

# Environmental Studies Program Handbook

2007-2008

This handbook is available online at:  
<http://www.esf.edu/es/handbook.htm>

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# Academic Calendar

## Fall 2007

New Student Orientation Program	August 22-26, Wednesday - Sunday
Registration for New Students	August 25, Saturday
Classes Begin	August 27, Monday
Labor Day (no classes)	September 3, Monday
Last Day to Add a Class	September 4, Tuesday
Yom Kippur (no classes)	September 22, Saturday
ESF Homecoming & Family Weekend	TBD
Eid Ul-Fitr (no classes)	October 12, Friday
Last Day to Drop a Class	October 23, Tuesday
Advising Week	November 5-13
Registration for Spring 2009	November 14-23, Wednesday-Friday
Thanksgiving Recess	November 28-Dec 2, Wednesday-Sunday
December Soiree	TBA
Last Day of Classes	December 7, Friday
ESF Convocation	TBA
Reading Days	December 8-9, Saturday- Sunday December 11, Tuesday AM December 13, Thursday AM
Exam Period	December 10, Monday December 11, Tuesday PM December 12, Wednesday December 13, Thursday PM December 14, Friday

## Spring 2008

Orientation, Advising, and Registration for New Students	January 13, Sunday
Martin Luther King Day (no classes)	January 21, Monday
Classes Begin	January 14, Monday
Last Day to Add a Class	
Spring Recess	March 10-17, Sunday-Sunday
Last Day to Drop a Class	
Advising Week	
Easter Break	April 12, Friday
Registration for Fall 2010	April 5-16, Friday - Tuesday
Spring Banquet	TBA
Last Day of Classes	April 30, Tuesday
Reading Days	May 1, Wednesday May 4-5, Saturday - Sunday
Exam Period	May 2 -May 3, Thursday- Friday May 6-8, Monday - Wednesday
ESF Convocation	May 11, Saturday
Commencement	May 12, Sunday

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## About This Handbook

This handbook has been prepared to help you navigate the complexities of your undergraduate career in the Faculty of Environmental Studies at SUNY-ESF. It contains, much of the information you will need to deal with the administrative aspects of your program. It also tells you where to look and who to contact for more information.

In addition to carefully consulting this handbook, you also need to carefully consult the following publications:

**The ESF College Catalog.**

<http://www.esf.edu/catalog/>

and

**The ESF Student Handbook** (not the same as this one)

<http://www.esf.edu/students/handbook/>

If you have questions that cannot be answered by these three documents or the further sources they point you to, please feel free to contact me. My contact info is listed on the cover of this handbook.

I look forward to meeting and getting to know you. All of us in the Faculty of Environmental Studies wish you fun and success while at ESF. Welcome aboard!

John Felleman

Undergraduate Program Director

# Program Overview

## Welcome

The Faculty of Environmental Studies is pleased that you have chosen to pursue a career in protecting and enhancing the natural and human environments through completion of a Bachelors of Science degree in Environmental Studies. You are following an elite group of over one thousand graduates who have completed this challenging program during the past twenty five years. These alumni are now having a significant impact throughout North America and a number of other countries through their work and activism in business, government, and non-profit organizations.

Although the program is one of the oldest in the country, it has undergone continual revision in order to keep abreast of the rapid advances in environmental science and policy, and in educational practices and technologies. In 2004 the core curriculum and options were renewed once again.

## Approaching Environmental Affairs

To address environmental issues, we must first understand the problems that underlie them. And because those issues and problems exist at the interface of complex human and natural systems, understanding them requires the right synthesis of scientific, social, and cultural knowledge. Addressing those problems also requires scientific, social and cultural skills. The Environmental Studies program at SUNY-ESF offers students just those sorts of learning and skill-development opportunities in the context of a well-rounded, yet substantial, education.

Our program has been carefully designed to provide you with as comprehensive an understanding of environmental affairs as is possible in an undergraduate education. That means learning about the scientific diagnosis of environmental issues and having enough scientific knowledge to work with scientists. It also means learning about the technological, social and cultural causes of those issues. And finally, it means understanding the diversity of approaches needed to treat the problems.

In the pursuit of these objectives, we bring together philosophical, theoretical and practical perspectives on a wide range of environmental concerns. And in this way, our program prepares you with the knowledge, skills and experience to work for a more ecologically sustainable and socially just world.

Because the environmental studies program is broadly multi-disciplinary as well as interdisciplinary, it provides you with a broad-based liberal education and asks you to be proficient across a breadth of scholarly and practical areas.

Graduates of the environmental studies program have gone on to graduate school in many different disciplines as well as to law and medical school. They have also gone on to work in non-governmental organizations (NGO's), education,

government, and the private sector, pursuing careers in such areas as policy, advocacy, conservation, consulting, administration, law, and education to name just a few.

## Guiding Principles

There are six principles that guide the design and implementation of the Environmental Studies program:

- *holistic interdisciplinary education*: we seek to offer you an education that demonstrates the interconnectedness and integration of the many disciplines and fields that intersect with environmental concerns.
- *critical skills*: we encourage you to be active learners and prepare you with invaluable life-long skills, including research, analysis, writing, and critical thinking.
- *diversity and complexity*: we encourage you to recognize and value the diversity and complexity of ecological and social systems, and of the perspectives that inform society's understanding of environmental affairs.
- *ecological literacy*: we seek to develop your awareness, knowledge, and appreciation of the intrinsic values of ecological processes and communities.
- *justice and equity*: we encourage you to value social and ecological justice and equity in all contexts.
- *thoughtful professionalism*: we seek to prepare you to be reflective and sensitive, yet also effective and professional, in whatever endeavors you choose to pursue.

## Program Description

In the first two years of the program you will develop a foundation in the humanities, social sciences, and natural sciences as they relate to environmental affairs. During that time, you also fulfill SUNY general education requirements and take some open elective courses.

In the final two years of the program, you may choose to pursue one of three specializations: *environmental communication & culture*, *environmental policy*, or *biological science applications*. In each of these options, you have the flexibility to pursue more specific interests. Also, several undergraduate minors, including a minor in urban environments, are available.

***Environmental Communication & Culture***: This option focuses on the many ways that communication, broadly defined, intersects environmental affairs. These include activism, media, education, public participation, and conflict resolution. In

addition, the option helps students explore the diversity of ways that environmental problems are understood, and ways that cultural meanings of Nature are expressed, including through literature and the arts.

**Environmental Policy:** This option is concerned with how environmental policies are created, implemented and contested. It emphasizes legislative, regulatory, and collaborative approaches to environmental issues.

**Biological Science Applications:** This option is designed for students interested in the interface between biology and socio-economic issues. It provides an emphasis on biology with an eye to the interaction with societal issues ranging from education to habitat management. This option is supported primarily by the Faculty of Environmental and Forest Biology.

Selection of your option must be done prior to registering for junior coursework. Use the form in Appendix A to declare your option.

In addition to traditional courses available through the core environmental studies curriculum and in the options, our program features the following:

- community engagement through service learning in a number of courses
- internships that provide valuable hands-on experience
- opportunities to study abroad for a semester

The scope and complexity of course work within the environmental studies program demands both discipline and commitment from students seeking this degree. But the value of a broad education is widely acknowledged by educators and professionals. We hope that in offering this program we can prepare you not only to work in the diverse field of environmental protection, but also in any area that might interest you after graduation.

## **Relationship to Syracuse University**

SUNY-ESF and Syracuse University (SU) share a campus. ESF students have access to all SU libraries and other facilities and may take courses from SU at no additional cost (with some limitations as outlined in the College Catalog). Similarly, SU students have access to ESF facilities and courses. Environmental Studies students benefit from the broad range of courses ESF offers as well as from the many offerings at SU in political science, communication and rhetorical studies, arts, geography, anthropology, philosophy, etc.

# Academic Advising

## The Role of Your Advisor

During your stay at ESF, many people will give you advice. The most important of those people is your academic advisor. Your academic advisor is responsible for advising you on all academic matters related to your program. They are also responsible for ensuring that your selection of courses each semester is appropriate to where you are in your program. You are responsible for meeting with your advisor on a regular basis. In college, the primary responsibility for successful progress lies with the student.

Students typically have two advisors during their years in Environmental Studies. Academic advisors are assigned to all incoming students by the department. When students select an option for their junior/senior years, they are assigned and transferred to an Option advisor.

To maximize your educational experience it is important to use the resources of your advisor effectively. In particular, students new to ESF, or to the Faculty of Environmental Studies, should make plans to meet with their advisor during the first couple of weeks of classes in order for your advisor to get a chance to meet you individually. The advising relationship begins here, making it easier to address student goals, concerns, and problems that arise.

Each advisor posts regularly scheduled office hours at the start of the semester. They can also be reached by phone, e-mail, and by appointment. Your advisor's time is quite limited. Faculty obligations to classes, research, administrative duties and community service often make it difficult to schedule a meeting or handle a problem at the moment a student arrives at their door. However, students should be able to schedule a meeting with their advisor within a few days of the request. Where that is difficult due to other faculty commitments, or because of emergencies, there are other faculty and administrators a student can meet with. If you can't get a hold of your advisor, your next stop should be to see the Undergraduate Program Director, Dr. John Felleman.

Meetings with your advisor outside the registration advising period promotes an advising relationship in which academic and career goals can be discussed in a more personal and individualized manner.

## Plan Sheets

You should each have a copy of your "plan sheet". This document is maintained by the Registrar and serves as an ongoing record of which courses (whether at ESF or elsewhere) fulfill which program requirements. Your plan sheet is an important document and you should work with your academic advisor on a regular basis to make sure that it accurately reflects the courses you have taken and the requirements they fulfill. **We recommend, however, that you use this handbook as**

**your ultimate guide to program requirements and recommended sequence of courses.**

## **Course Descriptions**

Brief descriptions for courses are available in the College Catalog. Some professors maintain web pages that provide more details about their courses, sometimes even including syllabi. If you are wondering about a specific course, there is no better way to find out about it than to contact the professor. Most professors have email and phone information on their web pages.

## **Progress of Freshmen**

The College asks faculty who are teaching freshmen to submit “Mid-semester Progress Reports” in the Fall and Spring. This review contains four categories: Attendance, Participation, Submitted Work, and Exams/Quizzes. Evaluations for each are: Satisfactory (S), or Unsatisfactory (U). Advisors are sent copies of the Reports. Students receiving any unsatisfactory reviews are expected to meet immediately with the professor of the course in question, and subsequently to meet with their advisor to discuss the situation and its resolution.

## **Advising and Registration**

About three quarters of the way through each semester there is an advising period followed by a registration period for the next semester. During this time, you need to meet with your advisor and prepare your registration form (SCORE form). After your advisor approves your course choices, you complete the registration process through the Registrar’s office and online using the registration system.

Prior to meeting with your advisor, you need to consider your outstanding course requirements and the possible options for satisfying them. This means reviewing your plan sheet and course offerings, and developing a preliminary schedule for discussion.

## **Changes in Registration**

The College has clear policies on adding and dropping courses after the semester starts. You need to be aware of these policies and of the relevant deadlines (see the academic calendar at the front of this handbook). These actions require your advisor’s signature and revision of your plan sheet. In general, your advisor must balance recommended academic progress with your particular circumstances. You should be particularly aware of the implications (financial aid, insurance, etc.) if you drop below “full time” status. Generally this is considered a course load of twelve (12) credit hours, though in some cases it may be more or less. Late drops are only approved for extenuating circumstances. See the section on The Petition Process later in this handbook.

## Taking Courses at Syracuse University

The arrangement allowing students to enroll in Syracuse University courses provides an unmatched opportunity to broaden and complement the educational resources available at the College. However, it is a significant commitment of financial resources for the State of New York. Therefore the following guidelines should be followed to prevent abuse of this arrangement.

1. No student may be registered for only Syracuse University courses unless accepted into a special cooperative program that requires block registration.
2. No Syracuse University course may be enrolled as an "audit" except by petition under very extraordinary conditions. Physical education courses, when taken, must always be for credit and never audited.
3. Students may not retake a Syracuse University course in which credit has previously been earned.
4. Upper-division undergraduate students are normally expected to take upper-division courses at Syracuse University.
5. Courses offered at the College should be taken rather than similar courses offered at Syracuse University, except under extraordinary conditions.
6. Physical education courses are not accepted for transfer by ESF as part of a student's lower division program. Similarly, physical education courses are not normally counted toward the Environmental Studies upper division program's requirements or electives. However, Syracuse University Physical Education (PED) courses do appear on the student's transcript. Students may petition to have a physical education course added to their program if it is shown to have academic content appropriate to their area of interest.
7. Credit earned in military science and aerospace science offered through the Army and Air Force ROTC programs does not count toward the number of credits required for graduation, unless the courses are cross-listed with others.

While in principle all Syracuse University courses are available to Environmental Studies students, there are limitations. For instance, the arrangement does not apply to summer session, and some courses may be limited to majors. This is particularly true in the School of Management and the Newhouse School. If you have questions, contact the instructor.

## Courses outside ESF/SU

Any courses you take at other institutions after admission to ESF do not become part of your ESF program records until two steps are completed. First, you need to have an official transcript for that course sent to the ESF Registrar from the institution where you took the course. And second, you need to have an approved petition requesting that the course be accepted as meeting a specific Environmental Studies course requirement. As explained below, it is best to have

this petition completed and approved before you enroll in the course. That way, if you succeed in the course, you are guaranteed to have it count at ESF.

## **Petitions**

Some of the actions regarding a student's program that require a formal petition typically include a deviation in a plan sheet requirement, and the transfer of credits from another institution. For example, if you are planning to attend summer school somewhere other than ESF, it is strongly recommended that you get pre-approval by petition. Petitions are not automatically approved. They are substantively reviewed at the advisor, departmental and College levels for academic justification and policy consistency. A petition denied may cause a delay in graduation so be sure to discuss your goals and plans with your advisor at least once each semester outside of the registration period so you can have their full attention on non-registration questions and concerns. Petition forms can be obtained in the Environmental Studies Office and from the Registrar. More details about the petition process are provided later in this handbook.

## **Minor Program Adjustments**

The College Catalog for the year in which you first register at SUNY-ESF contains a description of the lower division requirements which have been approved by the College Faculty for your program. In some years, the Faculty of Environmental Studies makes minor adjustments to the official program. These may include changing the semester of some courses, and/or recommending alternative courses as "equivalent" to the listed course. Such modifications are in response to the continuing evolution of course offerings at ESF and Syracuse University.

## **Changing Advisors**

Because the programs are designed with flexibility, stable student-advisor relationships are a key ingredient for program success. Advisor changes are usually not recommended, but are possible. Appendix B is the Change of Advisor form. Please follow its instructions if you want to change advisors.

## **Personal Issues**

Occasionally a student has a personal/health situation which may adversely affect their academic performance. While academic advisors are willing to converse with students on a wide-range of subjects related to career goals, academic goals, and the means by which a student can attain them, there are very real limitations on what advisors can do to help in some situations. No faculty advisor is trained or empowered to counsel students on deep personal issues. They can, at best, make a referral to the appropriate office on campus. Students encountering such problems should utilize the Counseling Services provided in 110 Bray. They can contact the

advisor and affected faculty as needed while maintaining the student's privacy regarding personal matters.

## Lower Division

The “Lower Division” is the first two years of an undergraduate program (freshman and sophomore years). The undergraduate curriculum in environmental studies consists of two broad categories of courses. The first category, general education, provides students with knowledge and skills that are useful and important for all educated persons regardless of their profession. General education courses also help prepare students for advanced courses leading to a specific profession. The second category, professional courses, provides students with direct preparation for specialization in environmental studies and career opportunities.

You may have entered the Bachelor of Science program as a first-year student or as a transfer student. Either way, you have the same course requirements to graduate. The only difference is that transfer students will already have fulfilled some of those requirements at previous institutions. Transfer students who have concerns about the previous courses SUNY-ESF has given you credit for should talk to your academic advisors about your concerns right away.

### Lower Division Course Requirements

The following is a list of the courses you must complete in the lower division.

<b>Course</b>	<b>Credits</b>
EST 132 Orientation Seminar: Environmental Studies	1
APM 104 College Algebra & Precalculus	3-4
<b>or</b> APM 105 Survey of Calculus & its Applications <sup>1</sup>	
APM 255 Computing Applications	3
CLL 190 Writing and the Environment	3
CLL 290 Writing, Humanities & the Environment	3
EFB 120 Global Environment	3
EFB 226 General Botany	4
EFB 285 Principles of Zoology	3-4
<b>or</b> GOL 242 Environmental Geology <sup>2</sup>	
ESF 200 Information Literacy	1
EST 200 Cultural Ecology	3
EST 221 Introduction to American Government	3
EST 245 Nature & Popular Culture	3
FCH 150/151 General Chemistry I with Lab	4
FOR 207 Introduction to Economics	3
General Education Course – American History <sup>3</sup>	3
General Education Course – Western Civilization <sup>3</sup>	3
General Education Course – The Arts <sup>3</sup>	3
Electives (four) <sup>4</sup>	12

<sup>1</sup> Students who pursue the Biological Science Applications option need to complete APM 105 Survey of Calculus & its Applications.

<sup>2</sup> Students who pursue the Biological Science Applications option need to complete EFB 285 Principles of Zoology.

<sup>3</sup> Lists of approved General Education Courses are available on the Registrar's web site.

## Lower Division Typical Course Sequence

This is a recommended sequence for the lower division. In consultation with your advisor, you may need to adjust this sequence to suit your specific situation. *This sequence may differ from what is on your plan sheet. This is the one to follow.*

		<b>Credits</b>
<b>Freshman - Fall</b>		
EST 132	Orientation Seminar: Environmental Studies <sup>5</sup>	1
CLL 190	Writing and the Environment	3
EST 221	Introduction to American Government	3
EFB 226	General Botany	4
APM 104	College Algebra & Precalculus	3-4
<b>or</b> APM 105	<b>or</b> Survey of Calculus and Its Applications <sup>6</sup>	
		<hr/> <b>14-15</b>
<b>Freshman - Spring</b>		
ESF 200	Information Literacy	1
EFB 120	Global Environment	3
EST 200	Cultural Ecology	3
<b>or</b> GEN ED	<b>or</b> General Education: Western Civilization or The Arts <sup>7</sup>	
EST 296	American History: Reconstruction to Present	3
APM 255	Computing Applications	3
ELECTIVE	Elective	3
		<hr/> <b>16</b>
<b>Sophomore - Fall</b>		
EST 245	Nature and Popular Culture	3
FCH 150/151	General Chemistry I – Lecture & Lab	4
GEN ED	General Education: Western Civilization or The Arts	3
<b>or</b> EST 200	<b>or</b> Cultural Ecology	
ELECTIVE	Elective	3
ELECTIVE	Elective	3
		<hr/> <b>16</b>
<b>Sophomore - Spring</b>		
CLL 290	Writing Humanities and the Environment	3
FOR 207	Introduction to Economics	3
EFB 285	Principles of Zoology <sup>8</sup>	3-4
<b>or</b> GOL 242	<b>or</b> Environmental Geology	
GEN ED	General Education: Western Civilization or The Arts	3
<b>or</b> EST 200	<b>or</b> Cultural Ecology	
ELECTIVE	Elective <sup>9</sup>	3-4

<sup>4</sup> Students who pursue the Biological Science Applications option need to complete FCH 152 & FCH 153 General Chemistry II and General Chemistry Laboratory II as one of these electives.

<sup>5</sup> In 2006 students will take EST 296 Introduction to Environmental Studies in place of EST 132.

<sup>6</sup> Students intending to pursue the Biological Science Applications option need to complete APM 105 Survey of Calculus & Its Applications.

<sup>7</sup> Lists of approved General Education Courses are available on the Registrar's web site.

<sup>8</sup> All Students are required to complete either GOL 242 Environmental Geology or EFB 285 Principles of Zoology, but students intending to pursue the Biological Science Applications option need to complete EFB 285 Principles of Zoology.

<sup>9</sup> Students intending to pursue the Biological Science Applications option need to complete FCH 152/153 General Chemistry II Lecture & Lab in this elective slot.



## Upper Division

Typically during the Spring of your sophomore year you will select an upper division option. This must be done prior to registering for junior coursework. Use the form in Appendix A to make your choice. Each option is described in detail below.

The junior and senior years (upper division) of the Environmental Studies program have been designed to meet three objectives:

1. Extend and deepen the lower division foundations in Natural Science, Social Science and the Humanities.
2. Provide a focus for graduate school and/or employment within a selected option.
3. Allow students to customize a senior synthesis experience.

The upper division consists of two parts: core course requirements all students must fulfill (34-35 credits) and option requirements (27 credits). *A minimum of 51 credit hours must be from courses at the 300 level or above.*

### Upper Division Core Course Requirements

The following is a list of Upper Division core requirements for all E.S. Students, regardless of which option you choose.

<b>Course</b>	<b>Credits</b>
ESF 332      Seminar for New Transfer Students <sup>10</sup>	0
APM 391      Introduction to Probability & Statistics	3
CLL 410      Writing for Environmental Professionals	3
EFB 320      General Ecology	4
EST 321      Government & the Environment	3
EST 361      History of the American Environmental Movement	3
<b>or</b> EST 366 <b>or</b> Attitudes, Values & the Environment	
EST 388      Psychological Principles of Risk Communication	3
<b>or</b> EST 390 <b>or</b> Social Processes & the Environment	
UD COMP      Upper Division Computing	3-4
<b>or</b> UD NS <b>or</b> Upper Division Natural Science Course <sup>11</sup>	
ELECTIVE      Electives (three)	9
SYNTHESIS      Senior Synthesis <sup>12</sup>	3
	<b>34-35</b>

<sup>10</sup> Only for students who enter as transfer students.

<sup>11</sup> See below.

<sup>12</sup> See below.

## **Upper Division Computing or Natural Science Courses**

This requirement is intended to broaden your knowledge of environmental science. You are required to take at least one upper division (300 or 400 level) course in either natural science or computing.

The following is a list of courses you may select from. Other upper division computing or natural science courses may be selected in consultation with your advisor. Be very careful to make sure you meet the prerequisites for a course before signing up for it.

### **Possible Upper Division Natural Science Courses**

LSA 311 Natural Processes in Design & Planning  
 FOR 332 Forest Ecology  
 FOR 338 Meteorology  
 FOR 340 Watershed Hydrology  
 FOR 345 Introductory Soils  
 EFB 303 Introductory Environmental Microbiology  
 EFB 326 Diversity of Plants  
 EFB 327 Adirondack Flora  
 EFB 336 Dendrology  
 EFB 342 Fungal Diversity and Ecology  
 EFB 345 Forest Health  
 EFB 352 Elements of Entomology  
 EFB 355 Invertebrate Zoology  
 EFB 384 Field Herpetology  
 EFB 388 Ecology of Adirondack Fishes  
 EFB 400 Toxic Health Hazards  
 EFB 413 Introduction to Conservation Biology  
 EFB 415 Ecological Biogeochemistry  
 EFB 440 Mycology  
 EFB 444 Biodiversity and Geography of Nature  
 EFB 445 Plant Ecology  
 EFB 446 Ecology of Mosses  
 EFB 462 Animal Physiology: Environmental and Ecological  
 EFB 479 Field Ornithology  
 EFB 480 Principles of Animal Behavior  
 EFB 482 Ornithology  
 EFB 483 Mammal Diversity  
 EFB 485 Herpetology  
 EFB 486 Ichthyology  
 EFB 490 Wildlife Ecology and Management  
 EFB 493 Wildlife Habitats and Populations

### **Possible Upper Division Computing Courses**

LSA 300 Computer Graphics I

FOR 324 Introduction to GIS in Resources Management  
APM 360 Introduction to Computer Programming  
ERE 450 Introduction to Geographic Information Systems

## **Independent Study Courses**

Both EST 495 and EST 498 are available to upper division students. Both of these “courses” offer the opportunity for “independent” study and research. These require students to propose a specific topic for study or research that is not available in conventional coursework at the College or Syracuse University. It is not a substitute for other courses, but rather presents an opportunity for students to extend their knowledge of a subject area beyond general program requirements. Because the focus is on independent work, this course provides less faculty supervision than in regularly scheduled courses and is therefore suitable only for highly motivated students. Neither EST 495 nor EST 498 is recommended for use in completing the Senior Synthesis requirement.

To schedule EST 495 or EST 498, students should provide a written request to a faculty member identifying the intended topic of study, and a list or sample of readings to be completed. Naturally, the topic will match the instructor’s area of expertise. Students should be aware that faculty are not required or even expected to offer independent study courses, but will often do so if the student presents solid preparation for the proposed course. If the faculty member agrees to offer this course, he or she will provide a course authorization form that permits registration.

A credit hour is normally awarded for independent study based on the satisfactory completion of the equivalent of 45 hours of academically related activity by a well prepared student. The instructor is responsible for providing initial study guidance, criticism, review, and the final evaluation of the student’s performance. It is expected that the student will prepare a written plan of study including a description of the final product to be evaluated. This plan of study should be signed by both student and instructor prior to registration, with a copy placed in the student’s advising file.

## **Changing Options**

Occasionally, students may wish to change their Option. In this case, a change of advisor is required, and requests of this type should be brought to the attention of the Environmental Studies Program Director. However, you are CAUTIONED against requesting a change of Option without prior consultation with the Coordinator of the intended new Option. Changing your option can cause SIGNIFICANT CREDIT HOUR SLIPPAGE in the your program, due to the need to make up option courses scheduled for normal completion in the first semester(s) of study. Courses in one option may not be useful in another option. If option changes are to be made, it is strongly recommended that such changes be requested during the first semester of

study, and at as early a date as feasible in that semester. If you want to change your option, see Appendix B.

## Senior Synthesis

All Environmental Studies seniors complete a senior synthesis related to their option. This experience allows for the integration of completed coursework and “real world” problems and research issues. The selection should be carefully planned with the advisor. Typically, the synthesis is done during the fall or spring semester of the senior year. Students who have completed 90 credit hours may request approval of an internship for the summer between the junior and senior years. In general, there are four synthesis alternatives:

**Professional Internship:** This is an opportunity for hands on experience and application of skills and knowledge. This requires a pre-approved agreement with the employer and advisor, a written product and a supervisor evaluation as described in Appendix C. Students register for EST 499.

**Senior Paper:** This is an opportunity for the student to define and research a topic of interest with the supervision of a College faculty member. It is described in Appendix D. Students register for EST 400.

**Advanced Coursework:** With advisor approval, the student may select an applied project or introductory graduate course.

**College Honors Program:** Students in the College Honors Program may utilize their Honors Research paper to satisfy the senior synthesis requirement. Students and advisors should refer to the Honors Program materials later in this handbook for details.

## Environmental Communication & Culture Option

### **Coordinator: Dr. Mark Meisner**

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The Environmental Communication & Culture option focuses on the many ways that communication, broadly defined, intersects environmental affairs. These include activism, media, education, public participation, and conflict resolution. In addition, the option helps students explore the diversity of ways that environmental problems are understood, and ways that cultural meanings of Nature are expressed, including through literature and the arts.

No matter where your career path leads, the critical value of having a strategic, systems-based, and skilled understanding of communication dynamics and processes cannot be exaggerated. The Environmental Communication & Culture Option is based on the premise that it is through written, oral, and visual communication that humans determine their relationship with the rest of the planet and with each other concerning it. Therefore, the option is committed to equipping you with increased knowledge and skills to contribute to the effectiveness of all aspects of the environmental, civic, governmental, non-government organizations, and business communities.

We provide a broad-based foundation in environmental communication theory and application through core courses that all students in the option take. Yet we know you have individual interests and plans, so the option is flexible enough so you can choose option courses and option methods courses that make the most sense for you. Individual interests that students may pursue as part of this option include literature of Nature, environmental values and ethics, the meanings of Nature, advocacy, collaboration, leadership and group processes, dispute resolution, mass media and popular culture, information use, and environmental education/interpretation.

The Environmental Communication & Culture option is based on four key ideas.

**Communication Among Diverse Perspectives:** We seek to strengthen students' ability to identify and appreciate their own and others' ideological and cultural perspectives as expressed in written, oral, and visual discourse. This increases students' abilities to better understand and participate in key ecological debates; work effectively with scientific, resource management, governmental and advocacy communities to address complex environmental issues; and build campaigns and educational programs, both domestically and internationally.

**Theory Into Practice:** We place a primary emphasis on the application of theory so that students gain informed skills they can strategically use in diverse settings in non-government organizations, industry, government or wherever their professional

lives take them. We highly value service learning, experiential learning, and field experiences as part of a student's program.

**Critical Thinking:** We encourage students to think critically about cultural patterns, economic and political lives, ethics, risk, science, the mass media, popular culture, literature, and other means by which we humans socially construct our beliefs, attitudes, policies, and behaviors. We encourage students to especially think critically about ecological degradation, power, and beauty.

**Preparing for the Long Haul:** We recognize the value of the “whole person” and reflect this in our emphasis on spirit, imagination, celebration, connection to the natural world, emotional and artistic expression, building an affirming community, and sharing reflections on the personal challenges environmental professionals face. We want students to connect with the sources of their own deepest passions.

By choosing this option, you will develop the confidence, connections, skills, and insights to make significant long-term contributions.

### ***Environmental Communication & Culture Option Requirements***

<b>Course</b>	<b>Credits</b>
CMN 393 Environmental Discourse	3
CMN 493 Environmental Communication Workshop	3
CRS 338 Speech Communication in Organizations	3
Environmental Communication & Culture Methods Courses (2)	6
Environmental Communication & Culture Option Courses (4)	12
	<b>27</b>

### ***Environmental Communication & Culture Methods Courses***

An environmental communication & culture methods course is one that emphasizes the acquisition, understanding and practice of specific skills for environmental communication research, analysis or implementation.

The following is a list of courses you may select from. Other upper division courses may be selected in consultation with your advisor. Be very careful to make sure you meet the prerequisites for a course before signing up for it.

CLL 496 Environmental Journalism  
 CMN 220 Public Presentation Skills for Environmental Professionals  
 CMN 440 Environmental Visualization  
 EFB 304 Natural History Museum Techniques  
 EFB 416 Introduction to Environmental Interpretation  
 EFB 417 Perspectives of Interpretive Design  
 EFB 418 Interpretation of Field Biology  
 ERE 450 Introduction to Geographic Information Systems  
 FOR 324 Introduction to GIS in Resources Management  
 IST 321 Information Management: Concepts and Issues

IST 337 Information Retrieval Skills  
 LSA 300 Computer Graphics I  
 LSA 301 Computer Graphics II  
 PAF 420 Interpersonal Conflict Resolution Skills

### ***Environmental Communication & Culture Option Courses***

An environmental communication & culture option course is one that allows you to expand or deepen your understanding of those aspects of environmental communication that most interest you. It is in the selection of these courses that you are able to explore your individual interests.

The following is a list of courses you may select from. Other upper division courses may be selected in consultation with your advisor. Be very careful to make sure you meet the prerequisites for a course before signing up for it.

CLL 311 Urban Environmental Literature  
 CLL 390 Introduction to Literature of Nature  
 CLL 490 Literature of Nature  
 CLL 496 Environmental Journalism  
 CMN 220 Public Presentation Skills for Environmental Professionals  
 CMN 340 Electronic Information  
 CMN 440 Environmental Visualization  
 CRS 225 Public Advocacy  
 CRS 231 Interpersonal Communication  
 CRS 235 Small Group Communication  
 CRS 355 Political Communication  
 CRS 426 Persuasion  
 EFB 304 Natural History Museum Techniques  
 EFB 404 Natural History Museums and Modern Science  
 EFB 405 Literature of Natural History  
 EFB 416 Introduction to Environmental Interpretation  
 EFB 417 Perspectives of Interpretive Design  
 EFB 418 Interpretation of Field Biology  
 FIA 300 (new number?) Art and Environment in American Culture since 1800  
 FOR 372 Fundamentals of Outdoor Recreation  
 IST 321 Information Management: Concepts and Issues  
 IST 337 Information Retrieval Skills  
 LSA 300 Computer Graphics I  
 LSA 301 Computer Graphics II  
 PAF 420 Interpersonal Conflict Resolution Skills  
 PHI 400 Environmental Ethics  
 PSC 300 Environmental Politics & Policy  
 PSC 300 Media & Politics

PSC 300 Music & Politics  
PSC 309 Interest Group Politics  
PSC 328 American Social Movements

Students should consult college catalogs and discuss other possibilities with their advisors in order to support an individual's communication areas of interest. The most relevant departments at Syracuse University to look at include Communication and Rhetorical Studies, Political Science, and Sociology. The Program for the Analysis & Resolution of Conflict (PARC) also offers courses in conflict resolution methods and skills.

## Typical Course Sequence

This is a possible sequence for the option. In consultation with your advisor, you may need to adjust this sequence to suit your specific situation.

		<b>Credits</b>
<b>Junior - Fall</b>		
EFB 320	General Ecology	4
CLL 410	Writing for Environmental Professionals	3
EST 361	History of the American Environmental Movement	3
<b>or</b> EST 366	<b>or</b> Attitudes, Values and the Environment	
CMN 393	Environmental Discourse	3
	EC&C Methods Course	3
		<hr/> <b>15-16</b>
<b>Junior - Spring</b>		
EST 321	Government and the Environment	3
APM 391	Introduction to Probability and Statistics	3
EST 388	Psychological Principles of Risk Communication	3
<b>or</b> EST 390	<b>or</b> Social Processes & the Environment	
	EC&C Methods Course	3
	Elective	3
		<hr/> <b>15</b>
<b>Senior - Fall</b>		
	Upper Division Computing	3-4
	<b>or</b> Natural Science Course	
CRS 338	Speech Communication in Organizations	3
	EC&C Option Course	3
	EC&C Option Course	3
	Elective	3
		<hr/> <b>15-16</b>
<b>Senior - Spring</b>		
	Senior Synthesis (3)	3
CMN 493	Environmental Communication Workshop	3
	EC&C Option Course	3
	EC&C Option Course	3
	Elective	3
		<hr/> <b>15</b>

## Environmental Policy Option

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Policy has been defined as “the consistent behavior of organizations over time”. Although seemingly dry, this simple phrase encompasses the rich complexity of how governments, businesses, interest groups and citizens interact to make decisions that protect, enhance, and all too frequently, diminish our environment. The U.S. Constitution provides a formal framework for all public policy, the checks and balances between the executive, legislature, and judicial branches, and the sharing of rights and responsibilities between the federal government, states, and citizens.

During the 1970's, which has been called the “decade of the environment”, Congress created numerous new topic-specific laws and programs to address the issues of clean air, clean water, hazardous waste, and habitat loss. Although successful in addressing many large “point” problems such as factory waste discharges, these narrow focused, Washington-based, “command and control” technical policy approaches have proven to be limited in effectiveness. Watershed protection, ecosystem restoration, controlling suburban sprawl, and global climate change are examples of the broad multifactor issues that now face policy makers. Policy approaches increasingly involve public-private collaborations of diverse actors and stakeholders that are individually constructed to address the unique environmental, legal, social and cultural components of the resource systems to be managed.

The Environmental Policy Option promotes understanding of and develops skills for the many facets of the policy process, including:

- how policies come into being (proposed, advocated, communicated, adopted, implemented, evaluated, reformed)
- types of policies (laws, regulation, economic incentives and disincentives, education and communication),
- scale (personal, local, state, national, international, global),
- activities (industrial processes, consumer behavior, resource extraction and use, transportation, marketing and social infrastructure.)
- how society selects among competing aims (individual freedom, economic efficiency, social cohesion, safety and security and others.)
- the role of politics and political ideology in policy making (conservatism, liberalism, environmental radicalism, deep ecology, government and governance)
- the interaction between environmental policy and social justice (racism and the environment, feminism, indigenous and First Nations rights and perspectives, issues of globalism and global resource inequities).

Policy graduates have career opportunities in all environmental sectors, working for federal, state and local governments, industry and consulting firms, and environmental non-government-organizations (NGOs). Many, either directly upon graduation or after a few years of work experience, go to graduate school in programs including law, public administration, planning, landscape architecture, and environmental management.

### ***Environmental Policy Option Requirements***

<b>Course</b>	<b>Credits</b>
ENS 550      Environmental Impact Analysis or LAW      or Law Course	3
Environmental Policy Methods Courses (2)	6
Law Course	3
Environmental Policy Option Courses (5)	15
	<b>27</b>

### ***Environmental Policy Methods Courses***

Methods are tool related topics that are used to analyze existing policies, to evaluate the need for new policies, and to facilitate effective collaborations. Below is a list of approved courses. Your Policy advisor may substitute, without petition, other courses that they determine meet the analysis/facilitation tool intent. Students are strongly encouraged to take at least one Geographic Information Systems course.

ERE 450 Intro. To GIS  
 FEG 430 Engineering Decision Analysis  
 FOR 333 Managerial Economics for Env. Professionals  
 FOR 507 Environmental Economics  
 FOR 556 Spatial Modeling (GIS)  
 GEO 361 Global Economic Geography  
 GEO 370 Political Geography  
 GEO 386 Quantitative Geographic Analysis  
 LSA 330 Landscape and Site Assessment

### ***Environmental Policy Option Courses***

Many courses at ESF and SU are policy focused. The courses below are illustrative. In addition, all of the Law courses listed below may also count as Policy Option Courses. Students are strongly encouraged to work with their advisor to develop a coherent set of courses that provide the breadth and depth suitable for entry-level professional positions and/or a foundation for graduate study.

FOR 360 Soil and Water Conservation Policy  
 FOR 372 Fundamentals of Outdoor Recreation  
 FOR 465 Natural Resources and Environmental Policy  
 FOR 478 Wilderness and River Recreation Management  
 GEO 558 Sustainable Development  
 LSA 451 Comprehensive Land Planning  
 PAF 451 Environmental Policy  
 PSC 318 Technology, Politics, and Environment

### ***Environmental Policy Law Courses***

Legal processes play a critical role in the creation and implementation of environmental policies. In addition to the judicial court system, all governmental management and regulatory agencies have administrative processes designed to ensure fairness, provide public access, and resolve conflicts. The emerging arena of international law is beginning to address trans-boundary and global systems. All students must take at least one law course and are encouraged to take additional offerings from the recommended list below:

FOR 496 Environmental Law and Policy  
 FOR 488 Natural Resources Administration Law  
 LPP 255 Introduction to Law  
 LPP 458 Environmental Law <sup>13</sup>  
 PSC 304 The Judicial Process  
 PSC 324 Constitutional Law I  
 PSC 325 Constitutional Law II  
 PSC 352 International Law

### ***Senior Synthesis***

The Senior Synthesis is an integrative experience, intended to both connect material from previous courses and to address a current real-world issue. Students may satisfy this requirement through a Professional Internship EST 499, an independent research project, EST 400 Senior Paper, or Honors Program Paper ESF 499 Honors thesis/Project, or completion of an advanced integrative course such as CMN 493 Environmental Communication Workshop, or LSA 453 Community Land Planning Workshop. The key to successful completion of this important program component is for the student to work closely with their advisor in the junior year to investigate the many potential choices that are available.

<sup>13</sup>Since this course is the same course as FOR 496 Environmental Law and Policy, students may only take LPP 458 if they are unable to take FOR 496.

## Typical Course Sequence

This is a possible sequence for the option. In consultation with your advisor, you will probably need to adjust this sequence to suit your specific situation.

		<b>Credits</b>
<b>Junior - Fall</b>		
EFB 320	General Ecology	4
CLL 410	Writing for Environmental Professionals	3
EST 361	History of the American Environmental Movement	3
<b>or</b> EST 366	<b>or</b> Attitudes, Values and the Environment	
	Environmental Policy Option Course	3
	Environmental Policy Option Course	3
		<hr/> <b>15-16</b>
<b>Junior - Spring</b>		
EST 321	Government and the Environment	3
APM 391	Introduction to Probability and Statistics	3
EST 388	Psychological Principles of Risk Communication	3
<b>or</b> EST 390	<b>or</b> Social Processes & the Environment	
	Environmental Policy Option Course	3
	Elective	3
		<hr/> <b>15</b>
<b>Senior - Fall</b>		
	Upper Division Computing	3-4
	<b>or</b> Natural Science Course	
	Environmental Policy Methods Course (GIS recommended)	3
	Environmental Policy Option Course	3
	Law Course	3
	Elective	3
		<hr/> <b>15-16</b>
<b>Senior - Spring</b>		
ENS 550	Environmental Impact Analysis	3
	Environmental Policy Option Course	3
	Environmental Policy Methods Course	3
	Elective	3
	Senior Synthesis (3)	3
		<hr/> <b>15</b>

## Biological Science Applications Option

### Coordinator: Dr. Charles Hall

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The Biological Science Applications Option is designed for students interested in careers at the interface of biology and socioeconomic issues. This Option provides solid background in the biological sciences pertinent to our natural resources and ecosystems on the one hand and a grounding in the social sciences on the other. In contrast to the traditional biology program, this Option emphasizes the interaction of both biological and societal issues. Specific goals of the Option are:

1. Provide a sound background in biological sciences;
2. Foster a broad systems view of our society, biological resources and ecosystems affected by human activity;
3. Develop a capacity to make independent judgments of environmental issues based on scientific principles and socio-political understanding; and
4. Enhance effective skills in communicating scientific/technical issues of a biological nature in socio-political settings.

Students in this Option prepare for careers dealing with many environmental issues of society including regulatory, consulting and advisory positions in governmental agencies as well as employment in education or in the private sector such as environmental consulting firms and activist organizations. Many of these contexts demand practical solutions that require sound judgment of biological facts against the realities of our society. While people of various backgrounds may fill this job market, graduates of this Option will do best in careers that demand articulate communication skills supported by scientific understanding. Many of our students go on for advanced degrees in science, law or business. Some become university teachers or researchers.

### **Biological Science Applications Option Requirements** <sup>14</sup>

MICROBES	Microbes Course	3
PLANTS	Plants Course	3
ANIMALS	Animals Course	3
GIS	Geographic Information Systems Course	3
POLICY	Policy Course	3
or LAW	or Law Course	
FOCUS	Biology Focus Area Courses (4)	12

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<sup>14</sup>Please note the specific lower division required courses for students in the Biological Science Applications option. See the Lower Division Course Requirements on page 13.

### **Biological Science Applications Breadth Requirements**

Take one course from each category:

<b>Microbes</b>	<b>Plants</b>	<b>Animals</b>
EFB 303 Intro. Env. Biology	EFB 326 Div. Of Plants	EFB 352 Elem. Of Ento.
EFB 340 For. Shade Tree Path.	EFB 336 Dendrology	EFB 355 Invert. Zoology
EFB 440 Mycology	EFB 445 Plant Ecology	EFB 486 Ichthyology
EFB 443 Plant virology		EFB 483 Biology of Birds &
EFB 505 Microbial Ecology		Mammals

### **Biological Science Applications Focus Area Requirements**

A total of four focus area courses is required. Each student must take *at least 2* advanced courses from *one of the* Focus Areas. The student and Advisor may develop an individualized Biological Focus that includes the Senior Synthesis. The lists below are illustrative.

<b>Biological Interpretation</b>	<b>Biological Management</b>	<b>Environmental Quality</b>	<b>Biological Systems</b>
EFB 417 Perspectives on Interpretive Design EFB 521 Prin. Interpret. Programming	EFB 413 Conservation Biol. EFB 487 Fisheries Biol EFB 490 Wildlife Conservation EFB 491 Wildlife Practicum EFB 493 Wildlife Habitats & Pop.	EFB 510 Health & Env ENS 596 Env. Impact EFB 351 Forest Insects And Diseases FOR 334 Silviculture EFB 540 Forest Health Monitoring EFB 545 Forest Decline Concepts	EFB 445 Ecol. Biogeochem. FOR 490 Integrated Forestry EFB 496 Epidemics & Hst. EFB 522 Envir. Research & Developmt. EFB Watershed Ecology EFB 542 Freshwater Wetlands. EFB 516 Ecosystems EFB 519 Geog Modeling EFB 523 Trop. Ecology EFB 524 Limnology EFB 542 Freshwater Wetland EFB 578 T Community EFB 580 Wetland Wildlife

### **Geographic Information Systems Courses**

Take one:    ERE 450 Introduction to GIS (F)  
                   FOR 556 Spatial Modeling (S)

### **Policy or Law Courses**

Take one:    ENS 596 Environmental Impact Analysis (S)  
                   FOR 364 Soil and Water Conservation Policy (S)

FOR 465 Natural Resources and Environmental Policy (S)  
FOR 496 Environmental Law (F)

### **Senior Synthesis**

During the senior year, completion of an integrative summary experience in the Option is required. Options for this are outlined in the Senior Synthesis section on page 19. Students pursuing the advanced coursework option should consider the following courses:

EFB 510 Health and Our Chemical Environment

EFB 518 Systems Ecology

EFB 522 Ecology, Resources, and Development

### **Typical Course Sequence**

This is a possible sequence for the option. In consultation with your advisor, you will need to adjust this sequence to suit your specific situation.

<b>Junior - Fall</b>		<b>Credits</b>
EFB 320	General Ecology	4
CLL 410	Writing for Environmental Professionals	3
EST 361	History of the American Environmental Movement	3
<b>or</b> EST 366	<b>or</b> Attitudes, Values and the Environment	
	Microbes Course	3
	Animals Course	3
		<hr/> 16
<b>Junior - Spring</b>		
EST 321	Government and the Environment	3
APM 391	Introduction to Probability and Statistics	3
EST 388	Psychological Principles of Risk Communication	3
<b>or</b> EST 390	<b>or</b> Social Processes & the Environment	
	Plants Course	3
	Elective	3
		<hr/> 15
<b>Senior - Fall</b>		
	Upper Division Computing or Natural Science Course	4
	GIS Course	3
	Biology Focus Area Course	3
	Biology Focus Area Course	3
	Elective	3
		<hr/> 16
<b>Senior - Spring</b>		
	Senior Synthesis (3)	3
	Policy Course or Law Course	3
	Biology Focus Area Course	3

Biology Focus Area Course  
Elective

32
3
3
<hr/>
<b>15</b>

## Additional Opportunities

### Study Abroad

ESF students who have completed 30 or more credits toward their bachelor's degree with a cumulative grade point average of 3.000 or greater are eligible to apply for study in a foreign country for a full year, a semester, or a summer session through the Division of International Programs Abroad at Syracuse University (DIPA). If you are interested in this, you should contact ESF's Office of Instruction and Graduate Studies for more information.

<http://www.esf.edu/Students/career/studyabroad.htm>

Contact:

Dr. Marla Bennett, Assistant Dean  
Instruction & Graduate Studies  
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470-6596  
mbennet@esf.edu

### Urban Environmental Science Minor

While many people often associate the environment with wild lands and linked rural areas, many of the most important environmental and quality-of-life issues of the coming decades will be related to the urban environment. ESF, under its Urban Initiative, offers a campus-wide minor in urban environmental science. All students, but perhaps especially those with an intimate knowledge of the challenges facing city inhabitants, will find this program stimulating and provocative—and will find professors interested in working with them to learn about and develop improved urban environments. Graduates of the program can make important professional contributions on issues ranging from urban forestry and urban wildlife, to urban air and water quality, population growth and urban sprawl, and environmental justice and equity. Successful completion of the minor will be noted on the student's transcript.

Twelve credit hours of urban concentration courses will be required to satisfy the minor, as follows: Required courses: EST/EFB 220 Urban Ecology (3) and a Capstone Experience (3) in coursework from the options described below. A student enrolled in the minor, will present to the advisory committee in the 6th week of the semester prior to engagement in the learning endeavor, a plan for a "capstone" experience, which will be undertaken working in conjunction with a faculty member(s) who will oversee an off-campus internship (xxx 499), independent-study project (xxx 498), or completion of a final project undertaken in a special topics (xxx 496) or established 3-credit course. All students will present their completed projects to the advisory committee and their peers in the last week of classes, depending on the semester

of completion (Fall or Spring). All students currently enrolled in the minor are expected to attend capstone presentations.

Elective courses: At least two courses (6 credits) of urban environmental science minor advisory committee-approved courses other than courses in, or required by, the student's major. The complete list of approved elective courses is available from faculty advisory committee representatives.

<http://www.esf.edu/urban/>

Contact:

Professor Myrna Hall

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## **Entrepreneurship, Management, and Marketing Minors**

In collaboration with the Syracuse University School of Management, undergraduate minors in entrepreneurship, management studies, and marketing are available for ESF students. To be eligible for any of these minors, students must have a cumulative grade point average of 2.750 or better and apply for the minor after completing at least one semester at ESF, but as soon after that as possible to ensure all courses can be completed. Normally, students are allowed to take only one management course per semester, with one semester of two management courses, so careful planning is required. It is preferable students begin the minor during their sophomore year.

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## **Computer and Information Technology Minor**

The computer and information technology minor is available to all ESF undergraduates who want to develop greater skill in computer science and information technology applications. By understanding of the basic principles behind software development, students can more effectively use these tools in their chosen fields. To be eligible for this minor, a student must have a cumulative grade point average of 2.800 or better by the end of the sophomore year. A student will elect the minor by submitting an application form with courses listed to his/her faculty advisor and the undergraduate coordinator of the student's Faculty.

This signed application will then be sent to the dean of Instruction and Graduate Studies for final approval.

Eighteen credit hours in computer science and information technology courses will be required to satisfy the minor. Required courses: APM 153 Computing Methods for Engineers and Physical Scientists (3) or APM 360 Introduction to Computer Programming (3); ESF 200 Information Literacy (1); CIS 252 Introduction to Computer Science (4); CIS 351 Data Structures (4). Elective courses: At least two courses (6 credits) chosen from among courses available from both ESF and Syracuse University including Applied Mathematics (APM), Environmental Resource Engineering, Forestry, Wood Products Engineering, Computer and Information Science, Computer Engineering, and Computational Science. The complete list is available from faculty advisors.

Contact:

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Instruction & Graduate Studies  
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## **Construction Management Minor**

The construction management minor is available to all ESF undergraduates and prepares students for management careers in the construction industry. The basic objective of the minor is to provide a fundamental understanding of the various methods used to take a design into the field and build a quality structure in the most efficient and effective manner with minimal environmental impacts. Eighteen credit hours (6 courses) are required to complete the minor. Four courses are required, with an additional two courses selected from the list of five courses given below. A cumulative grade point average of 2.0 or higher is required for the construction management courses.

Admission to the minor requires sophomore status, a cumulative grade point average of 2.5 or higher, and permission of the Construction Management and Wood Products Engineering faculty chair. Interested students must submit a petition and application form, with courses listed, to their academic advisor and the chair of Construction Management and Wood Products Engineering, with final approval from the dean of Instruction and Graduate Studies. Successful completion of the minor will be noted on the student's transcript.

Eighteen credit hours of courses are required. Required courses: WPE 342 Light Construction (3); WPE 343 Construction Estimating (3); WPE 453 Construction Planning and Scheduling; WPE 454 Construction Project Management; and two additional courses chosen from the following: WPE 330 Building Codes and Zoning Practices (3); WPE 331 Construction Safety (3); WPE 335 Cost Engineering (3); WPE

350 Construction Methods and Equipment (3); WPE 455 Construction Contracts and Specifications (3).

Contact:

Mr. Kenneth Tiss

Construction Management and Wood Products Engineering

165 Baker Laboratory

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## ESF Honors Program

The Honors Program provides opportunities for students to complete intensive research and creative projects under the guidance of research and design experts. The ESF Honors Program emphasizes and encourages holistic and multidisciplinary awareness to the problems and opportunities of the environment.

To be invited for admission, students must meet the minimum grade point requirement of at least a 3.500 cumulative grade point average at the end of 60 credits of lower-division preparation. This includes any courses taken while matriculated at ESF and any transfer courses accepted toward the ESF degree. Students who are invited to apply for admission must also submit a personal statement.

Students in the program must complete degree requirements with a cumulative grade point average of at least 3.400 for all upper-division courses and complete the following coursework:

- \* Thesis Exploration Seminar (ESF 309, 1 credit)
- \* Two courses that contribute directly to the honors thesis/project. These courses must be either a) In the student's major or a related area at the 400-, 500-, or 600-level and must not be a requirement for all students in that major (Students admitted to the ESF Honors Program are automatically eligible to enroll in appropriate courses numbered 500 to 699.); or b) An enhanced or graduate-level version of a required upper-division course.
- \* A total of at least four credits of Honors Thesis/Project (ESF 499, 1-5 credits) with a grade of B or better. Students must supplement their work with an honors essay and presentation to an honors review committee.

The Honors Program receives oversight from the Honors Faculty Council. The director of the Honors Program recruits, admits, and counsels honors students in matters pertaining to the program requirements.

<http://www.esf.edu/honors/>

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## Pre-law Advising

The college offers advising to students interested in pursuing a career in law. Unlike some other pre-professional institutions, law schools do not require or recommend a specific program of study or specific course work. Instead, the Law School Admissions Council advises students interested in a legal career to pursue an undergraduate education that demonstrates success in an intellectually challenging curriculum that enhances students' critical thinking skills. ESF's Environmental Studies program provides students with such an education.

Many Environmental Studies students attend law school after graduation. The ESF pre-law program helps students understand environmental law employment opportunities and develop a law school application package that demonstrates to law schools their potential to successfully complete a legal education. The program is based primarily on individual pre-law advising between the student and Dr. Robert Malmsheimer, ESF's Pre-law advisor.

Dr. Malmsheimer counsels students on the selection of elective courses, the Law School Admission Test (LSAT), law school application procedures, and the selection of law schools. Students considering law school are encouraged to meet with Dr. Malmsheimer as early in their academic careers as possible to take advantage of these services.

If you are interested in law school, you need to know that the ESF Pre-law program is based upon students' academic progress. As students progress through their ESF careers, the intensity of the program increases and students have more responsibilities. The ESF Pre-law website ([www.esf.edu/prelaw](http://www.esf.edu/prelaw)) provides information on the Pre-law Program and lists of tasks that students need to complete each year.

The following courses are highly recommended for students interested in attending law school:

PHI 251 Logic,  
FOR 496 Environmental Law and Policy  
FOR 488 Natural Resources Administration Law

Students should also consider taking one or more of the following courses:

CON 401 Consumer Law  
LPP 255 Introduction to Law  
LPP 458 Environmental Law<sup>15</sup>

<sup>15</sup> Since this course is the same course as FOR 496/796: Environmental Law and Policy, students may only take LPP 458 if they are unable to take FOR 496/796.

PAF 431 Criminal Justice System  
PSC 304 The Judicial Process  
PSC 324 Constitutional Law I  
PSC 325 Constitutional Law II  
PSC 352 International Law

<http://www.esf.edu/prelaw/>

Contact:

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[rwmalmsh@esf.edu](mailto:rwmalmsh@esf.edu)

## The Petition Process

There are two primary reasons for filing a petition. First, to change something in a student's degree requirements. This occurs when a different course is deemed more appropriate for a student than a required or suggested course but covers essentially the same material. Second, to transfer credits from another institution after the admission process is complete. Three situations are largely the reason for this. The course may be an upper division course taken at another college before transfer to ESF and thus outside the admissions process. Sometimes, a pre-approved for transfer course was missed at admission. A list of Transfer Articulation Guidelines (ATAG) is available on the Admissions homepage. The course credits may be beyond the allotted credit transfer under admissions rules. Or a course may be a required course but taken at another institution over a summer. Other times a petition is warranted include 'late adds' or 'late drops' of a course or when an undergraduate wishes to register for a 600-level class.

The campus myth that "you can petition anything" should be dispelled wherever possible, particularly as approval of a petition is NOT automatic. After the faculty advisor signs a petition form, each petition is reviewed by the Faculty of Environmental Studies Undergraduate Program Director, and the Dean of Instruction and Graduate Studies. Further, the Dean may choose to consult with the Committee on Instruction (Academic Standards Subcommittee) before acting. Therefore one important part of advising is when, where and how to file a petition. A particularly problematic petition is the petition for late drop of a course. These are approved only rarely, and only under exceptional circumstances. The following section is taken from the Registrar's homepage and is worth reading closely before petitioning for a late drop of any course.

### What to Include in Your Petition

The following list identifies the information needed in each section of the petition form for each of the areas for which petitions may be filed and what information should be appended (if any). For the purposes here, undergraduate petitions to take a 600-level course are treated as program variance.

<b>How to file</b>	<b>Program Variance</b>	<b>Transfer</b>	<b>Late Add/Drop</b>
<b>Required Information</b> (At top of form--look under Grad Student info).	Remember to have the student sign, provide a social security number, college identification number, and date the form.	Same as Program Variance	Same as Program Variance
<b>Request</b> (what is being	A careful wording of the variance includes what is to be replaced and	A clear statement of course credits to be transferred, from what	A statement of what course is to be added and/or dropped (course

petitioned for)	what it is to be replaced by (course numbers and names are helpful).	college, and how to allocate it on the plan sheet (course numbers and names are helpful).	numbers and names are helpful).
<b>Justification</b> (More detail is better here)	Explain clearly why this variance meets the goals and objectives of the program, as well as the course it is replacing, and how it contributes to a coherent program of student for the student.	More detail is better here. Explain clearly why this course and credit transfer meets the goals and objectives of the program, and is the same or substantially similar to the course it is replacing.	Explain clearly why the course is being added or dropped late (financial aid problem, illness, etc.).
<b>Signatures</b>	In the following order: <ul style="list-style-type: none"> <li>• Faculty advisor,</li> <li>• ES Program Director</li> <li>• Dean of Instruction</li> </ul>	In the following order: <ul style="list-style-type: none"> <li>• Faculty advisor,</li> <li>• ES Program Director</li> <li>• Dean of Instruction</li> </ul>	In the following order: <ul style="list-style-type: none"> <li>• Faculty advisor,</li> <li>• ES Program Director</li> <li>• Dean of Instruction</li> </ul>
<b>Additional Information</b> (things you might want to attach to the petition)	Improve the rate of approval by, appending the following items: <ul style="list-style-type: none"> <li>• the catalog description of the course, the course syllabus, or the internship or independent study approved proposal</li> <li>• the ESF catalog description of the course to be replaced.</li> </ul>	Improve the rate of approval by, appending the following items: <ul style="list-style-type: none"> <li>• the transfer college catalog description of the course (or the course syllabus)</li> <li>• the ESF catalog description of the course to be replaced.</li> </ul>	Improve the rate of approval by, appending the following items: <ul style="list-style-type: none"> <li>• verification of events in the life of the student which occurred late in the semester (generally at or after the drop date) which make it impossible for the student to continue in the course.</li> <li>• Academic difficulty in the course is not considered justification.</li> </ul>
<b>NOTES</b>	To enroll in a 600-level course a student must meet several criteria: be a senior, a GPA of 3.0 or better, an approved petition with the course instructor's consent (also required on the SCORE form)	A course taken over the summer should be petitioned <i>prior</i> to summer enrollment to avoid taking a course that will not be accepted.	Late adds are generally easy to obtain. Late drops go automatically to the Academic Standards Sub-Committee of the Committee on Instruction. Please see the section below on Guideline Criteria for Successful Late Drops.

## Guideline Criteria for Successful Late Drops

A petition must exhibit a clear and significant mitigating or extenuating circumstance outside of "normal" and predictable distractions from college coursework, etc. Examples might include illness, injury, death in the immediate family, financial emergency, and others.

The mitigating or extenuating circumstance must occur after or extend beyond the college designated "drop deadline".

The mitigating or extenuating circumstance is clearly the result of actions outside of the control of the student, i.e. not self-inflicted hardship. Similarly, if the student is innocently a victim of poor advising or administrative mishandling, justifiable grounds for the petition may be found.

The clear message contained in these criteria should be "late drops are only justifiable under exceptional conditions." The drop deadline placed by the college (ESF, not SU - it differs in intent and date) is exactly that - normal drops are not accepted after that deadline. You may find it useful to see what isn't appropriate as well as knowing what is. The following are "typical" examples of petition justifications which would not be accepted:

- student missed the "drop deadline" by accident
- student coursework load is too heavy
- student is failing the course
- student has missed too many classes or has fallen too far behind
- student has changed major and the course isn't required in the new major
- student intends to retake the course later or at another college
- student gambles unsuccessfully in taking an exam or attempting a project on or after the drop deadline

Two other points are of noteworthy consideration: first, a late change to "audit" a course is considered equivalent to dropping, and all the above criteria apply; second, a petition to late drop is not approved until final review by the Dean of Instruction and the Subcommittee on Academic Standards. Students petitioning for late drops should continue to attend class until they receive final notification of the subcommittee's action. Even if your advisor and instructor approve the petition, it is not a done deal.

## Who to Call When You Have a Question

For the student, the first line of defense is always the faculty advisor, but not every faculty advisor (or ANY faculty advisor) knows all the answers to all the possible questions. Different people have different types and levels of expertise, and advising questions are sometimes academic in nature, but equally often they are about non-academic concerns a student may have. Depending upon the advising question, you need to know who the 'expert' is for that issue area. And the following list is for both faculty and student needs.

*Academic advising* concerns are issues and questions about course load, academic standing, graduation requirements, academic policies (departmental and college-wide), and the procedures required to navigate from admissions through to graduation. Academic advising is governed by either (and sometimes both) departmental policies and by college-wide policies.

*Non-academic advising* concerns are issues and questions about career planning, financial aid, Educational Opportunity Programs, campus diversity and multicultural considerations, personal and family problems. This second set of advising concerns relates very closely to academic advising needs and should be undertaken in conjunction with one of the college-wide 'experts.' Non-academic advising questions, while generally governed by college-wide rules and procedures, often arise in academic advising meetings where students have a unique chance to speak with a faculty member one-on-one. The names and contacts below list individuals with critical expertise in both academic and non-academic advising.

### Departmental Assistance

Departmental assistance can be used for program questions, which courses relate best to ES for electives, what are typical course loads within the department, etc. While these are academic questions in the main, other less academic questions, such as typical career paths taken by students in a particular option, where to refer a student for specialized help, may also be answered at the department level.

### **General Program Questions and Lower Division Questions**

Dr. Brenda Nordenstam, Undergraduate Program Director  
108-A Marshall  
470-6573  
bjnorden@esf.edu

Dr. David Sonnenfeld, Faculty Chair  
106 Marshall Hall  
470-6636  
dsonn@syr.edu

## ***Upper Division Questions***

### **Environmental Communication & Culture**

Dr. Mark Meisner  
108-B Marshall Hall  
470-6908  
mmeisner@esf.edu

### **Environmental Policy**

Prof. Jack Manno  
211-A Marshall Hall  
470-6816  
jpmanno@esf.edu

### **Biological Science Applications**

Dr. Charles Hall  
354 Illick Hall  
470-6870  
chall@syr.edu

## **College Academic Assistance**

### ***Admissions Office***

The Admissions Office can answer questions about the advanced standing credit given to transfer students or students with advanced placement credits. The Admissions Office can also modify a student's advanced standing credits (transfer in additional credits from other schools or, if merited, re-allocate a course to cover a requirement), but only through the add/drop period of a student's first semester at ESF. General questions should go to the Director of Admissions. More specific questions may be addressed to the Admissions Officer listed on each student's curriculum plan sheet.

Susan Sanford, Director of Admissions  
106 Bray Hall  
470-6600  
shsanfor@esf.edu

### ***Registrar's Office***

Call the Registrar's Office with questions which require clarification of course allocation on the plan sheet, implementation of academic policies and procedures. Call here as well if you have questions about accessing the online advising services on the ESF Registrar's web page.

Ray Blaskiewicz, Registrar

111 Bray Hall  
470-6657  
rwblaski@esf.edu

### ***Office of Instruction and Graduate Studies***

This office can give you the 'official' college position on any academic policy; student standing relating to probation and dismissal; applicability of courses to General Education requirements; and all special programs such as college minors, the Honors Program, science education, and Syracuse University's Department of International Programs Abroad.

#### **All Questions**

Dudley J. Raynal, Dean  
Instruction/Graduate Studies  
227 Bray Hall  
470-6599  
djr@syr.edu

#### **The ESF Honors Program Questions**

Dr. Marla Jabbour, Assistant Dean  
Instruction & Graduate Studies  
227 Bray Hall  
470-6596  
mbennet@esf.edu

### **Specialized Assistance**

Specialized assistance refers to non-academic advising needs. Sometimes questions arise about how to pay for college; career choices and planning; family and personal problems; or problems relating to a student's ethnicity, religion, sexual orientation, or physical and learning disabilities. When these questions arise, perhaps the best thing a faculty advisor can do is be available, hear the student out, and make a referral to another department on campus. The following offices offer appropriate resources for these specialized needs.

#### ***Office of Financial Aid and Educational Opportunity Program***

As most students know, and all faculty should, the cost of a college education today is often beyond the limits of a family. This office helps students apply for and meet the course load requirements for federal and state financial aid programs. Additionally, this office oversees and advises on other funding programs which are a mix of merit- and need-based awards, including the Educational Opportunity Program.

John E. View, Dir. Financial Aid/Educational Opportunity Program  
115 Bray Hall

470-6670  
jreview@esf.edu

### ***Office of Student Life and Experiential Learning***

This office includes oversight of student organizations, the Spring Awards Banquet, and social events such as the Fall Barbecue, the December Soiree, and Ice Cream Socials, as well as the orchestration of 'official' programs such as commencement and convocation ceremonies. These events do not happen in a vacuum, nor do administrators do all the work, students are involved in each of them. For students to gain valuable leadership experience, meet others with similar interests, or otherwise join in and learn more about what occurs on campus, this is the office to contact.

In addition this office also provides unique opportunities to blend the academic learning experience with 'real life' events. The Office of Student Life promotes this fusion through Learning Communities (an integrated focus on in- and out-of-classroom learning, in which students participate in a specialized program through a shared residence and course of study), and Experiential Learning (projects or internships for credit). Both programs promote learning through real 'hands on' experience in addition to the theory and book material they have learned in class.

Associate Dean of Student Life and Experiential Learning  
110 Bray Hall  
470-6658

### ***Office of Multicultural Affairs***

This office addresses a wide range of concerns for ESF's student population, some though not all focus on providing support and advocacy for the multicultural students. The Office of Multicultural Outreach oversees the Peer Tutoring Program for all ESF students. Also serving as a 'Safe Haven' for the multicultural student, the office provides personal contact as well as academic, emotional and social support. In addition, this office serves as a resource to students and the entire college related to multicultural issues (cultural and racial issues, etc.).

Raydora Drummer, Director Multicultural Affairs  
110 Bray Hall  
470-4815,  
rsdrumme@esf.edu

### ***Office of Career and Counseling Services***

This office handles varied duties. Among the services are career planning, testing and exploration as well as personal counseling and advising. Student changes in a program of study are handled by Career and Counseling Services, as are the withdrawal from and re-admittance to the college. Also, this office will notify relevant faculty of extended student absences for such things as death in the

family, illness, etc.; please note that documentation from the student is usually required.

Director of Career/Counseling Services  
110 Bray Hall  
470-6660



# Appendix A: Option Declaration Form

## Faculty of Environmental Studies

In order to pre-register for the first semester of the junior year, a lower division student must first file this form with the Environmental Studies Office. You will be assigned a new faculty advisor from the selected option for your junior and senior years.

Please meet with the appropriate Option Coordinator before choosing your option.

**Student Name** (print) \_\_\_\_\_

**Student Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

**Option Selected:**

Environmental Communication & Culture  
(Option Coordinator is Mark Meisner) \_\_\_\_\_

Environmental Policy  
(Option Coordinator is John Felleman) \_\_\_\_\_

Biological Science Applications  
(Option Coordinator is Charlie Hall) \_\_\_\_\_

**Appointed Advisor Name** (print) \_\_\_\_\_  
(advisor is appointed by option coordinator)

Please collect signatures in the following order:

**Name**

**Signature**

**Date**

Lower Division Advisor \_\_\_\_\_

Option Coordinator \_\_\_\_\_

Appointed Advisor \_\_\_\_\_

Environmental Studies Program Director \_\_\_\_\_

**Environmental Studies Program Director submits form to Faculty of Environmental Studies , 106 Marshall Hall.**

# Appendix B: Change of Advisor Form

## Faculty of Environmental Studies

The form below must be completed and routed as indicated for ALL advisor changes, with the exception of “mass advisor assignments” at the beginning of semesters. Please indicate below which action you are requesting.

### 1. Transfer Into the Program from Another Program

The initial program coordinator receives the advising file from current advisor and forwards it with the form below to the ES Faculty Office (106 Marshall). ES Program Director sends file to the new Option Coordinator who assigns new advisor and forwards file. *NOTE: Student must also complete CHANGE OF PROGRAM OF STUDY form available from Student Affairs.*

### 2. Transfer Within ES from Another Option.

The Initiating Option Coordinator receives the advising file from the current advisor and forwards it with this form to the ES Program Director. This form should indicate the student's desired new option. ES Program Director sends file to the receiving Option Coordinator who assigns a new advisor and forwards file to that advisor. This form is then sent to the ES Office.

### 3. Changes of Advisor Within the Same Option

The Option Coordinator receives the advising file from the current advisor and forwards it to the new advisor. The Option Coordinator initiates the form below, naming the new advisor and forwards it to the ES Office.

**Students are CAUTIONED that a change in option or program can cause slippage of credit hours and delays in progress toward the degree.**

Student Name	Date
Current Option	Current Advisor
Desired Option	New Advisor (Option Coordinator assigns)

<b>ROUTING</b>	<b>INITIALS</b>	<b>DATE</b>	<b>NOTES</b>
Initiating Option Coordinator	_____	_____	Attach file if Option change, otherwise identify new advisor. Send file (except 3) and form to:
ES Program Director	_____	_____	Choose new Option. Send file (except 3) and form to:
Receiving Option Coordinator	_____	_____	Identify and forward file to new advisor. Send form to:
ES Office, 106 Marshall	_____	_____	Record. Send form to Registrar for record change.
Registrar	_____	_____	Change records, file original.

# Appendix C: Internship

## Faculty of Environmental Studies

### About Internships

Although not required, an internship may be an excellent integrative experience during your senior year. While most individual courses concentrate in a disciplinary area, few environmental problems are resolved without synthesis of knowledge from different fields. The internship gives students the opportunity to work in a real-life situation in which knowledge and skills from previous courses are employed.

Finding an appropriate internship opening and preparation of an Environmental Studies Internship (EST 499) Agreement is the responsibility of the student. But your advisor and/or other members of the faculty is the place to start. They may be able to steer you to an organization or agency which has accepted interns with your professional focus in the past. Circulars announcing internships are posted on bulletin boards several places throughout the college. If you decide to engage an internship, start the process at least a month before registration.

The internship is just as much a part of your degree program as classroom instruction. It must be carefully planned in concert with your faculty sponsor and off-campus work supervisor to assure that it meets your educational objectives. Both will participate in evaluation of the experience. The Environmental Studies Internship Agreement is the formal agreement that serves as the basis for preparing, conducting and evaluation of your internship.

The Student is responsible for meeting the internship objectives and fulfilling the scope of work. The Faculty Sponsor is responsible for guiding, accrediting, and evaluating the internship. The Field Supervisor is responsible for providing appropriate internship training and overseeing the student's work activities. The Alternate Supervisor is a person in addition to the field supervisor who normally works with the student.

The final agreement must be accurate in detail, typed and signed by all parties prior to registration. It must be on file with all who approved it.

#### **Important Note about the Paperwork**

Completed internship agreements must be signed by everyone and on file with the Faculty of Environmental Studies BEFORE internships commence and BEFORE the student registers for the internship (EST 499).

## Instructions for Internship Agreement

You should type up your internship agreement making sure to include ALL of the following sections. Attach this agreement to a completed Internship Agreement Form (see below).

### 1. Your Name

### 2. Your Program of Study

**3. Internship Title:** Please use a descriptive yet concise title.

### 4. Internship Host Organization

### 5. Field Supervisor

### 5. Internship Start Date

**6. Internship End Date:** This date is meant to serve as a reminder to all those involved in the Agreement of how long the internship may reasonably be expected to last. If the internship can be completed by this date, good. If it takes more time than estimated, an extension of up to one semester may be given and credit will be awarded when it is completed.

**7. Duration of Internship:** How many weeks long will the internship be.

**8. Anticipated Work Schedule:** The field supervisor and student establish an anticipated regular work schedule. This should include the number of hours to be worked each week.

**9. Total Hours of Internship:** This is should be the number of hours per week multiplied by the number of weeks.

**10. Credit Hours:** The faculty sponsor and student estimate how much study and related activity will be required by this Agreement. The assignment of credit is made according to the general guideline that three hours of *academically* related work per week for a 15 week semester (45 hours) is the equivalent of 1 credit hour. Normally no more than three credit hours of internship should be included in the Environmental Studies Program.

*NOTE: The next five sections require using precise phrases in a short clear narrative. Give examples of materials to be studied, etc., but do not provide full reading lists or other exhaustive lists on the contract form. You, your faculty sponsor, and your field supervisor can work out more detailed descriptions. Remember that this Agreement is the basis for your internship and its evaluation. In addition, future advisors, admissions personnel, and the like will refer to this Agreement as they would to a course prospectus.*

**11. Scope of Work.** This is the most important part of your Agreement and must be completed only after careful consultation with both your faculty sponsor and field supervisor. Describe your **academic** plans for the internship as fully as you can. What

will you actually study or do? Where will you be working? With whom? Will you be doing research? If so, on what, for what purpose, and how will your findings be reported? Be as specific and clear as possible

**12. Internship Objectives.** What do you wish to learn? What skills or concepts do you wish to master? Does the internship lead toward more advanced studies or toward a professional career? These objectives should be stated in a way that they may be evaluated at the internship's conclusion. It might be helpful to keep in mind the overall objectives for any internship.

- i). Provide an opportunity for an exploratory professional experience in a 'working environment' and for application of skill learned in the university setting.
- ii). Provide understanding and appreciation of the social and institutional milieu within which environmental issues must be addressed.
- iii). Result in **academic** progression beyond the student's previous academic achievement.

**13. Necessary Skills and Previous Experience:** What particular skills are necessary to fulfill the scope of work? In what way have you prepared yourself to provide these skills? Have you studied this topic before? List course numbers where appropriate. Or have you developed the interest on your own? To what extent?

**14. Support Being Provided:** What kind of guidance will the faculty sponsor and field supervisor provide? How often will you meet? What will be their responsibilities in arranging for the use of resources and equipment? The student, sponsor, and supervisor should be satisfied with the exact terms of the Agreement before signing.

**15. Evaluation Procedures:** How will you and those working with you know that the internship has been satisfactorily completed? Specify any expected products that will result from the internship. Will you be submitting papers, video or audio tapes, photographs, sketches, a professional journal? If you are primarily trying to acquire a certain experience, how will it be embodied? On what grounds will this work be *academically* evaluated? By what methods will the internship be evaluated--oral or written examinations, or other demonstration of competence? Remember to refer back to your stated internship objectives.

All internships are expected to produce a minimum of a 10 page paper reflecting on the experience, what was learned, and its relevance to your program of study and future goals.



**The typed internship agreement must be attached to this form. Copies of the whole agreement must provided to all who have signed it.**

# Internship Evaluation Form

## Faculty of Environmental Studies

**Supervisor:**

**Student:**

Please rate the student intern on each of the characteristics listed below by circling the appropriate number: (1) Out-standing, (2) Above average, (3) Average, (4) Unsatisfactory or (5) Unable to judge.

- |     |  |   |   |   |   |   |
|-----|--|---|---|---|---|---|
| 1.  | Ability to learn   | 1 | 2 | 3 | 4 | 5 |
| 2.  | Interest   | 1 | 2 | 3 | 4 | 5 |
| 3.  | Preparation of tasks and assignments   | 1 | 2 | 3 | 4 | 5 |
| 4.  | Initiative: desire and willingness to take on new assignments.                           | 1 | 2 | 3 | 4 | 5 |
| 5.  | Quality of work performed.   | 1 | 2 | 3 | 4 | 5 |
| 6.  | Acceptance of work performed.  | 1 | 2 | 3 | 4 | 5 |
| 7.  | Reaction to criticism.   | 1 | 2 | 3 | 4 | 5 |
| 8.  | Cooperation: willingness to work effectively with others.                                | 1 | 2 | 3 | 4 | 5 |
| 9.  | Dependability: working through an assignment to completion.                              | 1 | 2 | 3 | 4 | 5 |
| 10. | Judgment.  | 1 | 2 | 3 | 4 | 5 |
| 11. | Communication skills.  | 1 | 2 | 3 | 4 | 5 |
| 12. | Potential for further development in the field.  | 1 | 2 | 3 | 4 | 5 |
| 13. | Creativity and/or resourcefulness.   | 1 | 2 | 3 | 4 | 5 |
| 14. | Degree to which you think the intern accomplished his/her objectives for the internship. | 1 | 2 | 3 | 4 | 5 |
| 15. | Overall evaluation of the intern's performance.  | 1 | 2 | 3 | 4 | 5 |



Did the intern fulfill the number of working hours specified for the internship period?

Where your expectations of the intern met, exceeded, or not met?

In what ways? (Please comment on the student's overall performance, including any strengths or weaknesses you feel are important.)

Did you find the College staff helpful?

In what ways? (Please comment or make suggestions regarding improvement of the program and/or its service to your organization.)

Would you be willing to host another such intern in the future?

Supervisor Signature:

Date

Organization:

**Please mail this completed internship evaluation to the Faculty sponsor listed on the Internship Agreement Form you signed prior to the Internship.**



## Appendix D: Senior Paper

A Senior Paper (EST 400) provides an opportunity for Environmental Studies seniors to complete their program requirement for a 3 credit hour Senior Synthesis. The Senior Paper will be on an environmental subject and completed according to general editorial guidelines identified here. This course is intended to provide an opportunity for synthesis of Environmental Studies education with an emphasis on learning within the student's option. As such, it depends on prior learning in other courses and is normally completed in the final semester of study.

The Senior Paper provides one kind of opportunity to complete the Synthesis requirement. Other possibilities are listed earlier in this handbook. You should consult with your academic advisor and the Option Coordinator regarding the advisability of undertaking the Senior Paper option.

### **Registration**

The availability of EST 400 Senior Paper in a given semester is made known through the published Time Schedule of Classes. Different sections of EST 400 corresponding to different faculty members are listed. Students seeking to write a Senior Paper must register for a section that corresponds to the supervising faculty member.

### **Editorial Matters**

The Senior Paper is expected to be about 20 pages in length, exclusive of bibliography and supporting materials, such as illustrations, tables, and the like. Papers must be word-processed, double-spaced, with margins of at least one inch on all sides. The use of subheads to identify different sections of the paper is encouraged.

Each paper must have a Title Page, with the title and author indicated at the center of the page, and in the lower right, the words "Senior Paper in (Option Name)", the name of the faculty supervisor of the Senior Paper, and the date of submission should appear. The Senior Paper does not require an Abstract.

Although some latitude in editorial appearance of the paper may be allowed, students should be guided by usage in the periodical, ENVIRONMENTAL MANAGEMENT: AN INTERNATIONAL JOURNAL FOR DECISION-MAKERS AND SCIENTISTS, which is available in Moon Library. This periodical provides examples of proper editorial usage, such as the use of headings and subheads, footnotes in the text, construction of tables, and bibliographic citations.

### **Option Advice**

Students should seek the advice of Option faculty on a suitable topic for the paper, and on a timetable for progress and final submission. The papers should be aimed at a high standard in their final appearance, and should reflect a high standard of inquiry and argumentation. The criteria for grading Senior Papers may vary somewhat according to the different emphases within Options, but in all cases

editorial soundness, clarity and accuracy in arguments, and thoroughness of research will bear significantly on the final assessment.

### ***Submission***

When the Senior Paper has been brought to final form, it should be submitted to the faculty supervisor for grading. An unmarked copy of the final submission should be submitted to the Environmental Studies office, 106 Marshall Hall, for its permanent collection.