* EVST 020a, Sustainable Development in Haiti  Gordon Geballe
The principles and practice of sustainable development explored in the context of Haiti’s rich history and culture, as well as its current environmental and economic impoverishment. Enrollment limited to first-year students.  WR

* EVST 030a / ARCG 031a / NELC 026a, Origins of Civilization: Egypt and Mesopotamia  Harvey Weiss
The origins of the earliest civilizations in Mesopotamia and Egypt along the Nile and Tigris-Euphrates Rivers explored with archaeological, historical and environmental data for the origins of agriculture, the classes and hierarchies that marked earliest cities, states and empires, the innovative monumental architecture, writing, imperial expansion, and new national ideologies. How and why these civilizational processes occurred with the momentous societal collapses at periods of abrupt climate change. Enrollment limited to first-year students.  HU, SO

* EVST 040a, Collections of the Peabody Museum  David Skelly
Exploration of scientific questions through the study and analysis of objects within the Peabody Museum’s collections. Formulating a research question and carrying out a project that addresses it are the core activities of the course. Enrollment limited to first-year students. Preregistration required; see under First-Year Seminar Program. Enrollment limited to first-year students.  SC

* EVST 060b, Topics in Environmental Justice  Michael Fotos
This seminar introduces students to key concepts in environmental justice and to a selection of cases representing a wide range of environmental dilemmas. Course readings and discussions impart awareness of the diverse contexts in which problems of environmental justice might be studied, whether historical, geographic, racial, social, economic, political, biological, geophysical, or epistemic. Enrollment limited to first-year students.  WR, SO

* EVST 100b / APHY 100b / ENAS 100b / EPS 105b / PHYS 100b, Energy, Environment, and Public Policy  Daniel Prober
The technology and use of energy. Impacts on the environment, climate, security, and economy. Application of scientific reasoning and quantitative analysis. Intended for non-science majors with strong backgrounds in math and science.  QR, SC, RP

EVST 109a / HIST 109a, Climate & Environment in American History: From Columbian Exchange to Closing of the Frontier  Staff
This lecture course explores the crucial role that climate and environmental conditions have played in American history from the period of European colonization to the end of the 19th century. Its focus is on the dramatic changes brought about by the encounters among Indigenous, European, and African peoples in this period, the influence of climate and climate change on these encounters, and the environmental transformations brought about by European colonization and conquest and the creation of new economies and polities (including chattel slavery). The lectures offer a new framework for organizing and periodizing North American history, based on geographical and environmental conditions rather than traditional national and political frameworks. The course provides a historical foundation for understanding
contemporary American (and global) climate and environmental issues. HU

**EVST 120b / AMST 163b / HIST 120b / HSHM 204b, American Environmental History** Paul Sabin
Ways in which people have shaped and been shaped by the changing environments of North America from precolonial times to the present. Migration of species and trade in commodities; the impact of technology, agriculture, and industry; the development of resources in the American West and overseas; the rise of modern conservation and environmental movements; the role of planning and impact of public policies. WR, HU

**EVST 144a / EDST 144a / ER&M 211a / SOCY 144a, Race, Ethnicity, and Immigration** Staff
Exploration of sociological studies and theoretical and empirical analyses of race, ethnicity, and immigration, with focus on race relations and racial and ethnic differences in outcomes in contemporary U.S. society (post-1960s). Study of the patterns of educational and labor market outcomes, incarceration, and family formation of whites, blacks (African Americans), Hispanics, and Asian Americans in the United States, as well as immigration patterns and how they affect race and ethnic relations. SO o Course cr

**EVST 206a / HIST 127a / HSHM 201a / HUMS 106a / PHYS 106a, Sustainable Energy: Physics and History** Staff
Students explore the physical logic of energy and power in parallel with the histories of technology for energy exploitation and economic theories of sustainability on the path to modernity. They learn the fundamentals of quantitative analysis of contemporary and historical energy harvesting, its carbon intensity, and climate impact. They also gain an understanding of the historical underpinnings of the current global energy status quo and its relationship to economic theories of sustainability. Mathematical proficiency with algebra is assumed. Students from all academic interests and experiences are welcome in the course. QR, SC, SO o Course cr

**EVST 209b / HIST 465b / HSHM 209b, Making Climate Knowledge** Deborah Coen
This is a course about how humans have come to know what we know about our impacts on the earth’s climate and our vulnerability to climate change. When did humans first know that their actions, in the aggregate, could transform the planet? Did scientists bear responsibility to warn of these consequences? In what ways has the modern science of climate both appropriated and undermined traditional and indigenous forms of climate knowledge? Students learn to work with the methods of history of science: we analyze science as a social and material process bound to the cultural and epistemological particularities of its historical context, and we examine the political dimensions of historical narratives about the emergence of the theory of global warming. Via hands-on experience with Yale’s historical collections, students learn to analyze maps, artifacts, and instruments as historical sources. They also gain familiarity with the methods of environmental history, learning to attend to historical evidence of shifting relationships between humans and non-humans. Finally, students become more attuned to the evidence of climate change around them and more confident in their ability to make climate knowledge for themselves. HU
* EVST 212a / EP&E 390a / PLSC 212a, Democracy and Sustainability  Michael Fotos
Democracy, liberty, and the sustainable use of natural resources. Concepts include
institutional analysis, democratic consent, property rights, market failure, and common
pool resources. Topics of policy substance are related to human use of the environment
and to U.S. and global political institutions.  WR, SO

EVST 223a / E&EB 220a, General Ecology  Staff
The theory and practice of ecology, including the ecology of individuals, population
dynamics and regulation, community structure, ecosystem function, and ecological
interactions at broad spatial and temporal scales. Topics such as climate change,
fisheries management, and infectious diseases are placed in an ecological context.
Prerequisite: MATH 112 or equivalent.  SC 0 Course cr

* EVST 224b / ENGL 418b, Writing About The Environment  Staff
Exploration of ways in which the environment and the natural world can be channeled
for literary expression. Reading and discussion of essays, reportage, and book-length
works, by scientists and non-scientists alike. Students learn how to create narrative
tension while also conveying complex — sometimes highly technical — information;
the role of the first person in this type of writing; and where the human environment
ends and the non-human one begins. Formerly ENGL 241. Admission by permission
of the instructor only. Students interested in the course should email the instructor
at alan.burdick@gmail.com with the following information: 1.) A few paragraphs
describing your interest in taking the class. 2.) A non-academic writing sample that best
represents you.  WR

* EVST 228a / HIST 459a / HUMS 228a / LITR 345a, Climate Change and the
Humanities  Katja Lindskog
What can the Humanities tell us about climate change? The Humanities help us to
better understand the relationship between everyday individual experience, and our
rapidly changing natural world. To that end, students read literary, political, historical,
and religious texts to better understand how individuals both depend on, and struggle
against, the natural environment in order to survive.  HU

* EVST 232a / SPAN 232a, Ecological Mindfulness: Poetics and Praxis in the Spanish-
Speaking World  Sarah Glenski
What is our relationship with nature? What constitutes ecological mindfulness?
Does the practice of ecological mindfulness constitute a poetics? Is art a form of
ecological mindfulness? These are some of the questions that we consider as we
examine the concept of ecological mindfulness as an intersection of poetics and praxis.
Throughout the semester, we explore a wide array of artistic expressions (essays,
short stories, sound, poetry, photography, painting, etc.), which allows us to both
appreciate and interrogate the many ways in which interactions with nature are
depicted and performed in different Hispanophone cultures. Our analysis of these texts
is complemented by carrying out and reflecting upon our own practice of ecological
mindfulness. This course is taught in Spanish. Prerequisite: SPAN 140, or SPAN 142, or
SPAN 145, or equivalent  L5, HU

* EVST 234La, Field Science: Environment and Sustainability  Kealoha Freidenburg
A field course that explores the effects of human influences on the environment.
Analysis of pattern and process in forested ecosystems; introduction to the principles of
agroecology, including visits to local farms; evaluation of sustainability within an urban environment. Weekly field trips and one weekend field trip. SC

* EVST 244a, Coastal Environments in a Changing World  Mary Beth Decker
The effects of human action and natural phenomena on coastal marine ecosystems. Methods used by coastal scientists to address environmental issues; challenges associated with managing and conserving coastal environments. Priority to Environmental Studies majors; open to nonmajors as space permits. SC

* EVST 255a / PLSC 215a, Environmental Law and Politics  John Wargo
We explore relations among environmental quality, health, and law. We consider global-scale avoidable challenges such as: environmentally related human illness, climate instability, water depletion and contamination, food and agriculture, air pollution, energy, packaging, culinary globalization, and biodiversity loss. We evaluate the effectiveness of laws and regulations intended to reduce or prevent environmental and health damages. Additional laws considered include rights of secrecy, property, speech, worker protection, and freedom from discrimination. Comparisons among the US and EU legal standards and precautionary policies will also be examined. Ethical concerns of justice, equity, and transparency are prominent themes. SO

* EVST 261a / EPS 261a, Minerals and Human Health  Ruth Blake
Study of the interrelationships between Earth materials and processes and personal and public health. The transposition from the environment of the chemical elements essential for life. After one year of college-level chemistry or with permission of instructor; EPS 110 recommended. SC

EVST 265b / EPS 255b, Environmental Geomicrobiology  Ruth Blake
Microbial diversity in natural geologic habitats and the role of microorganisms in major biogeochemical cycles. Introduction to prokaryote physiology and metabolic diversity; enrichment culture and molecular methods in geomicrobiology. Prerequisite: college-level chemistry. SC

* EVST 266a / HUMS 452a / LAST 350a / SPAN 365a, Ecologies of Culture: Latin American Environmental Aesthetics  Santiago Acosta
In the age of rising sea levels, mass extinction, and carbon-driven climate change, can culture and the arts remain unchanged? This course focuses on the intersections between aesthetics and ecological practices in the context of the Anthropocene, a proposed geological epoch wherein humans have become a major geological force shaping the planet. It challenges traditional approaches by examining how culture and the arts can help to understand and respond to environmental crises. Discussions and readings emphasize the role of culture and aesthetics as agents and producers of environmental knowledge, highlighting their potential to challenge socio-ecological relations. Throughout the semester, students explore various themes, including colonialism, anthropocentrism, human-animal relations, fossil capitalism, indigenous ontologies, and the impact of extractive industries on territories and bodies in Latin America, the Caribbean, and the Latinx world. Students engage with works by established and emerging artists, aiming to produce ecocritical knowledge about the current climate and environmental crisis. The course also offers a panoramic view of Latin American culture by examining some key historical events and authors whose works can shed light on cultural and ideological processes at the root of climate change. By the end of the semester, students can formulate research questions that are critical to
the field of Latin American environmental humanities, as well as produce papers that are relevant to a broader debate about culture and ecology. Lastly, the course hopes to motivate students—beyond the classroom—to examine their place in an increasingly warming world. Taught in Spanish. L5, HU

**EVST 322a, Human Science Foundations for Environmental Managers** Amity Doolittle
The environmental fields of inquiry that focus on human behavior, culture, governance, and history have matured and proliferated in the twenty-first century (environmental anthropology, environmental sociology, environmental governance, environmental history, environmental humanities, and more). This new scholarship has advanced the academic state of knowledge and sharpened our collective ability to understand human-environmental relations. Yet despite better science, we struggle to make material change in the collective rate of human consumption of Earth's natural resources. Not only is the planet harmed by our failures, but millions of people are also harmed. Embedded in all scientific endeavors is a theory of change. But rarely are theories of change made explicit for environmental stewardship. In this course, we investigate new bodies of scholarship that explore relational values, varying concepts of stewardship, a range of theories of change, and, finally, capabilities or human rights-based measure of the life well lived.

We explore the following questions: What does it mean to be an environmental steward in a world filled with social, political, and economic inequalities? How can we weave together multiple knowledge systems or ways of knowing through environmental stewardship? How can we balance the need for social and environmental change in a way that is both place-based and responsive to global concerns? Can theories of change help us act when the scientific data is both clear and uncertain? How can we incorporate non-economic measures of human well-being into our decision making?

* **EVST 323a, Wetlands Ecology Conservation & Management** Kealoha Freidenburg
Wetlands are ubiquitous. Collectively they cover 370,000 square miles in the United States and globally encompass more than 5 million square miles. Most points on a map are less than 1 km from the nearest wetland. Yet wetlands are nearly invisible to most people. In this course we explore wetlands in all of their dimensions, including the critical services they provide to other systems, the rich biodiversity they harbor, their impact on global climate, and the links by which they connect to other systems. Additionally, wetlands are lynchpin environments for scientific policy and regulation. The overarching aim of the course is to connect what we know about wetlands from a scientific perspective to the ways in which wetlands matter for people.

* **EVST 335a, Global Human-Wildlife Interactions** Nyeema Harris
Wildlife and humans have increasingly complex interactions, balancing a myriad of potentially positive and negative outcomes. In a highly interactive format, students evaluate the importance of human-wildlife interactions across diverse ecosystems, exacerbators influencing outcomes, and management interventions that promote coexistence. A science and statistics background is highly recommended.

**EVST 347b, Introduction to Environmental Chemistry** Gaboury Benoit
Introduction to environmental chemistry and to the nature and behavior of environmental pollutants, including chemical, biological, and physical processes. The fundamental classes of chemical reactions in the environment; critical analysis
of chemical data; sampling techniques; analytical methods; natural biogeochemical controls on environmental chemistry. Case studies examine contaminants of special interest such as acid precipitation, nutrients, and sewage.

* EVST 349b / HIST 449Jb / HSHM 449b / HUMS 446b / URBN 382b, Critical Data Visualization: History, Theory, and Practice  Bill Rankin
Critical analysis of the creation, use, and cultural meanings of data visualization, with emphasis on both the theory and the politics of visual communication. Seminar discussions include close readings of historical data graphics since the late eighteenth century and conceptual engagement with graphic semantics, ideals of objectivity and honesty, and recent approaches of feminist and participatory data design. Course assignments focus on the research, production, and workshop of students’ own data graphics; topics include both historical and contemporary material. No prior software experience is required; tutorials are integrated into weekly meetings. Basic proficiency in standard graphics software is expected by the end of the term, with optional support for more advanced programming and mapping software.

* EVST 350a, Writing the World  Verlyn Klinkenborg
This is a practical writing course meant to develop the student’s skills as a writer. But its real subject is perception and the writer’s authority—the relationship between what you notice in the world around you and what, culturally speaking, you are allowed to notice. What you write during the term is driven entirely by your own interest and attention. How you write is the question at hand. We explore the overlapping habitats of language—present and past—and the natural environment. And, to a lesser extent, we explore the character of persuasion in environmental themes. Every member of the class writes every week, and we all read what everyone writes every week. It makes no difference whether you are a would-be journalist, scientist, environmental advocate, or policy maker. The goal is to rework your writing and sharpen your perceptions, both sensory and intellectual. Enrollment limited to fifteen.

* EVST 356a, Qualitative Social Science Research Methods  Amity Doolittle
This course is designed to provide a broad introduction to issues of qualitative research methods and design. The course is intended for both doctoral students who are in the beginning stage of their dissertation research, as well as master’s students developing research proposals for their thesis projects with a focus on understanding the nexus of human-environment issues. The course covers the basic techniques of designing qualitative research and for collecting, interpreting, and analyzing qualitative data. We explore three interrelated dimensions of research: theoretical foundations of science and research, specific methods available to researchers for data collection and analysis, and the application and practice of research methods—all with a strong emphasis on the relationship between people and natural resources. The final product for this course is a research proposal.

* EVST 362b / ARCG 362b / EPS 362b, Observing Earth from Space  Xuhui Lee
A practical introduction to satellite image analysis of Earth’s surface. Topics include the spectrum of electromagnetic radiation, satellite-borne radiometers, data transmission and storage, computer image analysis, the merging of satellite imagery with GIS and applications to weather and climate, oceanography, surficial geology, ecology and epidemiology, forestry, agriculture, archaeology, and watershed management.
Prerequisites: college-level physics or chemistry, two courses in geology and natural science of the environment or equivalents, and computer literacy. QR, SC 0 Course cr

* EVST 369a / AFST 368a / HIST 366Ja, Commodities of Colonialism in Africa  
  Robert Harms

This course examines historical case studies of several significant global commodities produced in Africa to explore interactions between world market forces and African resources and societies. Through the lens of four specific commodities—ivory, rubber, cotton, and diamonds—this course evaluates diverse industries and their historical trajectories in sub-Saharan Africa within a global context from ~1870-1990s. Students become acquainted with the historical method by developing their own research paper on a commodity using both primary and secondary sources. WR, HU

* EVST 371a / ARCG 363a / NELC 189 / NELC 330a, Archaeologies of Empire  
  Harvey Weiss

Empire is rarely studied cross-culturally, although it is second only to hunting-and-gathering as the most successful, longest-lived, regional politico-economic organization. Despite major empire-specific research efforts, there remains, as well, little consensus as to empires’ genesis and function. Here we attempt to define the features of empire, their genesis and their function, in ancient and modern times. Comparative study of origins, structures, efficiencies, and limitations of imperialism, ancient and modern, in the Old and New Worlds, from Akkad to "Indochine" and from Wari to Aztec. The contrast between ancient and modern empires examined from the perspectives of nineteenth- and twentieth-century archaeology and political economy. HU, SO

EVST 372b / MB&B 365b, Biochemistry and Our Changing Climate  
  Karla Neugebauer

Climate change is impacting how cells and organisms grow and reproduce. Imagine the ocean spiking a fever: cold-blooded organisms of all shapes, sizes and complexities struggle to survive when water temperatures go up 2-4 degrees. Some organisms adapt to extremes, while others cannot. Predicted and observed changes in temperature, pH and salt concentration do and will affect many parameters of the living world, from the kinetics of chemical reactions and cellular signaling pathways to the accumulation of unforeseen chemicals in the environment, the appearance and dispersal of new diseases, and the development of new foods. In this course, we approach climate change from the molecular point of view, identifying how cells and organisms#from microbes to plants and animals#respond to changing environmental conditions. To embrace the concept of “one health” for all life on the planet, this course leverages biochemistry, cell biology, molecular biophysics, and genetics to develop an understanding of the impact of climate change on the living world. We consider the foundational knowledge that biochemistry can bring to the table as we meet the challenge of climate change. Prerequisites: MB&B 300/301 or MB&B 200/MCDB 300 or permission of the instructor. Can be taken concurrently with MB&B 301. SC 0 Course cr

* EVST 377b / ANTH 376b, Observing and Measuring Behavior, Part I: Study Design  
  Eduardo Fernandez-Duque

This is the first course in a spring-fall sequence. The course surveys theoretical issues and practical methods relevant to studying the behavior of animals and humans, primarily in the “wild.” Topics covered include formulation of research questions, hypotheses and predictions, study design, sampling methods for studying behavior,
Environmental Studies (EVST)  

Students learn and practice various forms of behavioral and ecological sampling, as well as gain familiarity with some widely-used technologies that facilitate the study of behavior (e.g., radiotelemetry). Then, working around a specific research question, students design their own study. Those who choose can develop a study to be implemented during an NSF-funded Summer Program in Argentina (https://www.owlmonkeyproject.com/open-calls). Students who enrolled in ANTH 376 during spring 2021 when the summer program was cancelled due to the pandemic can apply to take part in the 2022 summer program in Argentina and may enroll in ANTH 377 during the fall 2022 term. Prerequisite: Some background (including high school) on evolutionary biology, animal behavior, biology recommended. Contact the Instructor if in doubt. **SC, SO**

* EVST 379a / ANTH 377a, Observing and Measuring Behavior, Part II: Data Analyses and Reporting  
  Eduardo Fernandez-Duque  
  This is the second course in a spring-fall sequence. The course is primarily for students who have recently conducted research and are in the process of analyses and writing up the results of the research. In this course students learn how to analyze the data they have collected, strategies for interpreting and presenting results, including considerations of study design issues and a priori statistical protocols; predictive and/or explanatory power and interpretation of statistical significance, scientific inference and research relevance. Students practice writing and oral skills associated with how to write communicating the results of their study. Prerequisite: ANTH 376 or EVST 377 QR, SC, SO

* EVST 394a, Current Topics in Global Climate Change  
  Staff  
  People are currently mining millions of years’ worth of stored photosynthetic carbon from the solid Earth and transferring it to the atmosphere where it is profoundly changing the chemistry, physics, and biology of the atmosphere, land, and oceans. Exchanges with the oceans and land surface have been modified substantially, so that currently only about half of anthropogenic emissions remain in the atmosphere. These “carbon sinks” are poorly understood, contributing a great deal of uncertainty to future climate. We consider biogeochemical and transport processes in land ecosystems, the oceans, and atmosphere as well as anthropogenic emissions. We conclude with a study of changes in carbon cycling in the past and future, including predictions by coupled Earth System Models. **SC, SO Course cr**

* EVST 396a or b, Independent Study: Environmental Studies  
  Michael Fotos  
  Independent research under the direction of a Yale faculty member on a special topic in Environmental Studies not covered in other courses and not the focus of the senior essay. Permission of the director of undergraduate studies and of the instructor directing the research is required. A proposal approved by the instructor must be submitted to the director of undergraduate studies by the end of the second week of classes. The instructor meets with the student regularly, in person or remotely, typically for an hour a week, and the student writes a final paper or a series of short essays.

* EVST 399b / ARCG 399b / NELC 399, Agriculture: Origins, Evolution, Crises  
  Harvey Weiss  
  Analysis of the societal and environmental drivers and effects of plant and animal domestication, the intensification of agroproduction, and the crises of agroproduction:
land degradation, societal collapses, sociopolitical transformation, sustainability, and biodiversity.  

* EVST 400b / E&EB 275b, Biological Oceanography  
  Mary Beth Decker  
  Exploration of oceanic ecosystems and how these environments function as coupled physical/biological systems. Ocean currents and other physical processes determine where nutrients are available to support primary production and where organisms from plankton to top predators occur. Includes discussion of anthropogenic impacts, such as the effects of fishing and climate change on marine ecosystems. Enrollment limited to 35.  

* EVST 409a / ENGL 341a / HUMS 377a / LITR 404a, Nature Poetry, from the Classics to Climate Change  
  Jonathan Kramnick  
  Poetry of the natural world, beginning with classical pastoral and ending with lyric responses to climate change. We consider how poetry attempts to make sense of our interaction with the earth at important moments of change, from pre-industrial agriculture to global capitalism and the Anthropocene.  

* EVST 415b / BENG 405b, Biotechnology and the Developing World  
  Staff  
  Study of technological advances that have global health applications. Ways in which biotechnology has enhanced quality of life in the developing world. The challenges of implementing relevant technologies in resource-limited environments, including technical, practical, social, and ethical aspects. Prerequisite: MCDB 120, or BIOL 101 and 102.  

* EVST 422a / ANTH 409a / ER&M 394a / F&ES 422a / GLBL 394a, Climate and Society: Perspectives from the Social Sciences and Humanities  
  Michael Dove  
  Discussion of the major currents of thought regarding climate and climate change; focusing on equity, collapse, folk knowledge, historic and contemporary visions, western and non-western perspectives, drawing on the social sciences and humanities.  

* EVST 431b, The Physical Science of Climate Change  
  Peter Raymond and Xuhui Lee  
  The course provides students with core knowledge on the processes controlling the earth’s climate system. The first half of the class focuses on the four components of the earth climate system, providing a knowledge base on the atmospheric energy and water budgets and the roles of anthropogenic greenhouse gases, the oceans, land and cryosphere in altering these budgets. Students also learn how to run a climate GCM (general circulation model). The second half of the class focuses on impacts of climate change on a number of societal sectors including natural ecosystems, energy use, water resources, the food system and the built environment.  

* EVST 463a and EVST 464b / AMST 463a and AMST 464b / FILM 455a and FILM 456b / THST 457a and THST 458b, Documentary Film Workshop  
  Staff  
  A yearlong workshop designed primarily for majors in Film and Media Studies or American Studies who are making documentaries as senior projects. Seniors in other majors admitted as space permits.  

* EVST 473b / ARCG 473b / NELC 373b, Climate Change, Societal Collapse, and Resilience  
  Harvey Weiss  
  The coincidence of societal collapses throughout history with decadal and century-scale abrupt climate change events. Challenges to anthropological and historical paradigms
of cultural adaptation and resilience. Examination of archaeological and historical records and high-resolution sets of paleoclimate proxies.  

* EVST 496a or b, Senior Research Project and Colloquium  

Independent research under the supervision of members of the faculty, resulting in a senior essay. Students meet with peers and faculty members regularly throughout the fall term to discuss the progress of their research. Projects should offer substantial opportunity for interdisciplinary work on environmental problems. Seniors in the BS track typically write a two semester senior essay by enrolling in EVST 496 and EVST 496. For the B.A. degree, students most often complete one term of EVST 496, in either the fall or spring semester of their senior year. Students writing the one-term essay in the BA track must also complete an additional advanced seminar in the environment. Two-term senior research projects in the BA track require the permission of the DUS. Single semester essays are permissible also for students completing a double major that involves writing a senior essay in another department or program with permission of the DUS and subject to Yale College academic regulations governing completion of two majors.