

APPLICATION FOR CHANGE IN EXISTING COURSE: MAJOR and MINOR

1. Submitted by the College of _____ Date: _____

Department/Division offering course: _____

2. What type of change is being proposed? Major Minor*

*See the description at the end of this form regarding what constitutes a minor change. Minor changes are sent directly from the dean of the college to the Chair of the Senate Council.

If the Senate Council chair deems the change not to be minor, the form will be sent to the appropriate Council for normal processing and an email notification will be sent to the contact person.

PROPOSED CHANGES

Please complete all "Current" fields.

Fill out the "Proposed" field only for items being changed. Enter N/A if not changing.

Circle the number for each item(s) being changed. For example: (6.)

3. Current prefix & number: _____ Proposed prefix & number: _____

4. Current Title _____

Proposed Title[†] _____

[†]If title is longer than 24 characters (including spaces), write a sensible title (24 characters or less) for use on transcripts:

5. Current number of credit hours: _____ Proposed number of credit hours: _____

6. Currently, is this course repeatable? YES NO If YES, current maximum credit hours: _____

Proposed to be repeatable? YES NO If YES, proposed maximum credit hours: _____

7. Current grading system: Letter (A, B, C, etc.) Pass/Fail

Proposed grading system: Letter (A, B, C, etc.) Pass/Fail

8. Courses must be described by at least one of the categories below. Include the number of actual contact hours per week for each category, as applicable.

Current:

() CLINICAL () COLLOQUIUM () DISCUSSION () LABORATORY () LECTURE

() INDEPEND. STUDY () PRACTICUM () RECITATION () RESEARCH () RESIDENCY

() SEMINAR () STUDIO () OTHER – Please explain: _____

Proposed:

() CLINICAL () COLLOQUIUM () DISCUSSION () LABORATORY () LECTURE

() INDEPEND. STUDY () PRACTICUM () RECITATION () RESEARCH () RESIDENCY

() SEMINAR () STUDIO () OTHER – Please explain: _____

9. Requested effective date (term/year): _____ / _____

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10. Current teaching method: N/A Community-Based Experience Service Learning Component Both

Proposed teaching method (if applicable): Community-Based Experience Service Learning Component Both

11. Current cross-listing: N/A _____
Prefix and Number NAME of current cross-listing DEPARTMENT

a. Proposed – REMOVE the current cross-listing:

b. Proposed – ADD a cross-listing: _____
Prefix and Number Signature of chair of proposed cross-listing department

12. Current prerequisites:

Proposed prerequisites:

13. Current Bulletin description:

Proposed Bulletin description:

14. What has prompted this change?

15. If there are to be significant changes in the content or teaching objectives of this course, indicate changes:

16. Please list any other department that could be affected by the proposed change:

17. Will changing this course change the degree requirements for ANY program on campus? YES NO
If YES[‡], list below the programs that require this course:

[‡]In order for the course change to be considered, program change form(s) for the programs above must also be submitted.

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18. Is this course currently included in the University Studies Program? Yes No

19. Check box if changed to 400G or 500. If changed to 400G- or 500-level, you must include a syllabus showing differentiation for undergraduate and graduate students by (i) requiring additional assignments by the graduate students; and/or (ii) the establishment of different grading criteria in the course for graduate students. (See *SR 3.1.4*)

20. Within the department, who should be contacted for further information on the proposed course change?

Name: _____ Phone: _____ Email: _____

21. Signatures to report approvals:

DATE of Approval by Department Faculty	/	<div style="display: flex; justify-content: space-between;"> printed name Reported by Department Chair signature </div>
DATE of Approval by College Faculty	/	<div style="display: flex; justify-content: space-between;"> printed name Reported by College Dean signature </div>
*DATE of Approval by Undergraduate Council	/	<div style="display: flex; justify-content: space-between;"> printed name Reported by Undergraduate Council Chair signature </div>
*DATE of Approval by Graduate Council	/	<div style="display: flex; justify-content: space-between;"> printed name Reported by Graduate Council Chair signature </div>
*DATE of Approval by Health Care Colleges Council (HCCC)	/	<div style="display: flex; justify-content: space-between;"> printed name Reported by Health Care Colleges Council Chair signature </div>
*DATE of Approval by Senate Council		Reported by Office of the Senate Council
*DATE of Approval by the University Senate		Reported by the Office of the Senate Council

*If applicable, as provided by the *University Senate Rules*.

Excerpt from *University Senate Rules*:

SR 3.3.0.G.2: Definition. A request may be considered a minor change if it meets one of the following criteria:

- a. change in number within the same hundred series;
- b. editorial change in the course title or description which does not imply change in content or emphasis;
- c. a change in prerequisite(s) which does not imply change in content or emphasis, or which is made necessary by the elimination or significant alteration of the prerequisite(s);
- d. a cross-listing of a course under conditions set forth in *SR 3.3.0.E*;
- e. correction of typographical errors.

Course Syllabus

FOR 460

Forest Hydrology and Watershed Management

Class Period

Lecture: 3 hours per week

Lab: 3 hours per week

Instructor

Dr. Chris Barton

Room 203 T.P. Cooper Building

859-257-2099

chris.barton@uky.edu

COURSE OVERVIEW

Course Description

Principles and techniques involved in watershed management as it relates to the practice of forestry. Emphasis is placed on understanding the hydrologic cycle, plant-soil interactions from a land-use and landscape perspective, and the need for implementation of forestry best management practices. Laboratory, three hours per week. *Prerequisites: CHE 104 or CHE 105, MA 109 or Calculus, FOR 200, and PLS 366.*

Student Learning Outcomes

At the end of this course, the student will be able to demonstrate the following skills.

1. Use your knowledge of the hydrologic cycle to explain how climate, soils, vegetation, and land-use affect the amount, timing, and quality of water.
2. Explain the plant-soil water relationship from the hydrologic perspective.
3. Explain hydrologic interactions from a land-use and landscape perspective.
4. Comprehend the need for forestry best management practices in relation to hydrology and watershed management.
5. Quantitatively measure and calculate hydrologic variables and describe analytical procedures for evaluating precipitation, evapotranspiration, infiltration, and stream flow.
6. Analyze current issues in watershed management in relation to social and economic impacts.
7. Interpret hydrology data and graphs as related to hydrology and watershed management.

Grading Procedures – Assignments, Grading Criteria, Letter Grades

Exam I	15%
Exam II	15%
Final Exam	15%
Homework (4)	20% (5 each)
Lab Reports (4)	20% (5 each)
Technical Report	15%

Letter Grades

- A: $\geq 90\%$
- B: $\geq 80\%$ and $< 90\%$
- C: $\geq 70\%$ and $< 80\%$
- D: $\geq 60\%$ and $< 70\%$
- E: $< 60\%$

Course Outline

- I. Water Resources
 - A. Watershed Management and Water Resources
 - B. Worldwide Water Resources

- II. Introduction to Hydrologic Cycle

- III. Precipitation
 - A. Process
 - B. Measurement
 - C. Analysis of Precipitation Data

- IV. Interception and Net Precipitation
 - A. Process
 - B. Hydrologic Importance

- V. Evapotranspiration and Soil Water
 - A. Water Budget
 - B. Process of Evaporation
 - C. Soil Evaporation
 - D. Transpiration
 - E. Potential ET - Actual ET

- VI. Infiltration
 - A. Process and Measurement
 - B. Infiltration Equations
 - C. Land-use Impacts on Infiltration

- VII. Runoff and Streamflow

- A. Measurement of Streamflow
 - B. Field calculations
- VIII. Stream Channel Morphology
- A. River Continuum Concept
 - B. Rosgens Stream Classification concept
- IX. Water Quality
- A. Overview
 - B. Physical Characteristics
 - C. Chemical Characteristics
- X. Erosion Processes and Control -
- A. Surface Erosion
 - B. Gully Erosion and Control
 - C. Mass Soil Erosion
- XI. Water Quality Management-BMPs
- A. Riparian Systems
 - B. Wetland Systems
 - C. Roads, landings, trails etc.
- XII. Watershed Management Planning, Multiple Use and Sustainable Development

COURSE POLICIES

Attendance and Excused Absences

Attendance is mandatory for this course.

Excused absences include: 1) illness of the student, 2) serious illness or death of an immediate family member, 3) official college trips, and 4) major religious holidays. For categories 1 and 2, notification must occur within 1 week of the absence, and verification may be required. For categories 3 and 4, the instructor must be notified in writing 1 week prior to the event. Other unusual, legitimate problems will be addressed on a case-by-case basis. If a student has excused absences in excess of one fifth of the class contact hours, a student may petition and receive either a “W” or an “I” for the course.

Exams must be taken at the designated times unless *prior* arrangements have been approved by the instructor. Prior arrangements can be made for academic or health reasons, but will not be made for personal convenience.

Problem sets are due two weeks after the date on which it was assigned unless otherwise indicated. **Late problem sets will be deducted by 10% each day** unless *prior* arrangements have been made with the instructor.

Academic Integrity, Cheating and Plagiarism

Plagiarism and other forms of cheating are unacceptable and will not be tolerated. Additional information on plagiarism may be found at <http://www.uky.edu/Ombud/Plagiarism.pdf> .

Professional Preparation

This course helps prepare you for your professional career. You are expected to attend class, be on time, participate in class discussions, and be respectful of your instructor and fellow classmates.

Disability Statement

Students with a disability that need classroom or exam accommodations should contact the Disability Resource Center, 257-2754, room 2 Alumni Gym, jkarnes@uky.edu .