# College of the Atlantic Life changing. world changing.



# 2010 GUIDEBOOK

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# How do you take

320 passionate students,

an energetic and brilliant faculty,

an oceanfront campus, and

a fervent commitment to changing the world

and distill it all down to one book?

It's probably the same question that those who write travel books and survival guides face...

"How do I take all of this:



You hold in your hands our best efforts at capturing College of the Atlantic. Find a comfortable spot and settle in for a good read.

Dive in, and enjoy your stay.

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# Letter from the Dean of Admission

If you think that the world is a simple place, that justice is uniformly served to people around the globe, that the environment can take care of itself, or that there is no connection between a morning commute and conflicts in another hemisphere, then College of the Atlantic is not for you.

On the other hand, if you have sat in your high school classes and been bored or frustrated with the slow rate of change or lack of discussion, then COA might well be your place.

We believe that the world is complex and interconnected. We believe that taking care of people and the planet is not just the right thing to do but that it is our moral responsibility. We believe that fulfilling this responsibility can empower individuals with a sense of joy and accomplishment.



We only have a single major: **Human Ecology**. Our lack of academic disciplines should not suggest a lack of discipline. Our students grapple with serious academic issues. Our single major, however, exposes them to the world in a comprehensive way, not in a segmented way. It also allows them the opportunity to create their own unique educational experience within a flexible, but demanding educational framework.

We honestly believe we can change the world. We actively seek to build consensus on campus and around the globe. We want to maintain a high degree of curiosity about the world. We want to appreciate the arts, rely upon the sciences and never forget about the needs of humanity. We hope you will join us.

Get to know us by reading this book. The general information about the college and the application process is followed by pages and pages of our course descriptions. Looking at course descriptions should be the best part of checking out a college, so linger over them, feel free to mark the ones you'd take if you were a student here, and consider visiting us soon so that you can sit in on some of these classes. And if you're not able to visit right away we're always ready to welcome passers-by at www.coa.edu.

Sincerely,

Sarah G. Baker Dean of Admission

**Mission Statement** 

College of the Atlantic enriches the liberal arts tradition through a distinctive educational philosophy—human ecology. A human ecological perspective integrates knowledge from all academic disciplines and from personal experience to investigate—and ultimately improve—the relationships between human beings and our social and natural communities. The human ecological perspective guides all aspects of education, research, activism, and interactions among the college's students, faculty, staff, and trustees. The College of the Atlantic community encourages, prepares, and expects students to gain expertise, breadth, values, and practical experience necessary to achieve individual fulfillment and to help solve problems that challenge communities everywhere.

# Academics

All students major in human ecology. And every student at COA designs his or her own major. This may seem contradictory, but human ecology integrates knowledge from all academic disciplines and from personal experience to investigate, and ultimately improve, the relationships between human beings and our social and natural communities. How you choose to give shape to your major in human ecology depends upon your interests, goals and talents.

Exploring human ecology requires the skills and dispositions necessary to live with commitment to a community that is both local and global. To thrive and contribute to such a complex world, students will become empowered through the mastery of intellectual and practical skills.

The habits of heart and mind necessary for this challenging education include:

- € To be passionate about and dedicated to learning
- € To bring both heart and mind to the tasks of learning and living
- € To live in the questions and to increase tolerance of uncertainty
- $\odot$  To act responsibly and with compassion

# What You Will Learn

Creativity: In all endeavors the ability to imagine and construct novel approaches or perspectives, to be innovative and to invent. This includes the flexibility to use many different approached in solving a problem, to change direction and modify approach, the originality to produce unique and unusual responses, and the ability to expand and embellish one's ideas and projects. This also includes taking intellectual risks and practicing divergent thinking.

Critical Thinking: The ability to not only interpret and evaluate information from multiple sources but also to induce, deduce, judge, define, order and prioritize in the interest of individual and collective action. This includes the ability to recognize one's self-knowledge and its limits, challenge preconceptions, and work with imperfect information.

**Community Engagement:** A deep understanding of oneself and respect for the complex identities of others, their histories, their cultures, and the ability to lead and collaborate with diverse individuals, organizations, and communities.

# Human Ecology

There is a tendency, especially in the academic world, to carve life into ever smaller pieces in order to make sense of it. All too often, the people who do this come to believe that is how the world really is. The aim of human ecology is to remind us that we are part of a complex and interactive world. Its broad mandate calls us to cross the boundaries of traditional disciplines and seek fresh combinations of ideas. The richness of specialized knowledge - and communication among people who have it-are essential to a livable future. But the kind of perspective that encourages interdisciplinary learning and application is difficult to acquire in most academic settings. This demands a different approach to education - one which invites imagination and caring for the future. I believe human ecology holds an increasingly important place in society, education and everyday life. This is why COA was founded, and it is what we do best.

-Rich Borden, faculty member



This includes the ability to work effectively within diverse cultural and political settings.

- **Communication:** The ability to listen actively and express oneself effectively in spoken, written, and nonverbal domains.
- **Integrative Thinking:** The ability to confront complex situations and respond to them as systemic wholes with interconnected and interdependent parts.
- **Interdisciplinarity:** The ability to think, research, and communicate within and across disciplines while recognizing the strengths and limitations of each disciplinary approach.

There are no academic departments at College of the Atlantic. Avoiding the intellectual boundaries that result from the segregation of academic departments was a conscious choice of the faculty when the college was founded. As the college has grown, the faculty remains non-departmental to allow for interdisciplinary teaching and research and to foster cross-disciplinary dialogue.

For organizational purposes, however, COA loosely divides its curriculum into three resource areas:

#### Arts & Design Human Studies Environmental Science

More information on each of these resource areas is found in the introductions to each section of the course descriptions (see pages 21, 41 and 83).





# **Resources and Facilities**

To support its academic program, the college has developed a number of facilities and additional resources unique to the geographic area and human ecology degree focus. Students, faculty and staff work together to allow space for one another to pursue interests. COA has fostered a collaborative environment of resources and common spaces on-campus, nearby and around the world.

On-campus resources and facilities include:

- 1 Geographic Information System (GIS) Lab
- 2 Graphic Design Studio
- **3 Architectural Design Studio**
- 4 Digital Photography Studio
- 5 Three-Dimensional Art Studio
- 6 Ethel H. Blum Gallery
- 7 Educational Studies Center
- 8 Gates Community Center
- 9 George B. Dorr Museum of Natural History

associated with them-can be found at www.coa.edu

- 10 Davis Center for International and Regional Studies
- 11 Island Research Center

12 Center for Applied Human Ecology

- 13 Darkroom
- 14 Chemistry Lab
- 15 Botany Lab
- 16 Zoology Lab
- 17 Writing Center
- 18 Greenhouses
- 19 Ceramics Studio
- 20 Thorndike Library
- 21 Computer Center
- 22 Allied Whale Center
- 23 Drury Library
- 24 Music Practice Room Detailed information on these resources and facilities-and the programs and projects



# Academics

Many students incorporate other local resources into their course of study. Research stations at the college's Great Duck Island and Mt. Desert Rock provide field experience for those interested in the natural sciences. Students may participate in the Idea Network for Biomedical Research Excellence (INBRE); this program connects COA students to research opportunities at nearby Jackson Laboratory and Mt. Desert Island Biological Laboratory. COA's new Sustainable Food Systems program connects students to the college-owned Beech Hill Farm, and 86-acre organic farm. Throughout the year, students partner with Acadia National Park on projects. Local schools welcome Educational Studies students into their classrooms for observation and student teaching.

In addition to the resources on the island, we have exchange programs with University of Maine at Orono, Olin College of Engineering, National Outdoor Leadership School (NOLS), Landing School of Boat Building, Salt Institute for Documentary Studies, Sea Education Association (SEA), and the Eco League (Alaska Pacific University, Green Mountain College, Northland College and Prescott College). As part of its new Sustainable Food Systems program, COA is also developing a collaborative relationship with the University of Kassel in Germany and the Organic Research Center at Elm Farm in the United Kingdom. The college's own international study experiences include programs and courses and Mexico, Guatemala, and Newfoundland.

# **Degree Requirements**

All students who enter COA as first-year students must meet the following course requirements in order to graduate: Human Ecology Core Course during the first year of attendance; one quantitative reasoning course; one history course; one writing course (and demonstrate writing proficiency); two courses in Arts & Design; two courses in Environmental Sciences; and two courses in Human Studies.

In addition, students must complete the following . . .

**Final Project:** For the final project, each student undertakes a significant intellectual endeavor, experiment, research project, or original work intended to advance understanding in a particular academic area and bring together the skills and knowledge acquired during the student's college career. The final project is a major work at an advanced level, occupying at least a full term. Students are free to choose a form for their final project that best meets their personal, academic and career goals. Often, student use the final project to complete a significant piece of work that will propel them into graduate school. Sometimes students use the final project to synthesize different fields of student and to take academic and creative risks that may not be available to them in graduate school or professional work. For examples of student work, including final projects, go to www.coa.edu

Human Ecology Essay: By the middle of their senior year, all students must complete a Human Ecology Essay (HEE). The HEE is a work of exposition, argumentation, extended description or narration. Students choose and develop a subject of personal or social significance through which they explore their perspectives on human ecology. Although separate from a paper done for a course, the HEE often evolves from coursework. Students occasionally choose to do a nonverbal "essay," or write a piece of fiction or poetry. The HEE is an opportunity for students to reflect on their education and to synthesize multiple areas of study.

Internship: A COA internship is as varied as each individual human ecologist. The internship is meant to be a practical exercise in applying academics to the world of work. The goals of an internship are to expose each student to the experience of : making decisions regarding career options; marketing themselves to potential employers; carrying out the duties and responsibilities of a job; participating as a part of a larger community work force; and bringing new perspectives back to campus to share with classmates and faculty. COA internships last at least ten weeks (400 hours) and not more than one year.

Community Service: All students at COA complete a forty hour community service requirement prior to their last term of enrollment

**Transfer Credits:** A student can transfer a maximum of 18 credits to COA, the equivalent of 60 credit hours or 90 quarter hours in systems commonly used at other institutions. One COA credit is equivalent to 3 ½ semester hours or 5 quarter hours. Satisfactory (grade of "C" or above) work at another accredited institution is transferred on this equivalency basis.

# **Evaluation and Standards**

COA's grading policy gives the student two distinct advantages: it most accurately reflects the student's individual performance and allows the student to take a challenging course without being unduly concerned about grade-point average.

The written evaluation charts a student's performance throughout the course and indicates the measurable improvement detected over the term. The college believes students should stretch the capabilities and stresses that the real growth in knowledge gained is not always quantifiable.

The second part of the evaluation is written by the student and is an assessment of the value of the course in relationship to his or her own intellectual development as a human ecologist.

Any student who wishes may also receive a letter grade. This is an individual choice and is decided at the beginning of each term.

# Advising

When students arrive at COA they are assigned an advisor. The working relationship between student and advisor is important because of the self-directed nature of study at the college. The freedom of students to plan individual programs carries with it the responsibility to develop coherent courses of study. As there is an atmosphere of collaboration at COA, students are encouraged to take on other faculty, staff, and students as advisors. Students are also encouraged to change their advisors as their academic needs evolve.

# **Academic Options**

With a faculty to student ratio of 1:12, individualized attention and a seminar format are the classroom norm. We also believe that a variety of learning options is as important as a variety of courses offered. Independent studies, tutorials, residencies, internships, and group studies offer additional opportunities for students to earn college credit and pursue areas of interest not available within the regular curriculum.

# Accreditation

College of the Atlantic is accredited by the New England Association of Schools and Colleges. In its employment and admissions practices, COA is in conformity with all applicable federal and state statutes and regulations and does not discriminate on the basis of age, race, color, sex, marital status, religion, creed, ancestry, national or ethnic origin, or physical or mental disability.



# Student Life

Life at COA is informal, friendly, supportive and always busy. Students are involved in developing skills and interests, in exploring activities and careers, and in clarifying personal and social values. Close ties unite people during their years at COA and long afterwards. Each individual has the opportunity to make the COA experience unique and meaningful.

COA's mission attracts students who are comfortable with alternative viewpoints and a certain degree of uncertainty. This is reflected in a campus atmosphere that balances consistency and spontaneity in and out of the classroom. Pick-up soccer and ultimate Frisbee, informal groups of students dedicated to environmental activism, student-run theatre productions, the biweekly newspaper Off the Wall, and open mic nights are indicative of the student activities at the college.

Acadia National Park, located a short walk from campus, offers hundreds of miles of trails for hiking, running, cross-country skiing, snow-shoeing, and bicycling. The park's ponds, lakes and mountains keep swimmers, ice skaters, rock-climbers, and kayakers happy. Many students organize hikes and camping trips in the park and surrounding area. On school breaks there are opportunities for backpacking and other activities that allow students to get away from the campus for a few days.

# **Community Spaces and Services**

Whether it be the dining hall (known as Take-A-Break), the library, Turrets' great hall or Deering Common, there are a multitude of student spaces available for studying, hanging out, or taking a quick nap. With the recent addition of the Kathryn W. Davis Student Residence Village comes a pool room, media center and study space. Deering Common, the new student center, boasts a meditation room, music practice space, student lounge and café. It is also home to health, wellness and counseling resources. Gates Community Center hosts regular speakers, concerts and theatrical performances. The Blum Gallery exhibits student, faculty and outside artists' work. Breakfast, lunch and dinner are served in Take-A-Break, Monday through Friday.

# Housing

In addition to our unique approach to education, our system of student housing in equally unrivaled. Each of the five student residences on campus has its own comfortable appeal. Three of the five were privately owned homes until the college acquired them. Davis Village and Blair-Tyson were specifically built to serve as student residences at COA. The Davis Village was built to meet high environmental standards and includes wood pellet heating and composting toilets. First-year students are guaranteed on-campus housing. There is additional space for transfer and returning students in the residence halls. All student residences are equipped with kitchens furnished with cookware, utensils and appliances.

As a member of a house on campus each student is expected to play a vital role in making the house a home. Community dinners are typical on Sunday evenings, as there are no meals offered in the dining hall on weekends. Resident Advisors work with students to generate evening programs for the house and enable delegation of house chores and responsibilities.

# Living Off Campus

Returning students may choose to live off campus. Bar Harbor's popularity as a summer tourist destination means that there is a great deal of affordable housing available to rent during the school year. Living off campus strengthens the connection between COA students and the island community.



# **Community Governance**

Nearly every college has a student government. At COA we actually have a campus governance in which students play a significant role. A key component of human ecology is the development of responsible citizenship. We expect our students to make real contributions to the college, both in terms of day-to-day management as well as in helping to determine our long-term direction.

Campus committees give structure to governance at COA. Membership is open to all in the COA community; ideally there is a representative balance of students, faculty and staff on each committee. Current committees include Academic Affairs, Campus Committee for Sustainability, Personnel, Publications, and Student Life.

Facilitated by a student, All College Meeting (ACM) meets weekly and serves as an open forum and decision-making body. All members of the community have equal say in the ACM. The purpose of ACM is manifold: it is a policy making body; it provides consultation on pressing issues; it builds community; is acts as an educational forum; and it provides a venue for communication between various constituencies on campus.



# Admission @ COA

We approach the admission process much as we approach learning: we focus on the individual strengths of each student, we encourage creativity, and we hope that you will both ask lots of questions and share your ideas with us.

In arriving at an admission decision, the admission committee (made up of admission counselors, faculty and students) looks for evidence of the following:

# What we look for:

academic preparation

intellectual curiosity and enthusiasm for learning

a tendency to seek out intellectual and personal challenges

a desire to be a part of a small college with a focus on environmental sustainability and social justice

# COA supplemental form \$45 application fee a school report and at least two teacher recommendations

A Complete Application:

completed Common Application

official transcripts of all academic work from high school and college

#### Recommended, but not required:

a personal interview – while an interview is not required we strongly recommend one for all candidates. Alumni interviews and phone interviews are available for those unable to schedule an on-campus interview.

Standardized test scores are not required. Should you wish to submit either SAT or ACT scores, our CEEB code is 3305.

COA accepts the Common Application. Our supplemental form provides us with additional information about you. It is available on the Common Application website, by calling the Office of Admission, or by downloading it at www.coa.edu. Visit www.commonapp.org to get your application started.

# **Admission Plans**

College of the Atlantic offers several admission plans for prospective students. Applicants for fall term may apply either Regular Decision or Early Decision. See page 15 for all admission deadlines.

Students who have come to the decision that COA is their first choice are invited to apply under either one of the College's Early Decision plans. Students who file Early Decision I applications with all accompanying credentials by December 1 will receive a decision by December 15. Those filing Early Decision II applications with all accompanying credentials by January 10 will receive a decision by January 25.

In submitting an Early Decision application, a student enters into an agreement whereby, if admitted, she or he will enroll at COA and immediately withdraw all applications to other colleges.

An applicant wishing to apply as either an Early Decision I or Early Decision II candidate should indicate their choice on the Common Application and submit the Common Application Early Decision Agreement form.

# Admission @ COA

# **Transfer or Visiting Students**

College of the Atlantic welcomes applications from transfer students. Approximately 20 percent of our student body started at COA as transfer students.

A student may transfer a maximum of 18 credits to COA (the equivalent of 60 semester hours or 90 quarter hours). Although an evaluation of credit is not final until after enrollment, students may receive preliminary evaluations by contacting the registrar.

Students who wish to spend one or more terms at COA and transfer college credit to another institution should apply as a visiting student. Applications for visiting students are available by calling or e-mailing the Office of Admission.

# **International Students**

COA welcomes applications from highly qualified international students. Applications for international students are the same as those for first-year and transfer students. Application requirements are identical, except that international students are also required to submit one of the following: TOEFL score, SAT verbal score, SAT II Writing test score, predicted IB score for English. International students are also required to submit a Declaration of Finances Form. We are proud to offer the Davis United World College Scholarship to students who graduate from the United World Colleges and are admitted to COA.

Sarah	n G. Baker
Associate	Director of Admission
Donn	a McFarland
Admissio	n Counselors
Micha	ael Madigan
Danie	elle Meier
Director c	of Financial Aid
Bruce	e Hazam
Assistant	to the Director of Financial Aid
Laurie	e Ward
Contact	
phone	800.528.0025
	207.288.5015
mail	College of the Atlantic
	Office of Admission
	105 Eden St
	Bar Harbor, ME 04609
email	inquiry@coa.edu
web	www.coa.edu

Dean of Admission

# Advanced Placement / International Baccalaureate

College credit may be given for superior performance on Advanced Placement (AP) examinations. COA credit will be granted for scores of '4' or higher. For International Baccalaureate (IB) work, two COA credits will be given for scores of '5' on higher level exams. A full year's credit is awarded for a score of '34' or higher on the comprehensive exam. The credits are officially recorded only following successful completion of the student's first year at COA.

# **Deferred Matriculation**

Students wishing to defer Fall matriculation may do so prior to June 1 by sending a written request to the Dean of Admission and paying a \$400 non-refundable deposit (\$200 of which will be applied to the student's first term tuition bill). Matriculation will be postponed for up to a full academic year, subject to successful completion of any academic work completed during that time, as well as continued confidence in the quality of the student's personal character.



# Dates & Deadlines

# Financial Aid

The Higher Education Act of 1965 was created to help make post-secondary education accessible to a wider portion of the population. The underlying principle is that the student and the student's family share the primary responsibility for funding the student's higher education, while the government provides assistance to those with demonstrated need. Additionally, institutions such as COA are taking on greater levels of support to help students narrow the gap in paying for their education.

Assessing financial aid eligibility starts with filing the Free Application for Federal Student Aid (FAFSA) which is available at www.fafsa.org from your high school guidance office or college's financial aid office. COA also requires that its own short application be completed. The information on these forms helps to establish the expected family contribution, or EFC. Subtracting the EFC from COA's cost of attendance determines the student's unmet need.

This is where the financial aid department comes in, putting together a package of aid that may include assistance such as a COA grant, a federally subsidized Stafford



Student Loan, and a work study award. COA is also proud to award a small number of merit-based Presidential Scholarships to those students exhibiting exceptional academic achievements and citizenship qualities.

The FAFSA usually becomes available by December and needs to be submitted by February 15 (but no sooner that January 1). The college's Title IV code is 011385. COA's deadline for all financial aid materials is also February 15. It is important that families keep this in mind and get their tax information filed as early as possible. Late applicants risk receiving smaller awards.

# Important items to remember:

- € FAFSA filed by Feb 15, but not before Jan 1
- € The college's Title IV code is 011385
- € Institutional Financial Aid form and Non-Custodial Parent's Statement due at COA by Feb 15
- $\odot$   $\,$  COA responds to first year applicants by April 1; transfer applicants by May 1  $\,$

# College Billed Expenses 2009-10

The charges for tuition, room, board and fees for the 2009–2010 college year are as follows:

 Tuition & Fees
 \$33,060

 Room
 \$5,400

 Board
 \$3,090

 Total
 \$41,550

More information about financial aid is available on our Web site at www.coa.edu or from the Financial Aid Office.

# Faculty Members

- John Anderson B.A. University of California, Berkeley, 1979; M.A. Ecology and Systematic Biology, San Francisco State University, 1982; Ph.D. Biological Sciences, University of Rhode Island, 1987. Zoology, Behavioral Ecology, Anatomy, Physiology.
- Nancy Andrews B.F.A. Maryland Institute College of Art, 1983; M.F.A. The School of the Art Institute of Chicago, 1995. Performance Art, Film Production, Puppetry.
  - Elmer Beal B.A. Bowdoin College, 1965; M.A. Anthropology, University of Texas at Austin, 1977. Ethnology, Anthropological Theory.
- Richard Borden B.A. University of Texas, 1968; Ph. D. Psychology, Kent State University, 1972. Environmental Psychology, Personality and Social Development, Contemporary Psychology, Philosophy of Human Ecology.
- Bill Carpenter B.A. Dartmouth College, 1973; Ph.D. English, University of Minnesota, 1967. Literature, Creative Writing, Comparative Mythology.
  - Don Cass B.A. Carleton College, 1973; Ph.D. Chemistry, University California, Berkeley, 1977. Chemistry, Physics, Mathematics.
  - Ken Cline B.A. Hiram College, 1980; J.D. Case Western Reserve University, 1983. Public Policy, Environmental Law.
- Dru Colbert B.F.A. Auburn University, 1980; M.A. The School of the Art Institute of Chicago, 1997. Visual Communication, 3D Art and Design, Museum Studies.
- John Cooper B.A. Trenton State, 1975; M.A. Trenton State, 1981. Music Fundamentals, Aesthetics of Music, Improvisation.
  - Gray Cox B.A. Wesleyan University, 1974; Ph.D. Vanderbilt University, 1981. Political Economics, History, Conflict Resolution.
- David Feldman B.A. Carleton College, 1991; Ph.D. Physics, University of California, Davis, 1998. Mathematics, Physics.
- Jay Friedlander B.A. Colgate University, 1990; M.B.A. Olin Graduate School of Business at Babson College, 1997. Green and Socially Responsible Business
  - Helen Hess B.S. University of California, Los Angeles, 1985; Ph.D. Zoology, University of Washington, 1991. Invertebrate Zoology, Biomechanics.
    - Ken Hill B.A. University of Michigan, 1987; Ed.M. Counseling Process, Harvard University, 1990; M.S., Ph.D. Educational Psychology and Measurement, Cornell University, 1993, 1995. Education, Psychology.
  - Anne Kozak B.A. Salve Regina College, 1959; M.A. English, St. Louis University, 1962. Writing, Literature.
- Todd Little-Siebold B.A. University of Massachusetts, Amherst, 1985; M.A. University of Massachusetts, Amherst, 1990; Ph.D. Latin American History, Tulane University, 1995. History, Latin American Studies.
  - Isabel Mancinelli B.S. Catholic University of America, 1975; M.L.A. Landscape Architecture, Harvard University, 1981. Community and Regional Planning, Landscape Architecture.
  - Jamie McKown B.A. Emory University, 1995; M.A. Georgia State University, 1998; Ph.D. Northwestern University, 2005. Government and Polity.

- Ernest McMullen Art, University of Maryland, Portland Museum School, Portland State University, Oregon, 1965-1970. Ceramics, Visual Studies.
- Suzanne Morse B.A. University of California, Berkeley, 1980; Ph.D. Botany, University of California, Berkeley, 1988. Applied Botany, Plant Ecology, Tropical Studies.
- Chris Petersen B.A. University of California, Santa Barbara, 1976; Ph.D. Ecology and Evolutionary Biology, University of Arizona, 1985. Ichthyology, Marine Ecology.
- Steve Ressel B.S. Millersville University, 1976; M.S. University of Vermont, 1987; Ph.D. Ecology and Evolutionary Biology, University of Connecticut, 1993. Vertebrate Biology, Environmental Physiology.
- Doreen Stabinksky B.A. Lehigh University, 1982; Ph.D. University of California, Davis, 1996. Agricultural Policy, International Studies, Global Environmental Affairs.
  - Bonnie Tai B.A. Johns Hopkins University, 1986; Ed.M. Technology in Education, Harvard University, 1990; Ed.D. Learning and Teaching, Harvard University, 1999. Philosophy of Education, Educational Methods.
  - Davis Taylor B.S. United State Military Academy, 1985; M.S. University of Oregon, 1994; Ph.D. Economics, University of Oregon, 1995. Environmental and Resource Economics.
  - Sean Todd B.Sc. University College of North Wales, 1988; Ph.D. Biopsychology, Memorial University of Newfoundland, 1998. Marine Mammal Physiology and Behavior.
  - John Visvader B.A. Philosophy, CUNY, 1960; Ph.D. Philosophy, University of Minnesota, 1966. Philosophy, Philosophy of Science, History of Ideas.
  - Karen Waldron B.A. Hampshire College, 1974; M.A. English, University of Massachusetts, 1988; M.A. Women's Studies, Brandeis University, 1993; Ph.D. English and American Literature, Brandeis University, 1994. Literature and Writing; Minority, Cultural, and Feminist Theory; American Studies.



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# **Course Primer**

Course Name		Course Co
Professor(s)	Extended course description	
Meets Requirement(s)*		
Class size limit*		
Lab Fee *		
Prerequisite(s)*		

\*= Fields marked with an asterisk may not be applicable for some courses.

A description of the COA Human Ecology Core Course looks like:

#### Human Ecology Core Course

HE001

ode

Mulitple Faculty HE Lab fee:TBA Human Ecology is the interdisciplinary study of the relationships between humans and their natural and cultural environments. The purpose of this course is to build a community of learners that explores the question of human ecology from the perspectives of the arts, humanities and sciences, both in and outside the classroom. By the end of the course students should be familiar with how differently these three broad areas ask questions, pose solutions, and become inextricably intertwined when theoretical ideas are put into practice. In the end, we want students to be better prepared to create one's own human ecology degree through a more in depth exploration of the courses offered at College of the Atlantic. We will approach this central goal through a series of directed readings and activities. This course is open to all students.

# Symbols to know





Arts & Design Courses help students develop and hone the technical and aesthetic skills to communicate their message through performance, visual, audio and digital media. "The arts are core to the human experience, and therefore to the study of human ecology," says Dru Colbert, one of COA's arts faculty. "On one hand, the highest expression of any person comes through the arts. On the other, the arts encourage students to consider the world in new and exciting ways."

All studio courses are problem- and projectcentered. Our faculty guide students through exercises and projects that develop technical and creative skills. Courses emphasize the inter-relationship of all expressive media, with faculty brought to COA for the diversity of their skills, working media and aesthetic viewpoints. Tutorials and independent studies allow students to pursue their creative development in an individualized manner while finding the media combinations that best articulate their voice and vision.















# DAN MAHLER

NORTH ANDOVER, MA CLASS OF 2010



# Student Spotlight

# His courses so far...

Changing Schools, Changing Society Marine Biology Gender in Global Perspective 4D Design Shakespeare: Character, Conflict and Cinematography Bread, Love, and Dreams Tutorial: French Conversation and Applications I

Independent Study: Directing Workshop: The Bacchae

Applied Yoga Philosophy

Native American Literature

Classic Shorts

Secondary Methods: Life Science, Social Studies and English

Supporting Students with Disabilities in the Classroom

Environmental Theatre: Political Theatre / Theatrical Politics

Literature, Science and Spirituality

Creative Writing

Full Contact Improvisation Workshop

Why did you choose to come to COA?

I was attracted to the small size, the beautiful location, the student independence, and the overwhelming support of faculty and staff.

# DAN MAHLER

# Arts & Design

AD065

AD009

AD217

AD423

#### What has been your favorite class at COA? Why?

Native American Literature. In this class, we asked the questions of what it means to be a minority in American culture, and examined the implications of the encroachment of European culture on pre-contact America. The discussions were mind-bending and enriching, and Karen Waldron was constantly challenging us to think on a deeper and more analytical level.

#### What was your favorite lesson/lecture/discussion/project at COA? Why?

Discussions are always my favorite part of COA. The small classes always make for a very engaging environment in which students are pushed to speak their minds and challenge each other. The faculty and staff are very committed and invested in student learning, which also comes across in the class discussions.

#### What is your dream occupation?

My dream occupation would be to use my passion for theatre and direction as a vehicle for education. I think that drama can be an incredibly powerful means of learning about self-expression, emotion, language and humanity, and I would love to be able to influence people to use it as such.

#### What do you see yourself doing after COA?

I am going to be getting my teaching certificate in secondary English/ Language Arts, so I might try to get a teaching job as a high school teacher. I hope that I can incorporate theatre somehow in my profession too!

#### What is happiness to you?

Happiness is seeing the glory of a theatrical production coming together. As a director, actor, stage manager, crew member, anything. There is nothing like those moments during a performance when you are truly able to stand proud of all the work that everyone has put in on a collaborative product. Everyone puts so much time and energy into these shows, but there is a moment when it "takes off," everything comes together, and there is true magic on the stage. This is what I live for in theatre.

#### Have you had an internship? If so, doing what?

I will be interning this summer (2009) at The Theater Offensive in Cambridge, MA. The Theater Offensive is a theatre company that is meant to address issues within the LGBTQ (Lesbian, Gay, Bisexual, Transgender, Queer/Questioning) community. Specifically, I will be working with the education program, so I will be helping out with one of the company's missions of educating at-risk LBGTQ identified youth.

#### What are your ideas for your senior project?

I will definitely be doing something with theatre for my senior project. I would love to integrate my other passions; education and gender/sexuality studies. I think I might be interested in directing a production at COA that somehow integrates these elements.

What do you like to do when you're not doing school work? Listen to music and dance!

#### What came first, the chicken or the egg?

It depends on who you ask; the chicken would probably say that she came first and that the egg was dependent on her existence. The egg would most likely disagree...it's all about perspective. And human ecology.



Student Spotlight

#### Introduction to Arts and Design

Isabel Mancinelli AD Class Limit: 20 Lab Fee: \$20



This course is the fundamental course for students pursuing studies in Arts and Design, offering insights into the range of issues addressed in the arts and design curriculum while also helping students investigate their own creativity. This course has both studio and theoretical components. Major directions taken by artists, designers, architects, and planners are explored. Areas of investigation include gardens, shopping centers, town planning, perspective drawing, small structure design, color, and aesthetics. Studio work involves both individual and team efforts. Students are expected to observe, document, analyze, and make recommendations for the improvement of the designed world. Students are expected to submit examples of studio work and to participate in the class discussions. Evaluations are based upon the above. This class is offered every fall.

#### Architectural Design Studio

Isabel Mancinelli AD Class Limit: 11 Lab Fee: \$25 Intro to Arts & Design and/or 2-D Design

In this design studio students are introduced to the field of architectural design and the design process. We examine various aspects of this functional art including scale, texture, volume, void, light, rhythm, and form. Basic principals of architectural structures and a brief historical overview are presented. Students attempt to apply

these principals in solving practical problems. They are expected to develop basic architectural drafting skills to represent three dimensional space in two dimensions. The course includes model building skills and an actual design project. This class is offered every other year.



Isabel Mancinelli AD Class Limit: 11 Lab Fee: \$25 Intro to Arts & Design and 2-D Design

This studio course introduces students to the profession of Landscape Architecture, the design process and skills. Aspects to be covered include site analysis, program development, design concept, final site design and graphic representation. Evaluations are based on understanding and interpretation of the site program, application of the design process and articulation of ideas and concepts through graphics and oral presentation. This class is offered every two to three years.

#### Plants and Landscapes for Education

Isabel Mancinelli AD Class Limit: 12 Lab Fee: \$40



As both children and adults spend less time outside, providing enticing opportunities to interact with and learn about plants, gardens and significant historic landscapes becomes more and more critical. In this hands-on course students will investigate the myriad of issues involved in creating, maintaining and providing interpretation for landscapes that serve an educational purpose. Guest lecturers and professionals will share their knowledge, skills and experiences. The COA campus will be utilized as a living laboratory where students will learn maintenance and design skills and experiment with invasive species management. adaptive reuse of historic sites, and designs and techniques for providing educational interpretation. A field trip to several historic and educational sites in and around the Boston area will provide insight into how other institutions deal with some of these complex issues. Evaluation will be based on class participation

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# Arts & Design

and group and individual projects. Some background in design or horticulture is preferable, such as a prior course in architecture, arts and design, graphic design, plant taxonomy, or gardening.

### Land Use Planning I

Isabel Mancinelli, In this course we will examine what key physical aspects make communities Gordon Longsworth desirable places to live, work and visit and how principals of sustainability can

AD

Class Limit: 12 Lab Fee: \$50



be integrated into the planning process. New development often undermines a sense of place and poses threats to environmental resources such as water quality. Through analyzing a local town in terms of its natural resources, cultural history, scenic quality and the built environment, students determine how new development and conservation may be balanced. They learn how to use computerized geographic information systems (GIS) as a planning tool in developing their recommendations. Students present their final class project to local community decision-makers. Previous coursework in GIS is not a prerequisite. This class is offered every other year.

### Advanced Land Use Planning Studio

AD434

AD353

Isabel Mancinelli Community Planning and Decision Making and/or Land Use Planning This planning studio course brings together students with a variety of skills and knowledge and provides an opportunity to apply their accumulated expertise to a real problem facing an island community. The intent is for students to realize the potential of a truly interdisciplinary approach to problem solving. A major challenge facing the town of Bar Harbor is how to grow in a way that fosters a healthy year round economy, protects the environment, doesn't overload the existing public services and infrastructure, and provides potential for affordable housing. Growth areas have been designated in the town's proposed comprehensive plan, but just how and what type of growth is desirable and how to regulate and foster it have yet to be determined. Students will work closely with town leaders and citizens using ArcGIS software and the geographic data base developed for the island, computer imaging and modeling, land use planning methodologies, policy planning and design skills on specific sites to assist decision makers in developing regulations and policies to enhance the quality of life. Other recommended courses include any one or more of the following: G.I.S., Architectural or Landscape Architectural Design Studio, Digital Photography or Introduction to the Legal Process.

#### Curiosity and Wonder: Design/Interpretation in the Museum

AD349

Dru Colbert AD Class Limit: 15 Lab Fee: \$55

28

From "cabinets of curiosity" to "exploratorium", this studio course surveys contemporary museum activities and methods of communication through visual display, space, and interaction. Students will engage in a project development process to refine "big ideas", determine educational goals, and learn techniques to design and build their projects. Class participants will gain an understanding of factors that influence learning, media and modes that may be utilized to communicate complex content, and how meaning is constructed by the selection, organization and layering of intellectual material through the use of object, text, image, and experiential devices. Projects and hands on workshops will provide an opportunity to develop skills and techniques in visualizing ideas by developing concepts in the form of plans, sketches, models, and narrative description. Students will have an opportunity to evaluate and create interpretive material for the George B. Dorr Natural History Museum at the College of the Atlantic. Students will be evaluated through participation in class discussion and critiques, attendance, completion and quality of assigned projects. There is no course prerequisite. This course is appropriate for all students interested in informal education in the museum environment, design, and visual communication.

#### 3-D Studio: Introduction to Three-Dimensional Art and Design

Dru Colbert AD Class Limit: 15 Lab fee: \$75.



### Activating Spaces: Installation Art

AD392

AD391

AD Class Limit: 15 Lab fee: \$75. Signature of instructor, 3-D studio classes in art, architecture, environmental design, performance art

Dru Colbert

—RoseLee Golberg, from Space as Praxis Installation Art is One of the Most Original, Vigorous, and Fertile Forms of Contemporary Art. It often involves working in specific non-art sites where the activation of the place, or context, of artistic intervention is concerned not only with art and its boundaries, but also with the fusion of art and life. Installation art extends the area of practice from the studio to public space. Architects, urban planners, and environmental designers consider similar formal and social aspects of space in the creation of city plans, buildings, and public spaces. Through hands-on projects and a survey of historic and contemporary art and design work, this intermediate level 3D

studio course offers an opportunity to explore formal aspects and social contexts of

space and time as a medium for making art. Students will create interior and exterior installations that may incorporate sculptural elements, everyday objects, light, sound, or other devices. Course work will investigate the objective and subjective qualities of space, material, and form, and the meanings created through their juxtaposition. In addition to studio work, we will survey a variety of historic and contemporary contextual

"Space in active dialogue with the things and people it contains..."



art works including: spaces laid out by architects and designers, installation itself as an art form, public art projects, sacred spaces, the work of visionary artists, historic sites, and monuments. Students will be evaluated on their participation in class activities and critiques, their timely completion of projects, and attendance.

Graphic Design	Studio I	AD050
Dru Colbert	From pop cans to giant billboards to clothing labels, graphic	Y
AD	design permeates our environment. Understanding how to apply basic design concepts to the presentation of informativ	

Arts & Design

Class Limit: 12 Lab Fee: \$85 2D Design I (or equivalent) material is crucial to communicating with an audience. In this course students learn how typography, image, space, color, and form can be subtly manipulated to relate ideas effectively. Real-client projects are integrated as available. Software skills are developed in Freehand and Photoshop. Computer-aided design tools are integrated as the term progresses.

#### **Constructing Visual Narrative**

Dru Colbert AD Class limit: 15 Lab fee: \$85 3D studio classes in art, architecture, environmental design, performance art, Signature of Instructor. Narrative: n. & adj. N. a spoken or written account of connected events in order of happening. The practice or art of narration. Adj. in the form of, or concerned with, narration (narrative verse). How is meaning shaped by the images we create? In all cultures, throughout time, artists have sought ways to tell stories about far ranging topics—the unknown, the success of a hunt, gods and goddesses, historical events, wars, court tales, biblical themes, social instruction, morals, politics, product promotion, and personal imaginings. Historically, artists have adapted visual story telling techniques to exploit evolving technology and changing social concerns, from ancient wall markings, tomb inscriptions, scrolls, illuminated manuscripts, pottery decoration, carved totems, pictorial painting, to sequential engraved prints, and techniques employed by artists to tell stories visually -particularly through sequential composition in the graphic arts.



Through focused assignments, discussion of artists' works (historic and across cultures), and guided demonstrations in a variety of materials and techniques, students will respond to select historic forms of visual narrative to create unique contemporary forms in which to tell their own relevant stories."Case Study" studio projects will be selected to focus on key points in world history that mark technological transition in material, technique and pictorial devices employed by artists to render visual narratives. Projects will range from the hands-on exploration of ancient wall painting and low relief carving technique, through non-press printing techniques such as linocut, image transfer, and potato prints, to collage of found images, xerography, Polaroid print manipulation, digital prints and "synthetic" imaging on the computer. Students will be encouraged to explore and invent new forms of sequential composition and utilize new or previously unexplored materials or techniques. Concurrent investigations in visual studies will focus on the meaning created through the use of pictorial devices, signs and symbols, and the creation of narrative structure through repeated image/duplication, sequential composition, and visual allegory. Students will be evaluated on writing assignments, level of completion and analysis of assigned readings, research and presentation, guality and completion of projects, and participation in class activities and discussion. There are no prerequisites, however, the following courses are recommended: Intro to Arts and Design, or 2D courses in drawing, painting, printmaking, or graphic design, photography, or writing and/or literature courses.

#### Graphic Design Studio I / Visual Communication

AD390

AD393

Dru Colbert AD Class Limit: 12 Lab Fee: \$85 Visual communication is one of the most pervasive means of human communication. Graphic design, within the realm of visual communication, is a process used to effectively convey ideas and information visually through print, electronic media, products in the marketplace, and structural elements in the built environment. Its application may be promotional, editorial, informational, expositional or instigational. It may cater to, or critique -- commercialism,

#### Intro to Art & Design, 2-D Design, or Signature of Instructor



colonialism, capitalism, and advertising—or alternately be used to organize information and visualize complex data, or concepts, is it possible to construct a visual message that will be received through the din and noise of our overstuffed media environment? Past other competing messages? What are some of the contemporary issues surrounding design and the roles and responsibilities of graphic designers in the workplace and in their communities? In this introductory/intermediate level studio course you will become familiar with visual rhetoric and the basic elements, principles, and processes of graphic design that will help you to construct effective visual messages. You will work on a variety of conceptual visual communication projects in the realms of information design, editorial design, and promotional design. Lectures, demonstrations, assignments and critiques will offer a balanced framework for developing skills in creative perception, critical thinking and visual communication. An emphasis is placed on these elements and evaluation will be weighted more heavily in these areas than technical expertise on the computer. You will however, be required to learn the basics of several computer graphic applications (Adobe Photoshop, Adobe Illustrator, and Adobe InDesign and/or Quark) in order to complete coursework. You will receive basic instruction in these programs in class, but will be expected to refer to computer manuals and guide books for specific tools and techniques that may be required to visualize your ideas.

#### Advanced Graphic Design Studio: Graphic Attack

AD362

AD347

Dru Colbert AD Class Limit: 12 Lab Fee: \$80 Graphic Design Studio I, or by review of graphic design and technical computer skills evidenced by a portfolio

of work



#### Tutorial: Introduction to Italic Caligraphy

Ernest McMullen

The Italic hand developed in renaissance Italy to meet the demand for an elegant, gracefully proportioned hand that could be written at speed while maintaining its appropriateness in both formal and informal settings. This tutorial will focus on the study and practice of the basic lowercase form of italic script known as chancery cursive as well as the uppercase forms, humanist, italic and swash capitals.

In addition to daily warm up exercises, six large (18x24) pages of writing will be required each week. The first three weeks will focus on the lowercase letters followed by three weeks of uppercase forms. The remaining weeks will focus on numbers, layout and producing finished pages of quotes, literary passages or original writing. Two meetings a week will be required; Wed. will focus on critique and Fri. on new work. Evaluation will be based on the quality and quantity of the assigned work as well as the general level of focus and application throughout the term. Texts will include: *The Complete Calligrapher:* E. Callery, *Italic Handwriting:* T. Gourdie, *Calligraphy:* A. Baker, *Calligraphy: A Practical Guide to The Skills and Techniques:* D. Harris

### Ceramics I

AD027

AD163

AD442

Ernest McMullen	This course is a mixture of design theory, critique, and actual
AD	production of pottery. Class time is divided between handbuild- ing, including pinch, coil, and slab techniques, and the fundamentals of wheel-
Class Limit: 16	thrown pottery. Assignments are occasionally supplemented by in-class discussion
Lab Fee: \$85	of the previous week's work. Six hand-built and twenty wheel-thrown works are required, with reviews taking place during week five and week ten. This class is offered every year.

### Two-Dimensional Design I

Ernest McMullen
AD
Class Limit: 20
Lab Fee: \$10

This course is designed to give a basic working knowledge of visual language. Areas covered include: point, line, plane, volume, shape, size, texture, direction, space, and representation. Pencil, charcoal, ink, and collage are used extensively. The class period is divided into critique and work sessions with the major emphasis being placed on the group learning aspects of the critique. Twenty problems are assigned during the term with three to four days to complete each assignment. This course or its equivalent is a prerequisite for future work in arts and design. This class is offered every winter.

### Tutorial: Advanced Two-Dimensional Design

Ernest McMullen
Class Limit: 5
Signature of Instructor



Techniques, Skills and Vision: Problems in Painting

AD342

Ernest McMullen	This course deals with the problems encountered in the development
AD	of the student's personal voice in painting. Emphasis is placed on
Class Limit: 12	encouraging students to develop the techniques, compositional and color sense, and thematic consistency necessary to the
Lab Fee: \$20	development of self-assured artistic sensibility. Evaluations are

#### 2-D Design or other drawing course or portfolio review

based on the student's artistic output as well as his or her devotion to the learning process. This class is offered every other year.

### Life Drawing

Ernest McMullen AD Class Limit: 16 Lab Fee: \$50 A studio art course or Signature of Instructor This course attempts to create a reasonable fusion of technical accuracy and creative expression. Each student is encouraged to develop his or her own style and mode of expression through the use of varied media such as pencil, charcoal, collage, and paint in both color and black and white. Two class

collage, and paint in both color and black and white. Iwo class critiques are scheduled during the term. Evaluations are based on progress made and overall quality of each student's portfolio. This class is offered every other year.



AD416

AD087

# Tutorial: Advanced Life Drawing



Drawing the human figure is regarded by many visual artists as the most frustratingly challenging and sublimely rewarding of all artistic undertakings. Long and devoted practice is required for the integration of all of the complex elements that go into a drawing that is at the same time technically accomplished and emotionally or spiritually evocative. This tutorial will offer the student with introductory life drawing experience the opportunity to continue the learning process with a structured, studio based exploration that takes up where Fundamentals of Life Drawing left off. In addition to attending all three weekly studio sessions, students are expected to do independent work in anatomy that includes the study and drawing of historical precedents. Students will also be expected to present an illustrated oral report to the Fundamentals of Life Drawing class on one master artist. Advanced students will be encouraged to assist beginning students from time to time.

### Watercolor Painting

Joanne Carpenter AD Class Limit: 15 Lab Fee: \$30 A painting or drawing course or Intro to Arts & Design

This is a studio course in transparent watercolors. In the early weeks we investigate color and value using grids, geometric designs, and simple still lifes. Next we experiment with wet on wet techniques, washes, and glazes, using more complex studies. Among the more advanced subjects are still life, the nude, and landscape. As weather permits we spend some time in the field as well as in the studio. Weekly critiques counter our individual studio and field work. Evaluation is based on studio work and a portfolio of assignments. This class is offered every year.

# Introduction to Art History III: Renaissance Art

AD064

AD168

Joanne CarpenterThis class studies the arts of the Renaissance from the 14th through the 17th<br/>century, including the works of Brunelleschi, Michelangelo, and Vermeer. The<br/>approach is aesthetic and historical with particular emphasis on changing world<br/>views. The evolution of music, philosophy, technology, and science during this time

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# Arts & Design

AD238

AD096

AD055



period is studied as contextual support for our critical analysis of painting, sculpture, and architecture. Readings include Art and the Collective Unconscious and Amor and Psyche by E. Neumann, The Social History of Art (vol. I and II) by Arnold Hauser, The Black Death by Robert S. Gottfried, and Bronowski's The Ascent of Man. Several films from Kenneth Clark's Civilization are shown as well as other films and slide shows from the National Gallery. Course requirements include a paper or a project. This class is offered every other year.

### **Tutorial: Instrumental Music**

AD399

John CooperThis tutorial offers individual or small-group instruction in a particular musical<br/>instrument. Students taking this tutorial will meet weekly for at least 1 1/2-hours<br/>of individual instruction. Students will also devote at least 8-10 hours a week to<br/>independent and group work. Students taking this tutorial must complete an<br/>end-of-the term project or performance. This tutorial is offered upon demand<br/>to interested and qualified students. Over the past several years the College has<br/>offered tutorials in a wide range of instruments, including but not limited to:flute,<br/>mandolin, cello, violin, percussion, piano, alto saxophone, guitar, bass guitar, upright<br/>bass, and woodwinds. This course is open to all levels of experience.

### Tutorial: Music Theory and Composition II

AD214

AD363

AD077

John CooperThis tutorial offers small group instruction in a defined musical or media<br/>discipline. It involves at least one 1 1/2 hour weekly meeting with the instructor,<br/>and independent or group time of at least 8-10 hours weekly, with more time for<br/>advanced work. Requirements include an end of term project or performance. This<br/>class is offered on demand.

### History of Western Music

John Cooper

AD, HY

This course covers the traditions of western "ART" music from the era of Renaissance (1450-1600) through Baroque (1600-1750), Classical (1750-1820), Romantic (1820-1900), Impressionism (early 1900s) and into the 20th century primarily in Europe. Through these five centuries of Eurocentric artistic development the areas of music, art, literature, philosophy, religion, and architecture continuously merge. Extensive study is devoted to how this "convergence of ideas' led to the advancement of the western society and its direct descendent, the Americas. Major composers covered include Gabrieli, Bach, Handel, Mozart, Schubert, Beethoven, Tchaikovsky, Brahms, Wagner, Puccini, Chopin, Strauss, Liszt, Rimsky-Korsakoff, Stravinsky, Schoenberg, Debussy, Ravel, Ives, Copland. The course requires extensive reading, listening to recordings, and video observation.

#### Jazz, Rock, and Blues: From Their Origins to the Present

John Cooper AD, HY Lab Fee: \$10 This course is a survey of the particular styles of music that have had such a profound effect on America, as well as the world in the twentieth century. Students inquire of the social, cultural, and aesthetic elements that led to the creation of each style. The use of recorded examples provides a chronological examination of the principle musicians and composers as well as an analysis of the more influential soloists and groups. The course includes technical background into the various

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common musical "bonds of union" between Jazz, Rock, and Blues, as well as discussion concerning the permeation of these characteristics into secular and non-secular music of the 1900s. There is considerable study of the social significance of the music, exploration of the broad cultural and artistic aspects of the music, how these styles changed and evolved, and how their growth related to parallel changes in fine art music.

# The History of Rock

John Cooper AD, HY Lab Fee: \$10 The History of Rock......"We were just the spokesmen for a generation" A social history of Rock and Roll, from it's origination in the Blues, through the Rhythm and Blues of the 50's, into the era of Little Richard, Chuck Berry, and Elvis. From the British invasion to heavy metal, rap, and even Dylan and other poets like him that couldn't sing either. We've got it covered. You will listen to it, you will read about it, you will watch it happen on videos (no BeeGees or Tony Orlando)...we will connect it to the times.....and what turbulent times they were. If you are interested in what happened culturally in this country between 1950 and today, you need not look any farther than this course. For "the music of the people," ROCK, accurately reflects the varying peaks and valleys of much of the events of the past half century.

### Music Fundamentals: Intro to Reading/Hearing/Writing/Playing

John Cooper AD Lab Fee: \$10 This "hands on" course deals with the aural, mental, and physical elements of music and its production. It is divided into instructional segments including: Ear Training and Aural Perception, Music Theory, Basic Keyboard Skills, Arranging and Composition, and Basic Guitar Skills. [Detailed descriptions of segments available in Registrar's office.] This course is open to all students, regardless of musical experience. The sole prerequisite is a desire to make music or simply to enrich one's skills as a critical listener of music. Efforts are made to accommodate the special needs of the musical novice, as well as to challenge the experienced performer. Emphasis is on popular song styles, but analysis of Western Art Music forms are included for comparison purposes.

#### Improvisation in Music

John Cooper AD



This "hands on" theory/performance course for singers, instrumentalists, guitarists, pianists, drummers, etc., deals with improvisation, a spontaneous exchange or interplay of musical ideas and moods. It offers the musician the opportunity to utilize his/her technical ability to its fullest extent while enjoying the creative freedom of spontaneous composition. The class addresses technical and 33 aesthetic aspects of improvisation in all styles of music (Jazz, Rock, Blues, Classical, Folk, etc.), including the elements of melodic development, melodic cliches, rhythmic and melodic embellishment, harmonic substitutions, and development of the ear. It is multilevel in format, allowing for students of all technical proficiency to participate. In addition to two class sessions weekly (where extensive time will is spent in performance situation), each student also meets with the instructor on a private basis. In short, this course enables students to use the "tools of improvisation" to be able to make a "personal musical statement" while playing, singing, "jamming," etc.

### **Tutorial: Advanced Music Composition**

John Cooper AD

AD

This tutorial offers small group instruction in a defined musical or media discipline. It involves at least one 90 minute weekly meeting with the instructor, and independent or group time of at least 8-10 hours weekly, with more time for advanced work. Requirements include an end of term project or performance. This course is offered on demand.



AD212

AD439

AD437

#### World Percussion

Michael Bennett AD Class Limit: 12 This is a "hands on" class for learning and performing conga, snare drum, drum set, hand percussion techniques, focusing on the role of percussion in European, Latin American, African, and American music. In addition to enjoying themselves and having a better understanding of the world of percussion, students master rhythmic notation, counting and subdivision, time signature, and reading percussion music. Requirements include: test on notation, composition of a percussion ensemble solo that will be performed by the group, and a paper on a percussion topic of student's choice with approval of the instructor.

# Introduction to Glass Blowing

Linda Perrin Class Limit: 10 Lab Fee: \$75

material. The weekly schedule includes a one-hour lecture on campus and a three-hour lab off campus at a professional hot glass studio. Work in the studio will focus on learning the basic skills necessary to complete simple blown glass forms. Students will learn techniques including gathering glass from the furnace, using hand tools and creating different shapes on the blowpipe. An ongoing emphasis on shop safety will be maintained during demonstrations of the proper use of equipment and tools. The weekly lecture will focus on the historical evolution of glass blowing methods. The links between technique, time and culture tell a rich story in which the hands of the skilled glass artisan play a central role. From the hollow core vessels made in 1300 BC in Syria, to the contemporary glass sculptures created by Dale Chihuly we will reflect upon what it means to express oneself in glass. Student's sketchbook, the completion of five basic vessel shapes, and participation in an on campus exhibition of our work.

This hands-on course will introduce the student to blown glass as an artistic

# Four-Dimensional Studio

AD354

Nancy Andrews AD Class Limit: 15 Lab Fee: \$30

This class gives students an opportunity to investigate time-based art. 4-D art draws on the vast and varied traditions of theatre, dance, media, and music, often crossing boundaries to create hybrid works. This course will focus on concepts and processes related to representing and experiencing events that take place in time. Strategies for planning, proposing, and producing work individually or collaboratively will be discussed and practiced. Some class periods will be workshop in style, and include physical and vocal exercises and improvisations. The course will include basic instruction and use of video cameras and sound recording devices. A majority of the learning in this studio course will happen as students make projects and reflect on their work and the work of others. Documentation and information about contemporary and historic time-based art will be presented. Students will be evaluated based on imaginative exploration of ideas and materials, extent and depth of work processes and research, completion of assigned projects, and participation in class discussions.

Animation

Nancy Andrews AD Class Limit: 12 Lab Fee: \$50 Intro to Art & Design, 2D Design, or Signature of Instructor AD234

This course explores animation as a form of creative expression, experimentation and personal vision. Various techniques, such as drawing, cut-out, painting on film, and under-the-camera collage, will be introduced. Students will create flip-books, video pencil tests and 16mm animated films. Students will be given exercises and

assignments that guide them through processes for making art. Various artists' animated films will be screened and discussed. History and concepts related to animation and film will be introduced through screenings, readings and discussions.



AD443

### Animation II

Nancy Andrews AD

Class Limit: 12 Lab Fee: \$80 Signature of Instructor



The class further develops ideas, skills, and animation projects through a mix of: in-class projects/demos/skill based activities, readings, discussions, screenings, presentations, and individual meetings with the instructor. Students will write a production plan that will serve as an outline of each student's project(s) for the term. The instructor will provide useful activities, information, resources, critiques and guidance. A schedule of presentations of student works-in-progress will be created. Readings will address ideas and theories related to animation studies and processes. Advanced animation techniques may include camera work and sound design. Work completed over the term may be a single longer animation or a series of animated shorts depending on the student's preference and animation goals. However, all students will be expected to produce advanced level work and encouraged to experiment and push their work to the highest level. Students will be evaluated on their projects, participation in critiques and discussions and overall level of engagement with the course material and class.

### Art of the Puppet

Nancy Andrews AD Class Limit: 12 Lab Fee: \$30 Intro to Art and Design, 2-D Design, Studio, 3-D Design, Performance Art or The Sculptural Object in Performance AD248

Puppetry is the art of designing, constructing, and operating puppets, usually for an audience. A puppet is an articulated figure controlled by external means. Puppets have been used for entertainment, education, therapy, spectacles and social/ political demonstration. This course will explore both the construction and use of puppets, investigate the theory, history and practice of puppetry, and seek out the role and potential of puppets. Various types of puppets will be made, including hand

puppets, rod puppets, shadow puppets, and large scale puppets. Students, individually and in collaboration, will create both original and adapted scripts and scenarios for their puppets, exploring relationships between text, story, character and movement of the puppet. In addition to live work, students may choose to develop puppets

for use within film, video or multimedia projects. The course will include readings on puppetry, screenings, presentations, demonstrations, and group discussions. Students will be evaluated on 1) participation in class discussions



# Arts & Design

and exercises, 2) quality and effort demonstrated through projects/presentations and, 3) understanding and study of readings and screenings as demonstrated in discussions and projects.

#### **Documentary Video Studio**

AD232

Nancy Andrews AD Class Limit: 12 Lab Fee: \$30 An intro level arts and design studio course or film

history course

A documentary video or film purports to present factual information about the world. A documentary may take a stand, state an opinion, or advocate a solution to a problem. A documentary may function in the realm of art. Documentaries may compile images from archival sources, interview testimonies about social movements or events, record an ongoing event "as it happens", or synthesize these and other techniques. We will look at various documentaries both historic and contemporary, and a number of strategies and styles, including; video diaries/ autobiographical works, cinema verite, propaganda, documentary activism, nature documentaries, and experimental genres. Students will learn the basics of video production, including, using a video camera, video editing, production planning, lighting, microphone use, and interview techniques. Students will make several documentary projects, both collaboratively and individually. Students will be evaluated on their



AD240

AD247

#### Soundscape

Nancy Andrews, Sean Todd AD Class Limit: 12 Lab Fee: \$60 An AD and ES course



# Soundscape may be defined as an environment of sound (or sonic environment) with emphasis on the way it is perceived and understood by the individual, or by a society. It thus depends upon the relationship between the individual and any such environment. The term may refer to actual environments, or to abstract constructions such as musical compositions and tape montages, particularly when considered as an artificial environment. In this interdisciplinary course we investigate a broad range of acoustic concepts, ranging from a scientific treatment

mentary projects they produce.

participation in group discussions and critiques, and on the docu-

of the nature and behavior of sound both in air and underwater, the biology of hearing, the use of sound by animals in communication, and the cultural applications of sound and music in human society. Students will explore methods of composition using sounds as materials for assigned projects. Various approaches to understanding and experiencing sound will be examined, including spoken word, radio shows, music, and experimental forms. Labs will focus on understanding the nature of sound, and practical application of sound equipment, technique and theory. Students will learn about microphones, sound recording, amplification, and the physics of sound. The course will culminate in a performance to the community of student presentations that expresses the wide use of sound as part of our culture. Evaluation will be based on class participation and a set of assignments, including a final project. Emphasis will be placed on an artistic interpretation of soundscape, although students will be expected to have a basic understanding of the scientific basis of acoustic phenomena.

#### Intermediate Video: Studio and Strategies

# Nancy Andrews AD Class Limit: 12

38

This course explores more sophisticated forms of image making, editing, and theory. Students screen and discuss documentary and video art works, and study writing/ criticism in the field, focusing on moving image theories, concepts, strategies, and a wide range of aesthetic concerns. The class will engage in various aspects of

# Arts & Design

Documentary Video Studio, or Introduction to Video Production production and approaches to cinematography, sound and editing/ compositing. Participants work on a project-oriented basis that includes critiques and training in video production skills. Students should be both self-directed and interested in developing a support system for producing each other's work. Students will be evaluated based on video projects (fiction or non-fiction), critical writings, class participation and presentations.



AD231

### Advanced Projects: Art Practice and Concepts

Nancy Andrews AD Class Limit: 12 Lab Fee: \$30 At least two arts and design related courses

This course is designed for students who are prepared to pursue an in-depth project. This seminar combines academic study and studio work, and explores theory and practice related to various visual arts disciplines. The course will provide individual guidance and group critiques for students from various disciplines to meet, present and discuss their work. Contemporary critical issues are addresses through readings, screenings/slides and discussions. We will explore how an artist builds

a body of work, and discuss working processes and issues in art and society. The course will include field trips and visiting artists, when available and pertinent. Students will be evaluated on their progress towards their goals, and participation in discussions and critiques. Students may work in video, painting, photography, installation, sculpture, 2-D, or hybrid forms, but students should already have the basic skills required for their chosen project(s).



# Colin Capers AD, (WF) Lab Fee: \$35



D.W. Griffith, pioneer of early cinema, prophesied in 1924 that by 2024 cinema would have been instrumental in "eliminating from the face of the civilized world all armed conflict". Where have things gone wrong? Cinema is a powerful medium that in many ways is still struggling to find its place among the other arts; there are many promising byways that have been overlooked or under-explored. This course explores the histories, production and meanings of motion pictures. Using various films as case studies, we will look at the development of film forms, techniques and genres from 1946 to the present - the second half of cinema history. Films studied will include examples of narrative, documentary, animation, and the avant-garde. Students will learn concepts of film analysis and criticism, and will have opportunities to practice critical skills in class discussions and in research and writing assignments. Evaluation will be based on attendance, participation in class discussion, written papers, and research presentations. Film gives us the opportunity to, in the words of David Lynch, "get lost in another world...to dream in the dark". Who decides which dreams we writing fourse I will see? Through an understanding of where cinema has been we can more effectively

shape its, and our, future.

### History of Filmmaking (1895 - 1945)

AD378

Nancy Andrews AD. HY Class Limit: 15

This course explores the history, production and meanings of motion pictures. Using various films as case studies, we will look at the development of film forms, techniques and genres, beginning in the 1890s and progressing through the first fifty years of cinema history. The films studied will include: narrative, avant-garde, documentary, and animation. Students will learn concepts of film analysis and

Colin Capers,

AD438

# Arts & Design

AD377

MD036

Lab Fee: \$35



criticism. Students will have opportunities to practice critical skills in class discussions, and in research and writing assignments. Students will be evaluated based on attendance, participation in class discussion, and written papers.

### **Biology Through the Lens**

Stephen Ressel Class Limit: 12

Lab Fee: \$95

research is conducted and presented to the public. The most provocative images of the natural world don't just happen; they are made by individuals skilled in both photography and the life sciences. In this course, students will develop technical, observational, and aesthetic skills to extract relevant information from the natural world and organisms collected from nature. Through acquired skills, students will be expected to conceive methods to document the biological world and communicate concepts using strong visual imagery. Photographic techniques and historical examples will be learned and applied. Students will be evaluated based on their successful completion of a series of project-based assignments, participation in discussions and critiques, and their ability to effectively convey biological principles through photography. Pre-requisite: at least one introductory-level biology course and one photography course or permission of instructor. Students will be expected to provide their own camera for the course; a digital camera with interchangeable lenses is recommended.

Photography is one of the primary means through which scientific observation and

### Introduction to Digital Photography

have been built.

Staff AD Class Limit: 15 Lab Fee: \$85

Since it's inception, photography has informed our perceptions of the world around us more dramatically than any other visual medium. This simple record of light is powerful enough to evoke the strongest of emotions, revealing everything from scenes of breathtaking beauty to the worst of human nature. Photography has been utilized both as artistic medium and "faithful" document of current events. It is also the foundation upon which all graphically-representational technologies

For this intro-level course, we will survey a broad range of technical, artistic, and social aspects of photography. Through assignments, discussions, critiques, and presentations, you will be introduced to the fundamentals of photography in order to use this medium to its fullest potential. We will explore the history of photography, camera controls such as shutter speed and aperture, composition, visual literacy, various photographic genres, photography's role in society, and the digital workspace.

Evaluation will be based on attendance, in-class participation, completion of assignments, and a final portfolio of ten prints. Students are expected to have regular access to a digital SLR camera. No prior experience with SLR cameras or Adobe Photoshop is required.

#### Theatre Workshop

Staff

AD

The heart of this course is the production of a particular play which is chosen by the course participants from a selection of plays introduced in open play readings during the first week of fall term. Class time is spent almost entirely on rehearsals, and rehearsals in addition to class time are necessary. The only necessary reading beyond the play may be Acting, The First Six Lessons, by Richard Boleslavsky. There

MD033

AD420

AD387

is ample opportunity for production work though not necessarily within the framework of the course.

## Principles of Comedic Improvisation

Jennifer Shepard Class Limit: 15

Larrance Fingerhut, This course teaches the underlying principles of improvisational comedy. Improv at its most basic level is about agreement, cooperation, and collaboration towards a common goal. Improvisers must offer their support/ agreement in a very real and active way by listening to their fellow performers and by offering their own ideas/ initiations/creativity. In this way people work together to build a scene/story out initiations/creativity. In this way people work together to build a scene/story out of nothing but pure creativity and the willingness to support and agree with one another. The most fundamental idea of improvisational comedy is captured in the phrase "Yes, and...." Every improviser is responsible for saying "Yes..." to every idea he or she receives and to add her or his own input and ideas. Students will be taught the basic principles of improvisation and will get a chance to improvise in each class. Classes will consist of ensemble building warm-ups, theatrical improvisational games, and improv scene work that will encourage each participant to offer their ideas without judgment. We will also explore The Harold which is the classic Chicago long form structure.

# The Eye and the Poet

William Carpenter, Dru Colbert AD Class Limit: 15 Lab Fee: \$80 Introductory arts and design course in graphic design, painting or photography OR a creative writing course

Using a shared creative vision, students collaborate on making artifacts embodying both verbal and visual elements. We look briefly at the history of creative interchange between writers and visual artists, then concentrate on collaborations of our own. Particular emphasis is placed on the use of typography as visual form, but use of other visual media is also encouraged. The three-hour classes involve both a writing workshop and illustration studio, using students' own art and poetry

for inspiration and illustration. In order to take best advantage of this course, we recommend one prior creative writing course or one arts and design course. Students are expected to prepare nine visual texts during the term. In many assignments, students may use a medium of their own choosing. Instruction in a variety of hand generated and digital image making techniques, typography and creative writing will be provided through the course of the term. Offered every third year.





find more of our classes online at coa.edu

Do you want to take some notes on potential classes?

# Human Studies

Combining the humanities with the social sciences, the human studies area provides students with a broad and diversified perspective on human nature and culture. The faculty in the Human Studies resource area represents a genuine diversity of background and expertise, holding advanced degrees in such fields as: anthropology, economics, education, history, law, literature, philosophy, and psychology. Classes are small and discussion is emphasized with the aim of breaking down artificial distinctions inherent in specialized branches of knowledge.











# NEIL OCULI

ST. LUCIA CLASS OF 2011



# What is your dream occupation? To be the Prime Minister of St. Lucia

Student Spotlight

# His courses so far...

### Agroecology

Human Ecology Core Course Introduction to Keyboard/Piano

Left, Right and Future: Alternative Political Philosophies

Tutorial: Business and Technical Writing

French Skills Consolidation II

Introduction to Econometrics

Human Relations: Principles and Practice

Public Speaking Workshop

Global Environmental Politics: Theory and Practice

Political Campaign Communication: Messaging and Advertising

21st Century Entrepreneurship

Political Action and Greek Philosophy

Launching a New Venture

Histories of Power: States and Subalterns in Modern Latin America

Practicum in Residential Windpower

Practical Activism

Ecotourism: Principles and Practice

Emarketing

Read more >

# NEIL OCULI

# Human Studies

HS302

#### What has been your favorite class at COA? Why?

I have enjoyed all my classes. The Human Ecology Core Course was one of my favorites. The students in COA's classes created intellectual and stimulating conversations and the professor was very good at facilitating this process. Global Environmental Politics was a very good class along with Practical Activism, Histories of Power, and Launching a New Venture - all very challenging but rewarding. Greek Political Philosophy and Campaigning brought together many questions about politics and framing issues in two different eras.

#### What was your favorite lesson/lecture/discussion/project at COA? Why?

This summer I will be doing a project on food security and environmental issues facing my home community. I will be going with two friends from South Africa and Belize to bring a multi-disciplinary perspective to solve this issue.

#### What do you see yourself doing after COA?

Working at home, starting my business, and helping my community in the Caribbean.

#### What is happiness to you?

Happiness is when friends and family are happy. Happiness is doing what you believe and love. Happiness is savoring the moments especially when you are with wonderful people. Happiness is finding peace with yourself and others.

#### Have you had an internship? If so, doing what?

I have not done an internship but I am planning to do one with the Organization Of American States (OAS) next year.

#### What are your ideas for your senior project?

For my senior project I have this ambitious plan to turn St. Lucia into an energy independent nation. So for my senior project I will do a feasibility study of wind and solar energy on the island and present a business model that will harness energy that is economically viable and community oriented.

#### What do you like to do when you're not doing school work?

I love soccer, playing cricket, following business and politics, and watching movies, reading books mainly inspirational and motivational books about past and present leaders. I love talking and getting to know people.

#### What came first, the chicken or the egg?

That is a good question but I think the chicken came first or maybe the egg came first. It does not matter, they both are here so let's enjoy them both.

#### What do people say is your most marked characteristic?

People call me a politician and sometimes Dr. Phil. lol. I am very verbal I guess.

#### Why did you choose to come to COA?

I love to live, work and learn in a community. Friends and family are very important to me. I found it here at COA. Understanding yourself and the world through multiple lenses is the way forward.



Student Spotlight

### Methods of Teaching Writing Across the Curriculum

Anne Kozak ED, W Class Limit: 15

Signature of faculty in writing or education



#### and strategies for teaching exposition, argument, and persuasion. Students put this knowledge to practical use by working as peer tutors in the Writing Center. Students participate in this course for one academic year and receive one credit. In addition to Williams' Style: Ten Lessons in Clarity and Grace and Irmscher's Teaching Expository Writing, students read numerous articles from College Composition and Communication, College English, The Writing Instructor, Language Arts, and English Journal, and Research in the Teaching of English as well as a text dealing with teaching writing in their specialty, e.g. Writing Themes about Literature or a Short Guide to Writing about Biology. For this class students need working knowledge of grammar and usage,

This course not only gives students knowledge and understanding of rhetorical

theory and practice so they can work effectively with developing writers, but

also provides them with a review of grammar, methods of evaluating writing,

excellent writing skills, and the ability to work closely with people.

Offered every other year.

#### **Communicating Science**

Anne Kozak W Class Limit: 12 Lab Fee: \$20 Signature of Instructor

This course is designed for science students developing their research skills working on research projects for a principal investigator; specifically this course will improve the students' writing ability and introduce them to writing for the scientific

writing

community. The course involves not only learning to write an abstract and literature review but also understanding the protocols for writing a scientific paper based on lab or field data. In addition, students will prepare a power point presentation on their research to present at a meeting or conference such as the Maine Biological Science Symposium or the annual INBRE meeting. In addition to working with the instructor, students will work on writing focuse dt the content of their writing with the principal investigator.

#### Advanced Composition

Anne Kozak w Class Limit: 12 Writing Seminar II, Signature of Instructor

This course has two goals: 1) to aid the student in developing and refining a style and 2) to make the student cognizant of the interaction between style, content, and audience. To achieve these goals, students write several short papers or one or two longer ones, meet regularly with the instructor to go over these, edit and discuss the exercises in Style: Ten Lessons in Clarity and Grace by Joseph Williams, and participate in review sessions. This class is offered every winter. writing focuse de

#### Tutorial: Introductory Writing



In this course, students write and analyze short descriptive and expository essays, study sentence-combining techniques, keep a journal, and in some cases supplement class work by working with a peer tutor to learn word processing or to study grammar, punctuation, and/or spelling. Students learn techniques for prewriting and rewriting and apply these to their own themes. Evaluations are based on student participation in and preparedness for weekly meeting and conferences, writing focuse of essays, and a final essay examination.

find more of our classes online at coa.edu

HS212

HS597



# Human Studies

HS706

#### The Anthropology of Health and Illness

**Betsy Whitaker** Class Limit: 15

HS746

Medical anthropology is the part of anthropology that focuses upon the human experience of health and disease. Evolutionary and comparative approaches are relevant given that the health of the mind/body is an inescapably biocultural phenomenon, standing at the intersection of history, biology, and culture. Many health-related facts of individual and social life such as illness, healing, and death are human universals, but they by no means take a uniform shape everywhere. Accordingly, this course emphasizes comparisons and contrasts, whether across healing traditions, population groups, or time periods. By weaving biological and cultural approaches throughout the readings and discussions, the course will build a model of the relationship between humans and diseases over historical and evolutionary time scales. There will be a focus on political economic dimensions of disease, particularly the impact of inequality on disease rates, access to treatment, and outcomes. Students will consider the practical implications of studies in the field of medical anthropology both for understanding disease processes and cultural coping mechanisms, and for making the most of historical lessons to manage current health concerns. Course activities include readings, films, discussions, and student presentations. Evaluation will be based on class participation, essays, a research paper, and an experiential learning assignment.

### Changing Schools, Changing Society

Bonnie Tai HS, ED, (WF) Class Limit: 15 Lab Fee: \$20

How have schools changed and how should schools change to ensure "the good life"? This interdisciplinary, team-taught course examines the potential and limits

ED111

FD075

lasting positive social, cultural, and environmental change. It explores three essential questions about education and its relationship to human development and social progress. Looking at the role of formal educational institutions and their relationship to government and other social institutions: What is the role of schools in development and social change? Considering the role of teachers as agents of change: What is the role of the teacher in school/organizational change and community development? And finally, reflecting on our subjective motives for working in the field of education: Why do you want to become an educator? Through course activities such as service-learning in schools and group project work on a contemporary educational phenomenon (e.g., school choice, new technologies for learning, single-sex education), students will learn how educational policy at the federal, state, and local levels impacts teaching and learning, investigate the moral dimensions of the teacher-student relationship, and reflect on the construct of teacher-learners. Students will be introduced to a variety of educational research methods (i.e, ethnography, case study, quasi-experimental, correlational) that will allow for critical analysis of the knowledge base that strives to impact educational policy and practice. Evaluation will be based on participation, reflective writing, service learning, and group projects and presentations. writing focuse de This class is offered every other year.

of a human ecological education as an instrument of enlightened progress and

### Introduction to the Philosophy of Education

Bonnie Tai HS, ED, (WF) Class Limit: 15



This course explores perennial questions in education through philosophical inquiry. What does it mean to be educated, to know, to teach? What are the purposes of education and who should determine them? What is the nature of the relationship between education and the development of culture, nationhood, and humanity? Students will analyze the educational philosophies articulated in historical and current education reform documents across cultural and national borders, develop a personal philosophy of education, and document writing focuse of a philosophy in action at a site of formal or informal education.

# Tutorial: Language Diversity, Loss, and Revitalization

Bonnie Tai HS Class Limit: 6

Proficiency in a language other than English



Already an ever-growing proportion of the world's approximately 6000 languages are considered endangered, yet we are only beginning to understand the close relationship between biological and cultural diversity and their importance to our survival as a species. With each extinction of a language, we lose invaluable local moral identities as well as natural and cultural histories. This tutorial takes a broad view of language diversity, including theories of the evolution of language and relationships between biological and linguistic diversity, language and thought, linguistic and musical intelligence, language shift and revitalization. We will consider several pressing questions: Why is language diversity important to preserve? What are the factors that threaten language survival? How do language policies in government and education impact linguistic and cultural hegemony? Do new media technologies facilitate or hamper language preservation efforts? Is language shift from mother tongue to a language of power inevitable or desirable? How do urbanization, globalization, and changing family structures impact language shift? What do communities gain or lose when grandchildren can no longer communicate with their grandparents? Are there effective strategies to reverse language shift? Students will read from a multidisciplinary selection of texts, conduct research on a language revitalization or preservation effort, and compile a knowledge base of language revitalization projects.

#### Femininity and Masculinity go to School: Gender, Power & Ed ED 085

Bonnie Tai HS, ED, (WF) Class Limit: 15



#### Intercultural Education

Bonnie Tai HS, ED Class Limit: 15 Lab Fee: \$20 An introductory sociology, anthropology, cultural psychology, or education course FD095

classrooms, schools, and communities. This course explores some challenges and possibilities in education as a result of historical inequities in the distribution of power, knowledge, and resources, and the increasing mobility of peoples in a global economy. We will consider questions such as: What is multicultural, intercultural, and global education? How do culturally different teaching and learning styles impact notions of academic achievement, school success, and teacher quality? How can student assessments and performance standards respond effectively to cultural differences? How can educators effectively communicate and partner with parents and community members

of teachers in providing equal educational opportunity according to federal and state laws? We will read theory and research on educating across and about

across cultural differences? What are the legal and moral obligations

Educators in and outside of the U.S. teach in increasingly culturally heterogeneous

find more of our classes online at coa.edu

# Human Studies

HS608

cultural difference, reflect on our own cultural affiliations, and actively explore the dynamics of identity, culture, and power in the teaching-learning relationship and in educational institutions through case discussions and other group activities. Investigations of the education of self and other will take place through class activities, readings, autobiographical and fiction writing, reflective logs, media analysis, and a field research or curriculum project. This class is offered every other year.

Human ecologists who educate, embrace not only the interdisciplinarity of

#### Curriculum Design and Assessment

ED104

Bonnie Tai HS, ED Class Limit: 12

knowledge, but also the complexity of individual student development in political school environments. This course focuses on two essential nuts and bolts of teaching: curriculum design and assessment. How can a teacher learn what students know, how they think, and what they have learned? How can a teacher use this knowledge of students and subject matter to plan learning experiences that will engage diverse interests, adapt to a wide range of learning styles and preferences, accommodate exceptional needs, and meet state-mandated curriculum standards? This course is a required course for prospective secondary school teachers that provides an introduction to the backward design process and diverse assessment strategies. Students will engage in examining theory and practice designing and implementing curricula and assessments. A service-learning component will provide students with the opportunity to observe and participate in a variety of assessment methods in the subject they aim to teach. The final project will be a collaboratively designed, integrated curriculum unit, including lesson plans and assessments. Evaluation will be based on participation, reflective writing, individually designed lesson plans and assessments, and the final project.

Although Southern Africa is known primarily by those in the North for its colonial,

postcolonial, and racial conflicts in Zimbabwe, South Africa, Mozambigue, and

### Race and Gender in Southern Africa

HS721

Bonnie Tai, Karen Waldron HS, (WF) Class Limit: 15

Lab Fee: \$30



Angola, it has inspired a wealth of literature, visual and performing arts, and music. This course explores the relationship between people, indigenous and colonists, and the landùfrom the Namib and Kalahari deserts, the Zambezi and Limpopo Rivers, and the Okavango Delta to the Cape of Good Hope. In particular, we will be looking at changing gender roles and race relations as Zulus, Tswana, Swazi, Shona, Ovambo, Macua, Basotho, and others grapple with age-old ethnic differences and newer postcolonial identities. The questions that inspire this course include the following: How have colonization, militarism, capitalism, and modernity impacted gender roles? How do race and ethnicity impact the development of national, political, economic, and cultural identities? What adaptations or transformations of traditional ecological and cultural knowledge in this region shed light on healthy and thriving postcolonial identities and communities? How do the differences in colonial attitudes and practices by the English, Dutch, and Portuguese impact contemporary race and gender relations? Class activities will include music, films, guest speakers, and lively discussions. Readings will draw from historical, anthropological, sociological, political, and literary sources. Students will be evaluated on class participation, a variety of short assignments showing engagement with the materials of the course in historical and contemporary representations of the region, and an interdisciplinary research project (e.g., on a theme or topic, place or community, phenomenon, social movement, or cultural tradition), writing focuse of including a public presentation. Previous courses in history, anthropology, politics, women and/or gender studies are highly recommended.

Classic Shorts: Land of the True Believers

Candice Stover Class Limit: 15



One question built into the sub-title of this section of Classic Shorts is, of course, where is that land? Then, once we arrive there, who are the believers we find-and in what? Exactly what actions are these believers prepared to do to preserve or convey their beliefs about family, war, trust, and love and their impact on this tough, fragile planet we share? The short-story writer, too, is a kind of believer: in this genre and its art. One writer (William Trevor) calls it "the art of the glimpse ... an explosion of truth ... concerned with the total exclusion of meaninglessness"; another (Margaret Atwood) describes it as "a score for voice .. keeping faith ... with the language ... .told with as much intentness as if the teller's life depended on it." Some of the lands we'll follow these storytellers into include an opal-mining town in Australia where one child's imagination exerts unusual power, the locked doors and wire bullpen of an Arizona prison where identity and possibility collide, and the base of a statue in a convent garden named Our Lady of the Wheat where memories lead to a pastrami sandwich and some unexpected revelations. Seeing and articulating what we believe about how each story is made-its characters and settings, gestures and metaphors, the instincts and technical decisions behind every page-will be part of our exploration. Please come prepared to read closely, discuss openly, and experiment in the art of the glimpse. Critical responses, midterm conference, and final paper (original short-story option encouraged) required.

# Watching Globally: Intro to Contemporary Cinema of the World

Colin Capers HS Class Limit: 15 Lab Fee: \$30



Among topics covered will be: new media, the digital revolution, the changing face of copyright law, how movies can mask cultural assumptions and reinforce stereotypes or reveal new ways of seeing/perceiving. Evaluation will be based on class participation, weekly response papers, and a final paper/presentation.

### Film Theory

Colin Capers Class Limit: 12



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HS654

Human Studies

to write and revise three or four critical response essays based in analytical frameworks covered in the course. All students will be required to complete a final research paper and presentation. Students should expect to spend 7-9 hours a week in class meetings, labs and screenings (in addition to writing, research). Students will be evaluated on papers, final project and participation in discussions. A previous art class is recommended.

Joseph Schumpeter in 1942 used the phrase "creative destruction" to describe

#### Creative Destruction: Understanding 21st Century Economies HS466

HS Lab Fee: \$20

**Davis Taylor** 

the process by which capitalism creates vibrant economic growth and new technologies and modes of production, but in doing so destroys organizations and relationships linked to older technologies and modes of production, often with adverse effects on individuals and communities. Many observers feel that Schumpeter's description is even more appropriate today, as information technologies and the long arm of multinational capitalism create vast new potential for economic growth and improvement in living standards, while rapidly altering social and environmental relationships, marginalizing those communities unable or unwilling to adapt, and exacerbating existing inequalities. This course gives the student currency in the dynamic issues surrounding 21st Century capitalist economies (including "advanced," developing, and robber/crony capitalisms) using an institutionalist approach; as such, the course focuses more on using a variety of approaches to understanding economic phenomena, and less on imparting the standard body of neoclassical theory (although the latter will be used where appropriate). Fundamental capitalistic structures and processes are examined and contrasted with traditional and command economies. Major attention is given to the role of multinational corporations in the global economy. Other topics include technology, stock markets and investing, money and central banks such as the U.S. Federal Reserve, business cycles, unemployment and inflation, trade and currency issues, consumerism and the nature of work, and whatever other topics students collectively wish to explore. Student evaluation is via multiple diagnostic tools, possibly including guizzes, reading guestions, a current event portfolio, written book reviews or issue analysis, and oral exams.

#### Beyond Big Box: Creating Local Economic Democracy

Davis Taylor HS Lab Fee: \$50



Big Box stores are increasingly perceived as having negative net impacts on local

HS631

and field trip participation, responses to reading/field trip/speaker questions, and a final project in which each student creates a strategy for growing economic democracy in a locality of her/his choice.

What do global warming, biodiversity loss, deforestation, loss of topsoil and

#### Environmental Issues in Developing Countries

Davis Taylor HS Lab Fee: \$20



desertification, increased risk to hazards such as floods and tsunamis, and coral reef decline have in common? All of these environmental challenges most strongly come to bear in developing countries. A triad of features in particular make environmental issues in developing countries a particularly vexing human ecological dilemma: some of the world's greatest natural resources and most relatively intact ecological systems are in developing countries, yet these countries have scant resources for environmental protection AND have large populations of poor people directly dependent on the environment for their livelihood and well-being. This course examines these issues and how people (in both the developing and developed worlds) are responding to them. We start with a survey of the salient environmental issues, then examine their common and different social, political, economic, and cultural frameworks. In particular, we will explore modernist socioeconomic development and globalization and examine how they contribute to and try to deal with such environmental challenges, and focus on emerging local responses/ strategies and transnational activist networks (that some observers refer to as grassroots or postmodern development). A myriad of subthemes emerge from this study, such as poverty, gender, sovereignty issues, corruption, subaltern resistance, and the roles of elites. Evaluation is based on classroom participation, responses to reading questions, and a final project involving assessment and recommendations in regard to an issue of the student's choosing.

#### International Trade and the Global Monetary System

HS612

HS634

Davis Taylor HS Class Limit: 12 Lab Fee: \$30 An economics course, Signature of Instructor



interrelationships, and economic impacts of global trade and capital flows. Emphasis is divided equally between establishing a sound theoretical foundation for explaining international trade and finance phenomena, and assessing their welfare implications as they relate to issues such as national sovereignty, the roles of multinational corporations and international organizations (e.g. the World Bank, International Monetary Fund, and World Trade Organization), labor movements, consumers, and the environment. Topics will include comparative advantage, the role of economies of scale and imperfect competition, protection (tariff and non-tariff barriers), trade and economic development, economic integration (e.g. the European Union and NAFTA), the political economy of trade, foreign exchange markets, international factor movements (labor and capital flows and controls), the international monetary system, direct foreign investment, alternative exchange rate regimes, balance of payments, financial crises and contagion, and international debt. The roles of international organizations will be examined. Evaluation will be based on participation in classroom discussions, occasional reading questions, and a series

This course examines theoretical and empirical aspects of the growth,

#### Macroeconomic Theory

Davis Taylor HS, QR Class Limit: 12 An economics course, Signature of Instructor This course seeks to give students advanced knowledge of macroeconomic theories, models, and concepts, with a focus on those that relate directly or indirectly to

international trade. The course is designed for those students who seek a relatively formalized presentation of neo-classical perspectives and methodologies. Emphasis will be evenly placed on both formal modeling (mostly through graphs, but occasionally with the use of calculus) and intuitive approaches to understanding economic phenomena. Topics will include unemployment and inflation, fiscal and monetary policy, consumption and savings, economic growth and



HS720

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of short, essay-based exams.

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3

Human Studies

business cycles, monetary theory and banking systems, along with topics of student interest. Evaluation will be determined by student participation, a midterm paper, and a final exam (the format of which will be determined by the class). Students should be comfortable with graphical modeling, and have familiarity with calculus.

#### Marvelous Terrible Place: Human Ecology of Newfoundland

HS593

PASSPORT

Davis Taylor, Sean Todd, Natalie Springuel HS Class Limit: 15 Lab Fee: \$850 Signature of Instructor

the largest caribou herd in North America, the only confirmed Viking settlement in North America, and Paleozoic water bottled for consumption? The remote Canadian province of Newfoundland and Labrador presents a stunning landscape, an astoundingly rich ecological setting, and a tragic history of poverty amidst an incredible natural resource, the northern cod fishery, that was ultimately destroyed. The province has been alternately invaded or occupied by different groups of Native Americans along with Norseman, Basgues,

Where is the largest population of humpback whales in the world,



French, British, and the U.S. military, because of its strategic location and rich fishing and hunting grounds. One of the first and one of the last British colonies, this richest of fisheries produced a very class based society, composed of a wealthy few urban merchants and an highly exploited population of fishing families often living on the edge of survival. But within the past 50 years, Newfoundland society has been forced to evolve. The provincial government looks towards oil and mineral exploitation to turn around the economy, while ex-fishermen consider eco- and cultural tourism with growing ambivalence. This then is our setting, and background, for an intense examination of the human ecology of this province; the relationship between humans and their environment, sometimes successful, sometimes otherwise, the struggle between the tenuous grasp of civilization and this marvelous, terrible place. To do this we will discuss various readings, examine case studies and review the natural and human history of this unique province. Our learning will culminate with a two-week trip to Newfoundland to examine its issues firsthand. Evaluation will be based on class and field trip participation, responses to reading questions, a field journal, and a final project.

### Practical Activism

Doreen Stabinsky HS Class Limit: 15 Lab Fee: \$30



Through project-based work, we will pay attention to developing such skills as: interacting with the media; interpreting technical information and report writing; lobbying and other political work; grant-writing and other types of fundraising; and non-profit administration and management, including strategic planning, program development, board management, and non-profit legal issues. Student interest will determine the exact topics covered over the term. To begin, we will survey models of organizational structure, from small grassroots, single-issue groups, to large, international, multi-issue organizations. We will also survey various modes of operation, critically analyzing different strategies, tactics, and types of activist/ advocacy campaigns, including: non-violent direct action, student organizing campaigns, consumer boycotts, legislative campaigns, and voter initiatives. Local professionals will join us throughout the course to provide expert input on various topics, and to inform students about the types of jobs available in environmental advocacy and the range of skills needed for each. There will be a large emphasis placed on hands-on work on student-defined projects. Students will be evaluated based on class participation as well as completion of course projects.

In this course students will gain practical experience and skills to prepare them to

work in advocacy positions for environmental and/or social justice organizations.

#### Agriculture and Biotechnology

HS405

HS454

Doreen Stabinsky

This interdisciplinary course combines science and policy. We will begin with a basic introduction to the science of biotechnology and students will learn the biology of

Class Limit: 15 Lab Fee: \$10 Signature of Instructor



the main products of agricultural biotechnology presently used in agricultural production. We will also learn about general ecological concerns regarding engineered crop plants by reading The Ecological Risks of Engineered Crops by Jane Rissler and Margaret Mellon. The course will then turn to guestions concerning the international political ecology of biotechnology: Who should assume the possible risks of agricultural biotechnology, such as the transfer of genes to wild and weedy relatives? Should the patenting of life forms and/or their genetic material be permitted? Students will study how communities and nations throughout the world are confronting the various social, cultural, economic, and biological impacts of these technologies in a number of international diplomatic fora, including the World Trade Organization, the Food and Agriculture Organization, and the Convention on Biological Diversity. During this section of the course, the topics we cover will depend on student interest. We will also look at domestic efforts to regulate genetic engineering, including here in Maine, through an analysis of grassroots campaigns to require the labeling of genetically engineered food. There may be one or two field trips associated with the class. The course will be conducted primarily in a discussion format. Students will be evaluated based on their participation in class, as well as several writing assignments. Students will write two to three response papers and a final synthetic paper or project will also be required.

#### Global Environmental Politics: Theory and Practice

Doreen Stabinsky HS Class Limit: 15 Lab Fee: \$10

This course will cover the politics and policy of regional and global environmental issues, including many of the major environmental treaties that have been negotiated to date (Montreal Protocol, Framework Convention on Climate Change, Convention on Biological Diversity). Students will gain both practical and theoretical understandings of how treaties are negotiated and implemented, through case studies of the climate change convention and the Cartagena protocol on biosafety. We will draw on both mainstream and critical theories of international relations when analyzing these negotiations. Students will become familiar with the range of political stances on different treaties of various nations and blocs, and the political, economic, cultural, and scientific reasons for diverging and converging views. We will pay special attention to the growing role played by nongovernmental organizations in global environmental politics. We will conclude the course with discussions of some current controversial areas in international environmental politics.

#### The Road To Copenhagen

Doreen Stabinsky Lab Fee: \$10 Signature of Instructor



In December 2009, representatives of the world's governments, as well as business, labor, religious, environmental, and youth leaders will convene in Copenhagen, Denmark, for the 15th Conference of the Parties to the United Nations Framework Convention on Climate Change. The event is significant, as government negotiators will likely be hammering out the final wording of an agreement on national and international actions to address the most serious environmental threat of our time: climate change.



In this seminar-style course, students will prepare themselves to be part of this historic gathering. Using the actual negotiating texts, students will become familiar with the most important issues under negotiation. Each student, alone or in pairs, will also be responsible for becoming the class expert(s) on at least one of the issues - understanding the negotiating history, the range of political positions being expressed in the negotiations, and the technical specifics of the various proposals being considered. Students will share their expertise throughout the term with the entire class through one or more formal presentations. Some attention will also be given throughout the term to the contributions of various non-governmental constituencies – in particular, business, environmental NGOs, and youth – to the global politics of climate change, examining how, and how effectively, they engage

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HS748

HS384

HS

in the process to enable a meaningful outcome to the governmental negotiations that will culminate at the summit in Copenhagen. Students will be evaluated based on participation in class discussions, their formal in-class presentations, as well as contributions to a collective public blog that will document their experiences at the meeting in Copenhagen.

Regular classroom sessions include new material concerning basic journalistic

#### Introduction to Journalism

HS100

HS024

HS401

Earl Brechlin w

Class Limit: 15

Writing Seminar I or Signature of Writing Program Director

tenets such as types of stories, approaches, writing style and voice, review of writing assignments, and critiques of how competing local, state, and national print and electronic media cover the same stories or issues. Other topics include investigative techniques, fairness, freedom of information, the business side of journalism, avoiding conflicts of interest, staying away from news writing pitfalls, powers of observation, use of recording devices, and the differing production and writing requirements of working in electronic media. Along with stories, each student leads discussion on a question concerning editorial judgment or journalistic ethics selected from the text: Doing Ethics in Journalism, a handbook with case studies by Jay Black, Bob Steele, and Ralph Barney. The course brings in people from the profession to share their expertise and experiences with the class. Students may collaborate with the computer-aided Page Design and Publication class and with 🤌 the Group Study in photography to develop and produce an end-of-term publication. Students may also have the opportunity to have stories published in the Bar Harbor Times or writing focuse de Ellsworth Weekly. This course meets the

first year writing requirement.

### Contemporary Culture and the Self

Elmer Beal HS Class Limit: 20 This course introduces concepts in anthropology, explores the relationship of the collective aspects of culture to the individual, and examines behavior as a consequence of biology or culture. Half the classes focus on a text (An Introduction to Cultural Anthropology, 5th ed. by Marvin Harris) which compares aspects of human culture at different times and in different parts of the world. The other classes focus on three novels: The House of the Spirits by Isabel Allende, The Shipping News by E. Annie Proulx, and The Woman Warrior by Maxine Hong Kingston. These novels are read as sources of cultural information about individuals from different societies. Two autobiographical papers examine students' own enculturation. Evaluation is based on participation in class, the two papers, a mid-term and a final exam. This course is offered every fall.

#### The Contemporary Culture of Maine Organic Farmers

Elmer Beal

HS



How does organic farming fit into American culture? Who are the people who do it? How did they learn what they need to know? Are they different in any significant way from other Americans? If so, on what is that difference based? What role does culture play in the ecosystems of organic farms? In this course we explore the relationship between culture and ecosystem through field experience. Though the culture of the USA has many shared elements, it also contains distinctive elements, some of which are based on the subsistence activities of sub-cultural groups. We hypothesize that particular subsistence activities and the other ecosystem elements in which those activities take place may make specific demands on the sub-culture in the realm of values, ideology, social organization, kinship and marriage, language, technology, and so on. While most Americans don't earn their livings from natural resources, there is a growing concern with health of natural systems. And those who do make their livings from natural resources may possess knowledge and perspectives about nature which are neither understood nor appreciated by the general populace. The assumption is made that many students have not been

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# Human Studies

HS240

HS323

HS088

exposed to the sub-culture of organic farmers, and so these must be contacted in person, a relationship established, questions asked, answers recorded. This entails preparation for field-work - understanding of the basic concepts of culture, enculturation, ethnocentrism, cultural relativism, and some elements of interviewing. Further, many of the ideas, both philosophical and practical, which may seem commonplace to many organic growers will be new to us, and so will be explored in the reading and class discussions. Field trips are organized to meet people with whom the instructor has already established a rapport. Each interview entails a full class session of preparation which is followed on alternate class days by a field trip. Participants will use background reading and discussion to focus their own guestions. (Students need to arrange their schedules to allow a half-day minimum for the field trips which will take place in the afternoons). We will attempt to get a complex and holistic view of what it is like to farm organically and to build a lifestyle with it as the basis. Students will be evaluated on class participation and on a journal which will include transcriptions and interpretations of notes from the field trips and readings.

### World Ethnography in Film

Elmer Beal HS Lab Fee: \$20 Contemporary Culture and the Self or equivalent

This course is intended to give a view of how different peoples of the world live and what their homes, dress, customs, and work are like, the kinds of technologies employed in various environments and the population levels they support. The text

is Ethnographic Film by Heider. The class views a sampling of anthropological films made over the last fifty years. Students are expected to view twenty films and write critiques of fifteen. Evaluation is based on participation and the fifteen reviews. Offered every year.



Elmer Beal HS



Elmer Beal

HS

The development of nation-states goes hand-in-hand with the emergence of ethnicity as a political factor. The borders of many nations have shifted during the modern era so as to include groups of people who have a sense of unity not defined by national boundaries. At the same time, major migrations have occurred which have relocated comparable groups voluntarily in new locations. While nations like the U.S. have attempted to forge a sense of unity with the notion of a "melting pot", political phenomena have acted to prevent the incorporation of some populations, and simultaneously, other groups may have been less incorporated than was hoped. When assimilation might appear advantageous to some groups, why do they resist? Simultaneously, when violence is directed against or between ethnic groups, what is there about identity which those involved see as the cause? Students will attempt to understand how the construction of ethnic identity can lead to conflict. Students will read general works on ethnicity and ethnic groups, and will select readings of their own on ethnic groups in preparation for individual projects for class presentation.

### History of Anthropological Theory



This is an advanced course in the history of ideas about cultural change and attempts to explain the similarities and differences among human groups. The search for a science of culture takes us from the 18th century to the present, examining idealist, materialist, structuralist, and biological reductionist conceptions, among others. Each student is expected to select and research a topic and to present findings both in an oral report and in a major paper. Text: Marvin Harris, The Rise of Anthropological Theory. This course is offered every other year.

# Human Studies

### Geographic Information Systems I: Foundations & Applications

Gordon Longsworth Ever-rising numbers of people and their impact on the Earth's finite resources could lead to disaster, not only for wildlife and ecosystems but also for human populations.

Class Limit: 8 Lab Fee: \$75 Basic computer literacy

degradation. Much of what threatens the earth and its inhabitants is placed-based. Solutions require tools to help visualize these places and prescribe solutions. This is what GIS is about. Built on digital mapping, geography, databases, spatial analysis, and cartography, GIS works as a system to enable people to better work together using the best information possible. For these reasons, some level of competency is often expected for entry into many graduate programs and jobs, particularly in natural resources, planning and policy, and human studies. The flow of this course has two tracts, technical and applied. The course begins with training in the basics of the technology. Then, skills are applied to projects that address real-world issues. Project work composes the majority of course work and each student has the opportunity to develop their own project. Because GIS provides tools to help address many kinds of issues, GIS lends itself well to the theory of thinking globally and acting locally. Projects often utilize the extensive data library for the Acadia region developed by students since the lab was founded in 1988. The GIS Lab acts as a service provider to outside organizations and students can tap into the resources of a broad network of groups and individuals working towards a more sustainable future. Course evaluations are partially based on the on-time completion of exercises and problem sets. Most of the evaluation is based on critique of student independent final project work and related documentation.

As researchers gather and publish more data, GIS becomes vital to graphically

revealing the inter-relationships between human actions and environmental

#### Geographic Information Systems II: Advanced Projects

HS638

HS553

Gordon Longsworth This course is designed specifically to support students who wish to spend 10 Class Limit: 6 Lab Fee: \$50 GIS I or Signature of Instructor

tools. It is for students who wish to gain proficiency with the software and a more advanced understanding of the potential of GIS and GIS as an industry. The course supports new or continuing projects such as GIS1 projects, independent studies, senior projects and thesis work. Especially beneficial is the learning students gain from observing each other and the methods used and issues addressed in each others projects. Technical applications are primarily focused on what is needed and relevant to address project issues and goals. General software training involves geo-processing, raster-based GIS, modeling and additional software extension capabilities and takes advantage of self-paced, on-line courses on the ESRI Virtual Campus. In addition to individual student projects there is a class project that involves all students working together. The class project provides opportunities to use many of the new software tools learned in the Virtual Campus training modules. Since most real-world GIS projects involve multiple participants, the class project is meant to build team dynamics. The class project is based on a complex local issue requiring modeling and analysis and is influenced by the interests and numbers of students enrolled. Evaluation will be based on the quality of individual projects and contributions made to the class project. This evaluation will consider degree of effort, level of project development, quality and accuracy of work, process documentation and the final products.

weeks exploring and developing their own project and learning advanced GIS

### Beyond Relativism: Negotiating Ethics in the 21st Century

HS652

Gray Cox

HS

How can - and should - questions of ethics get resolved in the contexts of interdisciplinary and multiperspectival dialogue, conflict and decision making - as when two communities need to resolve disputes and each have different paradigms of thought and action? These questions may come up in dealing with human ecological problems when people from different professions, religions, or other cultural and social settings need to deal with each other to address common problems and opportunities. They also arise in business, government and NGO



work when people pursue socially responsible projects and policies of a variety of sorts. This course will look at the common strategies in normative ethics for dealing with these problems as well as explore ways in which methods of negotiation and conflict transformation can also be helpful. Readings will include classic texts from Aristotle, the Bible, Mill, Kant, Nietzsche, and Buber as well as contemporary readings in professional ethics, in conflict transformation, and philosophical ethics (such as Alasdair MacIntyre's After Virtue). Students will write a series of short papers on texts and case studies and develop a final project in which they work to identify and resolve an ethical problem. Evaluation will be based on class participation, papers, and the final project

#### Left, Right and Future: Alternative Political Philosophies

Gray Cox HS

HS464 This course looks at some of the key philosophies behind alternative political systems people around the world use to govern themselves or propose to use in the future. The aims of the course are: 1.) to increase specific knowledge about some important examples of alternative political philosophies and systems that embody them and 2) to develop analytic skills for understanding key systematic features of these alternatives, for evaluating their key merits and flaws, and n for advocating alternatives. Readings will include Plato's Republic, The Communist Manifesto, selections from fascist, liberal, and anarchist writers as well as some case study readings in comparative politics. There will be a strong emphasis on discussion skills and writing. Evaluation will be based on class participation and a series of short papers. Especially recommended for people

#### **Conflict and Peace**

Gray Cox HS



How does conflict arise and how is it best dealt with? What is peace and how is it best arrived at or practiced? This course combines a study of major theoretical perspectives with lab work practicing skills and disciplines associated with different traditions of conflict resolution, conflict transformation and peacemaking. Readings will include Roger Fisher, William Ury, Gandhi, Thich Nhat Hanh, Walter Wink, Gene Sharp, Dorothy Day, Elise Boulding, Gray Cox and others. Lab work will involve role plays, case studies, workshops with visitors, and field work. The course will also involve one, mandatory, weekend long workshop. Offered every other year.

interested in community organizing, public policy work and education.

### **Contemporary Social Movement Strategies**

HS497

HS433

Gray Cox HS, HY



When groups organize others to promote social change, what alternative strategies do they employ and how effective are they in varying circumstances? Can any general principles or methods for social change be gleaned from the successes and difficulties encountered in various social movements around the world? We will use Bill Moyer's Doing Democracy and a series of other theoretical readings to look at general models and strategies. And we will use a series of case studies including, for instance, the Zapatistas, Moveon.org, the liberation of Eastern Europe, the U.S. Civil Rights Movement, the anti-Globalizaton movement, the Breast Cancer Social Movement and the Gay and Lesbian movement. Students will write a series of short analyses of cases considered in class and do extended case studies on their own. Evaluation will be based on the quality of class participation, research and writing.

### Advanced Tutorial in Interdisciplinary Research Methods

HS725

Gray Cox	-
HS	:
Lab Fee: \$25	:

This is an advanced tutorial for students who want to use history, anthropology and social science research in their work on community organizing, social change efforts or public policy advocacy. Human ecological approaches to such problems and studies require using interdisciplinary methods to integrate different points of view and different theories in a more comprehensive understanding of a person, text,

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situation or problem. But how can we do that? What sorts of things are "methods", "theories" and "disciplines" and how can they be integrated? How is theoretical research related to practical action? How should we deal with the ethical issues that come up in research? How do modern vs. post-modern or neo-liberal vs. neo-Marxist or hermeneutic vs. quantitative views of these things differ?



The aim of this tutorial is to cultivate students' abilities to deal with these questions in sophisticated and effective ways in the context of on going research and action projects in human ecology. It deals with challenges in choosing and using methods of research, the construction and application of theories in interdisciplinary contexts, and the negotiation of issues arising in planning and pursing a research process or action project and dealing with ethical issues that arise in it. It is specifically designed to support student work in internships, residencies, senior projects and master's theses. It presupposes familiarity with the practice of at least two disciplines in the humanities and public policy areas (e.g. history and political science, literature and economics or ethnography and agro-ecology).

Students will meet once a week as a learning group and also once a week, independently, with the professor. Tutorial sessions will focus on two kinds of readings: 1.) a selection of articles and chapters dealing with methodological, theoretical, ethical and other aspects of research processes and action projects and 2.) case study materials focused on the projects students are working on including writings by students or pieces directly relevant to understanding their work. Readings from the first category will be selected to be most appropriate for student projects and may range widely but will in any case include a core of texts dealing with the challenges of ethnography, quantitative social studies, and historical narratives in the context of working in participatory ways on community based projects.

Some of the readings may include, for example, sections from: Albion's Seed, by David Hackett Fischer, The Evaluation of Cultural Action by Howard Richards, The Ethnographic Method by James Spradley, The Serpent and the Rainbow by Wade Davis, The Two Milpas of Chan Kom Alicia Re Cruz, and Interdisciplinary Research: Process and Theory by Allen F. Repko Work for the class will include a series of short reflection pieces on readings and their relevance to their projects and then pieces associated with planning and pursing their project. Evaluation: Final evaluations will be based on class participation and one on one meetings, (25%), journal writing and short papers through the term (35%), progress on individual project (40%). This tutorial is designed to allow for distance learning for students who are off campus. They will be able to take part in both the tutorial sessions and the one-on-one meetings through use of Skype.

### The Future

Gray Cox HS, HY Signature of Instructor



MD039

Are we approaching a point of radical change in human history in which exponential technological change will result in a "singularity", a transformation so rapid and fundamental that we will not be able to comprehend it? What will be the principal features of life on Earth in the mid-future - 20 to 40 years from now - and how should we best plan to deal with them? To what extent will they be the result of unavoidable historical trends, human planning and invention, or random contingencies? What skills and methods can we learn to imagine the future, invent it, predict it, plan for it and/or cope with it? This is an advanced course in human ecology that will adopt a very interdisciplinary approach. It will include readings in public policy by social scientists and futurists like Ray Kurzweil, Alvin Toffler, Otto Scharmer and James Martin as well as works in fiction and film. Classes will combine a seminar for mat for critical discussions of readings with exercises in using different methods for dealing with the future. These will include a weekend workshop in futures invention using methods developed by Warren Ziegler and Elise Boulding. This workshop will be open to public participation. Members of the COA community

# Human Studies

interested in renewing the College curriculum are especially encouraged to participate. Students will be expected to take part in leading seminar sessions, develop reports on alternative approaches to dealing with the future and visions of it, and do a major final project. The final project should a vision/description of some key features of a desired, possible future and strategies for promoting it. It may use interdisciplinary theories, predictive models, narrative, visual art or other creative approaches to developing it. Standards of evaluation will presume intermediate to advanced levels of competency in the disciplines used in the final project. There will be a weekly lab session.

### Doing Human Ecology in Cross Cultural Contexts of the Yucatan HS441

Gray Cox, Suzanne Morse HS, HY



In this course students develop key skills needed to pursue learning, research and action for human ecological projects in cross-cultural settings. These include skills in ethnographic observation, historical interpretation, social analysis, language, communication, problem solving, negotiation, and project planning and implementation. In practicing these skills students will learn substantial bodies of information about the context of issues in Mexico's Yucatan peninsula and apply this information and their skills in a major independent project that demonstrates their abilities to pursue subsequent learning, research and action in Latin America on their own. Course activities will

provide opportunities to make extensive and increasing use of Spanish skills.

### Political Action and Greek Philosophy

Jamie McKown HS The class will attempt to tackle the issue of ethical political action in a democratic society from the level of individual practice. Utilizing a series of dialogues between philosophers and "sophists" from the Classical Greek period as a springboard, students will explore a wide variety of topics related to civic engagement and public debate. Though the readings for class will be thousands of years old, students who successfully complete the course will be able to make linkages to problems contemporary to their own daily lives including: does truth speak for itself, what is the role of the speaker in society, where is the line between "spin" and effective persuasion, and are all politicians nothing more than "con artists?" Included in the readings will be works by Gorgias, Plato, Aristotle, and Isocrates. Students will also go outside of the assigned readings to apply these ancient debates to modern social/ political questions.

This is an introductory-intermediate level course for students with an interest in philosophy, political action, governance, and public persuasion. Familiarity with these issues is not a pre-requisite for the class. In class activities will be driven primarily by student discussion centered on flashpoints within the readings. There will be an intensive reading load as well as an intensive writing component to the class. Students will also be occasionally asked to "perform" sections of dialogue in class. Final evaluation will be based on a number of varied writing assignments, participation in class discussion, and several independent reports on contemporary social questions

#### Political Campaign Communication: Messaging and Advertising

Jamie McKown HS, HY Class Limit: 18 Lab Fee: \$25 This class will provide a broad introductory overview of the history, practice, and theories that encompass political campaign communication. The overall goals of the course are three-fold. First, to provide a broad survey of the history of political campaign communication and advertising as it has developed in the United States. Secondly, to confront some of the pragmatic issues that go into producing political communication strategies for electoral candidates. Thirdly, to empower the student to read and critically analyze political campaign communication materials they

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HS607

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confront in their daily lives. This class will include a specific emphasis on radio, television, and "new media" vehicles as sources of messaging. While we will focus heavily on the last 60 years of presidential elections, students will also apply their work to local, state, and national campaigns currently underway. The class will be highly interactive with discussion being the primary mode of instruction. Final evaluation will based on a combination of class participation, a series of analytical response papers, an in-class presentation, and a final comprehensive project dealing with a contemporary political campaign. This class will include a weekly 3 hour lab that will involve the screening of multimedia campaign texts, some practical work in designing messaging strategies, and the occasional outsider speaker. The class is open to all students, regardless of their experience in politics or their knowledge of American history. It is well suited for introductory students in their first years of study, but would also be equally valuable to advanced students interested in the topic.

This class will provide a broad overview of several current issues related to the

### Voting and Elections Jamie McKown

HS Class Limit: 20 various ways in which voting and elections are conducted both in the United States and around the world. There will be a primary focus on controversies that have arisen in recent years on how best to conduct a vote in a democratic setting. The class will cover a wide range of topics in these areas, including: models for conducting elections such as "winner take all," proportional voting, ranked voting, and instant runoffs; the role of money, campaign finance reform, and the "buying" of elections; the debate over electronic voting machines and other contemporary and historical cases of fraud and manipulation; new ways to conduct votes such as e-voting, mail ballots, and cell phone voting; attempts to suppress certain categories of voters through registration purges, negative targeting, and disgualification challenges. The relative balance of time spent on each of these topics will largely be determined by student interest. The goals of the class are threefold: first, to provide students with a foundational base of knowledge about the various complexities that surround voting in democratic settings with a practical focus on what may be the best ways to pursue election reform; second, to open a space for individual students to pursue their own directed research projects related to their own interest in voting and elections; third, to create an in-class discussion environment in which new ideas are generated that can become starting points for future targeted projects, independent studies, and group readings. The class will be highly interactive with discussion being the primary mode of instruction. Final evaluation will based on a combination of class participation, a series of analytical response papers, and a final independent research project. The class is open to all students, regardless of their experience in politics and government.

# Public Speaking Workshop

HS701

HS663

Jamie McKown HS Class Limit: 10

Lab Fee: \$10

62

increasingly advanced speeches for public performance and/or consumption. We will cover a wide variety of areas including those related to constructing the speech in advance (invention and arrangement), as well as those related to the actual performance of the text (style, memory, and execution). While the primary goal of the class is to create an environment in which students can improve these vital public communication skills, another important goal is to cultivate critical and respectful listening skills (which are themselves vital public communication skills). A wide variety of speaking genres will be covered during the term, though there will be a strong emphasis on public advocacy and persuasion: This class is designed for students with varying levels of public speaking backgrounds. A diverse array of experiences, skills, and strengths helps foster a collaborative and supportive speaking environment. Throughout the term students will work on individual

This class will be conducted as a workshop with an emphasis on students producing

projects, in pairs, and in larger collaborative groups. There will be a minimal focus on theoretical questions in favor of a "hands on" approach to constructing speeches. Students will be evaluated on a number of "process" oriented assignments. Final evaluation will be relative to individual participation in the process and not to an objective scale of public speaking talent. As such, students who feel that they are less proficient in the area of public communication should not be worried that this would somehow disadvantage them in terms of grading. In order to facilitate a vibrant working environment, a lab session and fee will be a component of the class.

### The Cold War: Early Years

HS737

HS604

Human Studies

Jamie McKown HS, HY Class Limit: 20 Lab Fee: \$20



This course provides a broad historical overview of the early years of the "Cold War" period that shaped global politics generally and American foreign policy specifically. Beginning in the 1940's and leading up to Richard Nixon's election in 1968 we will examine the diplomatic relationship between the United States and the Soviet Union and how this relationship has impacted state actors, economic policies, cultural production, and conceptions of identity. While there will be a heavy focus on traditional state-level diplomatic history, students will also explore a broad array of methodological approaches. Class sessions will include a mix of traditional lecture formats, class discussion, and outside presentations. An evening lab is scheduled in order to screen a variety of cultural artifacts from the various periods we will cover. The primary goal is to give students an intensive 10-week crash course into key events, concepts, figures, etc.. that defined the early decades of Cold War diplomacy. At the same time there is also time allocated for students to explore their own independent research interests. Given the far-reaching force of Cold War politics into everyday life, individuals with widely varying academic interests will find the course informative and productive. Evaluation will be based on a mix of class participation, individual research assignments, and exams. All students, regardless of their backgrounds, previous coursework, or interests are welcome.

# American Public Address: Close Readings of Public Texts

Jamie McKown HS, HY Class Limit: 12



This course will provide an overview of the field of public address and rhetorical

### **Business and Non-Profit Basics**

HS742

Jav Friedlander

Anyone who is involved with for profit or non-profit enterprises needs to understand a wide variety of interdisciplinary skills. This introductory course will

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# Human Studies

HS

Class Limit: 18

introduce students to marketing, finance, leadership, strategy and other essential areas of knowledge needed to run or participate in any venture. This course is meant to build basic skills and expose students to a variety of business disciplines and is *required* for all future business courses.

Business has tremendous societal ramifications. Inventions and industries from the

### 21st Century Entrepreneurship

HS722

Jay Friedlander Class Limit: 15

automobile to the internet impact everything from air quality to economic and political freedom. Entrepreneurs, who are often at the forefront of business and thus societal innovation, are changing the way business is conducted by creating businesses that are beneficial to the bottom line, society and the environment. Through cases, projects and present day examples, the course will challenge students to understand the impact of business on society and the challenges and pitfalls of creating a socially responsible venture. In addition, it will offer new frameworks for creating entrepreneurial ventures that capitalize on social responsibility to gain competitive advantage, increase valuation while benefiting society and the environment. The final deliverable for the course is an in-class presentation in which student teams will either: (1) recommend ways to improve the social and environmental impacts of a company, while increasing competitive advantage and bottom line; (2) benchmark two industry competitors, a socially responsible company versus a traditional company.

As the largest business sector in the world economy, the Travel & Tourism industry

is responsible for over 230 million jobs and over 10% of the gross domestic product

worldwide. Maine has been a tourist destination since "rusticators," following in the

### Ecotourism: Principles and Practice

HS734

HS Class Limit: 18 Lab Fee: \$50

Jay Friedlander

footsteps of Thoreau and others, came to Maine in the late 1800s and early 1900s seeking a respite from the city. Today, tourism is the largest industry in Maine and for better and worse, the economic engine of the Bar Harbor community. Unfortunately, tourism as presently practiced often ends up wreaking havoc on cultural heritage, environmentally significant areas and reducing the local economy to one based on low-wage seasonal jobs. The International Ecotourism Society (TIES) offers an alternative to conventional tourism. TIES defines ecotourism as, "Responsible travel to natural areas that conserves the environment and improves the well-being of local people." Using text books, articles, presentations by business owners and research, the course will examine both the principles and practice of how Bar Harbor and other tourist destinations can form a sustainable economy. Evaluation will be based on oral presentations of proposed ecotourism ventures, class participation as well as other assignments

# Launching a New Venture

Jay Friedlander Class Limit: 12 Signature of Instructor

HS723 This course will cover the process of new venture creation for students interested in creating businesses or non-profits with substantial social and environmental benefit. It is designed for student teams who have an idea and want to go through the formal process of examining and launching the enterprise. Topics covered in this course will include: opportunity recognition, market research, creating a business plan, producing

financial projections and venture financing. As part of the course, all

In addition, students will make a formal business plan presentation.



HS733

# Emarketing

Jay Friedlander HS

The internet continues to revolutionize our society and economy, creating new opportunities for people around the globe. In both for-profit and non-profit sectors, the internet has leveled the playing field, allowing small organizations to reach

Class Limit: 20 Lab Fee: \$50

previously inaccessible markets. Viral marketing, geo-targeting, adwords are a few of them many strategies that these organizations are using to build awareness of their cause or products and services. The course will engage in an emarketing project to promote a new book "our daily tread" that benefits Safe Passage. Safe Passage is a Maine based non-profit which provides education for children who scavenge garbage dumps to provide income to their families. We will seek to boost book awareness and sales.



MD030

# Turn of the Century: The World Since 1990

John Anderson, William Carpenter HY Lab Fee: \$20



Just as we thought we had reached "the end of history," it reappeared with new strangeness and complexity. From the collapse of communism to the fall of the World Trade Center and beyond, this course will use outstanding recent works of non-fiction, fiction, film and art to illuminate the meaning of our own time as it unfolds into history. We will use web resources to track international media on a daily basis, and outside speakers to broaden the context into such areas as music, political science and defense policy. Focus will be on the background of current world events in recent history. Readings will include Francis Fukuyama's The End of History, Samuel Huntington's The Clash of Civilizations, Benjamin Barber's Jihad vs. McWorld, Nadine Gordimer's The Pickup, Anne Patchett's Bel Canto. The instructional team of three teachers from 3 COA resource areas will ensure an interdisciplinary approach, and they will be augmented by several outside speakers representing military history, Middle Eastern and women's studies, music and anthropology. Students will be expected to stay current with daily readings from The New York Times Online and other media. Short and long papers will provide material for evaluation and allow each student to develop an area of expertise.

### Philosophy of Nature

John Visvader HS

Class Limit: 25



world, the theories and images that guide our interaction with nature have become problematic. This course examines various attempts to arrive at a new understanding of our role in the natural world and compares them with the philosophies of nature that have guided other peoples in other times and other places. Topics range from Taoism and Native American philosophies to deep ecology and scientific ecological models. Readings include such books as Uncommon Ground, Walden, and Practice of the Wild. Offered occasionally.

Because of the number of serious environmental problems that face the modern

# Mountain Poets of China and Japan

John Visvader HS Class Limit: 12

There was a long standing tradition in both China and Japan of wandering poets and mountain hermits who expressed their experiences in nature in poetic terms. In this class we take an overview of the major styles of poetry in both of these countries and sample some of the work of their major poets. After a brief introduction to the use of dictionaries and various language tools available in books and on the internet, students will be invited to try their hand at translating some of the Chinese poems and rendering them into good poems in English. Students will be expected to take the course on a Pass/Fail basis, with special arrangement made for those needing to take it for a grade.

# Seminar in Chinese Philosophy

John Visvader Class Limit: 15 HS697

This course will involve close readings of some of the major texts of the Daoist and Buddhist traditions in China. Amongst the texts dealt with will be Original Tao

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# find more of our classes online at coa.edu

HS409

HS146



(Inward Training), Tao Te Ching, Chuang tzu and the Platform Suttra. There will also be some readings in secondary sources dealing with the texts and Daoism and Buddhism in general. The classes will be in seminar discussion style with students being responsible for presenting material. Basic use of the Chinese dictionary will be taught so that students can deal with problematic passages in the original language. There will be a research paper required by the end of the term.

#### Classics in Philosophy: Wittgenstein's Investigations

HS516

HS573

HS669

John Visvader HS

The Philosophical Investigations is one of the most important philosophy books published in the 20th century. It is the clearest expression of Ludwig Wittgenstein's

Class Limit: 15

revolutionary views of language, mind and meaning and has become a source of ideas for a fundamental reinterpretation of both the natural and social sciences. His intense and imaginative writing style with its short paragraphs and countless examples has inspired many poets and novelists and not a few film directors. For anyone interested in a critical appraisal of the intellectual disciplines, this is the one book to master. The class will be conducted in seminar style with student



### The Philosophy of the Mind

John Visvader HS Class Limit: 15 Two philosophy courses

One of the most difficult problems faced by many current disciplines is how to give a scientific account of human behavior and human experience. There are some who even think that such an account is either not possible or in need of radical reformulation. The area traditionally called the philosophy of mind has become the central meeting place of many issues in neurophysiology, artificial intelligence, cognitive science and language and linguistics. The purpose of this course is to examine the central issues in the various debates about mind and behavior in an attempt to give a clear overview of and to take a critical approach to the usual categories of the "mental" and "the physical " which run through many of the discussions. Graded on seminar presentation and papers.

presentations of the material and a final term paper.

### Philosophy at the Movies

John Visvader, Colin Capers Class Limit: 20

A studio art course or signature of instructor

have also been used to explore concepts and situations that are on the frontiers of imagination and serve as a unique medium for articulating the limits of human possibility. Films can not only be taken as illustrations of various philosophical issues but can also be seen as a unique way of working through philosophical issues that can hardly be stated in other media. This class will examine a series of films that raise issues dealing with the nature and limits of the human and natural worlds. Besides the usual discussion classes, there will be evening "lab" classes each week devoted

The enormous success of movies has proven their entertainment value, but movies

to screening films of conceptual interest. A series of short analytical papers will be required.

#### The Age of Reason and the Enlightenment

HS183

John Visvader, Todd Little-Siebold HS, HY Class Limit: 20

This course represents a contextual approach to the study of the history of philosophy and combines the critical evaluation of philosophical theories with an examination of the cultural conditions which either influence or are conditioned by them. The course examines the crucial role played by the philosophies and institutions of 17th and 18th century Europe in forming the nature of the modern world and focuses in particular on those aspects of the culture that are of special

concern to contemporary critics of modern culture. The work of Bacon, Hobbes, Descartes, Locke, Berkeley, Hume, and Kant are examined in the context of the development of the scientific, industrial, and democratic revolutions.

# Secondary Methods: Life Science, Social Studies and English

ED107

Human Studies

Judith Cox FD Class Limit: 12

This course is designed to prepare secondary teacher candidates to meet the learning needs of diverse populations of students. Students spend one day a week in a local high school working with faculty in the subject area in which they are being certified. These school-based experiences are integrated into class discussions

where students analyze the elements needed for successful teaching, learning, and assessing in their own content area and across disciplines. The purposes, problems, issues, strategies, and materials involved in teaching high school students will be examined critically through class discussions, individual and group work, reflections on field experiences and peer teaching. Students will incorporate the content, inquiry tools and structures of the discipline they will teach into a 4-week unit that may be used in their



ED112

student teaching. Evaluation will be based on weekly reflective response journals, completion of the service learning component (one day a week in classroom), completion of readings and entry slips, and the 4-week unit of study.

#### Student Teaching

Judith Cox ED



The student teaching internship represents the student teaching requirement for COA'S teacher certification candidates. Success in this experience is a pivotal criterion in the student's certification candidacy. The student is placed in a school, usually in the immediate region, with a cooperating teacher who teaches subjects and grade levels that match the certification goals of the student. The roles of student teacher, cooperating teacher, school principal, and COA supervisor are discussed and agreed upon in advance. Incrementally, the student teacher becomes familiar with class routines and gradually takes responsibility for teaching. Within the 15-week experience, the student teacher must take on a full load (all classes and all duties) for the number of weeks agreed upon by all parties. This period of time varies with subjects, grade level and specific student goals. The COA supervisor visits the schools in a liaison capacity, and also evaluates the student teacher's performance a minimum of eight times in the term. Student teachers meet together regularly to discuss such issues as curriculum planning, instruction, best teaching practices, classroom learning environment and broader educational issues. Students may use student teaching to fulfill the COA internship requirement if it is completed prior to graduation.

### Literature, Science, and Spirituality

Karen Waldron HS, (WF) Lab Fee: \$10 Writing Seminar I or Signature of Instructor

A survey of Anglo-American literature from the Scientific Revolution to the present. Focuses on the ongoing debate about the role of science in Western culture, the potential benefits and dangers of scientific experimentation, the spiritual, religious, social and political issues that come about with the Ages of Discovery and Reason, and their treatment in literature. Specific debates include concerns over what is "natural," whether knowledge is dangerous, the perils of objectivity, and the mind/body dichotomy; works include Shelley's Frankenstein, Ibsen's An Enemy of the People, Brecht's Galileo, Lightman's Einstein's writing focuse de Dreams and Naylor's Mama Day as well as short stories and poems. This course is offered every two or three years.

HS121





# Human Studies

#### African American Literature

Karen Waldron HS Class Limit: 15 A previous literature course or Signature of instructor

This survey of African American literature from its origins in the slave narrative to the present vivid prose of some of America's best writers considers the impact of slavery and race consciousness on literary form and power. Readings include letters, essays, poems, short stories, and novels of some of the following authors: Phillis Wheatley, Frederick Douglass, Harriet Jacobs,

Pauline Hopkins, Langston Hughes, Richard Wright, Zora Neale Hurston, Gwendolyn Brooks, Ralph Ellison, Toni Morrison. Offered every other year.

#### **Contemporary Women's Novels**

HS280

HS266

Karen Waldron HS

This course selects from among the most interesting, diverse and well-written of contemporary women's fiction to focus on questions of women's writing (and how/ whether it can be treated as a literary and formal category), gender identity and A previous literature women's issues, and the tension between sameness and difference among women's course or Signature experiences, and narrations of women's experience, around the world. The course



of instructor

begins by examining two relatively unknown yet rather extraordinary novels from earlier in the twentieth century: Alexandra Kollantai's Love of Worker Bees (1927) and Sawako Arivoshi's The Doctor's Wife (1967). After these, we read from truly contemporary authors and guite varied authors published within the last twenty years, like Buchi Emecheta, Gloria Naylor, Ursula Hegi, Nawal El Saadawi, Sue Grafton, Graciela Limon, Tsitsi Dargarembga, Barara Yoshimoto, Dorothy Allison, Rose Tremain, Julia Alvarez, Leslie Feinberg, April Sinclair, and Achy Obejas. Students each choose an additional author to study and read a novel outside of class. An extensive list of authors is included in the syllabus. Evaluation be based on class participation, either two short papers or one long paper on works discussed in class, a presentation to the class of the outside novel, and a final evaluation essay. Offered every other year.

### Native American Literature

Karen Waldron
HS, (WF)
Class Limit: 12
Lab Fee: \$10
Signature of Instructor

This course is a challenging introduction to several centuries of Native American literature, the relevance of historical and cultural facts to its literary forms, and the challenges of bridging oral and written traditions. Authors include such writers as Silko, Erdrich, Harjo, Vizenor, and McNickle as well as earlier speeches and short stories. We also consider non-native readings and appropriation of Native American styles, material and world views. writing focuse o

# Purloined Poe: Lacan, Derrida, & Literary Theory

HS672

HS684



philosophy, and literary theory, takes as its text John P. Muller and William J. Richardson's The Purloined Poe: Lacan, Derrida, and Psychoanalytic Reading. The text and course begin with a reading of Edgar Allen Poe's short story The Purloined Letter -- a story upon which the Lacan commented in detail and the famous debate between Lacan and Derrida arose. Poe's story, intricate and suggestive, has been used as the foundation for both pscyhoanalytic reading and the development of the mystery genre. Students will read and discuss the story, move through several works of criticism, engage with Lacan and Derrida's readings, and follow-up with critical responses to the Lacan-Derrida debate. With this in-depth practice and critique of psychoanalytic reading, students will gain a solid practical knowledge of Lacan and Derrida, deep understanding of the relevance and limitations of the application of psychoanalytic theory to literary studies, extensive practice in close reading, increasingly sophisticated analytic skills, and an ability to do high-level synthetic

This advanced course, recommended to students interested in social theory,

work. Evaluation will be based on tutorial participation, several short analytical papers, and a longer theoretical project at the conclusion of the course. Taking Nature of Narrative prior to this course is recommended.

#### The Nature of Narrative

Karen Waldron HS Class Limit: 15 Signature of Instructor

HS190

This is an advanced course in which students practice the human ecology of literary analysis. We explore the 'mind' or consciousness of fictional writing

(specifically, novels) by looking at how narratives make meaning, a nd at how we make meaning from narratives. The course surveys some of the best modern fiction, with a particular focus on works that highlight narrative technique, stretch the boundaries of the imagination, have a rich and deep texture, and push against the inherent limitations of textuality. Students also hone their reading and analytic skills as they work closely with twentieth century texts that broke new literary ground. Some of the authors we may read



HS643

include: Joseph Conrad, Virginia Woolf, William Faulkner, Monique Wittig, John Dos Passos, Toni Morrison, N. Scott Momaday, Bessie Head, Manuel Puig, and Margaret Atwood. We also study some narrative (and possibly film) theory. Evaluation is based on class participation, frequent short response and passage analysis papers, and an independent project. Offered every other year.

### From a City on a Hill to New Utopias

Karen Waldron, Todd Little-Siebold HS, HY, (WF) Class Limit: 14

From the City on a Hill to New Utopias: Social Reform in the United States, 1760-1850 This course will explore the various currents of reformism and social movements in early American history from the colonial period to the end of the mid-nineteenth century. Using religious reform, temperance, abolition, and the movement for women's rights as a centerpiece, the course will investigate a broad range of literary and historical texts that illustrate the contradictory cross-currents of the social and cultural history of the United States. Ranging from social experiments in communal life based on existential, socialist, and Christian philosophies to the armed challenge to slavery by John Brown and his abolitionist allies, the multiple radical and reformist movements that emerged in the eighteenth and nineteenth centuries were led by all manner of Americans and provide an excellent understanding of the nation's social fabric.

For this course, the fundamental struggle over the nature of community in the pre-revolutionary colonial society and in the emergent nation will be a major theme. This emphasis is grounded in the fact that discussions about the abstract rights of all people in a radical republican tradition took place in the context of local communities rooted in traditions of slavery, patriarchy, and hierarchy. The tension between idealist impulses in American political and social thought conflicted daily with more banal and authoritarian realities, and this provoked heated and at times violent struggles over political power, economic structures, and emergent cultural forms. Beginning with some of the providential and utopian visions of the first generations of settlers on the eastern seaboard, the course places religiosity and communal forms of moral discourse at the center of debates over the nature of human nature, the political rights of colonial subjects, and the justifications for revolution against "tyranny". Numerous religious and social movements spun off of these early reform impulses to make the period between 1750 and 1850 one of the most intriguing in American history. By examining major socio-cultural changes as reflected in poetry, prose and propaganda as well as historical interpretations, students will gain an understanding of the experimental and profoundly radical visions that defined American political life in the ante-bellum period. Literary works, political broadsides, letters and other sources will provide students with the opportunity to apply humanistically informed analysis to the writing focuse of

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issues of the late eighteenth and early nineteenth century. While the faculty work from an interdisciplinary perspective, the course provides students arounding in both historical and literary analysis. Work will focus on textual analysis, analytical discussion of texts, and intensive writing (weekly critical response pieces and at least one longer project of a student's own choosing). With figures as diverse as the Grimke Sisters, Sojourner Truth, preachers of the second great awakening, and Thomas Jefferson to think and write about, this course promises profound insight into the radical roots of American political and social culture. This course is taught on a three to four year cycle.

### Spanish Conversation and Applications

#### HS171

HS657

Karla Pena Class Limit: 15

This course develops intermediate and advanced skills in verb use, idiom, and vocabulary. It emphasizes development of those language competencies that are most relevant to Mexican cultural settings that are commonly encountered, distinctive, and/or important. It also focuses on developing language competencies directly relevant to projects people are interested in pursuing in Spanish speaking environments, e.g. research on wall murals, coral reefs, or indigenous land rights. It is especially appropriate for students planning to participate in the Winter term courses in the Yucatan. This course presupposes competence in the simple tenses and a basic vocabulary. Class meets for two one-and- one-half hour sessions per week plus Wednesday conversation at dinner at the college.

#### Gender, Politics, and Science in Fairy Tales of the World

Katharine Turok Class Limit: 15

Why do fairy tales capture the attention of adults and children all over the world

and endure in popular literary and cinematic forms? What do they reveal to psychologists, biologists, historians, linguists, artists, anthropologists, and educators? Do they politicize or de-politicize? socialize or subvert? What is the postfeminist. postmodern response to the Brothers Grimm? What do fairy tales convey about animal behavior, entomology, and cosmology? How might the tales shape human limitations, moral values, and aspirations? This course will explore the story-telling and re-telling of literary, cultural, and scientific stories from a comparative perspective, imagining their interpretations and how they may be re-told with an eye toward new understandings of human interrelationships, of a given sociohistorical moment, the culture of COA, and the larger culture. Students will read fairy tales, view three films--The Little Mermaid (USA), Chunhyang (Korea), and Pan's Labyrinth (Spain)--and discuss academic pieces by writers such as Cristina Bacchilega, Bruno Bettelheim, Ruth Bottigheimer, Michel Butor, Italo Calvino, Claude Lévi-Strauss, and Jack Zipes. Reflections may include distinctions between fairy tale and myth; recurrent motifs and patterns; the history and variations of individual tales and motifs; social, sexual, moral, scientific and political content, with emphasis on race, gender, and class structure; and contemporary works inspired by traditional tales. Students will be evaluated on two short papers; one creative project that may be expressed in writing, visual art, music, or dance; and a final assignment that will take the form of a class project.

### Adolescent Psychology

Ken Hill HS, ED Educational Psychology, Personality, or other introductory level psychology

This course focuses on the segment of the human life span from puberty to early adulthood. In this class we will examine the physical, cognitive, social, and moral aspects of adolescent growth and development. Issues to be considered include adolescent relationships (peers, family, romantic), adolescent issues (identity formation, at risk behavior, schooling, and stereotypes), and critical reflection on one's own adolescent experience. The main objectives of this course are to: 1) provide students with a working knowledge of the theories of psychology which pertain to early adolescent development; 2) help students develop the ability to

# Human Studies



critically analyze information and common assumptions about the development of adolescents; 3) consider contemporary issues and concerns of the field; and 4) to afford students the opportunity to explore their own adolescent development. Course work entails lecture, discussion, extensive case analysis, and a field component.

### Introduction to the Counseling Process

Ken Hill HS Class Limit: 15 A psychology course or Signature of Instructor

This is intended as a survey course that will overview the contemporary theories, issues, and techniques of professional counseling. In brief, topics to be considered in this course include; a legal and ethical responsibilities associated with professional counseling); b) assessments of differing therapeutic approaches (theories and

techniques) to the counseling 3 in a complex world. Collaborative process; and c) reflection on the changing perspectives and practices in counseling including pluralism and diversity models. Students will begin to develop their own perspective of counseling through lectures and discussion, demonstrations, guest speakers, case studies, mock counseling sessions, reading, and writing papers. Experiential learning, through mock counseling sessions, with feedback from classmates and the instructor, will be stressed. Evaluation will be based on written assignments, class participation, and independent research.

### Constitutional Law

Kenneth Cline Class Limit: 15



Utilizing key Supreme Court cases, this course will explore pivotal moments in the development of American constitutional jurisprudence, ranging from the affirmation of the power of the judiciary (Marbury v. Madison) to the balancing of the competing demands of national security and citizens' constitutional rights (Hamdi v. Rumsfeld or a more recent case on this topic). Rather than cases that affirm or reject abstract legal principles, this course will utilize cases that began with the experiences of real people who, at some time and for some reason, took a stand. Student evaluations will be based on in-class participation, oral assignments and written assignments. Oral assignments will include moot court-style argumentation or individual oral presentations about issues in key cases. There will also be short written assignments (e.g. case summary, outline, rough draft), constituting steps towards a final written paper in which the student will discuss the legal and societal parameters of a Supreme Court case of their choosing. Students who successfully complete this class will have gained an understanding of how to critically read court decisions, as well as how to look at a decision in the broad context of long-term social change and resistance to change. Students will feel comfortable arguing legal issues, in particular issues that might not be aligned with their own personal values and beliefs, and how to research and identify support for those arguments, from primary as well as secondary sources.

# The Maine Woods from Thoreau to Plum Creek

HS715

Kenneth Cline Lab Fee: \$450 Signature of Instructor

The Maine Woods are arguably the greatest remaining wildland in the Eastern United States, however, the ecological and economic viability of the region is threatened by trends within and without the State of Maine. Using historic texts, contemporary writings, and our class's experience in the Maine Woods, we will examine the forces of change and the cultural and policy responses to those forces. Conservation issues such as forestry practices, residential development, energy generation projects, ownership models, and incompatible recreational demands will provide a focus to connect broad conservation themes to current policy conflicts. Conversations with people intimately connected to the region and its traditions will give a human context to these policy debates. Evaluation is based on class and fieldtrip participation, reflective journals, position papers and/or role-playing, and



HS500

HS712

ED078
# Human Studies

HS639

HS438



an integrated service-learning project that combines two out of the three course elements: applied ecological research, conservation history and policy, or experiential education. This course is part of a three-credit group of courses that integrates three areas of study and action: field-based ecological research, conservation, and education, with a focus on the Maine Woods. Students will gain an understanding of applied ecological research and conservation history and policy of the Maine Woods. Students will acquire skills in conducting field studies. using data to inform conservation policy, reflecting on experiential and place-based education, facilitating group processes, and leading outdoor education groups. Explicit attention will also be given to the psychology of experiential learning and the philosophy and pedagogies of experiential and place-based education. Students interested in this course must also register for ED 114, Experience and Place in Education and ES 497, Applied Amphibian Biology. Students taking this course Fall 2008 must commit to participating in a two-week canoeing expedition in the Maine Woods tentatively scheduled from September 21st through October 4th. The lab fee for this course covers food and transportation for the expedition.

### **Environmental Law and Policy**

HS063

HS731

HS Class Limit: 20

Lab Fee: \$20

Kenneth Cline

shaping environmental policy. We examine, as background, the nature and scope of environmental, energy, and resource problems and evaluate the various legal mechanisms available to address those problems. The course attempts to have students critically analyze the role of law in setting and implementing environmental policy. We explore traditional common law remedies, procedural statutes such as the National Environmental Policy Act, intricate regulatory schemes, and market-based strategies that have been adopted to control pollution and protect natural resources. Students are exposed to a wide range of environmental law problems in order to appreciate both the advantages and limitations of law in this context. Special attention is given to policy debates currently underway and the use of the legal process to foster the development of a sustainable society in the United States. Students are required to complete four problem sets in which they apply legal principles to a given fact scenario. This course is offered at least every other year. It is highly recommended students take Introduction to the Legal Process or Philosophy of the Constitution before this course.

This course provides an overview of environmental law and the role of law in

### Our Public Lands: Past, Present, and Future

Kenneth Cline HS, HY

Lab Fee: \$15

By definition "public lands" belong to all of us, yet public lands in this country have

a history of use (and abuse) by special interests and a shocking absence of any coherent management strategy for long-term sustainability. This course is taught in seminar format in which students read and discuss several environmental policy and history texts that concern the history and future of our federal lands. We also use primary historic documents and texts to understand the origins of public ownership and management. We examine the legal, philosophical, ecological, and political problems that have faced our National Parks, wildlife refuges, national forests, and other public lands. An effort is made to sort out the tangle of laws and conflicting policies that govern these public resources. Special attention is given to the historic roots of current policy debates. Evaluation is based upon response papers, a class presentation, participation in class discussions, and a group project looking closely at the historical context and policy implications of a management issue facing a nearby public land unit. An introductory history or policy class recommended.

### The Human Ecology of Wilderness

HS320

Kenneth Cline Wilderness has been the clarion call for generations of environmentalists. Henry David Thoreau once said, "In wildness is the preservation of the world." That single find more of our classes online at coa.edu

HS Class Limit: 14 Lab Fee: \$200 Introduction to the Legal Process, Signature of Instructor



sentence and the controversy surrounding that idea provides the central focus of our explorations over the term. This course examines the question of wilderness from multiple perspectives in the hopes of providing an understanding of the concept and real spaces that constitute wilderness. Starting with a week-long canoe trip down Maine's Allagash Wilderness Waterway, we look at historical and contemporary accounts of the value of wilderness, biological, and cultural arguments for wilderness, and the legal and policy difficulties of "protecting" wilderness. Considerable time is spent evaluating current criticisms of the wilderness idea and practice. Students are involved in a term-long project involving potential wilderness protection in Maine. This involves some weekend travel and work in the Maine Woods. Classwork emphasizes hands-on projects as well as theoretical discussions.

### Whitewater/Whitepaper: River Conservation and Recreation

Kenneth Cline Class Limit: 11 Lab Fee: \$100 Signature of Instructor



Loren Eisely once remarked, "If there is magic on this planet, it is contained in water." Eisely's observation is an underlying premise of this course - that there is something very special about moving water. This course is taught in a seminar format in which students will read and discuss ecological, historical, sociological, political and legal aspects of river conservation and watershed protection. Special emphasis is placed on understanding the policy issues surrounding dams, river protection, and watershed planning. In conjunction with readings and class discussions, students will use a term-long study of a local stream to learn about the threats facing rivers in the United States and the legal and policy mechanisms for addressing these threats. In addition, the class will take an extended field trip to western Massachusetts to gain first-hand knowledge of the tremendous impact river manipulation can have on a social and ecological landscape. We will spend time looking at historically industrialized and now nationally protected rivers in the region. Through weekly excursions on Maine rivers, students will also develop skills to enable them to paddle a tandem canoe in intermediate whitewater. Evaluation will be based on problem sets, role-playing exercises, contribution to the class, short essays, and paddling skills. Weekly excursions to area rivers entail special scheduling constraints as we will be in the field all day on Fridays.

### International Wildlife Policy and Protected Areas

HS Lab Fee: \$15

Kenneth Cline



Save the whales; "save the tiger"; "save the rainforest" - - increasingly wildlife and their habitats are the subject of international debate with many seeing wildlife as part of the common heritage of humankind. Wildlife does not recognize the political boundaries of national states and as a result purely national efforts to protect wildlife often fail when wildlife migrates beyond the jurisdiction of protection. This course focuses on two principle aspects of international wildlife conservation: 1) the framework of treaties and other international mechanisms set up to protect species: and 2) the system of protected areas established around the world to protect habitat. We begin with an examination of several seminal wildlife treaties such as the International Convention for the Regulation of Whaling, CITES, migratory bird treaties, and protocols to the Antarctica Treaty. Using case studies on some of the more notable wildlife campaigns, such as those involving whales and elephants, we seek to understand the tensions between national sovereignty and international conservation efforts. The Convention on Biological Diversity and its broad prescriptions for wildlife protection provide a central focus for our examination of future efforts. Following on one of the key provisions in the Convention on Biological Diversity, the second half of the course focuses on international and national efforts to create parks and other protected areas. In particular we evaluate efforts to create protected areas that serve the interests of wildlife and resident peoples. Students gain familiarity with UNESCO's Biosphere Reserve model and the

IUCN's protected area classifications. We also examine in some depth the role that NGO's play in international conservation efforts and new models for "communitybased conservation". The relationship between conservation and sustainable development is a fundamental question throughout the course.

This course is designed to provide an overview of the use of international law in

#### Advanced International Environmental Law Seminar

HS741

HS511

MD026

Kenneth Cline HS Class Limit: 10

Environmental Law and Policy, Global Environmental Politics, or Signature of Instructor solving transnational environmental problems and shaping international behavior. We examine, as background, the nature and limitations of international law as a force for change. The course will then explore customary law, the relationship between soft and hard law, enforcement of international law, implementation mechanisms, and the effectiveness of multilateral environmental agreements. Special attention is given to existing international environmental law frameworks addressing climate change, Arctic and Antarctic development, ozone depletion, biological diversity, forest loss, export of toxic chemicals, and the host of issues raised by the 1992 United Nations Conference on the Environment and



issues raised by the 1992 United Nations Conference on the Environment and Development and subsequent environmental fora. Students will also consider the interface between international environmental law and other important international forces such as the Bretton Woods institutions, human rights frameworks, and international development entities. Students will be evaluated on the quality of their classroom comments and several analytical problem sets given during the term. Students will also be asked to complete a major research project examining the effectiveness of a treaty or a proposed international environmental legal arrangement.

This course will look at the complex issues surrounding the development.

### Hydro Politics in a Thirsty World

Kenneth Cline HS

Lab Fee: \$15



distribution, use and control of fresh water around the world. Focusing primarily on developing countries, we will examine three aspects of water use and control. First we will look at the scope and impact of water development projects; second we will examine the conflicts and solutions related to transboundary river basins; and third we will consider the implication of privatization of water resources. By way of background, we will review the variety of demands placed on fresh water and the political institutions related to water development. Students will gain a solid background in international environmental law as it relates to multilateral and bilateral treaties, customary law, multilateral institutions, and the guidance of international "soft law". They will also understand the allocation and equity issues surrounding the privatization of water and the political dimensions of this shift. Ultimately, these issues will give a concrete understanding of some aspects of the concept of sustainable development. Evaluation will be based on class participation, short analytical papers, and a substantial term long assignment.

### Marine Policy

Kenneth Cline, Chris Petersen Lab Fee: \$20



According to the Chair of the Pew Oceans Commission, "America's oceans are in a state of crisis. Pollution, unplanned coastal development, and the loss of fisheries, habitat, and wildlife threaten the health of the oceans and the tens of thousands of jobs that form the backbone of coastal communities." This course will provide a general understanding of both marine resources and current regional, national, and international policy regarding these resources. Because oceans and the life they support transcend national and state boundaries, the course will explore international, and local oceanpolicy-making frameworks, including specific legislation addressing fisheries, coastal development, species protection, pollution, and resource extraction. We will examine some of the controversies that exist in marine environments today using historical case studies of ocean management

policy. These case studies include management of Atlantic salmon, tuna-dolphin

interactions, off-shore oil drilling, and New England fisheries. Because of the interdisciplinary nature of these problems, it is necessary to understand how scientists and policy makers think about the same issues, how they attempt to solve problems, and how these two views can be brought together successfully.

Human Studies

Assessment will include several question sets, a final small group paper and presentation that investigates a current marine policy issue, and class participation.

#### Gender in Global Perspective

HS552

Lucy Creevey HS Class Limit: 15 Lab Fee: \$10 This introductory course will explore the construction and reproduction of gender inequality in a global perspective. We will study the social position and relations of women and men (political, economic, cultural and familial) in comparative and cross-cultural perspective. Using the United States and various non-western case studies, the course will seek to explore the topic broadly. In so doing, students will learn about the diversity of women's and men's experiences across class, racialethnic groups, sexualities, cultures, and regions. This class will also provide students with an overview of the different theoretical perspectives that are sometimes used to explain and understand women's and men's experiences. This class will be taught via a combination of lecture and discussion. Students will be evaluated on class participation, several short papers, and a final project.

### Feminism and Fundamentalism

Lucy Creevey Class Limit: 15



Feminism and Fundamentalism is a seminar in which principal issues surrounding the impacts of extreme religious conservatism on the power and status of women, and the reactions against this of women seeking to establish their own rights in society, are considered. The topic is relevant to all religions and all countries. Assigned reading includes much material on Islam and Hinduism. However, students will read about Christianity and Judaism as well and may choose to do their papers on any country and any religion.

### Religion as a Force in World Affairs

Lucy Creevey Class Limit: 10 Signature of Instructor



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HS707

### Personality and Social Development

**Richard Borden** HS, ED

HS140

This course, part of the education sequence, provides a theoretical and practical look at the emotional, cognitive, social, and behavioral development of humans. It covers the full life span of human development with some special concentration on school-age children. Topics of prenatal development and personality disorders. are also presented. In addition, the course focuses on several of the more popular learning, social-learning, and educational theories. During the first part of the course, readings are selected from original sources and discussed (e.g. Erikson, Freud, Adler, Gilligan). Later the discussions become directed more toward specific social and development issues (e.g. sex roles, the family, education, personal growth, death and dying). Participation in the discussions and three papers are required. Offered every year.

This course explores current theories, research and ideas in psychology. The core

themes of 'body', 'mind' and 'soul' all have a long history of psychological inquiry

associated with them. Yet they are every bit as vital and important today. Some of

### Contemporary Psychology: Body, Mind and Soul

HS510

HS167

HS543

**Richard Borden** HS Class Limit: 15 Lab Fee: \$25 Some background in psychology

the most influential authors in the field continue to struggle with these classical philosophical questions --- and with ways to incorporate state-of-the-art research on them. In this class, we will read and discuss at least one major new book on each theme. Ideas from these perspectives will be compared, contrasted and critiqued. In the final portion of the class, we will look especially at ways in which all three themes can be integrated -- not only in academic psychology -- but within our own experience. Evaluations will be based on careful reading of all materials, class participation, a series of short papers, and an end-of-term presentation and final paper in each student's area of personal interest.

### Seminar in Human Ecology

**Richard Borden** HS

Class Limit: 15



This seminar traces the historical development of human ecology. We begin by reviewing the seminal works in human ecology, the contributions from biology, and the development of human ecology as a multidisciplinary concept. Along these lines we compare the various brands of human ecology that have developed through sociology (the Chicago school), anthropology and cultural ecology, ecological psychology, and economics, as well as human ecological themes in the humanities, architecture, design, and planning. This background is then used to compare the COA brand of Human Ecology with other programs in this country and elsewhere around the world. Our final purpose is to look at new ideas coming from philosophy, the humanities, biological ecology, and other areas for future possibilities for human ecology. Evaluations are based on presentations and papers. Offered every other year; open to third and fourth level students.

### Community Planning and Decision Making

Richard Borden, Isabel Mancinelli HS

Lab Fee: \$40

consciousness that created it. We must learn to see the world anew". If Einstein's idea is accurate about how humans understand the universe, it is likewise true of how we plan and manage our relationships with the environment. One of the primary aims of human ecology is to explore new ways to envision human environment relations. Within its integrative perspective, scientific knowledge and human aesthetics can be combined in ways that enrich human communities as well as value and protect the rest of the living world. The purpose of this course is to provide students with a foundation of theory and practical skills in ecological policy and community planning. A broad range of ideas and methodologies will be explored. Using real

Albert Einstein once observed that "no problem can be solved from the same

be explored. Using real examples of current issues - such as sprawl, smart growth, gateway communities, watershed based regional planning, land trusts, and alternative transportation systems. We will be joined by the actual leaders of these changes locally and state wide in Maine. We will also examine emerging methodologies that emphasize participatory planning, community capacitybuilding, and empowering marginalized groups. These models and ideas will be further compared with prominent approaches and case studies from elsewhere around the country. As a part of current ideas about community planning and policy, the course also introduces small group collaboration techniques, and the use of computers to enhance complex decision processes. A field component will take advantage of varied external opportunities - including town meetings, conferences, and public events. Evaluations will be based on class participation, several short research papers, and end of term small group projects.

Human Studies

HS659

HS344

ED108

writing focuse of

### Practical Skills in Community Development

Ron Beard Class Limit: 15 Lab Fee: \$35



In rural areas throughout the world, citizens, non-profit leaders, agency staff, and elected officials are coming together to frame complex issues and bring about change in local policy and practice. This course will outline the theory and practice of community development, drawing on the instructor's experience with the Dùthchas Project for sustainable community development in the Highlands and Islands of Scotland, Mount Desert Island Tomorrow, and other examples in the literature. In short, community development allows community members to frame issues, envision a preferred future, and carry out projects that move the community toward that preferred future. Class participants link with on-going citizen committees and projects in the areas of community design, land use planning, transportation, community health, housing, economic development, and youth empowerment. Students will gain practical community skills in listening, designing effective meetings, facilitation, framing complex public issues, project planning and development of local policy. Readings, discussions and quests will introduce students to community development theory and practice. Class projects will be connected to community issues on Mount Desert Island. Short written papers will provide opportunity to reflect on class content, community meetings, newspaper stories and reading assignments. This class is designed to include both COA students and community members. Evaluation will be based on preparation for and participation in class discussion, several short papers, participation in field work, and contribution to a successful group project.

#### Writing Seminar Staff A new course in fall 1999, this expository writing course, which is limited to second and third-year students, focuses on writing as a process, audience awareness, syntax and analysis. Through class discussion of readings, students gain an understanding Class Limit: 15 of how others use the various principles of exposition to explain, clarify, and analyze. By writing several drafts of papers, topics may be chosen by students, students develop pre-writing and revision skills. Through peer review sessions, students apply what they have learned in analyzing the writings of others to the writing of their peers. The portfolio students turn in at the end of the term should contain several 🖉 drafts and the final version of two shorter papers, drafts and final copy of a library-based research paper, and an annotated bibliography. This course meets the first year writing requirement. Children's Literature Staff

### FD Class Limit: 15

w

This course is a broad overview of children's literature and its place in the elementary school classroom. It examines the range and trends in literature for children that includes all genres, prominent authors, illustrators, and awards, critical evaluation, and integration into instruction across the curriculum. Students

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find more of our classes online at coa.edu

76



participate in and design lessons which incorporate or extend children's response to literature. They survey poetry and media appropriate for elementary students. Students read an extensive amount of children's literature, keep a response journal, develop an author study, and create a teaching unit using children's literature.

#### **Representing Nature, Envisioning Science**

MD035

ED092

ED105

Stephen Ressel, Dru Colbert	In this studio-based course students will create visual projects that represent and interpret topics related to the natural world and to the life sciences. In part, this course responds to the ever increasing need to explain to general audiences, complex or conflicting scientific information such as the evidence for global warming or evolution, or the controversies around stem cell research or genetic engineering. Students will engage in hands-on activities in scientific illustration, natural history sketching, interpretive design and "information architecture", i.e. making the complex clear through diagrammatic representation. These projects provide opportunities to investigate techniques and develop skills in illustration, digital design, and activity-based "experience" design. Course content will include a survey of works by artists and designers that depict, interpret, or focus on the natural world and scientific issues of societal importance. Topic areas include the early depictions of the natural world, the enlightenment, art nouveau and its influence, contemporary fine arts, the museum and nature center, and medical and scientific illustration. Students will be evaluated on the quality and timely completion of projects and participation in class activities and discussions.
AD	
Class Limit: 15	
Lab Fee: \$85	

### Elementary Methods I: Reading, Writing and Social Studies

Sue Hersey	In this course students research and discuss theory and effective teaching strategies
ED	for an interdisciplinary elementary curriculum, integrating social studies and reading/language arts. Using instructor modeling, students
Learning Theory or Signature of Instructor	design lessons using area natural resources. Students spend time in local schools observing and interviewing children and teachers. This course is a prerequisite for Integrated Teaching Methods II.

### Integrated Methods I - Reading and Writing

Sue Hersey
HS, ED
Class Limit: 12
Child Developmen and, if possible, Children's Literatur

This course is designed to prepare prospective teachers with methods necessary to

implement a comprehensive literacy program to include: Guided reading, Independent reading, Literature Circles, Reading Recovery. The course content focuses on an integrated approach to the acquisition of literacy skills, current best practice, and lesson design, guestioning techniques, formative and summative assessment. Learning objectives address the standards for Maine Initial Teacher Certification and the <sup>re</sup> Maine Learning Results. There is a service learning component of 60 hours for the ten week course. (For example, 3 classroom observations for 2 hours each for a total of 6 hours per week.) Evaluation will be based on the quality of a course portfolio to include curriculum and assessment design, and reflections on the service learning and required readings.

**Ecological Feminism** 

MD038

Suzanne Morse, Bonnie Tai	What does patriarchy have to do with environmental degradation? How does patriarchy interact with other systems of oppression? Is rape an appropriate
Class Limit: 15	description of how industrial countries use natural resources? Is scientific knowledge adequate for approaching the range of challenges the world faces, suc as climate change, poverty, and violent conflict? How does biology contribute to
Lab Fee: \$30	

### Completion of ES and HS resource



the codification of gender, gender role, exploitation, and an ethic of caring ? In this course we will explore these questions by developing a familiarity with empirical evidence of the relationship between patriarchy and the exploitation of nature, the historical context for these issues, and methods of inquiry into causal relationships.

In addition to readings, class discussions, film screenings, guest speakers, a social/ community action project, and written assignments, students will engage in individual research on a case study of their choice and apply and synthesize their learning in the course with a creative project, draft human ecology essay, or draft senior project proposal.

### **Environmental History**

Todd Little-Siebold How has human history shaped and been shaped by "the environment"? Environmental history is one of the most exciting new fields in history. In this course we examine world history from Mesopotamia to the present to see the role such things as resource scarcity, mythology, philosophy, imperialism, land policy, theology, plagues, scientific revolutions, the discovery of the new world, the industrial revolution, etc. on the natural, social, and built environments.

### The Renaissance and The Reformation: Europe in Transition

HS, HY

HS, HY

Todd Little-Siebold This class is an introductory exploration of the transformations in Europe from roughly 1400 to the sixteenth century wrought by the changing religious, political, and social thought. Taking as its point of departure the transformation of European society provoked by the "new" ideas of the Renaissance, the course will focus on the phenomena of humanism and the challenges to religious orthodoxy and political hierarchies it represented. The course will use a wide range of secondary and primary sources to examine the social, spiritual and political implications of the challenges to the Catholic Church's preeminence in the Christian west. We will examine the idea of the Renaissance and its various expressions in the world of ideas, art, and the emergent practice of "science." Student will develop an understanding of Catholic theology and the various Protestant challenges to it as well as developing a sense of the political reworking of Europe provoked by the theological debates. We will read social histories of the period, use films to provide context, and read primary texts by thinkers such as Erasmus of Rotterdam, Jean Calvin, Martin Luther, Teresa of Avila, Galileo, and Bartolome de las Casas. Students will be evaluated on mastery of readings, class discussions, short essays, and a final project.

### **Ethnography and Fieldwork**

HS Class Limit: 20 Lab Fee: \$25



Todd Little-Siebold This course will introduce students to all dimensions of ethnographic research from ethical issues and theory to the practical skills necessary to undertake fieldwork. A primary goal is to provide students with the ability to conceptualize, plan and undertake ethnographic fieldwork. The course will use readings, discussions, and most importantly fieldwork to explore the complex processes of working with people" in the field." We will use readings of ethnographies to examine the creative/research process from proposal to writing up and beyond. The course will also examine the vexed question of ethnographic work and then the researcher's representation of what they have learned from their conversations, observations, and personal reflections in the field. Students will undertake short projects that require them to use a wide range of ethnographic techniques, and all students will have an opportunity to undertake a recorded interview, transcribe it, and interpret their "findings" as well a keep detailed ethnographic fieldnotes. Readings will include "classical" ethnographic works, field notes of ethnographers, scholarly articles, and

some reflective ethnographic pieces. Students will be evaluated on

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# area requirement

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# Human Studies

HS060

HS747

HS735

mini-ethnographies, field exercises, short essays, and a term-long ethnographic project. This course is appropriate for students who are interested in communitybased research generally, and would be particularly helpful for students who intend to undertake some sort of fieldwork.

#### American Worlds: Comparative Colonialism in the Americas HS285

HS, HY

Todd Little-Siebold This course confronts the complex interplay between pre-contact societies and European forms in the creation of the Americas. By comparing the pre-contact societies of North, Central, and South America we encounter the basic context within which colonial regimes developed in the New World. This first section of the class highlights the variety of social organization around which natives of the Americas developed with a survey of indigenous societies on the eve of contact with Europeans. This section begins with indigenous societies in what became Spanish America since contact transformed them first. The pre-contact North America is discussed by looking at how the contact with Spaniards and others had already transformed the human and social ecology of the continent long before French and English settlers arrived. The section emphasizes the diversity of societies which Europeans would encounter across time and space.

#### Articulated Identities:Community/State/Nation, Latin America HS318

Todd Little-Siebold This course is an exploration of the complex relationship between local HS, HY Signature of Instructor

communities and the nation state in Latin America. We probe the theoretical discussion of both state and community to attempt to understand how scholars have defined and studied these entities. With case studies from Mexico and Central America, we look at general synthetic works as well as local community studies in an effort to unpack the complex methods used by scholars in their efforts to document the complex processes of social, political and cultural change. We also try to distinguish the methodological and theoretical differences across disciplines in the discussion of the historical construction of community and nation state. By using a broad interdisciplinary set of readings we focus on the real and perceived distinction that exists in the scholarship. Students are expected to focus on coming to terms with the issues at hand so that by the end of the course we can have informed discussions about the nature of these complex phenomena. By emphasizing comparative developments in Mexico and Central America, we should be able to see how the two nations experienced the process of social transformation. Finally, the main emphasis of the course is on gaining a mastery on a historical and theoretical problem through intensive reading about the topic. Students are expected to engage the materials and contribute to discussion, write response papers on the books, write a longer paper on a book of your choosing, and present these findings orally to the class.

#### Histories of Power:States & Subalterns in Modern Latin America HS610

HS Class Limit: 15

Todd Little-Siebold This colloquium-style course will provide an intensive examination of the modern political history of Latin America with a particular emphasis on the specific mechanisms of power used by state actors, local communities, and individuals. The course seeks to provide students with appropriate theoretical tools as well as concrete historical cases from which to examine power dynamics in contemporary Mexico, Central America, and the Andes. The course also highlights a concrete set of cases through which students can examine the history of political upheaval, revolution, and contestation that has defined the region since independence. The chronological scope of the class will be from the early nineteenth century up to the late twentieth century. Students will be asked to take theoretical works about state formation, nationalism and power and examine how such questions could be turned into research projects. Students will write a series of analytical essays on the course readings to problematize each author's treatment of power and the state. A final project on one author's theoretical and empirical contribution to the field will

### Human Studies

HS698

HS526

serve as a capstone. The course will focus on discussion of the texts, and students will be evaluated on their discussion skills, reading notes, and written work. This course is intended for students with prior coursework on Latin American history (e.g. From Native Empires to Nation States, Articulated Identities, and Seminar in Guatemalan History and Culture), and courses in social theory would also be helpful.

#### The History Workshop: Theory, Practice of Historical Research



Todd Little-Siebold This course is an intensive pro-seminar on historical methods and research. Using the history of the College of the Atlantic as its central focus, the course asks the guestion "What is the history of the educational approach used at the College?" Students will collaborate in developing research topics which address this topic drawing on the College's archives, oral histories, and a wide variety of other sources. Students will explore the origins and development of the College's approach to education as well as the day-to-day practice of teaching and learning at different times in history. The course emphasizes the conceptualization, planning, and execution of a focused collaborative research project. Students will learn how to

use archival sources, oral history, and other sources for their projects. Evaluation will be based on several short projects, recorded interview exercises, collaboration with peers in producing a final product, and individual final projects. The class will also make a public presentation of their findings.

This course explores the rich history of Guatemala through the lens of two vital

### Corn and Coffee

Todd Little-Siebold HS, HY Class Limit: 12 Lab Fee: \$30 Native Empires to Nation States, Articulated Identities, or American Worlds and Signature of Instructor



#### products, corn and coffee. The crops provide insight into the global and local dimensions of both historical and contemporary reality there. The course will cover the history of Guatemala from pre-contact native society through the myriad changes wrought by colonialism, decolonization, the rise of the modern nation state, and the transformations associated with the rise of coffee as a major export crop. Corn and coffee provide a convenient vantage point from which to examine the social, economic, and cultural dynamics of native society on the one hand and the globally- connected production of coffee on the other. The course moves from a broad macro perspective on each crop to an intensive exploration of how both are produced in Guatemala. In this way, class participants will be able to look at how global historical trends in consumption have played themselves out in local communities. The class will simultaneously be able to look at the processes at work in pueblos throughout Guatemala that root the corn economy into rich cultural and social dynamics that are at the core of communal life. Using these two crops as a starting point, the class will allow students to develop a holistic and synthetic understanding how Guatemalans live their everyday lives embedded in intensely local realities even as they experience much larger national and international processes. The course emphasizes attention to the broad global dimensions of corn and coffee's production as well as the fine-grained study of Guatemala's sociocultural life in historical and anthropological perspective. Through discussions of the books, this seminar-style course seeks to provide students with deep insights into the history of Guatemala while maintaining a sense of the global and regional context. Intensive readings will provide students with a snapshot of trends in both history and ethnography while broader synthetic analyses of both corn and coffee will embody more popular approaches to the topic. Students will lead discussions of

#### Autobiography

William Carpenter

HS008

HS

This course uses autobiography as a literary form to examine the lives of certain significant people and then to examine our own lives, concentrating particularly on understanding the effects of early home and community environments. In the first

the readings, write short synthetic essays, and undertake a research project

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for the class.

# Human Studies

HS181

HS538

HS495

HS594

Class Limit: 8 Literature and writing course and Signature of Instructor

half of the term, students read and report on two autobiographical works chosen from a list including Bervl Markham, Carl Jung, Margaret Mead, Mava Angelou, Leo Tolstoy, Virginia Woolf, Vincent Van Gogh, W. B. Yeats, and Pete Rose. In the second half, students write their own autobiographies, working in small groups and frequent tutorial meetings with the instructor. The product is an autobiographical examination of the student's own development. This course should consume 15 hours per week outside of class, more at the end of the term when finishing the autobiography. This course is offered every other year.

This course is an introduction to the unconscious. It begins with the problem of

### Bread, Love and Dreams





knowing something which by definition is unknown. It then proceeds to examine two classic approaches to the unconscious: dreams and love. Students are expected to keep dream notebooks and to recognize their own unconscious life in the light of readings. Readings start with the unconscious in its classical formulation according to Freud and Jung. We read The Interpretation of Dreams and Two Essays in Analytical Psychology. We consider these themes in fiction using Henry James' The Beast in the Jungle. We then move to more contemporary writers, particularly James Hillman's The Dream and the Underworld, Michel Foucault's History of Sexuality, and finally consider some of the negative implications of the material in Elaine Scarry's The Body in Pain. The writing part of this course is done in pairs, with groups of two students cross-examining each other's dream notebooks and self-analysis. This

### Poetry and the American Environment

HS152

HS676

William Carpenter

HS

Since Anne Bradstreet in the seventeenth century. American poets have responded to the natural environment and its human transformation. Poets have learned to see by their exposure to nature, then in turn have used their techniques of vision, music and metaphor to teach us how to see who and where we are. This class considers poets of the Romantic and Transcendental movements, spends some time with Walt Whitman and Emily Dickinson, then focuses on the twentieth century, especially T.S. Eliot, Wallace Stevens, Robert Frost, Robinson Jeffers, and Elizabeth Bishop. We end with some contemporaries: Robert Hass, Charles Simic, Gary Snyder, and Mary Oliver. Students may write either an analytical paper or a collection of their own poetry. Class meetings are supplemented by additional workshop sessions for student poets.

#### Shakespeare: Character, Conflict, and Cinematography

course is offered every other year.

William Carpenter

Lab Fee: \$10



This course will focus on Shakespeare's tragedies as a direct link between the birth of tragedy in ancient Greece and the violence of contemporary cinema. The class begins with a week of Shakespeare's sonnets as an entry into the co-evolution of language, metaphor and human emotion. We'll then compare Hamlet and Sophocles' Oedipus Rex in the light of Freudian theory to shed light on universal issues of incest and domestic violence, and continue with a play every week in two extended evening sessions, 4-9 Monday and Thursday, with pizza intermission. The Monday sessions will be a complete dramatic reading of the play involving the whole class, stopping to discuss salient points, with the aim of complete understanding of language, structure and meaning. The Thursday sessions will be a single or double feature of contemporary and classic film adaptations, followed by discussion of the relation between play and film. Sample pairings would be Romeo and Juliet with Bernstein's West Side Story; Macbeth with Geoffrey Wright's Macbeth and Kurosawa's Throne of Blood, King Lear with Moorhouse's A Thousand Acres. Two written assignments will involve a choice of structural analysis of a play, re-casting Shakespearean scenes or motifs into original short fiction, or

selecting and following a Shakespeare play through all its cinematic variations. Texts will be individual editions of the plays, along with Michael Greer's Screening Shakespeare for individual background. A prior writing or literature course is recommended.

This course examines the origin and aesthetics of violence in western culture.

### The Aesthetics of Violence

William Carpenter

нs

Class Limit: 25



We begin with the question: what are the long-term human effects of a civilization dominated by the image of a murdered god? We develop the focus on representations of violence in classical and contemporary literature and film. For theory we read Aristotle's Poetics, Nietzsche's Birth of Tragedy, Ren, Girard's Violence and the Sacred. We study classical tragedy (Oedipus Rex, The Bacchae, Medea) along with Shakespeare's Macbeth, Dostoevsky's Crime and Punishment and Brett Easton Ellis' American Psycho. Discussions are supplemented by a film series clarifying the debate over contemporary film violence by placing it in mythic context. Natural Born Killers, Reservoir Dogs, Pulp Fiction, Ride the High Country, and Clockwork Orange are among works studied. Student reports bring us up-to-date on current issues and cases of domestic and serial violence, as well as the politics of censorship, the representation of violence in visual art, the issue of pornography and the myth of the victim hero. To clarify the issue of real versus represented violence we make a class field trip to the Bangor Auditorium for a professional wrestling match.

### **Creative Writing**

William Carpenter HS Class Limit: 10

This class concentrates on the theory and practice of poetry and short fiction, though there will also be a place for "Starting Your Novel" students to finish up. Our goal is to develop the skills of verbal craftsmanship and self-criticism. Class meetings combine the analysis and critique of individual students writing with the discussions of published works by other writers. We also frequently discuss matters

of standards, the creative process, and the situation of the writer in the contemporary world. Students are expected to submit one piece each week, to participate in class response to fellow writers, to make revisions on all work, and to contribute their best pieces to the printed class anthology at the end of the term.

### Starting Your Own Novel

William Carpenter HS Class Limit: 10



an intensive approach to writing longer fiction. It would also be useful to the novel reader as a insider's approach to the structure and purpose of fiction, the relation of author to character, and issues of intentionality. We will be reading first chapters from current novels and studying their opening strategies, then each student will develop plot, character, style and setting ideas for a first novel, followed by writing and revising fifty or sixty pages of their projected work. Other concerns will be narrative viewpoint, handling of time, levels of realism, dialogue techniques, writing habits, motivation & self-discipline, and the relation of fiction to personal experience. Background in creative writing or narrative theory would be helpful but not essential. Evaluation will be based on class participation, strength of the concept, and the guality of the student's written work.

### **Tutorial: Advanced Fiction**

William Carpenter Signature of Instructor

This is a creative-writing course for experienced writers interested in conceiving and developing a book-length work, either a novel or story chain. The aim of the class is to bring your work to a point where students can proceed on their own to finish a book worthy of public consumption. Emphasis will be on overall narrative design, coherence, and continuity, as well as creative process and reader response. We will



begin with the nature of inspiration and the relation of fiction to experience (both literary and personal), along with a close study of the opening strategies of several classic and contemporary novels. Each student will design a complete novel in concept, then address the basic questions of time, tense, viewpoint, setting, tone, plot and characterization, and their dynamic relations in the novel's evolution. The latter portion of the term will be devoted to actual written production, and it is expected that several chapters will be produced and revised to a second-draft level of readability. Evaluation will be based on the discipline, quality and promise of the written work.



The Environmental Science curriculum reflects an ecological approach to biology, chemistry, mathematics, and physics. The curriculum takes an ecological approach, teaching students to discover interrelationships between different organisms and between organisms and their environment. Unlike many other colleges, at COA the sciences are not insulated from other disciplines. Our approach incorporates historic, economic, aesthetic, and literary analyses as part of the interdisciplinary scientific inquiry. Environmental science courses get students into the field as soon as possible, often in their first term.



Dont Panic it's

Organic!







# BRITTANY SLABACH Student Spotlight

### LIGONIER, IN CLASS OF 2009

What is your dream occupation? Living in a grass hut in the middle of the African jungle, studying the social organization, hunting behavior, and mating strategies of African apes. I want to own a bakery some day too.

### Read more >

### Her courses...

- Bread, Love, and Dreams Chemistry 1 Chemistry 2 Biology 2 Ecology Human Anatomy and Physiology Tutorial: Piano Starting Your Novel Turn of the Century Human Ecology Core Course Biology of the Mind – Neuropsychological Basis of Behavior The Influences of Mass Media on American Society
- Gender in Global Perspective
- Aesthetics of Violence
- Evolution
- Environmental Law and Policy
- Conservation Biology
- Organic Chemistry
- Biology Through the Lens
- Independent Study: Exploring the Self and the Other
- Independent Study: Advanced Animal Behavior
- Personality and Social Development
- Natural Climate Variability, Climate Change and Humans

Microbiology

Geographic Information Systems I: Foundations and Applications

# BRITTANY SLABACH Student Spotlight

## **Environmental Science**

#### What has been your favorite class at COA? Why?

I have had several favorites. Bread, Love, and Dreams, Animal Behavior, Ecology, Conservation Biology, Anatomy and Physiology, and Environmental Law and Policy were all wonderful. They all pushed me to my mental abilities, testing and challenging my beliefs and thinking processes. It made for a stimulating and tiresome course load, but I learned more in these classes than in others.

#### What was your favorite lesson/lecture/discussion/project at COA? Why?

Anything involving Bill Carpenter. He is amazing at provoking interesting conversation. My Conservation Biology 'recovery plan' was also wonderful. It allowed me to demonstrate my knowledge of biology, conservation, and socio-economics in areas that I am interested in, and place it in a real world scenario—a 'what would you do' role. It also pertained to what I hope to do in the future which was even better.

#### What is your dream occupation?

Living in a grass hut in the middle of the African jungle, studying the social organization, hunting behavior, and mating strategies of African apes. I want to own a bakery some day too.

#### What do you see yourself doing after COA?

Taking a little time off and then diving (hopefully) into graduate research!

#### What is happiness to you?

My family, laughing, while sitting on a porch enjoying the summer air.

#### Have you had an internship? If so, doing what?

I have done three actually. I started off as a 'duckling' interning with the COA Alice Eno Research Station. I collected data on the leach's storm petrels and loved it! I then made my way to Belize working with the Wildlife Care Center of Belize collecting pre-release data on a group of rehabilitated black howler

monkeys. My final internship was in Chicago at the Lincoln Park Zoo. I was part of the behavioral monitoring team at the L.E. Fisher Center for the Study of Apes. I took spatial data on gorillas and chimpanzees all day. No better job than to watch apes all day!

#### What was your final project?

I decided to do a thesis entitled "Ape Research: History of Methodology." I didn't have time to go back into the field and needed to catch up on current research and figure out what I'm really interested in. It was a great experience and I honestly look forward to writing a PhD thesis one day using my own data.

#### What do you like to do when you're not doing school work?

Go for a walk, hike, or sometimes just sit on my burn and literally stare at the wall. Your brain needs a break every now and then.

What came first, the chicken or the egg? I don't like eggs.

#### What do people say is your most marked characteristic? My outgoing personality - I'm not very shy and like to meet new people.

#### Why did you choose to come to COA?

I came to COA for the self-guidance in choosing your own education and the one-on-one nature of the professors and students. I wouldn't be half the person I am today without some of the COA faculty and staff.



### Practicum in Residential Windpower

Anna Demeo Class Limit: 12 Lab Fee: \$30 Signature of Instructor



This is a hands-on, project-based class in which students will collaboratively plan for and oversee the siting, sizing, purchase, assembly, installation, and evaluations of a grid-tied wind turbine for residential use. Students who successfully complete this course will gain an understanding of the technical and practical issues involved with buying, building and erecting a wind turbine so that they may be able to lead such a project in the future. In so doing, students will learn some of the basic physics of energy, gain an introduction to zoning and siting issues for residential wind turbines, and gain experience planning and carrying out a multi-component project. In particular, students will learn the basics about power, voltage, and DC and AC current as well as the components necessary to convert wind to electricity. In addition, students will learn the relationships between power output and wind speed, power consumption and turbine size, and carbon emissions and power source. Students will use a spreadsheet program to perform simple calculations needed to evaluate power need versus turbine output and be able to size a system accurately. Additionally, they will take wind measurements and learn how to analyze wind data and determine if a site is suitable for wind energy. If time allows students will get a chance to review the permitting process involved in building wind turbine. Finally, students will coordinate and oversee professional installation of the turbine, will evaluate its output, and will develop a plan for its maintenance. Evaluation will be based on several short written assignments and active and effective participation in all aspects of the project. A college-level math, chemistry, physics, or business class is recommended but not required.

#### **Probability and Statistics**

Chris Petersen QR Class Limit: 20 Lab Fee: \$10

Signature of Instructor



students a good understanding of what kinds of questions statistical analyses can answer and how to interpret statistical results in magazines, books, and articles from a wide range of disciplines. The course begins with understanding probability and how it can often lead to nonintuitive results. Types of statistical analyses discussed in the second part of the course include comparisons of averages, correlation and regression, and applying confidence limits to estimates of studies from both the social and biological sciences. Application of statistics to specific research problems is covered in greater depth in more advanced courses such as advanced statistics and field ecology and data analysis. Evaluation is based on class participation, problem sets, and quizzes, and an independent project. This class is offered every other year.

This course provides an introduction to probability and statistics. Its goal is to give

### Laboratory Techniques in Molecular Ecology

Chris Petersen Class Limit: 12 Biology I and Signature of Instructor



### find more of our classes online at coa.edu

ES479

ES462

ES509

### **Molecular Evolutionary Genetics**

Chris Petersen ES Class Limit: 12

Signature of Instructor



by polymerase chain reaction. The course will be taught over the two-week spring break period (8 hour days, Monday through Friday), with additional meetings during spring term to discuss results, work on papers or posters and continue with some advanced reading. Participants in the course will be introduced to a variety of molecular techniques that can be used to investigate population genetics of animal species. In particular, we plan to have students apply newly learned techniques to marine species, with an emphasis on shark and skate species. The curriculum will mix hands on laboratory work with lectures and potential seminars by leading molecular ecologists. The course will meet at Mount Desert Island Biological Laboratory during spring break and at COA during the spring term and

This is a hands-on laboratory course in molecular genetics, focusing on genomic

DNA isolation, genomic library construction and amplification of molecular markers

will culminate in research presentations to the MDIBL and COA community. Student evaluation will be based on required attendance over the entire short course, knowledge and practical use of the molecular techniques, and participation in the laboratory and the class presentation. This course is paid through INBRE grants.

### Biology of Fishes

Chris Petersen ES Class Limit: 20 Lab Fee: \$50 A biology course and background in ecology, evolution, and animal behavior This course includes elements of classification and identification, ecology, evolution, behavior, anatomy, and fisheries ecology to provide a broad overview of the biology of fishes. The course includes original readings from the primary literature and student presentations of papers. Compared to more traditional courses in ichthyology, this course emphasizes work in conservation biology and population structure of fishes, and the ecology and behavior of fishes. Readings include chapters from a traditional ichthyology textbook, a recent book on fish conservation, and multiple readings from the primary literature. Labs include

studies of internal and external anatomy, behavior, systematics, and field trips. The class will emphasize the biology and behavior of local fish species, specifically the social behavior and reproductive biology of local freshwater, estuarine, and anadromous fishes. This will include extensive fieldwork, including some field behavioral observations of fish. The potential may exist for students to continue this work into the first half of the summer. This class is offered every two to three years.

### Field Ecology and Data Analysis

Chris Petersen ES, QR Class Limit: 15 Lab Fee: \$20 Signature of Instructor



This course teaches students how to collect data in the field (outside), how to descriptively and quantitatively analyze these data using spreadsheet and statistical programs, and how to present the information in the form of a report or scientific paper. Some of the projects are experimental, while some are observational. There are four field projects during the term, and the tentative project areas are one terrestrial plant, one terrestrial animal, one marine, and one independent project. The methods learned will most likely include measuring population and demographic parameters, quantifying behavior, and estimating community composition. In addition to taking data in the field, students spend a substantial amount of time learning and applying statistical techniques to describe and analyze data. Lecture material includes designing data collection procedures, statistical analysis, and problem solving. Evaluations are based on write-ups of field exercises, homework on statistical techniques, oral presentations of work, and class participation. Previous intermediate level Ecology or similar courses are recommended. This class is offered every other year.

#### ES483

ES508

ES191

# **Environmental Science**

ES474

ES303

ES472

ES395

### Introduction to Computer Science

David Feldman QR Class Limit: 8 Signature of Instructor



This course is an intensive introduction to computer science for students with little to no programming experience. The primary goal for this course is to provide students with a solid foundation in C++, a modern, object-oriented programming language. A secondary goal is for students to gain an initial introduction to algorithmic approaches to interdisciplinary problem-solving. Constructing effective software involves considerable creativity and judgment, and there are general theoretical principles---independent of any particular language---that inform and guide its construction. Students will gain an introduction to these general principles and will also gain experience applying these principles to practical problems. Students who successfully complete this class will: gain a solid, practical understanding of the core C++ language (including pointers, classes, and linked lists, trees, and other data structures); learn how to extend their knowledge of C++ or other languages; develop their own systematic programming style; gain experience creating and implementing algorithms; and, learn to apply algorithmic thinking and programming skills to areas of their interest. This course is designed for a wide range of students: those seeking to learn programming as a practical skill for use in another field, as well as those students who simply wish to experience the challenge and excitement of designing and implementing algorithms. Evaluation will be based on weekly programming exercises and a final programming project.

### Physics I: Mechanics and Energy

David Feldman ES, QR Class Limit: 20 Lab Fee: \$15 Understanding Functions, or a strong high school algebra background, or Signature of the Instructor This course is the first of a two course sequence covering a range of standard introductory physics topics. The goals of the course are: to introduce students to important physical ideas both conceptually and mathematically; and to help students improve their quantitative skills. The first part of the course consists of a broad look at the three conservation laws: the conservation of momentum, energy, and angular momentum. Along the way, we'll learn about vectors, work, potential energy, thermal energy, and the energy stored in chemical bonds. We'll conclude with a treatment of Newton's laws of motion. If time permits, we may briefly cover some topics from chaotic dynamics. Evaluations will be based on participation in class and lab, weekly homework, and two untimed, open-notes exams. This course makes extensive use of algebra and trigonometry. Potentially difficult math topics will be reviewed as necessary.

### Physics II: Introduction to Circuits

Anna Demeo ES, QR Class Limit: 15 Lab Fee: \$30 High School Algebra This course will provide students with a broad introduction to circuits. Students with little or no previous knowledge in electronics will learn the fundamentals of circuits in both the analog and digital realm. The course will cover topics such as current, voltage, power, resistors, capacitors and digital logic circuits, This is a hands-on course focusing more on the "how to" than the "why". By the end of the course students should be able to independently develop, implement, test and document basic circuits. Evaluation will be based on problem sets, participation in lab and class, and a final project or exam. This course makes extensive use of algebra. A college level math, physics, or chemistry class is recommended but not required.

### Physics III: Introduction to Quantum Mechanics

This course is designed to introduce students to the two central ideas of quantum mechanics. First, the outcomes of experiments cannot be predicted exactly; one can only predict the probability of various outcomes. And second, these probabilities do not behave like normal probabilities; the probabilities interfere with each other in a manner that has no counterpart in our everyday experience with probabilities.

compositio amount of analyze dat statistical a field exercis

Algebra and trigonometry and high school chemistry or physics



system: "spin-1/2" particles. We will carefully discuss the experimental evidence for guantum mechanics, and we will also look at some of the well-known conundrums of guantum mechanics, such as the two-slit experiment and the Einstein-Podolsky-Rosen paradox. Along the way, students will also be introduced to basic probability theory. We will conclude by looking at some of the applications and implications of quantum mechanics, such as: the Bohr atom, quantum computation, quantum cryptography, and the photoelectric effect. Quantum mechanics is an exciting, challenging topic which has made an impact in many different fields. As such, this course is designed to appeal to a wide range of students --- both those whose interests lie outside of science as well as those who are concentrating in the sciences or mathematics. Students who successfully complete this course will have gained a solid understanding of the central ideas of quantum mechanics. This understanding should be mathematical and quantitative as well as conceptual. Students will also gain some experience with scientific reasoning and quantitative problem solving. Evaluation will be based on class participation, weekly problem sets, and a final presentation or paper. Some computer work may be required, but no computer experience is necessary. Physics I and II are not prerequisites for this course.

We will develop these ideas by taking a close look at a prototypical quantum

### Calculus II

David Feldman

Lab Fee: \$10

Calculus II or

the equivalent

or Signature of

Instructor

QR

David FeldmanThis course is the continuation of Calculus I. It begins by considering further<br/>applications of the integral. We then move to approximations and series; we<br/>conclude the course with a brief treatment of differential equations.Class Limit: 20The mathematics learned are applied to topics from the physical,<br/>natural, and social sciences. There is a weekly lab/discussion section.<br/>Evaluations are based on homework, participation in class<br/>and lab, and tests.

### Calculus III: Multivariable Calculus

The functions studied in Calculus I and II are one-dimensional. But the universe of everyday experience is, at minimum, three-dimensional. In this course we explore how Calculus can be extended so as to apply to functions of more than one variable, and thus apply to the three-dimensional world. We will begin by reviewing vectors and functions of several variables. We will then learn about partial derivatives and gradients and how apply these tools to multivariable optimization. Turning our attention to integral calculus, we will next cover double and triple integrals and their applications. We will conclude with a treatment of line integrals, flux integrals, the divergence and curl of a vector field, and Green's, and Stokes's theorems. Evaluation will be based on class

### Theory and Applications of Complex Networks

David Feldman ES, QR Lab Fee: \$10 College-level math course or Signature of Instructor

networks, transportation networks, networks of friends and acquaintances, and biological networks, to name just a few. In this class, students will learn about the mathematical similarities and abstractions that under-lie these examples. Additional examples will be drawn from molecular biology (gene regulation and protein interaction networks), economics (trading networks, relations among firms, and strategic interactions on networks), computer science (computer networks and the world wide web), and ecology (food webs). The last decade has seen an explosion

Network structures are ubiquitous in the world around us: communication

#### ES022

ES487

ES496

Environmental Science



of work in the theory and applications of networks to an enormously wide range of problems. Students who successfully complete this course will: gain a broad introduction to recent work in this field; understand the strengths and weaknesses of network modeling; and be able to apply networks andnetwork analysis in a variety of settings. Evaluation will be based on several problem sets, three short literature reviews to be posted on the course blog, and a final project on a topic of the student's choosing.

### Chaos and Complex Systems

David Feldman ES, QR Lab Fee: \$10 Calculus II or the equivalent This course is a survey of a variety of modern topics in nonlinear dynamics: differential equations, finite difference equations, chaos, fractals, multifractals, boolean networks, and cellular automata. The survey will be conducted at a fairly advanced mathematical level, but the material will be covered with an applied emphasis. Numerical results and applications will be stressed rather than proofs. Evaluation will be based on class participation, weekly problem sets and a final project. Some computer work will be required, but no computer experience is necessary. The final project will provide students an opportunity to examine a particular topic or area of application in considerable depth.



#### ES502

ES503

ES381

Chemistry I

Donald Cass ES, QR Lab Fee: \$60



This is the first half of a two-term sequence designed to help students describe and understand properties of materials. This course begins with a survey of the common types of materials and their properties (e.g. ceramics, glass, metals). It then explores the origin of our current atomic/molecular theory of materials and how that theory can explain the amounts of materials used in chemical reactions. Next, it explores how energy and entropy can explain the conditions under which different reactions and phase transitions occur. Finally, it wraps up with discussing how our theories of the internal structure of atoms can explain those energy and entropy changes. Throughout the course, examples are drawn from living systems, the natural environment, and industrial products. The course meets for three hours of lecture/ discussion and for three hours of lab each week. Students are strongly urged to take both terms of this course. This class uses extensive algebra. Those wishing a less rigorous chemistry course should take Chemistry for Consumers. Evaluations are based on class participation, lab reports, homework and midterm and final exams. This class is offered every year.

### Chemistry II Donald Cass

ES, QR Lab Fee: \$60



This is the second half of a two-term sequence designed to help students describe and understand properties of materials. This course begins with a survey of how the internal structure of atoms leads to the formation of different sorts of bonds between them. It then considers how weaker forces can arise between molecules and the sorts of physical phenomena that such forces explain. The class concludes by considering how to describe and explain the rates at which (and the extents to which) chemicals reactions occur and applies such descriptions and explanations to common types of reactions (acid/base and redox). Throughout the course, examples are drawn from living systems, the natural environment, and industrial products. The course meets for three hours of lecture/discussion and for three hours of lab each week. Chemistry 1 is a strongly recommended a prerequisite for this course. Evaluations are based on class participation, homework, midterm and final exams and a term project or paper. This class is offered every year.

participation and lengthy weekly problem sets.

### Chemistry of Foods and Cooking

# ES

Class Limit: 15

Donald Cass

Lab Fee: \$50

This course is designed to introduce students to the basic concepts of chemistry

in the context of food. After a brief introduction to biochemistry (why we eat), the course will work through different foods, roughly in the order that humans are thought to have exploited them. Topics will include their history, cultural significance & how their molecular structure can explain how different methods of preparation affect their nutritional and aesthetic characteristics. Each class will be based around kitchen experiments that illustrate chemical concepts. Evaluation will be based on a midterm take-home problem set and each student's compilation of a cook-book of recipes for 15 different food types, each of which includes a discussion of how the recipe reflects the chemical principles discussed in the class. Main text: McGee's On Food & Cookina

### **Climate Science**

Donald Cass

ES

The study of climate is the study of the statistical properties of the atmosphere. This class will begin with a discussion of what properties this includes (e.g. temperature, humidity, winds, etc.) and what characteristics of them (averages, extremes, patterns, etc.) are considered when discussing climate. The class will then move on to discuss what factors are thought to influence the earth's climate. Such factors include: sunspots and solar intensity; orbital characteristics and incident energy; crustal weathering, elemental cycles and atmospheric composition; clouds, dust and albedo; atmospheric and ocean circulation. The class will then review how researchers reconstruct past climates and what is known about how our climate has evolved over time. The class will conclude with a discussion of how people project the future of the earth's climate and what those projections predict. Evaluation will be based on three worksheets during the term and a final project consisting of a design for a museum exhibit focused on climate change.

### **Environmental Chemistry: Water**

ES361

ES510

ES467

### Donald Cass ES

Lab Fee: \$50



### Organic Chemistry I

ES114

Donald Cass	
ES	
Lab Fee: \$20	
Previous chemistry	
course	

perties of carbon-containing materials such as plastics, solvents, dves, as well as all living things, and once-living materials. The lab exposes students to the common techniques of studying and manipulating such materials. Evaluations are based on midterm and final exam. The equivalent of this course is a prerequisite for biochemistry. This class is offered every other year.

This course explores the physical, chemical, and environmental pro-

**Environmental Science** 

### Organic Chemistry II

### Donald Cass ES Organic Chemistry I





ES429

ES504

### Organic Chemistry III



This class will complete the coverage of the basic principles of organic chemistry begun in organic chemistry 1 and 2 and then explore how those principles allow one to understand how biological systems process various sorts of substances and how the biochemistry of different organisms has evolved in order to exploit particular circumstances. Evaluation will be based on a midterm problem set and a final project that applies the basic principles of the class to a specific topic (metabolic variant, metabolism of a particular pharmaceutical or toxin, etc.) The class will include a third weekly meeting to go over homework assignments and to hear student presentations. (Some organic chemistry knowledge is required. Ideally, students should have completed organic chemistry 2, though students with less background but a willingness to work harder may also succeed.)

### **Tutorial: Biochemistry**

Donald Cass One term of Organic Chemistry



This course's goal is to develop the student's ability to understand the biochemical literature and to relate the structures of biological chemicals to their properties and by surveying the aims and designs of the most important, basic metabolic

processes. Emphasis is on features common to all pathways (enzyme catalysis and regulation) and purposes unique to each (energy extraction, generation of biosynthesis precursors, etc.) Most of the course looks at processes that most organisms have in common; some attention is paid to how these processes have been adapted to meet the demands of unique environments. This course should be especially useful to students with interests in medicine, nutrition, physiology, agriculture, or toxicology. The class meets for three hours of lecture/discussion each week. Evaluations are based on a midterm exam and a final paper.

### Biology I

ES

Instructors

This is the first half of a 20-week, two-term introductory course in biology, providing an overview of the discipline and prerequisite for many intermediate and advanced biology courses. The course provides an integrative view of the attributes of plants and animals, including cell biology, physiology, reproduction, genetics and evolution, growth and differentiation, anatomy, behavior, and environmental interactions. Weekly laboratory sessions or field trips augment material covered in lecture and discussion. Attendance at three lectures and one lab each week is required; course evaluation is based on quality of class participation, exams, problem sets, preparation of a lab notebook, and a written term paper. This class is offered every other year.

ES011

ES146

Faculty

Lab Fee: \$25 College-level algebra (by course, assessment,) or Signature of

### Biology II

Faculty ES Lab Fee: \$40 College-level algebra (by course or assessment)

Fred Olday

providing an overview of the discipline and prerequisite for many intermediate and advanced biology courses. The course further explores topics introduced in Biology I as well as an overview of biology, principles of evolution, classification, the diversity of life, behavior, and basic ecological principles. Weekly field and laboratory studies introduce students to the local range of habitats and a broad array of protists, plants, and animals. Attendance at three lectures and one lab each week is required; course evaluation is based on class participation, exams, problem sets, preparation of a lab notebook, and a written term paper. A past or current enrollment in Introductory Chemistry I and II is strongly recommended. This class is offered every year.

This is the second half of a 20-week, two-term introductory course in biology,

### Bryophyte Biology: Mosses and their Allies

#### ES469

ES012

ES Class Limit: 16 Lab Fee: \$25 Introductory Biology or Botany, Signature of Instructor



This companion course to Lichen Biology, which is offered in alternate years, covers the biology of those simple, green land plants known collectively as bryophytes, which include the "true" mosses, as well as the hornworts, liverworts, and peat mosses. Bryophytes are generally confined to humid habitats, which explains why they are such a conspicuous feature of the forest and wetland vegetation of Downeast coastal Maine, with its cool, foggy summers and moderate winters. The course will cover the morphology, life history, and ecological requirements of the major bryophyte groups, as well as their rich diversity as directly experienced by students in the field and laboratory where emphasis will be given to the collection, identification, and curation of representative taxa. The ecology of Sphagnum and peat formation will receive particular attention since poor fens and bogs are such a conspicuous feature of the regional vegetation and peat mining, while locally important, continues to be of environmental concern. Two all-day Saturday field trips are planned.

Lichens are unusually diverse and abundant along the coast of eastern Maine as a

result of the cool, moist climate, including the frequent occurence of summer fog.

This introductory course will focus on the nature of the lichen symbiosis and the

structure, reproduction, ecology, and human uses of these intriguing organisms.

well as two all-day Saturday field trips. A final project will be required involving the

preparation of a collection of properly identified, labelled, and packeted specimens.

Particular emphasis will be given to collecting specimens during field trips to

### Lichen Biology

Fred Olday ES Class Limit: 12 Lab Fee: \$25

of Instructor



representative habitats and to laboratory sessions where principles of microscopic Introductory Biology technique and identification will be learned. Students will be introduced to standard or Botany, Signature references, keys, and the scientific literature, including on-line sources useful in the identification of Maine lichens. Emphasis will be on the larger more conspicuous, macro-lichens, but some of the more common crustose species will be considered as well. An initial field trip to lichen habitats in Acadia National Park is planned, as

### The History of Life

Helen Hess FS Class Limit: 20 Lab Fee: \$10

### ES386

FS441

This is an introductory level course aimed at exploring organismal diversity, from bacteria to humans. To structure our exploration, we will use a chronological examination of life on the planet Earth, from the formation of organic molecules early in the Earth's geological history to the present. We will analyze the unfolding of the diversity of life by emphasizing evolutionary innovation while keeping in mind the universal features shared by all life on this planet. Students will become familiar with classification schemes of organisms, including the six-kingdom system in current use, as well as the conceptual underpinnings of various approaches to systematics. Themes to be covered include fossil formation and the interpretation

# **Environmental Science**



of the fossil record. Patterns of speciation, adaptive radiations, mass extinctions and their causes will also be covered. In the analysis of these patterns, students will also be introduced to important ecological events such as the invasion of terrestrial habitats by plants, vertebrates, and invertebrates, the insects in particular. We will also discuss events that are not directly recorded in the fossil record such as biochemical innovations of bacteria, including the evolution of critical processes such as nitrogen fixation, photosynthesis and aerobic respiration. We will meet for two lecture sessions per week. Evaluation is based on guizzes, written assignments, and a final presentation. This class is offered every other year.

### Invertebrate Zoology

Helen Hess ES Class Limit: 16 Lab Fee: \$25 Biology I & II or Signature of Instructor

### Biomechanics

Helen Hess ES, OR Class Limit: 16 Lab Fee: \$15 A biology course course, or Signature of Instructor

animals cope with the laws of physics, can promote an understanding of organisms at all levels of organization, from molecules to ecosystems. In this course we explore several areas of physical science, including mechanical engineering, materials science, and fluid dynamics, as a means of gaining insight into the biological world.

and math or physics Students attend two lecture sessions per week and one three-hour lab session for discussions of current research in biomechanics, review of homework assignments, and laboratory observations or demonstrations. Evaluations are based on participation in discussions, weekly problem sets, two term papers, and a final exam. This class is offered every other year.

### Tutorial: Parasites: Evolution and Ecology

Helen Hess Invertebrate Zoology, Signature of Instructor



#### Parasites live on the surface or within the bodies of a host, feeding off host fluids or tissues. Because parasites do not directly kill the host, a parasitic infection may persist indefinitely, sometimes decades in the case of long-lived hosts. Parasites include tiny, single-celled organisms as well as worms that can reach many meters in length. This course will explore the biology of parasites, with a focus on those

species that affect humans and domestic animals. Some of the most prevalent human diseases, such as malaria and schistosomiasis, are caused by parasites. Students will learn about the evolution of complex life histories and the various means of evading the host's immune system employed by parasites. We will meet twice a week for lecture and discussion of reading from the primary literature as well as the popular literature. Students will take turns presenting material on specific issues and examples they have research. Evaluation based on quality of contribution of class discussions, presentation, and several short written assignments.

### Marine Biology

Helen Hess, Chris Petersen This is a broad course, covering the biology of organisms in various marine habitats (rocky intertidal, mud and sand, estuaries, open ocean, coral reefs, deep sea), and

ES092 This course is a phylogenetic survey of the major groups of animals without backbones. These animals range in size from single cells to giant squids, and they include the vast majority of animals on earth. Using text readings, assigned articles, and one afternoon per week



ES506

ES481

performance on weekly quizzes and two tests. This class is offered every other year. ES019 Why do we get shorter and wrinklier with age? Were dinosaurs warm-blooded? How do grasshoppers hop? These diverse questions are all within the realm of biomechanics. A knowledge of biomechanics, or the ways in which plants and

evolutionary relationships, and economic significance of this remarkably diverse

collection of organisms. Students are evaluated on participation, lab notebooks, and

Class Limit: 20 Lab Fee: \$30 Signature of Instructor

some policy and marine management and conservation issues. The largest part of this course is focused on learning to identify and understand the natural history and ecology of the marine flora and fauna of New England, with an emphasis on the rocky intertidal of Mount Desert Island. The course meets twice per week with one afternoon for laboratory work or field trips. Evaluations are based on the quality of participation in class, one in-class practical, several sets of essay questions, and a field notebook emphasizing natural history notes of local organisms. This class is intended for first year students, who will have priority during registration. Returning students may take this course only with permission of the instructor. This class is offered at least every other year.

### Trees and Shrubs of Mount Desert Island

ES514

ES039

ES005

ES491

Jill Weber	This course introduces you to the native and ornamental shrubs and trees of Mount
ES	Desert Island. Lectures will cover basics of plant taxonomy and forest ecology
	focusing on the dominant woody plant species of the region. Laboratory and field
Class Limit: 15	sessions will involve the identification of woody plants and an introduction to the
Lab Fee: \$40	major woody plant habitats of the island. The course is designed to teach botany
	and plant taxonomy for students interested in natural history/ecology,
	forestry, and landscape design. Evaluations are based on class partici-

es will cover basics of plant taxonomy and forest ecology ninant woody plant species of the region. Laboratory and field the identification of woody plants and an introduction to the habitats of the island. The course is designed to teach botany for students interested in natural history/ecology, pe design. Evaluations are based on class participation, weekly field/lab guizzes, a plant collection, and term project. It is recommended that students have a background in Botany and Ecology.



### Ecology

John Anderson ES Class Limit: 15 Lab Fee: \$25 Biology I & II, Signature of Instructor

### This course examines ecology in the classic sense: the study of the causes and consequences of the distribution and abundance of organisms. The course

consists of two one-and-one-half hour lectures per week plus weekly field trips and one three-day camping trip to Isle au Haut to conduct comparative studies on island ecology. We examine the assumptions and predictions of general models of predator-prev interactions, inter- and intra-species competition, island biogeography, and resource use, and compare these models to the results of experimental tests in lab and field. In addition we discuss appropriate techniques used by ecologists in collecting data in the field, and apply some of these techniques on field trips. Readings include selections from the primary literature. Students are evaluated on the basis of class participation, a number of guizzes, problem sets, and a final exam. This class is offered every year.

This course reviews how simple and stereotyped actions may be built into complex

### Animal Behavior

John Anderson ES Class Limit: 15 Lab Fee: \$10 Intermediate-level course in species zoology, Signature

of Instructor

behaviors and even into apparently sophisticated group interactions. Emphasis is placed on contemporary understanding of Darwinian selection, ethology, behavioral ecology and sociobiology. There are two classes a week. Extensive readings are chosen from a text and articles from scientific and popular periodicals. Evaluations are based on participation in discussions and several guizzes. This class is offered every other year.

### Human Anatomy and Physiology

John Anderson ES Class Limit: 12

This course focuses on the form and function of the human body, with particular emphasis on the inter-relationship of the two and notions of health and disease.

Topics to be covered will include: Skeletal structure, musculature, cardiovascular systems, the digestive system and nutrition, the immune system, nervous and

# **Environmental Science**

Lab Fee: \$15 Bioloav I & II and/or Functional Anatomy

endocrine function, sensory anatomy and physiology, examining the range of

stimuli that can be detected by humans and reproduction and development. Evaluation based on a series of guizzes throughout the term, which will include identification of anatomical components, plus one final exam. Three hours of lecture per week plus occasional lab/filed trips. A previous course in Biomechanics is strongly encouraged.



ES396

ES406

PASSPORT

### **Conservation Biology**

John Anderson

ES

This course examines the causes, extent, and ecological significance of the endangered species "crisis." We examine the role of extinctions in evolutionary history and compare "natural" extinctions to current events in the Neotropics,

Class Limit: 15 Lab Fee: \$10 An intermediate ecology course or Signature of Instructor

Orient, and Oceania. We also discuss the significance of successful introductions of exotic species into different regions and their effects on native forms. Changes in land use patterns and the science of Landscape Ecology are investigated. Finally, we examine current conservation techniques in an effort to establish a workable synthesis for specific case histories. There are two lectures/discussions per week, occasional evening lectures.

### Ecology and Literature of the Sea

John Anderson, Sean Todd Class Limit: 18 Lab Fee: ~\$1,700 Signature of Instructors





the opportunity to make a voyage on a Tall Ship to several islands in the Caribbean Basin. During the regular academic term students will be reading and discussing, with course instructors and several guest speakers, a number of classic works of fiction and nonfiction in addition to key papers in Oceanography, Biogeography, Marine Biology, and fisheries. During the Winter break, the class will culminate in a sea voyage in the southern Caribbean on the Spirit of Massachusetts, a 125 ft tall ship. Based aboard the ship, we will spend two weeks sailing among the Virgin Islands, examining issues of marine biology, island biogeography, park planning, and ecotourism, simultaneously learning how to crew the vessel. We will explicitly contrast different solutions to conservation issues exhibited by different islands within the archipelago, and attempt to synthesize general lessons that can be applied to other island settings. It should be noted that because of the physical and mental demands of spending time at sea in a sailing vessel, the instructors will screen all students interested in taking the class. Evaluation will be based on class participation, short papers and a term project during the regular term, and a field journal during the sailing portion of the course. The lab fee includes travel/ accommodations/berths aboard Spirit of Massachussetts.

### Ecology: Natural History

Scott Swann ES Class Limit: 14 Lab Fee: \$75

ES042

This course emphasizes field studies of the ecology of Mount Desert Island, incorporating labs and field trips. Each exercise focuses on a central ecological concept. Topics include intertidal biology and diversity, forest trees and site types, bedrock geology, soil biology, insect diversity, pollination ecology, freshwater biology, predation, herbivory, and the migration of birds. Discussions include the development of natural history as a science and the role of natural selection in the evolution of diversity. Students are expected to keep a field notebook or journal,

### find more of our classes online at coa.edu





to undertake a project, and to write a term paper. Class meets for two lecture sessions and one lab session or two field/lab sessions per week. The course is particularly appropriate for students concentrating in Environmental Education. Field work involves strenuous hiking.

This is a course studying marine botany, marine algae and monitoring the "spring"

### Ecology of the Winter Coastline

ES412

Scott Swann ES Class Limit: 14 Lab Fee: \$85 Intermediate biology/ecology course or Signature of Instructor

time blooms of phytoplankton in Frenchman's Bay. The class will cover topics such as the biology, taxonomy and ecology of marine algae. A major component of this course will be focusing on the primary productivity of marine ecosystems. Students will experience these exquisite and ephemeral phenomena through extensive lab work identifying and monitoring individual species of marine algae and phytoplankton. We will explore the flora and fauna of the islands, bays and coastal waters surrounding Mount Desert Island by looking at those organisms which make up wintertime communities. Peripheral topics will include the seasonal movement of different species of seabirds and marine mammals; discussing those species that are conspicuous by their absence, those which have stoically remained behind and those species that are entirely winter visitors. Many consider January and February as deep winter, yet this is the time when the first signs of spring appear. Students are expected to keep a field/lab notebook and to write several term papers. Students should anticipate several field trips which might test their winter hardiness.

### Ornithology

Scott Swann, Matt Drennan ES Class Limit: 12 Lab Fee: \$75

The study of ornithology is as old as human society itself. Birds are particularly

ES116

conspicuous elements of our world, and figure prominently in our art, religious symbolism, mythology, scientific endeavors and even sport. Birds appear in European paleolithic cave paintings from 14,000 years ago, domesticated fowl are known from India circa 3000 BC, and ancient scholars such as Aristotle and Pliny the Elder devoted considerable time to ornithological observations. In this century great strides have been made in the study of population biology and ecology, navigation and migration, and human induced ecological change (sometimes called human ecology), all through the study of birds. This class introduces the student to the ornithological world by using both scientific literature and direct field observation. Systematics and physiology will be reviewed, but much of our effort will concentrate on reproductive ecology, behavior and the environment, and population dynamics. There will be a strong emphasis on field observation - learning how to look at birds and their behavior in order to perhaps make larger observations about their environment.

### Introduction to Oceanography

ES362



Class Limit: 15 Lab Fee: \$150

surface, in one giant all-connected ocean. This ocean has a profound effect on the planet's climate, chemistry, ecosystem, and energy resources. Billions of years ago life began there, in what now we regard as the last unexplored frontier of this planet. In this course we examine the various disciplines within oceanography, including aspects of geology and sedimentology, chemical, dynamic and biological oceanography. The course concludes with an introduction to marine ecosystems examined at various trophic levels, including phyto/zooplankton, fish and other macrofauna. Fieldwork (weather dependent) includes trips on RV Indigo, trips to intertidal and estuarine ecosystems, and possible visits to the college's islands, Mount Desert Rock and Great Duck Island. Evaluation will be by lab, guizzes and a final paper.

This course introduces the basics of statistical analysis that can be used in either a

Planet Earth is misnamed. Seawater covers approximately 70% of the planet's

Introduction to Statistics and Research Design

Sean Todd

ES323

**Environmental Science** 

OR Class Limit: 15 Lab Fee: \$40 A college mathematics course or Signature of Instructor

scientific or a social science frame of reference. While this course teaches you to perform both nonparametric and simple parametric analysis both by hand and computer, an emphasis will be placed on understanding the principles and assumptions of each test, rather than mathematical ability per se. We will also learn how to report statistical results in journal format, and there will be

plenty of lab time to sharpen skills. Evaluation is based on lab participation, three guizzes, and a team project.

presentations and term projects.



ES383

FS304

ES373

### **Fisheries and Their Management**

Sean Todd ES Class Limit: 12 Lab Fee: \$60 Signature of the Instructor, by demonstration of Humans have exploited the biotic resources of the ocean for thousands of years. Although early harvesting probably had minimal ecological and population impact, increased exploitation due to increasing market demand and technological advances have placed significant stress on many of the world's "fisheries". Those exploited species that have thus far avoided becoming commercially or biologically extinct, are, in many cases, threatened by collapse due to over-fishing. This course examines the exploitation of biotic resources in the oceans, including invertebrates, fish, and marine mammal populations. Importantly, it also examines the fishing techniques, fisheries technology and management of fisheries, and critiques and reviews the development of the mathematical modeling on which management is based. The class will be offered in seminar style, with students involved in the discussion and critique of readings, and researching and presenting various case

histories. Students will be evaluated on the basis of participation and guality of



competence in OR

and ES disciplines

### Marine Mammal Biology I

Sean Todd ES Class Limit: 16 Lab Fee: \$400 Biology I & II

This course provides an introduction to the biology and natural history of marine mammals, specializing in species resident within the North Atlantic. Topics covered include: phylogeny and taxonomy; anatomy and physiology; behavior; sensory ecology; and management/conservation issues. The course includes field trips to observe animals in their natural habitat and involves an introduction to basic field observation techniques. Students are expected to complete individual

literature-based reviews to be presented in class. Assessment is based on this presentation as well as written submissions. Lab fee covers costs of field trips, including potential boat and field station time.

### Marine Mammals and Sound

Sean Todd ES Class Limit: 5-10



mammals. We start with an examination of the behavior of sound underwater, covering concepts that include sound production, propagation and reception, SONAR equations, and noise. We continue with a review of how marine mammals, with a specific focus on cetaceans, use sound to communicate, sense and orient within their environment. We conclude with a bioacoustic examination of specific management problems in marine mammal science. Topics covered in this final part will include, but will not be limited to: marine mammal fishery interactions, shipstrikes, effects of industrial noise, whale song and dialects, baleen whale orientation, and marine mammal strandings. Classes will be run in seminar style, reading intensive, with students responsible for leading discussions and topics. Evaluation is by class participation, two term papers and (possibly) a class project. Although no lab period is set for this class, students are expected to invest some time outside of class for the purpose of possible class projects.

This advanced seminar class examines the role of sound in the biology of marine

find more of our classes online at coa.edu



### Polar Ecology and Exploration

Sean Todd, Matt Drennan ES

Lab Fee: \$50

ES468

ES380

ES505

ES501

The Arctic and Antarctic perhaps represent some of the most extreme environments on the planet. As physical places, both poles play an important role in governing the planet's climate and heat flow. Both are suspected to be minerally rich and are thought to perhaps hold short-term relief from current world shortages in natural resources. As ecosystems, both are hugely productive in spite of, and in part because of the extreme temperatures they experience; certain species are found nowhere else and in fact thrive in these remote locales. Superimposed upon these natural environments is the presence of Man. Exploration of both areas has been particularly focused in the past century, with countless stories of the perseverance and persistence of Man's pioneering spirit. Initially surveyed to forward nationalistic agendas, both poles are now sites of scientific inquiry. In particular, the political model that currently governs Antarctica as one massive Protected Area has no precedent and perhaps suggests a way forward for environmental agendas working on global scales. More recently, the poles have been exploited by ecotourism businesses. This class examines the provinces of the Artic and Antarctic, wildernesses whose boundaries can be defined physically, biologically, geologically and politically. We will examine the rich and highly adapted diversity of life as it is affected by local and global oceanography and atmospheric science. We will also review the relationship of Man with these places and examine what future we might play in preserving, and/or exploiting these environments, using Human Ecology as a model for our understanding. Evaluation will be by two term papers and participation in class activities.

### Piloting and Navigation

Staff OR Class Limit: 15 Lab Fee: \$100 High School Algebra

problems in navigation, piloting, and naval architecture by applying principles of algebra, trigonometry, and physics (there will be a good measure of geography, cartography, oceanography, and meteorology, as well). Collaborative work in small groups will alternate with interactive lectures. Using the tools of the navigator, students will learn coastal piloting and the basics of celestial navigation. Students will critically analyze and solve navigation problems, both real and fictional, and they will apply their skills while underway aboard COA's research vessel Indigo. We will also look at the physics of naval architecture, including stability and buoyancy. The course will include several field trips, and will culminate in a shipboard navigation exercise. Evaluations are based upon the students' ability to apply math and physics in solving navigation problems in weekly quantitative exercises, shipboard apprenticeship, participation in class, and a final navigation exercise underway.

This is a hands-on lab course designed to help students gain practical navigation

skills while also improving quantitative abilities. Students will learn to solve

Genetics

Staff Lab Fee: \$10

structure and function of genes and chromosomes, and the basic principles of One Biology course inheritance. The use of genetic engineering in industry, agriculture and medicine, and the ethical implications of such technologies, as well as how our understanding of normal gene regulation has advanced our understanding of disease processes will also be discussed. Lectures/ discussions will be held twice weekly, and laboratories or problem-solving sessions will be held once weekly. Evaluation is based on class participation,

This course introduces students to the history of genetics, and covers the basic

concepts in classical Mendelian genetics and molecular genetics, including the

Environmental Physiology

Staff

Do plants and animals deal with environmental stress in fundamentally different ways? Is endothermy an evolutionary innovation exclusive to animals? Do similar

# **Environmental Science**

Class Limit: 20 Lab Fee: \$35 4 Biology I & II; Chemistry; Morphology and **Diversity of Plants** or Functional Vertebrate Anatomy, Signature of Instructors

mechanisms underlie "aging" in both plants and animals? Are plant meristems equivalent to animal stem cells? This intermediate level course examines these and other questions that address major themes in animal and plant physiological ecology, each of which studies how their focal organisms persist in natural communities that vary in time and space. Emphasis will be placed on discussing physiological processes common to both plant and animal systems as well as highlighting important differences between the two groups. Some

of the other areas to be covered include water relations, nutrient acquisition, and activity metabolism. The course will consist of two lecture sections and one discussion section (the time of which will be determined at the beginning of the term). Evaluations will be based on take-home exams, a term long research project, and class participation.

### Applied Amphibian Biology

Stephen Ressel ES Signature of Instructor



Most amphibians are small vertebrates that require moist microhabitats and/ or unrestricted access to fresh water to sustain their populations. Despite their diminutive size, abiotic requirements, and cryptic habits, amphibians are thought to be the numerically dominant vertebrate species in mature forest habitats located in the eastern US. Because their combined numbers represent a significance amount of living biomass, amphibians are increasingly being used as bio-indicators to assess the ecological health of eastern forests. Worldwide declines in anuran populations are well documented but less is known about the effect of habitat alteration on salamander populations, especially here in the northeast where they can be extremely abundant. In this course, students will focus on amphibians native to Maine in relation to the life history, ecology, and conservation of natural populations. Students will also explore current field methods and data analysis used to assess species abundance and distribution patterns in intact and disturbed landscapes. Evaluation will be based on level of class and fieldtrip participation and successful completion of class projects, including a field-based research project that combines two out of the three course elements: applied ecological research, conservation history and policy, or experiential education.

This course is part of a three-credit group of courses that integrates three areas of study and action: field-based ecological research, conservation, and education, with a focus on the Maine Woods. Students will gain an understanding of applied ecological research and conservation history and policy of the Maine Woods. Students will acquire skills in conducting field studies, using data to inform conservation policy, reflecting on experiential and place-based education, facilitating group processes, and leading outdoor education groups. Explicit attention will also be given to the psychology of experiential learning and the philosophy and pedagogies of experiential and place-based education. Students registering for this course must also register for ED 114, Experience and Place in Education and HS 715, The lab fee is covered by the HS 715. The Maine Woods from Thoreau to Plum Creek. Students taking this course in Fall 2008 must commit to participating in a two-week canoeing expedition in the Maine Woods tentatively scheduled from September 21st through October 4th.

### Evolution

Stephen Ressel ES Class Limit: 20 Biology I & II or equivalent

ES459

This course provides students with the opportunity to put their knowledge of ecology and diversity into an evolutionary framework. The emphasis is on how populations of organisms are currently evolving, with a focus on the ecological context of natural selection. Topics in the course include the genetic basis of evolutionary change, selection and adaptation, reproductive effort, co-evolution, the ecology and evolution of sex, behavioral ecology, speciation, and applied evolutionary ecology. In addition to a textbook, students read several original

ES497

### 102



research articles. The course has two lectures and one discussion section per week. Evaluations are based on exams and short essay sets. This class is offered every other year.

This course is a comprehensive introduction to the biology of amphibians and reptiles. We cover the systematics, physiology, behavior, and ecology of each group,

two lecture/discussion sessions per week and one lab/field trip every

should expect to participate in both day and night field trips through-

out the term. Students are evaluated on class participation, exams,

and a term-long field project. This class is offered every other year.

week. Weather dictates the number and focus of field trips, but students

with particular emphasis on the important contribution amphibian and reptilian

studies have made to the fields of physiological, behavioral, and community ecology.

Readings are chosen from a text and from primary literature. The course consists of

#### Herpetology

Stephen Ressel FS

Class Limit: 12

Lab Fee: \$65

Bioloav I & II or equivalent, and a Vertebrate Biology course

Winter Ecology

Stephen Ressel ES Class Limit: 12 Lab Fee: \$65 Biology I & II or equivalent

In higher latitudes and higher altitudes of the world, up to nine months of each year can be spent locked in winter. Although migratory species appear to have a selective advantage over non-migratory species during the winter season, year-round resident animals have evolved a remarkable array of physiological, morphological, and behavioral adaptations that allow them to cope with potentially lethal environmental conditions. In this course, we focus on the special challenges of animals wintering in northern latitudes. Some of the topics that we address are: the physical properties of snow and ice, general strategies of animals for coping with sub-freezing temperatures, life in the subnivean environment, animal energetics and nutrition, physiological acclimatization, and humans and cold. There are two discussions/lectures and one field exercise every week, as well as two weekend field trips. Students should be prepared to spend a significant amount of time outdoors in winter conditions. Students are evaluated on class participation, exams, and a student term project.

### Gardens and Greenhouses: Theory/Practice of Organic Gardening

Suzanne Morse ES Class Limit: 20 Lab Fee: \$25 Signature of Instructor

This class offers a good foundation of knowledge for a gardener to begin the process of organic gardening, as well as an understanding of what defines organic gardening. The information presented focuses on soil fertility and stewardship, the ecology of garden plants, soil and insects, and practical management of the above. The garden is presented as a system of dynamic interactions. Emphasis is given to vegetable crops and soil fertility. Laboratories include soil analysis, tree pruning, seedling establishment, weed and insect identification, garden design, covercropping, composting, and reclamation of comfrey infested area. Evaluations are based on participation in class and lab, written class work, exam, and final individual garden design.

### Agroecology

Suzanne Morse ES Class Limit: 13 Lab Fee: \$25

### ES002

The global demand for food and fiber will continue to increase well into the next century. How will this food and fiber be produced? Will production be at the cost of soil loss, water contamination, pesticide poisoning, and increasing rural poverty? In this course, we examine the fundamental principles and practices of conventional and sustainable agriculture with a primary focus on crops. By examining farm case studies and current research on conventional and alternative agriculture we develop a set of economic, social, and ecological criteria for a critique of current agricultural practices in the United States and that will serve

### **Environmental Science**

**Biology I, Plant** Biology, Ecology, Economics, or Signature of Instructor

as the foundation for the development and analysis of new farming systems. Evaluations are based on two exams, class presentations, participation in a conference on potato production, and a final paper.



### Morphology and Diversity of Plants

Suzanne Morse FS Class Limit: 20 Lab Fee: \$10 An Introductory course in biology This course is a survey of the major groups of living and fossil plants and their evolutionary relationships. Discussions and laboratory and field investigations elucidate the structural organization and reproductive methods found in algae, bryophytes, ferns, fern allies, gymnosperms, and angiosperms. Ecological

sets, and preparation of a laboratory notebook.

relationships of diverse groups with their environment provide insights into their evolutionary success or failure. Evaluations are based on class participation, guizzes, lab exams, problem



ES515

ES109

### Our Daily Bread: Following Grains Through The Food System

Suzanne Morse FS

Formal application, Signature of Instructor



The aim of the course is to use wheat, oats and rye as a lens to explore how a wide range of factors including history, changing land use patterns, crop development, human nutrition, food processing, sensory evaluation, and socio-economic factors shape how grains are grown, harvested and ultimately transformed into our daily bread. This field-based course seeks to provide students with deep insights into the past and current production of grains in the United Kingdom, Germany and the United States. Extensive readings will complement the summer fieldwork at farms, mills, bakeries and research sites in Europe, and will provide students with the agronomic background necessary for a historical view of grain production and the possibility of localized grain within the current global economy. Students will lead discussions, interview farmers, write short synthetic essays, and undertake a research project designed together with the class. By the end of the course students should be able to: Evaluate the importance of wheat and other temperate grains to the feeding of human populations in past, present and future contexts; Review current and traditional methods of evaluation of food guality and grain processing (bread production in particular) and relate these to modern nutritional problems; Describe the growth cycle of wheat in general terms and relate the production cycle to current issues of sustainability including greenhouse gas emissions, carbon sequestration, energy requirements, and soil conservation; and Compare and contrast the socio-economic importance of wheat to Maine, Germany and the UK. For the application process, Introductory German is highly desirable as well as any of the following courses: Theory and Practice of Organic Gardening, Chemistry of Cooking, The Contemporary Culture of Maine Organic Farmers, Agroecology.

### Plant Physiological Ecology

Suzanne Morse ES Class Limit: 20 Bioloav I & II: Chemistry; Morphology and Diversity of Plants or Functional Vertebrate Anatomy

...... How do plants, rooted in one place, function efficiently in natural environments that vary widely in light, water, nutrient, and temperature regimes? This course provides an introduction to concepts and principles of plant physiology with an emphasis on the integration of perspectives from chemistry, physics, and ecology. Topics to be covered: energy capture and conversion, mineral nutrition, water relations, temperature stress and plant-plant interactions. Laboratories emphasize experimental approaches to quantifying environmental parameters, photosynthesis, growth, and enzymatic responses to changing resources. Evaluations are based on laboratory reports, oral presentations, one paper, and two exams.



ES184

find more of our classes online at coa.edu

ES066

ES075

ES180

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... are you interested in?

...classes are you going to take?

...do you want to do in the future?

...needs to change on our planet?

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