

Undergraduate Handbook

**Bachelor of Science
in Environmental Studies**

Department of Environmental Studies

State University of New York
College of Environmental Science and Forestry (SUNY-ESF)
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2010 – 2011

Expanded online version:
<http://www.esf.edu/es/handbook.htm>

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TABLE OF CONTENTS

INTRODUCTION	1
THE ROLE OF ENVIRONMENTAL STUDIES IN ACHIEVING SUSTAINABILITY.....	1
<i>Approaching Environmental Affairs</i>	1
<i>Guiding Principles</i>	1
USING THIS HANDBOOK	2
ADDITIONAL ELECTRONIC RESOURCES	2
ENVIRONMENTAL STUDIES STUDENT ORGANIZATION	2
THE B.S. ENVIRONMENTAL STUDIES PROGRAM.....	3
PROGRAM OVERVIEW	3
LOWER DIVISION COURSES.....	4
<i>Core Courses</i>	5
<i>Representative Course Sequence</i>	6
UPPER DIVISION REQUIREMENTS.....	7
<i>Core Course Requirements</i>	7
<i>Option in Environmental Communication, Culture and Writing</i>	10
<i>Option in Environmental Policy, Planning and Law</i>	14
<i>Option in Biological Science Applications</i>	19
SENIOR CAPSTONE COURSE.....	22
SENIOR SYNTHESIS.....	22
PROGRAM ASSESSMENT	22
APPENDICES.....	23
APPENDIX A: OPTION DECLARATION FORM.....	24
APPENDIX B: INTERNSHIP.....	25
<i>About Internships</i>	25
<i>Instructions for Internship Agreement</i>	26
<i>Internship Agreement Form</i>	28
<i>Internship Evaluation Form</i>	29
APPENDIX C: SENIOR PAPER.....	31
<i>Guidelines</i>	31
APPENDIX D: ENVIRONMENTAL STUDIES FACULTY AND STAFF.....	33
APPENDIX E: OTHER CAMPUS RESOURCES	35
(Online Supplement)	
ADDITIONAL EDUCATIONAL OPPORTUNITIES	37
MINORS	37
<i>Minor in Urban Environmental Science</i>	37
<i>Minor in Renewable Energy</i>	37
<i>Minor in Environmental Writing and Rhetoric</i>	38
<i>Minors in Entrepreneurship, Management, and Marketing</i>	38
<i>Minor in Computer and Information Technology</i>	38
<i>Minor in Construction Management</i>	39
STUDY ABROAD	39
ESF HONORS PROGRAM	40
PRE-LAW ADVISING.....	40

SUCCESSFULLY NAVIGATING YOUR ESF YEARS.....	42
ACADEMIC ADVISING AND REGISTRATION	42
<i>The Role of Your Adviser</i>	42
<i>Plan Sheets</i>	42
<i>Progress of First Year Students</i>	42
<i>Registration</i>	43
<i>Taking Courses at Syracuse University</i>	43
<i>Courses outside ESF/SU</i>	43
<i>Petitions</i>	43
<i>Changing Options</i>	44
ADDITIONAL COLLEGE RESOURCES.....	45
<i>College Academic Assistance</i>	45
<i>Personal Issues and Specialized Assistance</i>	46
ACADEMIC PETITIONS	48
<i>What to Include in Your Petition</i>	48
<i>Late Drop Guidelines</i>	49

INTRODUCTION

Welcome to the Bachelor of Science (B.S.) in Environmental Studies program at the State University of New York College of Environmental Science and Forestry (SUNY-ESF, or ESF). The Department of Environmental Studies is pleased that you have chosen to further develop your understanding of critical environmental problems – and possible solutions – of our time. You are following an elite group of over 1500 students who have completed this challenging program since 1956. ESF alumni have had a significant impact throughout North America and elsewhere for more than half a century, through their work and activism in business, government, and non-profit organizations; as citizens; and as scholars in graduate institutions around the country. One of the oldest such programs in the country, ESF's Bachelor of Science in Environmental Studies program has been updated regularly to keep abreast of advances in environmental science and policy, educational practices and technologies. I look forward to meeting and getting to know you. All of us in the Department of Environmental Studies wish you fun and success at ESF. Welcome aboard!

*Richard Smardon,
Undergraduate Studies Coordinator*

The Role of Environmental Studies in Achieving Sustainability

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 social, cultural, and scientific knowledge. Addressing those problems also requires social, cultural, and scientific skills. The Bachelor of Science in Environmental Studies program at 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 knowledge to work with scientists. It also means learning about the social, cultural, and technological 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.

The Bachelor of Science in Environmental Studies program provides a broad-based liberal education, requiring proficiency across a breadth of scholarly and practical areas. Alumni of the B.S. Environmental Studies program have gone on to graduate school in many different disciplines as well as to law and medical school. They have gone on also to work in non-governmental organizations (NGOs), education, government, and the private sector, pursuing careers in such areas as policy, advocacy, conservation, consulting, administration, law, and education, to name a few.

Guiding Principles

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

- *Holistic interdisciplinary education*: we seek to offer an education that demonstrates the interconnectedness and integration of the many disciplines and fields that intersect with environmental concerns.

- *Critical skills*: we encourage students to be active learners and prepare them with invaluable life-long skills, including research, analysis, writing, and critical thinking.
- *Diversity and complexity*: we encourage students to recognize and value the diversity and complexity of ecological and social systems, and the perspectives that inform social and institutional understanding of environmental affairs.
- *Ecological literacy*: we seek to develop students' awareness, knowledge, and appreciation of the intrinsic values of ecological processes and communities.
- *Justice and equity*: we encourage students to value social and ecological justice and equity in all contexts.
- *Thoughtful professionalism*: we seek to prepare students to be reflective and sensitive, yet also effective and professional, in whatever endeavors they choose to pursue.

Using This Handbook

This Handbook is designed for use in both printed and electronic form, with additional information available online via 'hot' Web links. To access the extended version, see: <<http://www.esf.edu/es/handbook.htm>>. New students should familiarize themselves with the Handbook's general contents – but its primary use will be for use in finding guidance during the degree program. Please let us know how we can update and improve this on-going project.

Additional Electronic Resources

In addition to this Handbook, please consult the following websites:

- B.S. Environmental Studies program: <http://www.esf.edu/es/undergraduate/bs.htm>
- Department of Environmental Studies: <http://www.esf.edu/es>

Timely e-mail announcements are made via the ES-Majors e-mail listserv.

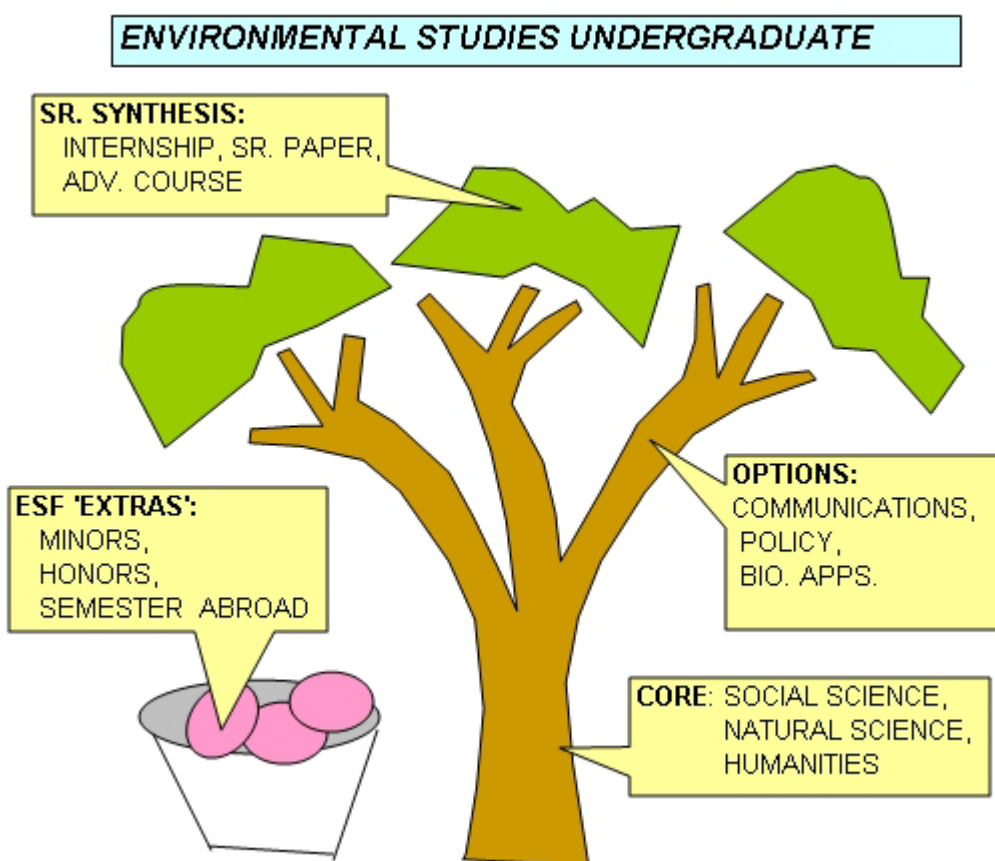
Environmental Studies Student Organization

The Environmental Studies Student Organization (ESSO) helps build a common identity for Environmental Studies students by providing a medium for student interaction and a means to represent their interests. The basic goals of the ESSO are to engage the ESF student body and to provide a unified voice for Environmental Studies students. The organization promotes participation and student activity within the major and educates incoming students and fellow ESF students about Environmental Studies. For further information, see: <<http://www.esf.edu/es/esso.htm>>.

The B.S. Environmental Studies Program

Program Overview

The B.S. Environmental Studies program at ESF is designed to provide a solid framework for environmental careers as well as individual flexibility, allowing students to build upon unique strengths and interests. The program's structure is depicted in the accompanying "tree" diagram.



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

In the final two years of the program, students choose one of three specializations (also known as "options"):

- ***Environmental Communication, Culture and Writing:*** This option focuses on the ways that communication influences environmental affairs, including rhetoric and discourse; news media; public participation; advocacy campaigns; collaboration; conflict resolution; risk communication; and representations of external nature in literature and popular culture. 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. This option provides a broad-based foundation in environmental communication theory and application. In addition to gaining a critical perspective, students obtain a range of skills within the option, including oral presentation, nature and science writing, environmental

journalism, multimedia, and collaboration. Students may also choose to emphasize environmental education, environmental ethics and values, or other cultural perspectives.

- ***Environmental Policy, Planning & Law***: This option is concerned with how environmental policies and plans are created, implemented and contested. It emphasizes legislative, regulatory, and collaborative approaches to solving or managing environmental problems. Policies are guidelines for action and plans are more specific guidance. They can be in the form of laws, regulations, treaties, agreements, prescribed practices, professional standards, corporate strategies, operating procedures and personal codes of conduct. The study of environmental policy includes how policies come to be, how they are implemented, enforced, evaluated, and affirmed, rejected or revised. Environmental planning examines complex processes from plan formulation to implementation. Policy and planning approaches increasingly involve public-private collaborations of diverse actors and stakeholders that address the unique environmental, legal, social and cultural components of the resource systems to be managed.
- ***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. The Biological Science Applications option is supported by faculty from the Department of Environmental and Forest Biology as well as those in the Department of Environmental Studies.

Each Environmental Studies option area has the flexibility to allow students to pursue more specific interests. Also, several undergraduate minors, including the Minor in Urban Environmental Science, and the Renewable Energy Minor, are available for ES majors. ESF'S new Minor in Environmental Writing and Rhetoric is available to Environmental Policy, Planning and Law, and Biological Science Applications option students in the major.

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

To help prepare for graduate school and/or professional employment opportunities, all students complete a Synthesis Project in their senior year, consisting of either a Professional Internship, Senior Research Paper, or advanced Synthesis Course. During their final (spring) semester, all ES majors participate in EST 494, Senior Seminar in Environmental Studies. The course provides seniors a capstone experience, pulling together their accomplishments over four years and helping them to prepare for life after completion of their degree.

Lower Division Courses

The first two years of the B.S. Environmental Studies program consists of two broad categories of courses. **General education** courses provide students with knowledge and skills that are useful and important for all educated persons regardless of their profession. Such courses also help prepare students for advanced courses leading to a specific profession. **Professional courses** provide students with direct preparation for specialization in environmental studies and career opportunities. Transfer students concerned about credit for courses taken at their previous institution(s) should talk to their adviser promptly.

Ms. Mary O'Halloran (335 Marshall Hall, tel. 470-6549, e-mail <mary.ohalloran@esf.edu>) provides professional advising for lower division students in the B.S. Environmental Studies program.

Core Courses

Following is a list of lower division courses all Environmental Studies majors must complete:

Course	Credits	
EST 132 Introduction to Environmental Studies	3	<i>Required for all environmental studies majors, including transfer students</i>
APM 104 College Algebra & Pre-Calculus or APM 105 Survey of Calculus & its Applications ¹	3-4	<i>Students who pursue the biological science applications option need to complete APM 105 Survey of Calculus and Its Applications</i>
APM 255 Introduction to Computing and the Internet	3	
CLL 190 Writing and the Environment ²	3	
CLL 290 Writing, Humanities & the Environment	3	
EFB 120 Global Environment	3	
EFB 101/102 General Biology I & Laboratory	4	
EFB 103/104 General Biology II or Geology ³	3-4	<i>Students who pursue the biological science applications option need to complete EFB 103 and EFB 104 General Biology II and General Biology II Laboratory</i>
ESF 200 Information Literacy	1	
EST 200 Cultural Ecology	3	
EST 201 American History: Reconstruction to Present	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 – Western Civilization	3	
General Education Course – The Arts	3	
Electives (three)	9	

¹ Students who pursue the Biological Science Applications option need to complete APM 105, Survey of Calculus and Its Applications.

² CLL 190, Writing and the Environment, is highly recommended for *all* first-year B.S. Environmental Studies students, including those who have successfully completed an advanced placement writing course.

³ 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.

Representative Course Sequence

This is a typical sequence for the first two years in the B.S. Environmental Studies program. In consultation with your adviser, you may need to adjust this sequence to suit your specific situation.

First Year Students - Fall		Credits
EST 132 ⁴	Introduction to Environmental Studies	3
CLL 190	Writing and the Environment ⁵	3
EST 221	Introduction to American Government	3
EFB 101/102	General Biology I & Laboratory	4
APM 104 or APM 105	College Algebra & Pre-Calculus or Survey of Calculus and Its Applications	3-4
		16-17
First Year Students - Spring		
ESF 200	Information Literacy	1
EST 200	Cultural Ecology	3
EFB 120	The Global Environment & the Evolution of Human Environment	3
EST 201	American History: Reconstruction to Present	3
APM 255	Introduction to Computing and the Internet	3
ELECTIVE	Elective	3
		16
Sophomores – Fall		
EST 245	Nature and Popular Culture	3
FCH 150/151	General Chemistry I – Lecture & Lab	4
GEN ED	Western Civilization	3
ELECTIVE	Elective	3
ELECTIVE	Elective	3
		16
Sophomores – Spring		
CLL 290	Writing, Humanities, and the Environment	3
FOR 207	Introduction to Economics	3
EFB 103/104 or EST 231	General Biology II or Environmental Geology	3-4
GEN ED	The Arts	3
		12-13

⁴ All new ES students, including transfer students, must take EST 132, Introduction to Environmental Studies.

⁵ CLL 190, Writing and the Environment, is highly recommended for *all* first-year B.S. Environmental Studies students, including those who have successfully completed an advanced placement writing course.

Upper Division Requirements

Environmental Studies students may select an Option in the major at any time. This is typically done in the spring semester of the sophomore year, however: ***an Option must be selected prior to registration 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 of the Environmental Studies program are designed to meet three objectives:

1. Extend and deepen foundations in the Social Sciences, Humanities, and Natural Sciences;
2. Provide a focus for graduate school and/or professional employment; and
3. Allow students to customize a senior synthesis experience.

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

Core Course Requirements

The following is a list of Upper Division core requirements for all Environmental Studies majors, regardless of option area:

Course		Credits
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
EST Social Sciences	Take <i>one</i> of the following: EST 353 Environmental Psychology EST 366 Attributes, Values and the Environment EST 388 Psychological Principles of Risk Communication EST 390 Social Processes and the Environment EST 426 Community Planning and Sustainability	3
UD COMP or UD NS	Upper Division Natural Science or Upper Division Computing Course ⁶	3-4
Electives	Electives (three)	9
EST 494	Senior Seminar in Environmental Studies	1
Synthesis	Senior Synthesis ⁷	3
		35

⁶ See below.

⁷ See below.

Natural Science or Computing Courses

This requirement is intended to broaden students' knowledge of environmental science. Students are required to take at least one upper division (300 or 400 level) course in natural science or computing. The following is a list of courses students may select from. Other upper division natural science or computing courses may be selected in consultation with your adviser. Be sure you meet the prerequisites for a course before signing up for it.

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

Computing Courses

ESF 300 Introduction to Geospatial Information Technologies
 LSA 300 Computer Graphics I
 APM 360 Introduction to Computer Programming

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.

Option in Environmental Communication, Culture and Writing

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The Environmental Communication, Culture and Writing 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 and Writing 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 students 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 students have individual interests and plans, so the option is flexible enough so students can choose option courses and option methods courses that make the most sense. 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, environmental journalism, and environmental education/ interpretation.

The Environmental Communication, Culture and Writing 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, students will develop the confidence, connections, skills, and insights to make significant long-term contributions.

Option Requirements

<i>Course #</i>	<i>Course Name</i>	<i>ESF or SU</i>	<i>Credits</i>
EST 393	Environmental Discourse and Communication	ESF	3
CLL 300	Survey of Environmental Writing	ESF	3
CMN 420	Advanced Public Presentation Skills	ESF	3
Two of the following four "Option Flex" courses:			
CLL 495	Environmental Journalism	ESF	6
CLL 490	Contemporary Literature of Nature	ESF	
CMN 493	Environmental Communication Workshop	ESF	
CRS 338	Communication in Organizations	SU	
Four Communication and Writing Option Courses			
	Communication and Writing Option Course		3
	Communication and Writing Option Course		3
	Communication and Writing Option Course		3
	Communication and Writing Option Course		3
			27

CLL300 and EST 393 should be taken early in the program cycle, typically in the fall and spring of junior year, respectively. Other courses may be taken in any sequence.

Communication and Writing Option Courses

A Communication and Writing Option Course is one that allows students to expand or deepen their understanding of those aspects of environmental communication, culture and writing that most interest them. It is in the selection of these courses that students are able to more deeply explore their individual interests. The following is a list of courses students **may** select from. **Other upper division courses may be selected in consultation with your adviser and students are urged to explore what else is available that meets their learning objectives.** Be very careful to make sure you meet the prerequisites for a course before signing up for it.

Environmental Studies Courses:

CLL 311 Urban Environmental Literature
 CLL 390 Introduction to Literature of Nature
 CLL 490 Contemporary Literature of Nature
 CLL 494 Creative Non-Fiction in the Sciences
 CLL 495 Environmental Journalism
 CMN 220 Public Presentation Skills for Environmental Professionals
 CMN 493 Environmental Communication Workshop

Other ESF Courses:

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
 FOR 372 Fundamentals of Outdoor Recreation
 LSA 300 Computer Graphics I
 LSA 301 Computer Graphics II

SU Courses:

CRS 225 Public Advocacy
 CRS 231 Interpersonal Communication
 CRS 235 Small Group Communication
 CRS 338 Communication in Organizations
 CRS 355 Political Communication
 CRS 426 Persuasion
 IST 321 Information Management: Concepts and Issues
 IST 337 Information Retrieval Skills
 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 advisers in order to support an individual's 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 Advanced Research on Conflict and Collaboration (PARCC) also offers courses in conflict resolution methods and skills.

Typical Course Sequence

This is a possible sequence for the Environmental Communication, Culture and Writing option. In consultation with your adviser, you may need to adjust this sequence to suit your specific situation.

Junior - Fall	Course Name	ESF or SU	Credits
EFB 320	General Ecology	ESF	4
CLL 410	Writing for Environmental Professionals	ESF	3
EST 361	History of the American Env. Movement	ESF	3
CLL 300	Survey of Environmental Writing	ESF	3
	Communication and Writing Option Course	ESF/SU	3
			16
Junior - Spring			
EST 321	Government and the Environment	ESF	3
APM 391	Introduction to Probability and Statistics	ESF	3
	EST Social Science	ESF	3
EST 393	Environmental Discourse and Communication	ESF	3
	Elective	ESF/SU	3
			15
Senior - Fall			
	Upper Division Computing or Natural Science Course	ESF/SU	3-4
See list of 4	"Option Flex" Course	ESF/SU	3
	Communication and Writing Option Course	ESF/SU	3
	Communication and Writing Option Course	ESF/SU	3

	Elective	ESF/SU	3
			15-16
Senior - Spring			
	Senior Synthesis (3)	ESF	3
See List of 4	"Option Flex" Course	ESF/SU	3
EST 494	Senior Seminar in Environmental Studies	ESF	1
CMN 420	Advanced Public Presentation Skills	ESF	3
	Communication and Writing Option Course	ESF/SU	3
	Elective	ESF/SU	3
			16

Option in Environmental Policy, Planning and Law

Coordinator: Prof. Richard Smardon

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This option is concerned with how environmental policies and plans are created, implemented and contested. It emphasizes legislative, regulatory, and collaborative approaches to solving or managing environmental problems. Policies are guidelines for action. They can be in the form of laws, regulations, treaties, agreements, prescribed practices, professional standards, corporate strategies, operating procedures and personal codes of conduct. The study of environmental policy includes how policies come to be, how they are implemented, enforced, evaluated, and affirmed, rejected or revised. Environmental planning includes plan formulation to implementation. As environmental problems grow more complex and urgent, the need grows for professionals in government, advocacy, business, education and the law to have a sound understanding of the policy process in its many dimensions and a clear grasp of the interdependencies between ecological and social systems. Policy and planning approaches increasingly involve public-private collaborations of diverse actors and stakeholders that address the unique environmental, legal, social and cultural components of the resource systems to be managed.

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

- How policies and plans come into being (proposed, advocated, communicated, adopted, implemented, evaluated, reformed);
- Types of policies and plans (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); and
- 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).

Environmental Policy, Planning and Law 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.

Option Requirements

Course	Course Name	Credits
EST 550	Environmental Impact Analysis AND	3
	Environmental Law Course	3
	Environmental Planning Course	3
	Option Methods Courses (2)	6
	Option Electives (4)	12
		27

Option 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 option adviser may substitute, without petition, other courses that he or she determines meet the analysis/facilitation tool intent. Students are strongly encouraged to take at least one Geographic Information Systems course.

ESF Courses:

EFB 417 Perspectives of Interpretive Design
 ENS 519 Spatial Ecology
 ERE 310 Environmental Measurements and Spatial Information
 ESF 300 Introduction to Geospatial Information Technologies
 EST 427 Environmental and Energy Auditing
 FEG 365 Principles of Remote Sensing
 FEG 430 Engineering Decision Analysis
 FOR 333 Managerial Economics for Environmental Professionals
 FOR 507 Environmental Economics
 LSA 311 Natural Processes in Design and Planning
 LSA 451 Comprehensive Land Planning

SU Courses:

ANT 372 Intercultural Communication and Conflict
 ANT 484 Social Movement Research Methods
 GEO 361 Global Economic Geography
 GEO 370 Political Geography
 GEO 386 Introduction to Quantitative Methods in Geography

Option Electives

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, Planning and Law option elective courses. Students are strongly encouraged to work with their adviser to develop a coherent set of courses that provide the breadth and depth suitable as a foundation for graduate study and/or entry-level professional positions.

Environmental Studies Courses:

CMN 493 Environmental Communication Workshop
 EST 220 Urban Ecology
 EST 393 Environmental Discourse and Communication
 EST 426 Community Planning and Sustainability

Other ESF Courses:

EFB 202 Ecological Monitoring and Biodiversity Assessment
 EFB 400 Toxic Health Hazards

EFB 405 Literature of Natural History
 EFB 522 Ecology, Resources and Development
 FOR 312 Sociology of Natural Resources
 FOR 360 Soil and Water Conservation Policy
 FOR 372 Fundamentals of Outdoor Recreation
 FOR 442 Watershed Ecology and Management
 FOR 465 Natural Resources Policy
 FOR 473 Planning and Management of Outdoor Recreation Areas
 FOR 478 Wilderness and Wildlands Management
 LSA 311 Natural Processes in Design and Planning
 LSA 451 Comprehensive Land Planning

SU Courses:

ANT/GEO 405 Conservation and Management Protected Areas
 ANT 407 Environment and Policy in the Tropics
 ANT 414 Urban Anthropology
 ANT 475 Culture and Disputing
 ECN 203 Economic Ideas and Issues
 ECN 365 The World Economy
 GEO 303 Food and Famine
 GEO 322 Globalization and Environment In Latin America
 GEO 353 Environmental Justice
 GEO 356 Environmental Ideas and Policy
 GEO 383 Geographic Information Systems
 GEO 388 Geographic Information and Society
 GEO 558 Development and Sustainability
 GEO 573 The Geography of Capital
 PAF 315 Methods of Public Policy Analysis and Presentation
 PAF 416 Community Problem Solving
 PAF 451 Environmental Policy
 PSC 305 The Legislative Process and the U.S. Congress
 PSC 308 The Politics of U.S. Public Policy
 PSC 318 Technology, Politics, and Environment
 PSC 328 American Social Movements
 PSC 355 International Political Economy
 PSC 365 International Political Economy of the Third World
 SOC 363 Urban Sociology
 SOC 410 Seminar on Social Change
 SOC 421 Population Issues
 SOC 466 Organization and Society
 SOC 487 Women and Economic Development
 WSP/NHM 555 Food, Culture, and Environment

Environmental 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:

ESF Courses:

EST 460 Land Use Law
 FOR 487 Environmental Law and Policy
 FOR 489 Natural Resources Law and Policy

SU Courses:

LPP 255 Introduction to Law
 LPP 458 Environmental Law ⁸
 PSC 304 The Judicial Process
 PSC 324 Constitutional Law I
 PSC 325 Constitutional Law II
 PSC 352 International Law

Environmental Planning Courses*ESF Courses:*

EST 426 Community Planning and Sustainability
 EFB 417 Perspectives of Interpretive Design
 FOR 372 Fundamentals of Outdoor Recreation
 FOR 442 Watershed Ecology and Management
 FOR 473 Planning and Management of Outdoor Recreation Areas
 LSA 311 Natural Processes in Design & Planning
 LSA 451 Comprehensive Land Planning

SU Courses:

ANT/GEO 405 Conservation and Mgmt of Protected Areas
 ANT 414 Urban Anthropology
 PAF 416 Community Problem Solving

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. See below for more information about the senior synthesis. The key to successful completion of this important program component is for the student to work closely with their adviser in the junior year to investigate the many potential choices that are available. Students considering an advanced integrative course should consider CMN 493 Environmental Communication Workshop, or LSA 453 Community Land Planning Workshop.

⁸ Since this course is the same course as FOR 487 Environmental Law and Policy, students may only take LPP 458 if they are unable to take FOR 487.

Typical Course Sequence

This is a **possible** sequence for the Environmental Policy, Planning and Law option. In consultation with your adviser, you will need to adjust this sequence to suit your specific situation.

Junior - Fall		Credits
EFB 320	General Ecology	4
CLL 410	Writing for Environmental Professionals	3
EST 361	History of the American Environmental Movement	3
	Option Elective	3
	Option Elective	3
		16
Junior - Spring		
APM 391	Introduction to Probability and Statistics	3
EST 321	Government and the Environment	3
	Env. Studies Social Science	3
	Option Elective	3
	Elective	3
		15
Senior - Fall		
	Upper Division Computing or Natural Science Course	3-4
	Option Methods Course (GIS recommended)	3
	Environmental Planning Course	3
	Environmental Law Course	3
	Elective	3
		15-16
Senior - Spring		
EST 494	Senior Seminar in Environmental Studies	1
EST 550	Environmental Impact Analysis	3
	Option Elective	3
	Option Methods Course	3
	Elective	3
	Senior Synthesis (3)	3
		16

Option in Biological Science Applications

Coordinator: Prof. Charles Hall

354 Illick Hall
470-6870
chall@syr.edu

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:

- Provide a sound background in the biological sciences;
- Foster a broad systems view of our society, biological resources and ecosystems (or some other level of biology such as an endangered population or microbial process or biotechnology) affected by human activity;
- Develop a capacity to make independent judgments of environmental issues based on scientific principles and socio-political understanding; and
- 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. Students in this option may wish to consider also taking ESF's new Renewable Energy Minor; both together will prepare students well for a job or graduate studies in the energy field.

Option Requirements⁹

All courses in the Biological Science Applications option are offered at ESF

MICROBES	Microbes Course	3
PLANTS	Plants Course	3
ANIMALS	Animals Course	3
GIS	Geographic Information Systems Course	3
POLICY or LAW	Policy Course or Law Course	3
FOCUS	Biology Focus Area Courses (4)	12
TOTAL CREDITS		27

⁹ Please note the specific lower division required courses for students in the Biological Science Applications option. See the lower division course requirements on page 4-5.

Breadth Requirements

Take one course from each category:

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

Focus Area Requirements

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

Biological Interpretation	Biological Management	Environmental Quality	Biological Systems
EFB 417 Perspectives on Interpretive Design EFB 521 Prin. Interpret. Programming	EFB 413 Conservation Biol. EFB 487 Fisheries Biology EFB 490 Wildlife Conservation EFB 491 Wildlife Practicum EFB 493 Wildlife Habitats & Pop.	EST 550 Env. Impact Analysis FOR 334 Silviculture EFB 351 Forest Insects And Diseases EFB 510 Health & Env 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 & Development. 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 580 Wetland Wildlife

Geographic Information Systems Course

ESF 300 Intro. to Geospatial Information Technologies

Policy or Law Courses

Take one:

EST 460 Land Use Law
EST 550 Environmental Impact Analysis
FOR 364 Soil and Water Conservation Policy
FOR 465 Natural Resources and Environmental Policy
FOR 487 Environmental Law and Policy

Senior Synthesis

During the senior year, completion of an integrative summary experience in the option is required. Biological Science Applications option students pursuing the advanced coursework option should consider the following courses:

EFB 510 Health and Our Chemical Environment
 EFB 518 Systems Ecology
 EFB 522 Biophysical Economics

For more information about Senior Synthesis requirements, see below.

Typical Course Sequence

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

Junior - Fall		Credits
EFB 320	General Ecology	4
EST 361	History of the American Env. Movement	3
	Environmental Studies Social Science	3
	Microbes Course	3
	Animals Course	3
		16
Junior - Spring		
CLL 410	Writing for Environmental Professionals	3
EST 321	Government and the Environment	3
APM 391	Introduction to Probability and Statistics	3
	Plants Course	3
	Elective	3
		15
Senior - Fall		
	Upper Division Natural Science or Computing Course	4
	GIS Course	3
	Biology Focus Area Course	3
	Biology Focus Area Course	3
	Elective	3
		16
Senior - Spring		
	Senior Synthesis	3
EST 494	Senior Seminar in Environmental Studies	1
	Policy Course or Law Course	3
	Biology Focus Area Course	3
	Biology Focus Area Course	3
	Elective	3
		16

Senior Capstone Course

EST 494, Senior Seminar in Environmental Studies, provides Environmental Studies majors a capstone experience in their final (spring) semester, pulling together their accomplishments over four years, and helping them to prepare for life after completion of their degree. It is a required course for all Environmental Studies students.

Senior Synthesis

All Environmental Studies seniors must 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 adviser. 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 three synthesis alternatives:

1. *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 adviser, a written product and a supervisor evaluation as described in Appendix B. Students register for EST 499.
2. *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 C. Students register for EST 400. Students in the College Honors Program may utilize their Honors Research paper to satisfy the senior synthesis requirement. Students and advisers should refer to the Honors Program materials later in this handbook for details. Some seniors have published a senior paper (sometimes with a professor) and this is suggested for the very ambitious, skilled and dedicated.
3. *Advanced Coursework*: With adviser approval, the student may select an applied project or introductory graduate course that synthesizes content from two or more option courses. The selected course should include a “product”, such as a term paper or team project report.

Program Assessment

The Department of Environmental Studies is committed to ongoing assessment and improvement of all of its academic programs. Accordingly, data will be periodically collected at the beginning, end, and mid-points of this and other programs, with the purpose of contributing to the evaluation of program effectiveness.

Appendices

Appendix A: Option Declaration Form

Department of Environmental Studies

In order to pre-register for the first semester of the junior year, a student must first file this form with the departmental office. You will be assigned a new faculty adviser 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 (check one)

Environmental Communication, Culture and Writing
(Prof. Mark Meisner, Coordinator) _____

Environmental Policy, Planning and Law
(Prof. Richard Smardon, Coordinator) _____

Biological Science Applications
(Prof. Charles Hall, Coordinator) _____

Appointed Adviser Name (print) _____
(appointed by option coordinator)

Please collect signatures in
the following order:

Name

Signature

Date

Lower Division Adviser _____

Option Coordinator _____

Appointed Adviser _____

Undergraduate Studies
Coordinator _____

Undergraduate Studies Coordinator submits form to departmental office, 106 Marshall Hall

Appendix B: Internship

Department 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 adviser 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.

OrangeLink is a web-based database system SU and ESF students can use to connect to internships, entry level job positions nationwide, summer jobs, local positions, SU alumni, employer presentations and on-campus interview information. To obtain your OrangeLink account, please contact the Center for Career Services Recruiting Help Desk, 235 Schine Student Center or call at 315-443-9093. An OrangeLink account will be created for you using your email address as the username. The password will be given to you at the time of 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

A signed, completed internship agreements must be on file with the Department of Environmental Studies *prior to* the commencement of the internship and *before* course registration for credit (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 B.S. 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 advisers, 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:

- Provide an opportunity for an exploratory professional experience in a 'working environment' and for application of skill learned in the university setting;

- Provide understanding and appreciation of the social and institutional milieu within which environmental issues must be addressed; and
- 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.

Internship Agreement Form
Department of Environmental Studies

This form must be on file with all approval signatures prior to registration for credit.

Student Name:

Internship Title:

Approvals: Signatures may be obtained in any order, except that the Environmental Studies Undergraduate Director is the last to sign.

Student	Date	Faculty Sponsor	Date
Field Supervisor	Date	Undergrad. Studies Coord.	Date

Addresses: This information pertains to the period of the internship. Its purpose is to facilitate contact between the concerned parties to fulfill their respective responsibilities.

Student:

Faculty Sponsor:

Name

Name

Street

Street

City State Zip

City State Zip

Phone

Phone

Field Supervisor:

Alternate Supervisor:

Name

Name

Street

Street

City State Zip

City State Zip

Phone

Phone

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

Internship Evaluation Form
Department of Environmental Studies

Supervisor:

Student:

Please rate the student intern on each of the characteristics listed below by circling the appropriate number: (1) Outstanding, (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 C: Senior Paper

Department of Environmental Studies

A Senior Paper or Project provides an opportunity for Environmental Studies seniors to complete their program requirement for a 3 credit hour Senior Synthesis.¹⁰ The Senior Paper/ Project will be on an environmental subject and completed according to the guidelines below.

This experience is intended to provide an opportunity for synthesis of the student's Environmental Studies education with an emphasis on learning within the student's option area. As such, it depends on prior learning in other courses and is normally completed in the final semester of study.

Guidelines

A. **Work required:** To complete the requirements for this course, students must undertake the effort and produce a quantity of work that is required in a typical advanced 3 credit hour Environmental Studies course. The work must also be original and must not have been developed as part of another earlier course.

B. **Paper/ Project Options:** There are three ways to pursue the senior paper:

1. **A literature-based paper.** In this case, the student researches the literature on a specific topic or question related to their option area and produces a literature review style paper that makes an argument about what is known on the topic.
2. **A primary research paper.** In this case, the student conducts a piece of original research on a specific topic related to their option area and produces a journal article style paper. Care must be exercised if working with human subjects as the research may be subject to review by the IRB.
3. **A project.** In this case, the student undertakes a creative or community-based project related to their option area. Examples of creative projects include videos, art works, creative writing, etc. Examples of community-based projects include habitat conservation initiatives, public education projects, policy outreach, etc. There are many possibilities here, but care must be exercised in the choice of project and its ramifications for the student and any community stakeholders. In addition to undertaking the project, the student must provide a brief written report on the project that explains how the project demonstrates synthesis in ES.

C. **First steps:** Students should begin by discussing possible paper topics or projects with their adviser and/or with other faculty members familiar with the subject area. Through these conversations, the student, the adviser, and other relevant faculty members should agree on a topic, the details of the paper/project, and a timetable for completion. Note: the adviser is not required to supervise the senior paper/project. Any faculty member can do so, as long as they agree to.

D. **Memorandum of agreement:** Based on conversations with the adviser and/or another relevant faculty member who has agreed to supervise the paper/project, the student should draft a memorandum of agreement about the paper/project. This should include the following:

1. Title of the paper/project
2. Name and contact information for the student and the supervisor
3. Description of the paper/project

¹⁰ Note: The Senior Paper/ Project provides students one way to complete the program's Synthesis requirement. Other possibilities are listed earlier in this handbook and include internships, graduate courses and the honors program. You should discuss the advisability of undertaking the Senior Paper/ Project option with your academic adviser.

4. Explanation of how the paper/ project will represent a synthesis of the what has been learned in the program
5. Learning objectives for the paper/ project
6. Timeline for the phases of the research/ production and monitoring of progress
7. Expected deliverables that will be produced and used as the basis for grading the paper/project

The supervising faculty member and the student will then work on a final version of the memo of agreement which should be signed well in advance of the registration deadline for the semester in which the student will enroll in EST 400. If the supervisor is not the student's adviser, then the adviser should be provided with a copy of the memo.

E. Registration: The student should register for the section of EST 400 corresponding to the faculty member who is supervising the paper/ project. This should be done only after the student and the supervising faculty member have both signed the memo of agreement

F. Monitoring of Progress: The student and the supervising faculty member must be in regular contact during the semester to ensure timely progress and monitoring. This ensures the work gets done and good choices are made along the way.

F. Final Output and Submission: The final output depends on the type of paper/ project. In the case of a paper (either type), the output should be the paper. In the case of a project, the output will depend on how it can best be documented, but must always include a brief written report on the project that explains how the project demonstrates synthesis in ES. All materials should be completed no later than the last day of classes.

When the Senior Paper/ Project has been brought to final form and the supervising faculty member is satisfied that it is complete, it will be graded. An unmarked copy of the final submission should be submitted to the Environmental Studies office, 107 Marshall Hall, for its permanent collection.

All work should be meet a high standard in execution, formatting, documentation, and appearance. Written works (paper or report) 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/ Project in (Option Name)", the name of the faculty supervisor of the Senior Paper/ Project, and the date of submission.

Appendix D: Environmental Studies Faculty and Staff

Staff:

JOYCE BUZEK

106 Marshall Hall, 470-6636
Departmental Secretary

MARY O'HALLORAN

335 Marshall Hall, 470-6549
Lower Division Student Advising

Core Faculty:

JANINE DeBAISE (Ecofeminism, Creative Writing)

105 Moon Library, 470-4776

MYRNA HALL (GIS, Ecological Planning, Carbon Sequestration)

112 Marshall Hall, 470-4741

DAWNELLE JAGER (Communication, Creative Writing)

105 Moon Library, 470-6756

PATRICK LAWLER (Environmental Communication)

B5 Marshall Hall, 470-6914

VALERIE LUZADIS (Forest Policy and Economics)

107 Marshall Hall, 470-6636

JACK MANNO (Sustainable Development, Ecological Economics, Great Lakes Policy)

211A Marshall Hall, 470-6720

MARK MEISNER (Environmental Discourse and Communication)

108B Marshall Hall, 470-6908

SHARON MORAN (Environmental Policy, Government and Water Resources)

113 Marshall Hall, 470-6990

BRENDA NORDENSTAM (Risk Perception and Analysis)

108A Marshall Hall, 470-6573

THERESA SELFA (Environmental, Agricultural, and Development Sociology)

RTBA, tel. TBA

SUSAN SENECAH (Environmental Communication and Policy)

RTBA, 470-6570

RICHARD SMARDON (Wetland Assessment, Public Participation, Decision Making)
211C Marshall Hall, 470-6576

DAVID SONNENFELD (Environmental Sociology, Sustainable Development, East/ Southeast Asia)
211B Marshall Hall, 470-4931

BENETTE WHITMORE (Communication, Composition-Technical Writing)
105 Moon Library, 470-6722

Participating Faculty:

JAMES GIBBS (Conservation Biology and Wildlife Management, Biological Monitoring)
Dept. of Environmental and Forest Biology, 405 Illick Hall, 470-6764

CHARLES HALL (Systems Ecology, Material and Energy Flows, Latin America)
Dept. of Environmental and Forest Biology, 354 Illick Hall, 470-6870

KARIN LIMBERG (Fisheries Science and Management, Watershed Ecology)
Dept. of Environmental and Forest Biology, 249 Illick Hall, 470-6741

TSUTOMU NAKATSUGAWA (Health and the Chemical Environment, Toxicology)
Dept. of Environmental and Forest Biology, 110 Illick Hall, 470-6942

WILLIAM SHIELDS (Animal Behavior, Evolution and Genetics, Queensland, Australia)
Dept. of Environmental and Forest Biology, 116 Illick Hall, 470-6771

Visiting Faculty:

MARY ANN KEENAN (Cultural Ecology)
114 Marshall Hall, 470-6572

THOMAS McGRATH (Environmental Communication)
105 Moon Library, 470-6725

Appendix E: Other Campus Resources

The following is a list of websites that may be useful to you. They are not exclusive to the Environmental Studies department, but contain information for the whole SUNY ESF campus.

- College Calendar: <http://www.esf.edu/registrar/calendar.htm>
- Course Descriptions: <http://www.esf.edu/catalog/coursesintro.htm>
- Registrar's FAQs: <http://www.esf.edu/registrar/faq.htm>
- Counseling Services: <http://www.esf.edu/students/career/counseling.htm>
- Financial Aid: <http://www.esf.edu/financialaid/>
- Multicultural Affairs: <http://www.esf.edu/students/multicultural/>
- Admissions Office's FAQs: <http://www.esf.edu/admissions/videofaq/>

Online Supplement

Additional Educational Opportunities

Minors

Minor in Urban Environmental Science

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.

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

Contact:

Myrna Hall, Dept. of Environmental Studies, 112 Marshall Hall, 470-4741, mhhall@esf.edu

Minor in Renewable Energy

The development of sustainable sources of energy has become a critical national and global issue due to concerns about the quality and quantity of the different potential resources, energy security, and potential impacts of each on the environment and human health. It is essential that our society and energy professionals gain an understanding of production and conversion of different forms of energy, their current and future supplies, the markets and policy mechanisms that regulate their supply, and the associated impacts on the environment for each fuel. In the past both traditional and renewable energy sources have been studied one resource at a time and usually from the perspective of a single discipline. This minor will provide students an opportunity to examine different sources of traditional and renewable energy simultaneously in the context of our total energy use using a systems perspective. Students will be exposed to views from a variety of disciplines as they wrestle with a wide array of issues related to current and future energy supply and use.

Contact:

Charles Hall, Dept. of Environmental and Forest Biology, 354 Illick, 470-6870, chall@esf.edu

Minor in Environmental Writing and Rhetoric

Writing, reading, and presentation skills are essential to students' success while in college and beyond. The Environmental Writing and Rhetoric minor encourages students to develop fluency and expertise in each of these skills and in other 21st century literacies. Students in the minor will engage in a rhetorical approach to writing, reading, and communicating, preparing them to be active participants in academic, professional, civic, and cultural life. Students in the Environmental Writing and Rhetoric minor will learn to: identify and explain writing and communication as recursive processes; demonstrate an ability to write for various audiences in a variety of genres, including academic, professional, civic, and cultural contexts; and research new models of composing, using current technologies to write and publish on environmental and scientific topics. To reflect performance in the minor, each student will create a portfolio of work, including writing samples and digital recordings of oral presentations. Successful completion of the minor will be noted on the student's transcript.

Twelve credit hours of coursework in writing and communication will be required to satisfy the minor, as follows: CLL 300, Survey of Environmental Writing (3), required. One of the following four courses: CLL 311, Urban Environmental Literature; CLL 390, Introduction to the Literature of Nature; CLL 490, Literature of Nature; CMN 220, Public Presentation Skills for Environmental Professionals. One of the following five courses: CLL 405, Writing for Science Professionals; CLL 410, Writing for Environmental Professionals; CLL 494/694, Creative Non-Fiction for the Sciences; CLL 495/694, Environmental Journalism; CMN 420, Advanced Public Presentation Skills. One of the following: CLL 498, Internship; CLL 498, Peer Writing Consultant Practicum.

Note: this minor is available to Environmental Policy, Planning and Law, and Biological Science Applications option students in the B.S. in Environmental Studies program, only.

Website: <http://www.esf.edu/academic/writingminor.pdf>

Contact:

Benette Whitmore, Dept. of Environmental Studies, 105 Moon Library, 470-6722, bwhitmor@esf.edu

Minors in Entrepreneurship, Management, and Marketing

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 2.75 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.

Contact:

Suzette Vandeburg, Assistant Dean, Instruction & Graduate Studies, 227 Bray Hall, 470-6599/6595

Minor in Computer and Information Technology

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 adviser and the Undergraduate Studies Co-Coordinator. 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 advisers.

Contact:

Suzette Vandeburg, Assistant Dean, Instruction & Graduate Studies, 227 Bray Hall, 470-6599/6595

Minor in Construction Management

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 adviser 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:

Kenneth Tiss, Dept. of Construction Management and Wood Products Engineering, 220 Baker Laboratory, 470-6747, kjtiss@esf.edu

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 ESF, other SUNY campuses, or Syracuse University's Education Abroad program. Students interested in exploring study abroad opportunities should contact ESF's International Education Coordinator for more information.

<http://www.esf.edu/international/studyabroad/default.htm>

Contact:

Carolyn Salter, International Education Coordinator, 302 Bray Hall, 470-6691, cmsalter@esf.edu

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/>

Contact:

Donald Leopold, Distinguished Teaching Professor and Chair, Dept. of Environmental Forest Biology,
242 Illick Hall, 470-6760, djleopold@esf.edu

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; the program's Environmental Policy, Planning and Law option may be of particular interest to students interested in a law career.

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 Professor Robert Malmshemer, ESF's Pre-Law adviser. Professor Malmshemer 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 Professor Malmshemer 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, referenced below, 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
- EST 460 Land Use Law
- FOR 487 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 Law¹¹
- PAF 431 Criminal Justice System
- PSC 304 The Judicial Process
- PSC 324 Constitutional Law I
- PSC 325 Constitutional Law II
- PSC 352 International Law

ESF's Pre-Law Website: <http://www.esf.edu/prelaw/>

Contact:

Robert Malmshimer, Dept. of Forest and Natural Resources Management, 305 Bray Hall, 470-6909, rwmalmsh@esf.edu

¹¹ 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.

Successfully Navigating Your ESF Years

Academic Advising and Registration

The Role of Your Adviser

During your stay at ESF, many people will give you advice. The most important of those people is your academic adviser. Your academic adviser 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. Students are responsible for meeting with their advisers on a regular basis. In college, the primary responsibility for successful progress lies with students.

Students typically have two advisers during their years in Environmental Studies. Academic advisers 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 adviser.

To maximize your educational experience it is important to use the resources of your adviser effectively. In particular, students new to ESF, or to the Department of Environmental Studies, should meet with their adviser during the first few weeks of classes. The advising relationship begins here, making it easier to address student goals, concerns, and problems that arise.

Office hours meetings with your adviser help promote an advising relationship in which academic and career goals can be discussed in a more personal and individualized manner. Each faculty member posts regularly scheduled office hours at the start of the semester. Students may schedule appointments, drop by, or call during these office hours. Faculty members may also be contacted by e-mail, but are not always able to respond immediately.

Where it is difficult to reach your adviser, other faculty members or administrators may be able to assist. If you can't get a hold of your adviser, see the Undergraduate Studies (Co-)Coordinator during her/ his office hours. For urgent matters, contact the Departmental Secretary, in 106 Marshall Hall, for assistance.

Plan Sheets

Your Plan Sheet is the official record of progress toward meeting the program requirements for graduation. Your plan sheet is available on-line, and it should be consulted periodically during the year to check your status and to plan for upcoming program-related course decisions. You should work with your academic adviser on a regular basis to make sure that it accurately reflects the courses you have taken and the requirements they fulfill. *The Registrar's computer will automatically "match" courses in which you've registered that are exactly a specific course that is required, such as EST 132. Any other course which you take will be placed in the category "unmatched" and will not be counted toward graduation until your adviser informs the Registrar where to place it. This should be done twice a year, and students need to be pro-active in this process.*

Progress of First Year Students

The College asks faculty who are teaching First Year Students 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). Advisers 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 adviser to discuss the situation and its resolution.

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 adviser and prepare your registration form (SCORE form). After your adviser 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 adviser, you need to review your unmatched courses (see 2 above), 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.

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 adviser's signature and revision of your plan sheet. In general, your adviser 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

ESF students can avail themselves to a variety of academic options at SU to supplement their ESF education. Special access to courses at SU enables our students to take classes in such areas as marketing, entrepreneurship and management studies, and liberal arts. Our students may also use SU's extensive libraries and computer labs to supplement those on the ESF campus.

A world of opportunity is available to ESF students through SU Abroad, the university's international studies program. The program allows students to customize an international experience that meets their linguistic needs, and professional and personal goals.

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 adviser, 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 adviser 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.

Changing Options

Occasionally, students may wish to change their option. In this case, a change of adviser is required, and requests of this type should be brought to the attention of the Undergraduate Studies Co-Coordinator. 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 completion of 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. Changing your option is done via the ESF Petition process.

Additional College Resources

For the student, the first line of defense is always the faculty adviser, but not every faculty adviser (or ANY faculty adviser) 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.

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.

Raymond Blaskiewicz, Registrar
111 Bray Hall, 470-6657, registrar@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, science education, and education abroad programs.

Scott Shannon, Dean
Office of Instruction and Graduate Studies, 227 Bray Hall, 470-6599, esfgrad@esf.edu

Suzette Vandeburg, Assistant Dean
Office of Instruction and Graduate Studies, 227 Bray Hall, 470-6599/6595

Carolyn Salter, International Education Coordinator
Office of Instruction and Graduate Studies, 302 Bray Hall, 470-6691, cmsalter@esf.edu

Personal Issues and 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 adviser 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, Director
115 Bray Hall, 470-6670, jview@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.

Cynthia Sedgwick, Dean
110 Bray Hall, 470-6658, csedgwick@esf.edu

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 Francis, Director
110 Bray Hall, 470-4815, rsdrumme@esf.edu

ESF Career Services

The mission of the Career Services Office is to assist ESF students and alumni in applying their education and experiences toward advancing their career goals over a lifetime. The office offers various personalized services, programs and resources to guide in developing the skills necessary in advancing through ESF and entering into a rewarding career.

John Turbeville, Career Development Officer
110 Bray Hall, 470-6660, jturbev@esf.edu

Office of Counseling & Disabilities Services

The Office of Counseling and Disabilities Services (OCDS) is dedicated to promoting the psychological and developmental wellbeing that enriches personal and academic growth. It is the goal of the OCDS to remain closely connected to and engaged with students, faculty and staff in their endeavors to secure the achievement of a college experience of the highest quality and satisfaction. This office can help with a variety of issues, including leave-of-absence, readmission, change in educational plans or withdrawal.

Heather Rice, Senior Counselor
110 Bray Hall, 470-6660, hlrice@esf.edu

Academic Petitions

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 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; approval of a petition is NOT automatic. After the faculty adviser signs a petition form, each petition is reviewed by the Undergraduate Studies (Co-)Coordinator 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.

<i>How to file</i>	<i>Program Variance</i>	<i>Transfer</i>	<i>Late Add/Drop</i>
Required Information (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
Request (what is being petitioned for)	A careful wording of the variance includes what is to be replaced and what it is to be replaced by (course numbers and names are helpful).	A clear statement of course credits to be transferred, from what college, and how to allocate it on the plan sheet (course numbers and names are helpful).	A statement of what course is to be added and/or dropped (course numbers and names are helpful).
Justification (More detail is better here)	Explain clearly <i>why</i> 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 <i>why</i> 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 <i>why</i> the course is being added or dropped late (financial aid problem, illness, etc.).

Signatures	In the following order: • Faculty adviser, • Undergraduate Studies (Co-) Coordinator • Dean of Instruction	In the following order: • Faculty adviser, • Undergraduate Studies (Co-) Coordinator • Dean of Instruction	In the following order: • Faculty adviser, • Undergraduate Studies (Co-) Coordinator • Dean of Instruction
Additional Information (things you might want to attach to the petition)	Improve the rate of approval by, appending the following items: • the catalog description of the course, the course syllabus, or the internship or independent study approved proposal • the ESF catalog description of the course to be replaced.	Improve the rate of approval by, appending the following items: • the transfer college catalog description of the course (or the course syllabus) • the ESF catalog description of the course to be replaced.	Improve the rate of approval by, appending the following items: • 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. • Academic difficulty in the course is not considered justification.
NOTES	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.

Late Drop Guidelines

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 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; and

- 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 adviser and instructor approve the petition, it is not a done deal.