

SUNY ONEONTA

Department of Geography and Environmental Sustainability

To: Curriculum Committee
From: Wendy Lascell, Chair of GES *Wendy L Lascell*
RE: Changes to the ENSS major

September 21, 2017

We would like to make changes to the Environmental Sustainability major. As we have rolled out the new major, we have realized there are some minor changes that need to be made. It consists of less than a 30% change.

The ENVS Advisory group met to discuss these changes and were **agreed upon**. The Advisory group consists of faculty who teach courses in the program and have an interest in the program: *Kathryn Finin, Greg Fulkerson, Trevor Fuller, Les Hasbargen, Gina Keel, Cynthia Klink, Michael Koch, Achim Koedermann, Sunil Labroo, Wendy Lascell, Jim Mills, Tyra Olstad, Phillip Sirianni, and Donna Vogler.*

The Chairs of Biology, Earth Sciences, English, Philosophy, and Sociology were consulted during September 2017, as their departments' are affected by these changes. **They all agree upon these changes.**

Please let me know the date the Curriculum Committee will discuss these proposed changes. I will attend that meeting.

On the next 3 pages, please see the changes displayed, including a side-by-side table on the last page.

The SUNY Form 3A is also attached. It was completed with Biology as a 2nd major in the Ecology & Field Biology Track.

The Current Major Requirements (areas of proposed change highlighted)

INTERDISCIPLINARY CORE: (16 s.h.)

- A. ENVS 110 Introduction to Environmental Sustainability (3 s.h.)
- B. ENVS 105 Environmental Science Laboratory (1 s.h.) (prerequisite ENVS major)
- C. ENVS 201 Environmental Issues (3 s.h.) (prerequisite ENVS 110)
- D. ENVS 291 Junior Interdisciplinary Seminar (3 s.h.) (prerequisite ENVS major and JrS)
- E. ENVS 390 Environmental Sciences Seminar (3 s.h.) (prerequisite ENVS major and SrS)
- F. **Restricted Major Elective in Applied Learning** (BIOL 321 Trop. Bio Field Course, or an internship—GEOG 397, ENVS 297, BIOL 397—or ENVS 399 Independent Study in Environmental Sciences, or by advisement (3 s.h.)

METHODS and SKILLS: (6 s.h.)

- A. **GEOG 244** Environmental Applications of GIS (3 s.h.) (prerequisite GEOG 100 or ENVS 110)
- B. ENVS 250 Environmental Monitoring (3 s.h.) (prerequisite ENVS 201 and STAT 101)

ENVIRONMENTAL NATURAL SCIENCES: (6 -7 s.h. - two courses)

Choose one course each from two of the following three categories

- A. **Biology**
 - BIOL 123 Introduction to Evolution (3 s.h.)
 - GEOG 304 Biogeography of a Diverse Planet (3 s.h.) (prerequisite JrS and 6 s.h. of GEOG)
- B. Physical Geography
 - GEOG 201 Physical Geography and the Global Environment (3 s.h.) (prerequisite SoS)
- C. **Geology**
 - GEOL 230 Energy Resources and the Environment (4 s.h.) (prerequisite GEOL 120 or GEOL 182)
 - GEOL 282 Introduction to Hydrogeology (4 s.h.) (prerequisite GEOL 120 or GEOL 182)

ENVIRONMENTAL SOCIAL SCIENCE: (9 s.h. - three courses)

Choose one course each from three of the following five categories:

- A. Economics
 - ECON 227 Environmental Economics (3 s.h.) (prerequisite ECON 110 or ECON 111)
- B. Interdisciplinary Social Science
 - ANTH 254 Archaeology and Environmental Change (3 s.h.) (prerequisite ANTH 140 or 145)
 - COMM 380 Environmental Rhetoric (3 s.h.) (prerequisite - JrS)
 - ENVS 251/GEOG 251/SOCL 251 Food, Society, and the Environment (3 s.h.) (prereq ENVS 101 or ENVS 110 or ENVS 268/GEOG 268 Environmental History (3 s.h.) (prerequisite SoS) GEOG 100 or SOCL 100)
- C. Human Geography
 - GEOG 210 Economic Geography and Sustainability (3 s.h.) (prerequisite SoS)
 - GEOG 225 Population Geography (3 s.h.) (prerequisite SoS)
 - GEOG 230 Geography of Culture and Environment (3 s.h.) (prerequisite SoS)
 - GEOG 233 Geography of Urban Environments (3 s.h.) (prerequisite SoS)
 - GEOG 238 Sustainable Development in Developing Countries (3 s.h.) (prereq. SoS)
- D. Political Science
 - POLS 235 Environmental Politics (3 s.h.) (prerequisite SoS)
 - POLS 238/PHYS 238 Introduction to Energy Science & Policy for Sustainability (3 s.h.) (prerequisite SoS)
- E. **Sociology**
 - SOCL 244 Environmental Sociology (3 s.h.) (prerequisite SoS)

ENVIRONMENTAL HUMANITIES: (6 s.h. - two courses)

- A. PHIL 230 Environmental Ethics (3 s.h.) (prerequisite SoS)
- B. **LITR 247** Environmental Humanities (3 s.h.) (prerequisite SoS)

Sub-Total 43-44 s.h.

RELATED WORK (11 s.h. – three courses)

- A. STAT 101 (3 s.h.) Introduction to Statistics (prerequisite H.S. Regents III or MATH 104)
- B. BIOL 181 (4 s.h.) General Biology II (prerequisite ENVS 110 or BIOL 180)
- C. **GEOL 120** Introduction to Geology (4 s.h.) OR GEOL 182 Water and the Blue Planet (4 s.h.)

TOTAL Credits 54-55 s.h.

The Proposed Changes to Major Requirements (areas of proposed change highlighted)

INTERDISCIPLINARY CORE: (16 s.h.)

- A. ENVS 110 Introduction to Environmental Sustainability (3 s.h.)
- B. ENVS 105 Environmental Science Laboratory (1 s.h.) (prerequisite ENVS major)
- C. ENVS 201 Environmental Issues (3 s.h.) (prerequisite ENVS 110)
- D. ENVS 291 Junior Interdisciplinary Seminar (3 s.h.) (prerequisite ENVS major and JrS)
- E. ENVS 390 Environmental Sciences Seminar (3 s.h.) (prerequisite ENVS major and SrS)
- F. **Restricted Major Elective in Applied Learning** (BIOL 321 Trop. Bio Field Course, or an internship—GEOG 397, ENVS 297, BIOL 397—or ENVS 399 Independent Study in Environmental Sciences, or by advisement (3 s.h.)
Add: ENVS 397

METHODS and SKILLS: (6 s.h.)

- A. **GEOG 244** Environmental Applications of GIS (3 s.h.) (prerequisite GEOG 100 or ENVS 110)
Change to GEOG 241: Geographic Information Systems: Principles and Methods (3s.h) Prereq: SoS. *This course has been modified to focus on environmental issues. GEOG 244 will be used as an intermediate course for students wishing to continue GIS learning.*
- B. ENVS 250 Environmental Monitoring (3 s.h.) (prerequisite ENVS 201 and STAT 101)

ENVIRONMENTAL NATURAL SCIENCES: (6 -7 s.h. - two courses)

Choose one course each from two of the following three categories

- A. **Biology**
 - BIOL 123 Introduction to Evolution (3 s.h.)
 - GEOG 304 Biogeography of a Diverse Planet (3 s.h.) (prerequisite JrS and 6 s.h. of GEOG)**Add: BIOL 282:** Ecology (4 s.h.) Prereq: SoS and BIOL 181
- B. Physical Geography
 - GEOG 201 Physical Geography and the Global Environment (3 s.h.) (prerequisite SoS)
- C. **Geology**
 - GEOL 230 Energy Resources and the Environment (4 s.h.) (prerequisite GEOL 120 or GEOL 182)
 - GEOL 282 Introduction to Hydrogeology (4 s.h.) (prerequisite GEOL 120 or GEOL 182)**Add: GEOG 232:** Coastal Zone Management (3s.h.) Prereq: SoS.

ENVIRONMENTAL SOCIAL SCIENCE: (9 s.h. - three courses)

Choose one course each from three of the following five categories:

- A. Economics
 - ECON 227 Environmental Economics (3 s.h.) (prerequisite ECON 110 or ECON 111)
- B. Interdisciplinary Social Science
 - ANTH 254 Archaeology and Environmental Change (3 s.h.) (prerequisite ANTH 140 or 145)
 - COMM 380 Environmental Rhetoric (3 s.h.) (prerequisite - JrS)
 - ENVS 251/GEOG 251/SOCL 251 Food, Society, and the Environment (3 s.h.)
(prerequisite ENVS 101 or GEOG 100 or SOCL 100)
 - ENVS 268/GEOG 268 Environmental History (3 s.h.) (prerequisite SoS)
- C. Human Geography
 - GEOG 210 Economic Geography and Sustainability (3 s.h.) (prerequisite SoS)
 - GEOG 225 Population Geography (3 s.h.) (prerequisite SoS)
 - GEOG 230 Geography of Culture and Environment (3 s.h.) (prerequisite SoS)
 - GEOG 233 Geography of Urban Environments (3 s.h.) (prerequisite SoS)

GEOG 238 Sustainable Development in Developing Countries (3 s.h.) (prereq.SoS)

D. Political Science

POLS 235 Environmental Politics (3 s.h.) (prerequisite SoS)

POLS 238/PHYS 238 Introduction to Energy Science & Policy for Sustainability (3 s.h.) (prerequisite SoS)

E. **Sociology**

SOCL 244 Environmental Sociology (3 s.h.) (prerequisite SoS)

Add: ENVS 264/GEOG 264/SOC 264: Environmental Inequalities (prereq 3s.h. in ENVS, GEOG, SOC, or CRJ)

ENVIRONMENTAL HUMANITIES: (6 s.h. - two courses)

A. PHIL 230 Environmental Ethics (3 s.h.) (prerequisite SoS)

B. **LITR 247** Environmental Humanities (3 s.h.) (prerequisite SoS)

Add the cross listing for **LITR 247**: LITR247/PHIL 247

Sub-Total 43-44 s.h.

RELATED WORK (11 s.h. – three courses)

A. STAT 101 (3 s.h.) Introduction to Statistics (prerequisite H.S. Regents III or MATH 104)

B. BIOL 181 (4 s.h.) General Biology II (prerequisite ENVS 110 or BIOL 180)

C. **GEOL 120** Introduction to Geology (4 s.h.) OR GEOL 182 Water and the Blue Planet (4 s.h.)

Add **GEOL 102 (3s.h.)** or **GEOL 115 (4s.h.)** as two more options for the Geology choice. (prereq: none)

TOTAL Credits 54-55 s.h.

TOTAL Credits have changed to 53-56 s.h.

*due to the addition of BIOL 282 as an option (4s.h.) and
GEOL 102 as an option (3s.h.) in related work*

Side by Side Table of Changes

Current Major	Proposed Change
<p><u>Interdisciplinary Core Change</u> Restricted Major Elective in Applied Learning (BIOL 321 Trop. Bio Field Course, or an internship—GEOG 397, ENVS 297, BIOL 397—or ENVS 399 Independent Study in Environmental Sciences, or by advisement (3 s.h.)</p>	<p>Add: ENVS 397, Environmental Internship</p> <p><i>This is an obvious course to be added here. Currently, we have to process substitution paperwork.</i></p>
<p><u>Methods and Skills Change</u> GEOG 244 Environmental Applications of GIS (3 s.h.) (prerequisite GEOG 100 or ENVS 110)</p>	<p>Change to GEOG 241: Geographic Information Systems: Principles and Methods (3s.h) Prereq: SoS. <i>This course has been modified to focus on environmental issues. GEOG 244 will be used as an intermediate course for students wishing to continue GIS education.</i></p>
<p><u>Environmental Natural Sciences Change</u> Biology A. BIOL 123 Introduction to Evolution (3 s.h.) B. GEOG 304 Biogeography of a Diverse Planet (3 s.h.) (prerequisite JrS and 6 s.h. of GEOG)</p>	<p>Add: C. BIOL 282: Ecology (4 s.h.) Prereq: SoS and BIOL 181</p> <p><i>Ecology was always a course we wanted to include. Now, due to changes in the BIOL department, they are able to offer enough seats to include our majors.</i></p>
<p><u>Environmental Natural Sciences Change</u> Geology A. GEOL 230 Energy Resources and the Environment (4 s.h.) (prerequisite GEOL 120 or GEOL 182) B. GEOL 282 Introduction to Hydrogeology (4 s.h.) (prerequisite GEOL 120 or GEOL 182)</p>	<p>Add: C. GEOG 232: Coastal Zone Management (3s.h.) Prereq: SoS or GEOG 100.</p> <p><i>GEOL 230 is not currently offered due to staff changes. GEOG 232 is a Physical Geography type course – that matches well with Earth Sciences content. It includes a research project that involves quantitative data. It is taught once every 2 years.</i></p>
<p><u>Environmental Social Science Change</u> Sociology A. SOCL 244 Environmental Sociology (3 s.h.) (prerequisite SoS)</p>	<p>Add: B. ENVS 264/GEOG 264/SOC 264: Environmental Inequalities (prereq 3s.h. in ENVS, GEOG, SOC, or CRJ)</p> <p><i>A new course that explores geographic and sociological issues. Taught by GEOG and SOC on a rotating basis.</i></p>
<p><u>Environmental Humanities Change</u> B. LITR 247 Environmental Humanities (3 s.h.) (prerequisite SoS)</p>	<p>Add: Cross listing: LITR247/PHIL 247 (prereq SoS)</p>
<p><u>Related Work</u> C. GEOL 120 Introduction to Geology (4 s.h.) OR GEOL 182 Water and the Blue Planet (4 s.h.)</p>	<p>Add: GEOL 102 (3s.h.) or GEOL 115 (4s.h.) as two more options for the Geology choice. (prereq: none) <i>There are no longer enough seats offered in GEOL 120 and GEOL 182 is not currently offered.</i></p>