900-1900, among others. There will be short writing assignments, in-class presentations, and a final, longer paper.

HIST 162A, sec. 1 (3 credits)

World Cultures in Perspective

Instructor: Shana Brown
Time: MWF 9:30-10:20
Location: Kuy 303

Continuation of 161A. Development of civilization from 1500 to the present. Offered as discussion and/or problems course. Alternative for 151 and 152; freshmen in SSP only.

This course offers students a large-scale analysis of global cross-cultural encounters, in Africa, the Americas, Asia, Europe, and Oceania from 1500 C.E. to the present. The course material enables students to understand the contemporary world in deeper historical context by examining the evolution of important ideas and forces that have shaped the modern world in such areas as politics, philosophy, society, science, literature, arts, and music. Class sessions emphasize discussion of selected topics based on assigned readings. Overall, the course provides an intellectual foundation for responsible citizenship in the complex, interdependent, globalizing world of contemporary times.

Requirements: Two short papers; one in-class presentation; midterm and final exams; class attendance and participation

Required texts: Bentley and Ziegler, Traditions and Encounters, Vol. 2, 3rd Ed.

Nafisi, Reading Lolita in Tehran: A Memoir in Books

HON 101, sec. 1, 2 & 3 (3 credits)

1st-Year Honors Experience I: "M~noa Campus and Its Neighborhoods"

Instructors: Jim Caron, Director, Honors Program
Chris Kirk-Kuwaye, Director, Leadership
Development Program
Stephen Marble, Institute for Teaching Education

Peer Mentors: [TBA]

Peer Mentor Supervisor: Jeanne Oka, Arts and Sciences Advisor

Time: MWF 1:30-2:20 (all sections)

Location: PhySci 317, Sakam B308, and Kuy 209

Purpose: "First-Year Honors Experience" has many facets. Its design allows students to follow their curiosity about topics connected with their university; its design also encourages students to inquire of themselves what they need and expect from their undergraduate education.

Metaphorically, the course is about maps and map-making. Maps are representations of the world by which people orient themselves, tools for navigating the terrain. Maps also record the exploration of any new territory. "First-Year Honors Experience" helps students to become oriented, helps them to navigate their new surroundings at M~noa, and helps them to explore their new status as students at a Research One university. The mapping done in this course, literal and figurative, will be the students' first efforts to chart their course as undergraduates.

A focus on the formal inquiry of research enables this mapping process. The M~noa campus and its neighborhoods function as the primary "texts" for students to learn how the formal inquiry of research is conducted. Three broad topics will define the investigation, one corresponding to each section of the course: "The Environment and the Campus," "Historical M~noa," and "[TBA]." However, students will create their own areas to research within these larger topics. The specific projects will be multi-disciplinary and hands-on: students are just as likely to be examining the campus and/or its neighborhoods as they are to be conducting research in the library.

By pursuing their own interests within the broad topics, students will become familiar with the process of research: discovering how to formulate questions, discriminating among methods for gathering information to answer those questions, exploring alternative models and theories to best explain and

interpret the information, and learning how to evaluate and present the information.

In addition to learning about the research process, students will investigate their understanding of undergraduate education at a public university with the help of peer mentors and instructors. Articulating or refining career goals and comprehending how general education requirements and a choice of majors can serve those goals will provide other focal points for the course.

"First-Year Honors Experience" is also about community. Students will work collaboratively, in teams, and their projects will foster inquiry about the M-noa community as well as its surrounding neighborhood communities. An important question during the semester will be the relationship of the campus to its neighbors. By working collaboratively, students become part of a community of peers in the Honors Program.

Classroom time: some meetings will include all sections together, other days the sections will meet individually. Normally, classes on Fridays will be conducted by peer mentors.

Texts: The most important texts will be the campus itself and the neighborhoods. There will also be readings for the class as a whole related to undergraduate liberal education. Additional texts will also be assigned by an individual instructor for a given section. Copies of all readings will be handed out in class.

HON 301 (3 credits)

Research & Public Policy

Instructor: Bill Kaneko

Time: TTh 9:00-10:15

Location:

More Information to follow.

HON 190 (1 credit)

Honors Tutorial, section 2, is available for the following math course

Instructor:

Time: TBA

Location: TBA

Math 100 (3 credits)

Survey of Math

In the Honors Tutorial for Math 100, we propose to devote roughly two thirds of the period with the discussion of solutions of problems, and one-third with supplementary materials closely related to the problems and the lectures. The problems will not be those of the regular Math 100 section, but more challenging and thought-provoking problems, assigned only to the honors students. The period will be conducted like a seminar, with the students explaining how they solve (or attempt to solve) the problems, and the instructor leading discussion as to the correctness of the solutions, or methods to attempt solutions if the students' efforts completely fail. The instructor will incorporate some new material which adds to understanding of the lectures or supplements the assigned problems. Grading will be based on participation.

HON 190 (1 credit)

Honors Tutorial, section 3, is available for the following math course

Instructor:

Time:

Location:

Math 215 (4 credits)

Applied Calculus I

Basic concepts; differentiation, differential equations and integration with applications directed primarily to the life sciences.

Pre: C or better in 140 or precalculus assessment

0. (Re)introduction of function theory (1 week)

- A. We review polynomial (especially linear) functions, logarithms, exponentials and to some extent trigonometric functions. Special attention will be paid to the graphs of these functions.
- B. The concept of composition of functions and inverse function is also considered again.
- C. New topics introduced here may include boundedness, continuity, limits at infinity, monotonicity, local and absolute extremes and concavity of function.

1. Differentiation (8 weeks)

- A. We define and give several interpretations of the idea of differentiation. Differentials are used to approximate the change in the value of a function.
- B. The derivative of most of the functions considered in section 0 are introduced. Some of these derivatives will be computed using the definition; others will simply be given and these formulas will be supported by computer experimentation. If subsequently a more rigorous justification of any of these latter formulas is possible then it will be given.

- C. The standard rules for differentiating sums, products, quotients and composition of functions are presented. The chain rule is used to obtain the derivative to the inverse of a differentiable function.
- D. The Mean Value Theorem is presented and used. In particular, we will show that antiderivates are determined up to an additive constant.
- E. Applications of differentiation are considered. In particular, properties of the graphs of functions and optimization are studied.
- F. The study of different equations is begun; we examine exponential growth and decay, the logistic differential equation and perhaps separation of variables. Also Euler's method can be introduced and used as the basis for numerical studies.
- G. Partial differentiation could be introduced here.

2. Integration (5 weeks)

- B. We define and give several interpretations to the idea of integration. Numerical methods of integration are considered.
- C. The Fundamental Theorem is presented and used.
- D. The standard integration rules are studied, in particular, substitution and integration by parts.
- E. Applications of integration are introduced.
- F. Improper integrals are defined and computed.

3. Introduction to calculus of several variables (2 weeks)

- A. Partial derivatives are introduced.
- B. As an application we could consider optimization problems in 2 weeks.

Various topics in this course will be supplemented by work in a computer lab that will meet once each week. Obvious examples are numerical integration and solving differential equations using Euler's method. Also the students will be introduced to a

symbolic manipulation package by means of which they will be able to algebraically (or formally) differentiate and integrate functions.

Math 251A, sec. 1 (4 credits)

Accelerated Calculus I

Instructor: Monique Chyba
Time: M 10:30-11:20
TTh 9:00-10:15
Location: PhySci 208
Kell 402

OR

Instructor: William Lampe
Time: M 12:30-1:20
TTh 1:30-2:45
Location: PhySci 208
Kell 413

Course Description: Basic concepts, differentiation with applications, integration.

Prerequisite for Math 241: A grade of C or better in Math 140 or Math 215 or precalculus assessment as specified by the department or consent.

Prerequisite for Math 251A: A grade of A in Math 140 or precalculus assessment as specified by the department or consent.

Math 251A versus Math 241: Math 251A is the accelerated, honors version of Math 241. The pace of these two courses is roughly the same, but in Math 251A there is more of an emphasis on mathematically precise definitions and proofs.

Text: *Calculus, Early Vectors* by James Stewart, Brooks/Cole Publishing Company, 1999.

Computer Lab: For one hour a week, the class is scheduled in the computer lab, PhySci 208. During this hour you may hold a recitation or an actual lab session. If you hold this hour in a different room, then it is your responsibility to arrange that the lab is monitored or locked. There is a separate list with suggested lab topics.

Gateway Exam: You are encouraged to use the differentiation gateway exam. Students shall receive a grade C or better for the course only if they pass the exam.

Week 1, Chapter 0 & 1: Review and Vectors in the Plane. Present your syllabus and go over the academic expectations from the department website. Much of Chapter 0 can be left to the students to review. Cover Sections 1.1 and 1.2, vectors in the plane, their algebra, dot product, and length. Parametrized curves from Section 1.3 may have to be cut short.

Week 2-3 Chapter 2: Limits and rates of change. Define the notion of a limit, calculate some limits from scratch and using the limit laws, continuity, asymptotes, tangents.

The material in Section 2.4 may be incorporated throughout. Cover only as much as Sec 2.6 as time allows. Examples as in Section 2.7 may be introduced as motivating examples in previous sections.

Week 4-6, Chapter 3: Derivatives. Define the derivative and differentiability. Calculate derivatives from scratch and using rules (linearity, product, and quotient rule, chain rule). Derivatives of the trigonometric functions, implicit differentiation, related rates, high derivatives, differentials and linear approximation. You may omit or cut short Sections 3.3 (rates of change in Natural and Social Sciences), Section 3.9 (Slopes and tangents of parametrized curves), and the quadratic approximation in Section 3.11.

Week 7-10, Chapter 5: Applications of Differentiation. Definition of absolute and local extrema. Extreme Value Theorem for continuous functions, critical points. Mean Value Theorem, 1st derivative and monotonicity, 2nd derivative and concavity, first and second derivative tests for local extrema. Sketching of graphs, discuss all of the above, plus absolute extrema and long term behaviour (limits at \pm infinity, horizontal and slant asymptotes). Applied maximum and minimum problems.

The material in Section 5.1 is motivational and repeated in the following sections. Section 5.4 is about the use of calculators and computers in graphing functions. It is covered continuously in the lab, and does not need to be taught as a separate unit.

Week 11-15, Chapter 6 & 7: Integration. Antiderivatives, sigma notation, concept of area, the definite integral, the Fundamental Theorem of Calculus, calculate integrals using the Fundamental Theorem, substitution, areas between graphs. Skip Section 6.6 (The Logarithm defined as an Integral), it will be covered in the second semester. Cover as much as you can from Chapter 7, the calculation of some volumes using slices, disks, and shells. Review.

Math 252A (3 credits):
Accelerated Calculus II

Instructor: Robert Little
Time: MWF 11:30-12:30
Th 9:00-9:50
Location: Kell 402
PhySci 208

Course Description: Integration techniques and applications, series and approximations, differential equations, introduction to vectors.

Prerequisite: A grade of C or better in Math 251 or a grade of B or better in Math 241 and consent.

Co-requisite: Math 242L

Text: *Calculus, Early Vectors*, by James Steward, Brooks/Cole Publishing Company, 1999.

Math 242L: Ideally, the students of any given section of Math 252 will be in the same Math 242L section and the Math 252 instructor will work with the TA for the corresponding Math 242L section. It is recommended that the assignments and grades for Math 252 and Math 242L be combined.

Week 1-2, Inverse Functions: Inverse functions (4.2), logarithms, and exponentials (6.6), exponential growth and decay (4.5), differentiation rules and applications for logarithm and exponential functions (4.1) and (4.4), inverse trigonometric functions (4.6), and l'Hospital's rule (4.8). The second on hyperbolic functions (4.7) can be cut short.

Week 3-5, Techniques of Integration. Integration by parts (8.1), trigonometric integrals (8.2), trigonometric substitution (8.3), rational functions and partial fractions (i.4), rationalizing substitutions (8.5), and strategy for integration *8.6), and improper integrals (8.09).

It is not necessary to cover all the techniques of integration in Sections 8.2-8.4 in detail, but the students should gain some facility at integration. Section 8.7 (use to integral tables and computer algebra systems) and Section 8.8 (numerical methods) can be delegated to Math 242L.

Week 6-9, Infinite sequences and series. Convergence of infinite sequences and series, power series, Taylor and MacLaurin series (Chapter 10). The book's treatment of the remainder estimate for Taylor series is brief and should be expanded.

Week 10-12, differential equations. First order separable and linear differential equations (9.1 and 9.2) and second order linear differential equations with constant coefficients (15.1-15.3). It is desirable to cover series solutions of differential equations (15.4).

Additional topics. As time allows, curve length (9.3, parametrized curves from 1.3 were discussed, but possibly cut short, in the first semester of calculus), area of surfaces of revolution (9.4), moments and centers of mass (9.5). If these topics are covered, then they should be covered in the first half of the semester as applications of integration. Advanced planning on the part of the instructor is required to decide how much time to devote to these topics. In the context of differential equations, one can spend some time on systems of first order differential equations (e.g., predator/prey models or competing species). In this context one can work with direction fields and reinforce vector concepts. Approximate solutions can be obtained using Euler's method during the lab.

Math 253A (4 credits)

Accelerated Calculus III

Instructor: George Csordas
Time: TTh 12:00-1:15
F 12:30-1:20
Location: Kell 402
Kell 403

This course is the last one in a three semester accelerated calculus sequence. The focus here is on calculus involving vector valued functions of several variables. The extension of calculus from functions of a single variable to functions of several variables allows a wide range of applications, since many problems of interest can only be formulated in three (or higher!) dimensional space. Some of the main areas of interest are vector functions and vector calculus, partial derivatives and multiple integrals.

PHYS 272A/272L (4 credits)

General Physics II and Lab

Instructor: Pui Kwong Lam
Time: MWF 9:30-10:20
F 12:30-3:20
Location: PhySci 112

This course is designed for highly motivated students with solid math background. It will utilize a studio course format where lecture, hands-on activities, group discussions, and lab sections are merged together to create a coherent, active learning environment.

The class will meet entirely in a lab. Whenever possible concepts are introduced through hands-on activities (some of the "hands-on" activities are computer based). The course materials are taught through a "guided inquiry" method which utilizes a combination of lectures, hands-on activities, and group discussions.

This course has the same number of contact hours as the regular PHYS 272 and Lab and it covers the same amount of materials. It is not an accelerated course, but the instructional style is different and the number of students in this class is less than that of the regular PHYS 272 class.

The topics for this course are: electrostatics, magnetostatics, electrodynamics, electromagnetic waves and geometric optics.

For more information on this course, contact plam@hawaii.edu (956-2988) or visit <http://www2.hawaii.edu/~plam/ph272A>

To enroll: Please contact the Honors Program at Sinclair Library 4th Floor to get a phone approval code (<http://www.honors.hawaii.edu>, phone: 956-8391)

** Note: Anyone signs up for PHYS 272A MUST sign up the Tuesday morning session of the PHYS 272 Lab unless other arrangement is made with the instructor's permission. The enrollment will be limited to no more than 20 students.

POLS 110A, SEC. 1 (3 credits)

Introduction to Political Science: **"the politics of everyday life"**

Instructor: Ira Rohter
Time: MWF 12:30-1:20
Location: Dean 105

Although Iraq, "Reforming" Social Security, and a host of political issues dominate today's news, this class explores deeper questions about the nature of U.S. society. Beyond the hoopla and the momentary, we explore critically:

- * How are our personal lives greatly shaped by society's economic and political priorities?
- * Why are many important human and environmental concerns ignored or downplayed by our dominant political and economic values?
- * Can our governing Liberal and Conservative ideologies adequately address these deeper questions, and provide viable solutions to meeting our needs?
- * What alternative visions of people's needs, goals, and values are contained in contemporary movements for social and environmental change around the world?
- * Mechanisms of political consciousness formation. From Orwell's 1984 to today's War on Terror.

The ways public policies affect everyday life in America will be examined via three themes: (1) the U.S. political- economy (work, the economy, sense of self); (2) the American belief-system and mindset (the commandments of consumer society and capitalism, media-formed reality); & (3) new understandings and visions: an emerging new democratic and ecological perspective for America?

TEXTS

Fast Food Nation: The Dark Side of the All-American Meal -- by Eric Schlosser; *George Orwell's 1984*; *Nickel and Dimed: On (Not) Getting By in America* by Barbara Ehrenreich; *Make-Believe Media: The Politics of Entertainment* by Michael Parenti [xeroxed excerpts]; *Mediated Political Realities* by Dan Nimmo & James Combs. [xeroxed excerpts]; Brian Tokar, *Earth for Sale: Reclaiming Ecology in Age of Corporate Greenwashing* [xeroxed excerpts] Other articles available at Professional Image.

THEMATIC OUTLINE

SECTION I The New American Society: Work And The New Economy

- A. The [New] American Way Of Life (Fast Food Nation)
[Weeks 1-2 Aug 23- Sept3]
- B. The New Job System (Handouts)
[Weeks 4-5 Sept 13-24]

SECTION II Manufacturing Political Consciousness.

- A. George Orwell's **1984**.
[Week 6 Sept 27-Oct 1]
- B. Application to U.S. Today? Political Reality As Mediated By The Media (Handouts)
[Weeks 7-8-9 Oct 4-Oct 22]
- C. Climate Change
[Week 10 Oct 25-29]

SECTION III Industrializing (And Profitizing) the Food System

- A. Fast Food Nation
[Weeks 11-13 Nov 1-Nov 19]
- B. Agriculture Solutions.
[Week 14 Nov 22-26]

SECTION IV Political Change

[Weeks 15-16 Nov 29-Dec 10]

REL 15A (3 credits)

Religion and the Meaning of Existence

Instructor: Cromwell Crawford

Time: TTh 12:00-1:15

Location: Sakam A302

The two textbooks used in the course describe its main outlines. First, the #1 New York Times Bestseller, *What Should I Do with My Life?* by Po Bronson. It contains the true stories of people who answered the ultimate question we raise in the course: Who Am I?

The second book, by the Pulitzer prize-winning author, Studs Terkel, is entitled *Will The Circle Be Unbroken?* People from all walks of life share reflections on Death, Rebirth, and Hunger for a Faith.

The course is discussion-oriented.

The professor integrates views of the various world religions into the round-table conversation.

SOC 100A (3 cr)

Introduction to Sociology

Instructors: Michael Weinstein & Marsha Meckler

Time: F 11:30-2:00

Location: Sakam A302

As introductory sociology this course has the goal of developing for each student a "sociological imagination," that is, an ability to link the personal situation of each individual to the social patterns of community and society. As an honors class students are expected to take on the responsibility of learning from and for one another, so class members will have the opportunity to develop some aspects of that community and society right in our own classroom.

We will examine and explain basic concepts, theories, and strategies of sociological data collection and analysis, and apply them to issues in our backgrounds as well as to the current events of our personal and public lives. Further, we will examine the place of agency and intention in social life, and how people consciously and unconsciously construct social realities.

It is important for students to attend every class (we only meet once a week, for 2-1/2 hours), and keep up with what's going on (in class and in the world), and ask lots of questions (even if we do not have answers). The formal assignment is to write lots of papers, of various lengths, in diverse formats, as often as you can, on anything of relevance. (Students may learn that any topic can be made relevant, in several ways.) The point is to demonstrate that you are learning sociology and are engaged, or even inspired, by it. As a writing intensive class, and with the expectation that students are learning from one another, each student will revise their best or favorite essay to share as a seminar paper with all their classmates during one class session. There is the specific assignment for the final exam essay, "what did you learn this semester?," so students are encouraged to keep track with good class notes and a personal journal.

In addition to the conventional required text book *Introduction to Sociology*, Fifth Edition, by Giddens, Duneier, and Applebaum, W.W.Norton, 2005, students should consider as text material the regular reading of local newspapers and Newsweek magazine, for contemporary data and applications of the course. Also watch the TV news, local and national, for the same reason. Actually, just about anything you read, observe, and do, including the

materials in your other courses, can be relevant resource material for our sociology course!