**Washington State University**

**MAJOR CURRICULAR CHANGE FORM - - COURSE**

(Submit original signed form and ten copies to the Registrar’s Office, zip 1035.)

See [https://www.roman.wsu.edu/ROPubs/Apps/HomePage.ASP for this form.](https://www.roman.wsu.edu/ROPubs/Apps/HomePage.ASP)

- **Required Effective Date:** 01/02/2011  
  (effective date cannot be retroactive)

- **New course**  
  - **Variable credit**
  - **Increase credit (former credit)**
  - **Number (former number 402502)**
  - **Crosslisting (between WSU departments)**
    - **(Must have both departmental signatures)**

- **Conjoint listing (400/500)**

- **Repeat credit (cumulative maximum _______ hours)**

- **Lecture-lab ratio (former ratio _________)**

- **Prefix (former prefix _________)**

- **Cooperative listing (UI prefix and number _________)**
  - **taught by:** WSU ☐  
  - **UI ☐**
  - **jointly taught ☐**

- **S, F grading**

- **Request to meet Writing in the Major [M] requirement (Must have All-University Writing Committee Approval)**

- **Request to meet GER in _________ (Must have GenEd Committee Approval)**

- **Professional course (Pharmacy & Vet Med only)**

- **Graduate credit (professional programs only)**

- **Other (please list request) Reinstatement of course removed from catalog**

<table>
<thead>
<tr>
<th>ES/RP</th>
<th>502</th>
<th>Human Health and the Environment</th>
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</thead>
<tbody>
<tr>
<td>course prefix</td>
<td>course no.</td>
<td>title</td>
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<tr>
<td>3</td>
<td>3 0</td>
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<tr>
<td>credit</td>
<td>lecture hrs</td>
<td>lab hrs</td>
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<td>per week</td>
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**Description (20 words or less)**  
Problem-solving approach to adverse effects on human health caused by contamination of environmental media or anthropogenic changes in ecosystems.

**Instructor:** Steve Sylvester  
**Phone number:** (360) 546-9724  
**Email:** ssylvester@vancouver.wsu.edu

**Contact:** Julie Points  
**Phone number:** (360) 546-9212  
**Email:** points@vancouver.wsu.edu

Please attach rationale for your request, a detailed course outline/syllabus and explain how this impacts other units in Pullman and other branches (if applicable).

- Secure all required signatures and provide 10 copies to the Registrar’s Office.

- Chair/date  
  - Chair (if crosslisted/interdisciplinary)  
  - Dean (if crosslisted/interdisciplinary) *  
  - Graduate Studies Com/date

- All-University Writing Com/date  
  - Academic Affairs Com/date  
  - Senate/date

*If the proposed change impacts or involves collaboration with other units, use the additional signature lines provided for each impacted unit and college.
Rationale for course request – ES/RP Human Health and the Environment, Spring 2012

We are requesting that the course "Human Health and the Environment" be reinstated to the WSU course catalog.

This course had previously been offered as ES/RP 402/502:
ESRP 402/502 Human Health and the Environment 3 credits
Prereq Biol 106, 107, Chem 105, 106; ESRP 335 or junior in environmental science. Problem solving approach to adverse effects on human health caused by contamination of environmental media or anthropogenic changes in ecosystems. Credit not granted for both ESRP 402 and 502.

It has been taught numerous times on the Vancouver campus and is a valuable course to our program. It was removed from the catalog by mistake, while the instructor was on sabbatical, and without any consultation with Science Programs in Vancouver.

We are only requesting reinstatement of ES/RP 502 because of the current difficulty in receiving approval for conjoint courses, and we believe that the graduate level course is the priority for our program. But if reinstatement of both ESRP 402/502 is possible because of it was a pre-existing course, we would like to see both courses reinstated.
ES/RP 502
Human Health and the Environment

Course Moderator: Steve Sylvester, Office hours by appt.
VELS 230D, 546-9724 or ssylvester@vancouver.wsu.edu

Required Text: Living with the Earth: Concepts in Environmental Health Science
by Gary S. Moore, 3rd ed

Additional Readings: The Skeptical Environmentalist by Bjorn Lomborg

http://www.sightline.org Northwest environmental news server daily

Date: (approximate schedule--discussions may cause deviations)

5/11 Course Introduction; Life Systems
Attitudes/ Beliefs/ Sources

5/13 Chapter 1 ECOSYSTEMS AND ENERGY (all chapters listed are in Moore)
Chapter 2 HUMAN POPULATIONS

5/18 Chapter 3 ENVIRONMENTAL DEGRADATION & FOOD SECURITY
Chapter 4 ENVIRONMENTAL DISEASE

5/20 Chapter 5 TOXICITY AND TOXINS

5/27 Chapter 6 THE TROUBLE WITH PESTS

6/1 Chapter 7 EMERGING DISEASES
Chapter 8 FOODBORNE ILLNESS

6/3 Chapter 9 WATER AND WASTEWATER

6/8 Chapter 10 AIR QUALITY AND RADIATION
Chapter 11 SOLID AND HAZARDOUS WASTE

6/10 Chapter 12 RISK ASSESSMENT AND MANAGEMENT

6/15 Chapter 13 ENVIRONMENTAL REGULATION

6/19 Chapter 14 EMERGENCY PREPAREDNESS

Course Dynamics: A discussion course based on the readings in the text: don’t come to class without having read the Chapter ahead of time, you may embarrass yourself. A portion of your grade will be based on attendance that will be tracked randomly on an at-risk basis. There will be 14 multiple choice Quizzes based on our previous DISCUSSION and pre-reading CHAPTERS. Quizzes will occur during the first 15 minutes of the class period immediately following the completed chapter discussion (e.g. the first quiz will 5/13 on the 5/11 discussion and reading Ch1&2). The last quiz will be a take home or online (there is no comprehensive exam). NO MAKE-UPS, the lowest quiz score will be dropped in final grading. There will also be some number of small assignments that will require a written response to be turned in at a future class period.

A term paper will be expected to present the counter arguments from The Skeptical Environmentalist by Bjorn Lomborg and other sources on the related issue as presented in Moore. Students will be asked to research a topic sufficiently to give the class a balanced view or make them aware of controversies surrounding that issue. In addition to leading a portion of the discussion of the issue, their term paper on the same topic will be 10-12 pages in length and include a minimum of 12 primary references with the
ES/RP 402
Human Health and the Environment

Course Moderator: Steve Sylvester, Office hours by appt.
VELS 230D, 546-9724 or ssylvester@vancouver.wsu.edu
Required Text: Living with the Earth: Concepts in Environmental Health Science
by Gary S. Moore, 3rd ed
Graduate Readings: The Skeptical Environmentalist by Bjorn Lomborg
http://www.sightline.org Northwest environmental news server daily
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to class without having read the Chapter ahead of time, you may embarrass yourself. A
portion of your grade will be based on attendance that will be tracked randomly on an
at-risk basis. There will be 14 multiple choice Quizzes based on our previous
DISCUSSION and prereading CHAPTERS. Quizzes will occur during the first 15
minutes of the class period immediately following the completed chapter discussion
(e.g. the first quiz will 5/13 on the 5/11 discussion and reading Ch1&2). The last quiz
will be a takehome or online (there is no comprehensive exam). NO MAKE-UPS, the
lowest quiz score will be dropped in final grading. There will also be some number of
small assignments that will require a written response to be turned in at a future class
period. A 5-7 page TERM PAPER will be due 6/20. This paper will examine one of
the issues presented in the text utilizing a minimum of 3 sources in the PRIMARY
LITERATURE (scientific journals). The paper will compare and contrast the
data/interpretations presented in the text and the primary literature. The paper should
demonstrate an understanding of the broader context you have learned during the
semester. You should get started early on the paper so as to settle on a topic and to give
yourself time for needed assistance in interpreting the primary literature. Save a tree, e-
Scott,

I appreciate your work on the Catalog committee. ESRP 402/502 was deleted while I was on sabbatical and it should not have been. When I was Campus Senator some years back, I made my constituents aware of anything before the Senate that might effect our campus, so I feel the negligence was here in Vancouver. After many discussions with advisors and others, and with my belief that this is a critically important course in the understanding of environmental consequences of human actions, I wish to have it reinstated as the conjoint course. The reasons for the graduate component are addressed in the attachments. The reason for the undergraduates is that they are reluctant to register for a 500 level course, seeing it as too much work and too much competition with graduate students more focused on the topic.

Catalog has discussed this request and we have some requests.
1. Please provide a current syllabus for ES/RP 502 with current statements (disability, integrity, safety).

2. It is not clear whether you are requesting just 502 or if you would prefer to have a conjoint 402/502. Conjoint courses are discouraged, but still possible. However, to request a conjoint course you must answer some questions for Grad Studies. They are included in the attached document. If you want to apply for this, you can send the answers to the Grad Studies questions to me and I will add them to your request. If you just want to request the graduate course for now, let me know.

Sorry for dragging my feet on the reply, hectic at work with a proposal and dealing with hospice for my mom.

Thanks

Steve Sylvester, PhD  Associate Professor
School of Molecular Biosciences
Washington State University Vancouver
14204 NE Salmon Creek Avenue
Vancouver, WA  98686
(360)546-9724    FAX(360)546-9064
ssylvester@vancouver.wsu.edu
Graduate School Questions Regarding Conjoint Courses

1. List the number of faculty in the degree granting area

Science Programs at WSU Vancouver has a total of 13 faculty at the graduate level (including Clinical and Research Professors). These faculty are distributed across the College of Science and the College of Veterinary Medicine. We have students working on the MS in Environmental Science, MS in Botany, and MS in Zoology degrees, and nearly all of faculty teach courses that may be taken by students working on these degrees.

2. List the number of graduate courses listed on the books for the degree granting area

Science Programs has twenty-two 500 level courses listed in the WSU Vancouver catalog under Biol, Chem, ESRP, Geol, MBioS, and Stat prefixes; there are six 600-800 level courses in Biol and ESRP combined.

3. How many courses are currently listed as conjoint in the degree granting area?

Six courses are listed as conjoint (4 ESRP, 2 MBioS).

4. How often are these conjoint courses taught?

All six are taught once per year:
- ESRP 444/544: every Spring term
- ESRP 445/545: every Fall term
- ESRP 486/586: every Spring term
- MBioS 401/501: every Spring term
- MBioS 440/540: once per year
- ESRP 492/592 (Special Topics): Every semester

5. How many of these courses are designed as graduate courses with few undergraduate enrolled?

Three (ESRP 444/544, ESRP 486/586, and ESRP 492/592) are designed primarily as graduate level courses. Enrollment in the first two courses ranges from 15-30 students, with 25-50% being graduate students.

ESRP 492/592 special topics courses are taught as graduate seminars. Mean enrollment is 9 students of which 57% are graduate students.

Enrollment in the other three courses is undergraduate dominated as was historically the case for this course.

6. Over the past three years, what percentage of courses on Graduate degree programs of study in this degree granting area are conjoint courses.

A survey of 16 recent programs of study indicated that on average 30% of credits are from conjoint courses (range: 18% - 75%). Students with high percentages have taken large numbers of special topics courses, which tend to be dominated by graduate students.
7. Why is this particular course integral to the graduate degree granting area?

Because of the small number of science faculty in Vancouver whose teaching efforts are focused more toward undergraduates, and because of the relatively small, but growing number of graduate students, we are only able to offer graduate training if we take advantage of conjoint listings. Otherwise, our graduate course sizes remain prohibitively small, and we would not have enough faculty to teach them. In the current climate of extreme fiscal austerity, this is a cost-effective way for us to make graduate-level work available at this campus. All of our conjoint courses are either designed as graduate courses and provide a special experience for high-level undergraduates, and require additional work and provide additional interaction for graduate students in the course. The text for this course is from a graduate level course at Harvard and the graduate students are asked to take a topic from the text and go into greater depth while looking at opposing views. They then both present an oral report of their topic to the class and write a more substantial term paper than the undergraduates. There is a gray area between ecology and environmental science: this course is one of a few in the graduate program that is strongly on the environmental side and closely related to human activities and their environmental consequences.
Course Moderator: Steve Sylvester, Office hours by appt.
VELS 230D, 546-9724 or ssylvester@vancouver.wsu.edu
Required Text: Living with the Earth: Concepts in Environmental Health Science
by Gary S. Moore, 3rd ed
Graduate Readings: The Skeptical Environmentalist by Bjorn Lomborg
Websites: http://www-unix.oit.umass.edu/~envhl565/
          http://www.sightline.org Northwest environmental news server daily

Week: (approximate schedule--discussions may cause deviations)
8/23  Course Introduction; Life Systems
      Attitudes/ Beliefs/ Sources
8/30  Chapter 1 ECOSYSTEMS AND ENERGY (all chapters listed are in Moore)
      Chapter 2 HUMAN POPULATIONS
9/6   Chapter 3 ENVIRONMENTAL DEGRADATION & FOOD SECURITY
9/13  Chapter 4 ENVIRONMENTAL DISEASE
9/20  Chapter 5 TOXICITY AND TOXINS
9/27  Chapter 6 THE TROUBLE WITH PESTS
10/4  Chapter 7 EMERGING DISEASES
10/11 Chapter 8 FOODBORNE ILLNESS
10/18 Chapter 9 WATER AND WASTEWATER
10/25 Chapter 10 AIR QUALITY AND RADIATION
11/1  Chapter 11 SOLID AND HAZARDOUS WASTE
11/8  Chapter 12 RISK ASSESSMENT AND MANAGEMENT
11/15 Chapter 13 ENVIRONMENTAL REGULATION
11/29 Chapter 14 EMERGENCY PREPAREDNESS

Course Dynamics: A discussion course based on the readings in the text: don’t come
to class without having read the Chapter ahead of time, you may embarrass yourself. A
portion of your grade will be based on attendance that will be tracked randomly on an
at-risk basis. There will be 12-14 multiple choice Quizzes based on PRE-READING
CHAPTERs and our previous DISCUSSION. Quizzes will occur during the first 10
minutes of the class period immediately following the completed chapter discussion
(e.g. the first quiz will 8/30 on the 8/23 discussion and reading Ch1&2). The last quiz
will be a takehome or online (there is no comprehensive exam). NO MAKE-UPS, the
lowest quiz score will be dropped in final grading. There will also be some number of
small assignments that will require a written response to be turned in at a future class
period. A 5-7 page TERM PAPER will be due 11/29. This paper will examine one of
the issues presented in the text utilizing a minimum of 3 sources in the PRIMARY
LITERATURE (scientific journals, not science magazines nor websites). The paper
will compare and contrast the data/interpretations presented in the text or newspaper
versus the PRIMARY LITERATURE. The paper should demonstrate an understanding
of the broader context you have learned during the semester. You should get started
early on the paper so as to settle on a topic and to give yourself time for needed
assistance in interpreting the primary literature. Save a tree, e-mail your paper.
Plagiarism will result in a zero score for the paper and the incident reported to Student Conduct. Cheating of any kind will also be reported.

Some PRIMARY LITERATURE available as Electronic Journals at WSU
- Archives of Environmental Contamination and Toxicology
- Archives of Environmental Health
- Bulletin of Environmental Contamination and Toxicology
- Ecotoxicology and Environmental Safety
- Environment Risk
- Environmental Health Perspectives
- Environmental Management and Health
- Environmental and Molecular Mutagenesis
- Environmental Toxicology
- Environmental Toxicology and Pharmacology
- Environmental Toxicology and Water Quality
- Global Environmental Change B: Environmental Hazards
- Journal of Environmental Health
- Journal of Environmental Radioactivity
- Journal of Environmental Science and Health
- Journal of Occupational and Environmental Medicine
- Mutation Research/Genetic Toxicology and Environmental Mutagenesis
- Occupational and Environmental Medicine
- Theoretical Population Biology

Other Journals are available but require more time to get reprints.

Grade Distribution:

<table>
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<tr>
<th>Component</th>
<th>Percentage</th>
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<tr>
<td>Chapter Quizes (lowest dropped)</td>
<td>50%</td>
</tr>
<tr>
<td>Term Paper</td>
<td>20%</td>
</tr>
<tr>
<td>Written Assignments</td>
<td>20%</td>
</tr>
<tr>
<td>Participation/Attendance</td>
<td>10%</td>
</tr>
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Reasonable accommodations are available for students who have a documented disability. Please notify the professor during the first week of class of any accommodations needed for the course. Late notification may cause the requested accommodations to be unavailable. Students needing accommodations must have them approved through the Assistant Director for Student Development, VMMC 243.

ES/RP 502
Graduate students, as part of earning the 500 level designation, will be expected to research and present counter arguments to the text topic from The Skeptical Environmentalist by Bjorn Lomborg and other prominent opposing views on the related issue as presented in Moore. You will research a topic sufficiently to give the class a balanced view or make them aware of controversies surrounding that issue. You will make your presentation the same week as the text topic, noting that it would be unlikely to adequately prepare for topics in the first 2 chapters of the text covered the first two weeks of class. Consult with the professor to schedule your talk and how to utilize the lecture period. In addition to presenting and discussing the issue with the class, your term paper on the same topic will be 10-12 pages in length and include a minimum of 12 primary references with the bulk of those citations published since 2000.

I reserve the right to modify this course and syllabus with 1 week prior notification.
✓ **Academic Integrity:** Academic integrity is the cornerstone of the university and will be strongly enforced in this course. Any student found in violation of the academic integrity policy will be given an “F” for the course and will be referred to the Office of Student Conduct. Cheating would include copying of homework, peeking at another student’s clicker responses, having two clickers in class, having a clicker other than your own or having someone other than yourself come to class with your clicker. For additional information about WSU’s Academic Integrity policy/procedures please contact (360) 546-9573.

✓ **Disability Accommodation:** Accommodations may be available if you need them in order to fully participate in this class because of a disability. Accommodations may take some time to implement so it is critical that you contact Disability Services as soon as possible. All accommodations must be approved through Disability Services, located in the Student Resource Center on the Lower Level of VSSC. (360) 546-9138 **Course Website** We will be using Angel at https://lms.wsu.edu/ 8am-5pm for me!