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WSU Registrar

Washington State University
MAJOR CURRICULAR CHANGE FORM - - COURSE
(Submit original signed form and ten copies to the Registrar's Office, zip 1035.)
See www.ronet.wsu.edu/ROPubs/ *for this form.*

Required Effective Date: 6/1/10 **(effective date cannot be retroactive)**

X-New course ☐ Temporary course ☐ Drop service course

X There is a course fee associated with this course
http://www.schedules.wsu.edu/Schedules/Apps/CourseFees.ASP

☐ Variable credit _____

☐ Repeat credit (cumulative maximum _____ hours)

☐ Increase credit (former credit _____)

☐ Lecture-lab ratio (former ratio _____)

X Number (562)

☐ Prefix (former prefix _____)

☐ Crosslisting (between WSU departments) **(Must have both departmental signatures)**

☐ Cooperative listing (UI prefix and number _____)
taught by: WSU ☐ UI ☐ jointly taught ☐

☐ Conjoint listing (400/500)

☐ 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)** ☐ Fulfills GER lab (L) requirement

☐ Professional course **(Pharmacy & Vet Med only)** ☐ Graduate credit **(professional programs only)**

☐ Other (please list request) _____

SEES, ~~or ES/RP and~~ GEOL 562
course prefix course no.

Watershed Biogeochemistry
title

3	3	0	0
credit	lecture hrs per week	lab hrs per week	studio hrs per week

general chemistry
prerequisite

Description (**20 words or less**): This course explores sources, transformations, fates, and impacts of biogeochemically important compounds as they move downstream through watersheds to the coastal zone.

Instructor: John Harrison Phone number: 360-546-9210 Email: harrisoj@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.

12/11/09
Chair/date

12/21/09
Dean/date

General Education Com/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.**

Wherland, Scot

From: Harrison, John
Sent: Wednesday, March 03, 2010 2:23 PM
To: Wherland, Scot; Points, Julie K
Subject: RE: ES/RP 562 (Agenda item #275)

Hi Scot,

Thanks for the feedback, and my apologies for the delayed response. I've been trying to get an answer about course fees before writing you back. I still don't have the information I need there, but have tried to respond to the rest of your questions below. I'll let you know as soon as I get a clear answer from the Provost's office about course fees.

Best wishes,

John

From: Wherland, Scot
Sent: Friday, February 19, 2010 7:43 AM
To: Harrison, John; Points, Julie K
Subject: ES/RP 562 (Agenda item #275)

Prof Harrison,
Catalog subcommittee has reached your proposal for ES/RP 562 and we have several questions. You can respond through me and I will present your responses to the committee.

1. You indicated that there is a course fee associated with this course. It is our understanding that all new fees are being administratively blocked. Although this does not affect our approval, it may affect you ability to deliver the course. Do you want the course without the fee? You will need to check the fee request through your department, it is not approved through Catalog.

I'm afraid the field- and lab-work associated with the course require the implementation of course fees, or else I will have to modify the course content fairly substantially. As noted above, I am discussing this with the office of the Provost, and will let you know as soon as I have a clear answer on this.

2. You indicated three prefixes, one of which does not exist and one of which was incorrect. ES/RP and Geol (not Geo) are prefixes, but such crosslisting is not typically needed within a single unit. What is your preference, Geol?

I think I prefer "Geol."

3. The credit hours do not indicate a lab component, but the syllabus indicates a small lab component (3 activities) and the grading section indicates a rather large lab component (20%). These seem inconsistent. If there is only a small lab component, then the credit can be listed as just 3 lecture hours/no lab since this is the closest approximation. However, the syllabus must be quite specific about the time requirement so students can reserve the time.

The lab component is relatively small in terms of time spent actually performing measurements, but the students are asked to do a comprehensive analysis and write-up of the data that they collect. Hence, though the lab itself is not time-intensive, the write up is fairly substantial, leading to its being given weight as 20% of the grade.

4. The amount of course grading weight given to class participation is high, 25%. High is this evaluated?

Class participation is an absolutely essential part of this course, and is weighted accordingly. Students lead discussions of original research papers every week, and are evaluated on their effort and success in summarizing papers and engaging the rest of the class in substantive and relevant discussion. Students are also graded on weekly discussion questions that are turned in. The final, collaborative project(s) in the course are arrived at based on in-class discussion, and the relative contribution of class participants is evaluated here too.

5. The prerequisite is not given on the cover page. For graduate courses the undergraduate course prerequisites are typically given descriptively, since these students will usually not have taken WSU courses. "Chem 106" could be "a year of General Chemistry" and anything else you wish to recommend.

I am happy to change this.

6. The syllabus is a little dated in its reference to a course management system. I assume that you will be using Angel.

If you can respond to these questions, Catalog should be able to approve this proposal and forward it to Graduate Studies. When they approve the course it then goes to the Senate for final approval.

Yes, I now use Angel, not Blackboard and will change the syllabus accordingly.

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Watershed Biogeochemistry (ES/RP 592) - Fall 2010

Lecture and discussion: F 9:30-12:15, VELS 18

INSTRUCTOR

John Harrison
Office: VELS 230B
Office hours: Wed. 1:00 - 2:30 pm, and by appointment
Email: john_harrison@wsu.edu
Phone: 360-546-9210

Sciences Program Office: 230 Engineering and Life Sciences Bldg., (360)546-9620

SCOPE OF COURSE

- Explores transfer of water, energy and nutrients within watersheds; focuses on inter- and intra-system interactions of the atmosphere, biosphere, geosphere and hydrosphere.
- Presents biogeochemical concepts followed by application of these concepts to solve environmental problems.
- Case studies highlight biogeochemical principles and application of biogeochemical principles to current environmental problems.
- Compile, analyze, and write an original, collaborative research paper on a "hot" topic related to transport of nutrients downstream through watersheds

TEXT

Biogeochemistry: An Analysis of Global Change, William Schlesinger, 1997, Second Edition, Academic Press.

Additional reading materials will be provided in-class or electronically

INTERNET

Class website = https://lms.wsu.edu/

To Login: username = your Net ID
Password = your WSU password

If you don't know your internet ID and password go to http://www.vancouver.wsu.edu/vis/vit/vithome.html or contact the Information Technology Help Desk in room ITB2091, send an email message to helpdesk@wsu.edu or call 509-335-0522.

PREREQUISITES

To succeed in ES/RP 592, you will need a strong background in the chemistry. Therefore, to register for this course, you are required to have taken two semesters of introductory college chemistry and received a grade of C or higher. It is also strongly recommended that you have some background in ecology or biogeochemistry.

COURSE GRADING

25% class participation, 20% lab participation and write-ups; 45% final paper/project; 10% discussion leading presentations. Class participation will be evaluated based on attendance, active participation in discussions, and quality of written reading-related questions (handed in during each class period).

GRADE RANGES (max cutoff)	
90 points	**A**
80	**B**
70	**C**
60	**D**
<60	**F**

COURSE FORMAT

We will meet once per week for a 2.5-hour session (with a break). This period will be used for a mix of lecture, discussion and laboratory activities. Discussions will be student-led. Students will be responsible for choosing 2-3 papers that will be assigned to the rest of the class the week before the discussion occurs. *This means that discussion leaders will need to contact me with paper suggestions more than a week before they lead discussion.* Students who aren't discussion leaders will be expected to come to class with 3 reading-related questions written down and will hand these questions in at the beginning of class.

POLICY ON LATE (OR EARLY) ASSIGNMENTS

Papers (and peer reviews): Late papers will be docked one grade every two days after the published due-date. This penalty is applied after the normal grading of the report. No papers will be accepted after 5:00PM on the last day of classes.

Early submission: If you know that you will not be present at the time your paper is due, you may submit it early without penalty. Submissions may be made directly to the instructor or to the Sciences Program Office, Room 230 ELS.

DISABILITIES

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 Student Services Center (360) 546-9138.

ACADEMIC INTEGRITY

Academic integrity is the cornerstone of the university and will be strongly enforced in this course. Cheating or plagiarism in any form is unacceptable. Cheating includes, but is not limited to: copying work or allowing your work to be copied; use of unauthorized

material during quizzes and exams; any communication between students during quizzes and exams; actively looking at another student's paper during a quiz or exam. All occurrence of cheating may be reported to the Office of Student Affairs. The first incidence of cheating will result in a score of zero for the assignment, quiz, or exam in question. A second incident will result in an F for the course and possible dismissal from the University. For additional information about WSU's Academic Integrity policy/procedures please contact (360) 546-9781.

Emergency Notification System: WSU has made an **emergency notification system** available for faculty, students and staff. Please register at myWSU with emergency contact information (cell, email, text, etc). You may have been prompted to complete emergency contact information when registering for classes on RONet. In the event of a **Building Evacuation**, a map at each classroom entrance shows the evacuation point for each building. Please refer to it. Finally, in case of **class cancellation campus-wide**, please check local media, the WSU Vancouver web page and/or http://www.flashalert.net/. Individual class cancellations may be made at the discretion of the instructor. Each individual is expected to make the best decision for their personal circumstances, taking safety into account.

Watershed Biogeochemistry – Fall 2010

(Course Schedule)

Date	**Topics**
Aug 27	Introduction to watershed biogeochemistry course and concepts Lab/Mini-field trip: WSUV watershed walk
Sept 3	Water movement through watersheds
Sept 10	No class
Sept 17	Soil weathering processes and solute losses
Sept 24	Terrestrial nutrient processing
Oct 1	Nutrient transport through lakes and wetlands
Oct 8	Biogeochemistry of rivers and estuaries
Oct 15	Engineering alterations to watershed nutrient transport and watershed modeling
Oct 22	Work Session-introduction to dataset and tools, discuss papers relevant to group project
Oct 29	Guest lecture on Columbia River Watershed (TBA)
Nov 5	Work Session- discuss papers relevant to group project **Project outlines due (with references)**
Nov 12	Work Session- discuss papers relevant to group project
Nov 19	Work Session- discuss papers relevant to group project **Draft projects due**
Nov 26	Thanksgiving
Dec 3	Work Session- discuss papers relevant to group project
Dec 10	Presentation of final papers/projects **Final projects due**