

LSC Use Only Proposal No:
LSC Action Date:

UWUCC Use Only Proposal No: 14-99
UWUCC Action Date: AP-11/11/14

Senate Action Date: App 12/2/14

Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

Contact Person(s) Richard Hoch	Email Address rhoch@iup.edu
Proposing Department/Unit GEOG & RGPL	Phone 5990

Check all appropriate lines and complete all information. Use a separate cover sheet for each course proposal and/or program proposal.

1. Course Proposals (check all that apply)

New Course
 Course Prefix Change
 Course Deletion
 Course Revision
 Course Number and/or Title Change
 Catalog Description Change

Current course prefix, number and full title: **RGPL 426 - Environmental Land-use Planning**

Proposed course prefix, number and full title, if changing: **GEOG 526 - Environmental Land-use Planning**

2. Liberal Studies Course Designations, as appropriate
This course is also proposed as a Liberal Studies Course (please mark the appropriate categories below)

Learning Skills
 Knowledge Area
 Global and Multicultural Awareness
 Writing Across the Curriculum (W Course)
 Liberal Studies Elective (please mark the designation(s) that applies – must meet at least one)

Global Citizenship
 Information Literacy
 Oral Communication
 Quantitative Reasoning
 Scientific Literacy
 Technological Literacy

3. Other Designations, as appropriate

Honors College Course
 Other: (e.g. Women's Studies, Pan African)

4. Program Proposals

Catalog Description Change
 Program Revision
 Program Title Change
 New Track
 New Degree Program
 New Minor Program
 Liberal Studies Requirement Changes
 Other

Current program name: _____

Proposed program name, if changing: _____

5. Approvals	Signature	Date
Department Curriculum Committee Chair(s)		10/10/14
Department Chairperson(s)		10/10/14
College Curriculum Committee Chair		10-15-14
College Dean		10/24/14
Director of Liberal Studies (as needed)		
Director of Honors College (as needed)		
Provost (as needed)		
Additional signature (with title) as appropriate		
UWUCC Co-Chairs		11/12/14

Received

NOV 12 2014

Received

OCT 24 2014

SYLLABUS OF RECORD

- I. **Catalog Description.** This includes the course title, number of credits, prerequisites and an appropriately written course description.

Catalog Description

RGPL 426 Environmental Land Use Planning

GEOG 526 Environmental Land Use Planning

3 class hours

0 lab hours

3 credits

(3c-01-3cr)

Prerequisite Undergraduate: RGPL 350 recommended

Prerequisite Graduate: RGPL 550 recommended

Examines principles, techniques, and applications for the environmental land-use planning process. Focuses on surface water and deals with topics such as land-use, stream monitoring, stream conservation and restoration, and watershed management. Students who complete course will be exposed to environmental planning legislation and policy, best management practices, and applied techniques.

- II. **Course Outcomes.** These should be measurable and student centered. What is it that students are expected to achieve as a result of taking this course? (Refer to taxonomies in Appendix C for assistance with course outcomes.)

By the end of the semester the students will be able to:

- 1. Identify common problems associated with development activities and the natural world.*
- 2. Document potential conflicts between development activities and the environment.*
- 3. Utilize quantitative and qualitative methods that characterize environmental processes.*
- 4. Analyze environmental conditions based on observation and evidence.*
- 5. Develop the relationship between proper planning techniques and desired outcomes.*
- 6. Apply the proper planning method to mitigate for an observed environmental impact.*

For the Graduates:

- 1. Compile theoretical and technical documentation pertaining to modeling surface water runoff*
- 2. Develop a working model in an appropriate software package that demonstrates your knowledge of all course objectives*

- III. **Detailed Course Outline.** This should give the reader an outline of the topics examined in the course as well as an indication of the amount of time spent on each topic. This is either done by indicating the number of class hours spent on each topic or by indicating the percentage of time spent on each topic. The total number of hours for the class is 14 (weeks) times the number of credits (e.g., 14 weeks x 3cr = 42 hours). Do not forget to allow time for exams in the outline.

Week	Topic
1	Review syllabus / Introduction to environmental land-use planning Background and brief history of environmental planning & policy
2	<i>Physiography overview</i> / Appalachian physiography <i>Site and situation</i> / Elements of the site / Data sources and collection methods

- 3 **Topography and slope** – problems for planning
-Assessing slope steepness and stability / Variations in suitability depending on site / data sources
- 4 **Soils, land-use suitability, wastewater and wastewater alternatives**
-Soil texture, moisture and drainage / traditional on-lot septic systems / alternative wastewater treatment and small-flows wetlands systems – PROJECT INTRODUCTION DISCUSSION
- 5 **EXAM 1**
Groundwater, land-use and aquifer protection – basics / Aquifers & their relationships with surface waters for planning / Source-water & well-head protection planning
Watersheds – organization of networks and basins / various methods
7 -Watersheds as planning units – mapping elements / Carrying capacity and land-use
Stormwater discharge and water management / Computing runoff – methods, models and concepts
8 -Best management practices (BMPs) / Municipal Separate Storm Sewer System (MS4) / permitting
Streams, rivers and floods – sources and forecasting
9 Sizes and shapes of valleys and floodplains – assessment techniques
Planning and floodplain mapping – E-DFIRM, NFIP and CFM
- 10 **EXAM 2 – PROJECT DRAFTS DUE**
Streams, channel formation, riparian zones - Hydraulic and hydrology of streams
11 Sediment deposition / channel dynamics / management problems / BMPs / permitting
Erosion and Sedimentation / Factors influencing erosion / computing erosion runoff
12 Sediment transport / planning implications, strategies and philosophies
Wetlands and land-use planning – Function / wetlands ecology / uses / BMPs
13 Wetlands mitigation, permitted uses and permitting, banking
Water Quality and Land-use – Sources of contamination
14 Planning strategies to improve surface water quality – Case Studies
Best Management Practices Review – Production, Release, Delivery – PROJECTS DUE
FINAL EXAM

IV. **Evaluation Methods.** Indicate the type(s) of evaluation used (quizzes, exams, projects, papers, etc.) and detail the requirements on evaluations particular to this course. Indicate the weight of each type of evaluation being used, how the final grade will be determined, and a grading scale. Explain the nature of the culminating activity during final exam period (week 15).

Undergraduates:

<u>Exam 1</u> – multiple choice, short answer	25%	<i>The project involves:</i>
<u>Exam 2</u> – multiple choice, short answer	25%	Part 1 – Annotated literature review
<u>Final Exam</u> – multiple choice, short answer, essay/problem	25%	Part 2 – Annotated data source bibliography
<u>Project</u> –	25%	Part 3 – Detailed flowchart depicting
	100%	problem-solving

Graduates:

<u>Exam 1</u> – multiple choice, short answer	25%	<i>the project involves:</i>
(Graduates - model documentation)		Part 1 – Annotated literature review
<u>Exam 2</u> – multiple choice, short answer	25%	Part 2 – Annotated data source bibliography
(Graduates - model development)		Part 3 – Flowchart depicting problem-solving
<u>Final Exam</u> – short answer, essay/problem	25%	Graduates:
(Graduates - model results)		Part 4 – An expository write-up of the
process		
<u>Project</u> –	25%	Part 5 – A professional presentation of the
process		
	100%	

In-class activities and homework will be assigned. These have no point value towards the final grade, but will assist

you in preparation of your exams.

V. **Example Grading Scale.**

Grading Scale (undergraduate)		Grading Scale (graduate)	
A	100 – 91	A	100 – 91
B	90 – 81	B	90 – 81
C	80 – 71	C	80 – 71
D	70 – 61	F	70 or lower
F	60 or lower		

It is required that all exams and project are completed in order to be eligible to pass the course

VI. **Undergraduate Course Attendance Policy.** Generally this attendance policy should be very generic so that different instructors may tailor their own attendance policy. If, however, the department wishes to require attendance for a course, include a specific policy that conforms to the University attendance policy listed below.

“Indiana University of Pennsylvania expects all students to attend class. There will be material discussed during class time that will not be found in the text. Participation and attendance may be considered when determining final grades. However, attendance will not be taken before every class period. You are permitted 3 absences per university policy.”

The university expects all students to attend class.

Individual faculty members may define attendance standards appropriate to each course and the consequences of not meeting those standards, within the following guidelines:

1. Each policy must be distributed in writing during the first week of the course. Normally, it is expected that the information dealing with class attendance standards will be distributed with the Semester Course Syllabus.
2. Each policy must recognize students' need to miss class because of illness or personal emergency.
3. Each policy must define some limited level of allowable absence, normally at least a number of clock hours equal to course semester [credit] hours.

Graduates: Graduate students are required to adhere to the attendance policies put forth be the IUP School of Graduate Studies and Research. Please refer to the latest IUP Graduate Catalog for the current policy.

VII. **Required Textbook(s), Supplemental Books and Readings.** The UWUCC recognizes textbooks change rapidly in some fields and by the time the course is offered the textbook indicated in the syllabus may be outdated. However, please indicate your judgment of the best textbook available at the time the course is proposed.

Required Text: Randolph, John. *Environmental Land Use Planning and Management 2nd ed.* Island Press. 2011. Washington, DC.

Additional readings will be assigned throughout the semester.

VIII. **Special Resource Requirements.** List any materials or equipment the student is expected to supply for this course. Is there a lab fee associated with the course?

There are no special resource requirements for this course

IX. **Bibliography.** An appropriate list of resource materials used in preparing for the course and for teaching the course. Generally we expect a list of 5 to 15 entries using a citation style appropriate to your discipline. Any accepted bibliographic style may be used but please be consistent.

1. Craig, R. K. *The Clean Water Act and the Constitution 2nd ed.* ELI Press. 2009. Washington, DC.
2. Daniels, Tom and Katherine Daniels. *The Environmental Planning Handbook.* 2003. APA Press. Chicago.
3. Eccleston, C. H. *NEPA and Environmental Planning.* CRC Press. 2008. Boca Raton.
4. Freitag, B., et. al. *Floodplain Management.* Island. 2009. Washington, DC.
5. Honachefsky, W. B. *Ecologically Based Municipal Land Use Planning.* Lewis. 2000. Boca Raton.
6. Lein, J. K. *Integrated Environmental Planning.* 2006. Blackwell. Malden.
7. Leopold, L. B., et. al. *Fluvial Processes in Geomorphology.* Dover. 1995. Mineola.
8. Marsh, William, M. *Landscape Planning; Environmental Applications 4th ed.* Wiley. 2005. Hoboken.
9. Randolph, John. *Environmental Land Use Planning and Management.* Island. 2004. Washington, DC.
10. Riley, A. *Restoring Streams in Cities.* Island. 1998. Washington, DC.
11. Rosgen, D. *Applied River Morphology.* Wildland Hydrology. 1996. Pagosa Springs.
12. Strand, M. and Lowell Rothschild. *Wetlands Deskbook.* ELI Press. 2009. Washington, DC.
13. Thorp, J. H., et. al. *The Riverine Ecosystem Synthesis.* Academic Press. 2008. London.
14. Westman, W. E. *Ecology, Impact Assessment and Environmental Planning.* Wiley. 1985. New York.
15. Yang, J. *Solving Global Water Crises.* Earth Ecosciences. 2007. Sacramento.

Course Analysis Questionnaire

Section A: Details of the Course

- A1 How does this course fit into the programs of the department? For what students is the course designed? (majors, students in other majors, liberal studies). Explain why this content cannot be incorporated into an existing course.

*This course will be suggested for the **MS - GEOG Environmental Planning Track** and recommended for students in the Regional Planning Track and suitable for the GIS/Cartography Track*

- A2 Does this course require changes in the content of existing courses or requirements for a program? If catalog descriptions of other courses or department programs must be changed as a result of the adoption of this course, please submit as separate proposals all other changes in courses and/or program requirements.

The course will not require changes in the content of other existing courses.

- A3 Has this course ever been offered at IUP on a trial basis (e.g. as a special topic) If so, explain the details of the offering (semester/year and number of students).

This course has previously been offered three times as a Special Topics Geography 581. First offered in spring 2009 with an enrollment of 17 students. The course was offered again in the fall of 2010 with an enrollment of 14 students. The course was offered again in the spring of 2013 with an enrollment of 5 students.

- A4 Is this course to be a dual-level course? If so, please note that the graduate approval occurs after the undergraduate.

Yes. This course will be listed as a dual-level course.

- A5 If this course may be taken for variable credit, what criteria will be used to relate the credits to the learning experience of each student? Who will make this determination and by what procedures?

The course will not be offered for variable credit.

- A6 Do other higher education institutions currently offer this course? If so, please list examples (institution, course title).

Comparable courses offered at other institutions include:

- Salisbury University – Environmental Planning
- University of Virginia –Intro. To Community & Environmental Planning
- Florida Atlantic University - Environmental Planning and Society
- University of New Hampshire – Community and Environmental Planning
- University of Washington - Introduction to Community and Environmental Planning

- A7 Is the content, or are the skills, of the proposed course recommended or required by a professional society, accrediting authority, law or other external agency? If so, please provide documentation.

No

Section B: Interdisciplinary Implications

- B1 Will this course be taught by instructors from more than one department? If so, explain the teaching plan, its rationale, and how the team will adhere to the syllabus of record.

This course will not be taught by instructors from more than one department.

- B2 What is the relationship between the content of this course and the content of courses offered by other departments? Summarize your discussions (with other departments) concerning the proposed changes and indicate how any conflicts have been resolved. Please attach relevant memoranda from these departments that clarify their attitudes toward the proposed change(s).

This course is designed for students in the Environmental Planning track of the Masters of Geography Program. No other departments at IUP cover this type of material in the context of public service, process, and policy.

- B3 Will this course be cross-listed with other departments? If so, please summarize the department representatives' discussions concerning the course and indicate how consistency will be maintained across departments.

This course will not be cross-listed with other departments.

Section C: Implementation

C1 Are faculty resources adequate? If you are not requesting or have not been authorized to hire additional faculty, demonstrate how this course will fit into the schedule(s) of current faculty. What will be taught less frequently or in fewer sections to make this possible? Please specify how preparation and equated workload will be assigned for this course.

Faculty resources are adequate for this course

C2 What other resources will be needed to teach this course and how adequate are the current resources? If not adequate, what plans exist for achieving adequacy? Reply in terms of the following:

*Space - *Adequate*

*Equipment - *Adequate*

*Laboratory Supplies and other Consumable Goods - *Adequate*

*Library Materials - *Adequate*

*Travel Funds - *Adequate*

C3 Are any of the resources for this course funded by a grant? If so, what provisions have been made to continue support for this course once the grant has expired? (Attach letters of support from Dean, Provost, etc.)

No resources for this course are funded by a grant.

C4 How frequently do you expect this course to be offered? Is this course particularly designed for or restricted to certain seasonal semesters?

This course is expected to be taught once per year in the spring.

C5 How many sections of this course do you anticipate offering in any single semester?

One section of this course will be offered in any single semester.

C6 How many students do you plan to accommodate in a section of this course? What is the justification for this planned number of students?

Six students is the anticipated maximum number of students expected for this course. The justification for this maximum is based on the past enrollment in the course as a special topics and based on the historic trend of MS students in Geography choosing the environmental planning track. Additional students will be permitted to register for the course with instructor approval.

C7 Does any professional society recommend enrollment limits or parameters for a course of this nature? If they do, please quote from the appropriate documents.

No.

C8 If this course is a distance education course, see the Implementation of Distance Education Agreement and the Undergraduate Distance Education Review Form in Appendix D and respond to the questions listed.

This course is not a distance education course.

Section D: Miscellaneous

No additional information is necessary.