

SEP 10 2010

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		10-33g.	AP 11/9/10	App-12/7/10

Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

Contact Person Bob Begg / John Benhart	Email Address bobbegg@iup.edu
Proposing Department/Unit Geography and Regional Planning	Phone 724-357-2250

Check all appropriate lines and complete information as requested. Use a separate cover sheet for each course proposal and for each 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

RGPL 426 Environmental Land Use Planning

Current Course prefix, number and full title

Proposed course prefix, number and full title, if changing

2. Additional Course Designations: check if appropriate

☐ This course is also proposed as a Liberal Studies Course. ☐ Other: (e.g., Women's Studies, Pan-African)

☐ This course is also proposed as an Honors College Course.

3. Program Proposals

☐ New Degree Program ☐ Program Title Change ☐ Program Revision
☐ New Minor Program ☐ New Track

Current program name

Proposed program name, if changing

4. Approvals

		Date
Department Curriculum Committee Chair(s)	Gail Sechrist	9/3/10
Department Chair(s)	John Benhart Jr	9/3/10
College Curriculum Committee Chair	Shirley Challen	9/13/10
College Dean	Ann	9/13/10
Director of Liberal Studies *		
Director of Honors College *		
Provost *		
Additional signatures as appropriate: (include title)		
UWUCC Co-Chairs	Gail Sechrist	11/12/10

* where applicable

Received

SEP 13 2010

Liberal Studies

I. Catalog Description

Catalog Description

RGPL 426 Environmental Land-use Planning

3 class hours

0 lab hours

3 credits

(3c-01-3cr)

Prerequisites: RGPL 350 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

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.*

III. Detailed Course Outline

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

IV. Evaluation Methods

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

A = 90% - 100%
B = 80% - 89%
C = 70% - 79%

D = 60% - 69%

F = below 60%

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

VI. **Undergraduate Course Attendance 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.

VII. **Required Textbook(s), Supplemental Books and Readings**

Required Text: Marsh, William, M. *Landscape Planning; Environmental Applications 4th ed.* Wiley. 2005. Hoboken, NJ. **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**

Craig, R. K. *The Clean Water Act and the Constitution 2nd ed.* ELI Press. 2009. Washington, DC.

Daniels, Tom and Katherine Daniels. *The Environmental Planning Handbook.* 2003. APA Press. Chicago.

Eccleston, C. H. *NEPA and Environmental Planning.* CRC Press. 2008. Boca Raton.

Freitag, B., et. al. *Floodplain Management.* Island. 2009. Washington, DC.

Honachefsky, W. B. *Ecologically Based Municipal Land Use Planning.* Lewis. 2000. Boca Raton.

Lein, J. K. *Integrated Environmental Planning.* 2006. Blackwell. Malden.

- Leopold, L. B., et. al. *Fluvial Processes in Geomorphology*. Dover. 1995. Mineola.
- Marsh, William, M. *Landscape Planning; Environmental Applications* 4th ed. Wiley. 2005. Hoboken.
- Randolph, John. *Environmental Land Use Planning and Management*. Island. 2004. Washington, DC.
- Riley, A. *Restoring Streams in Cities*. Island. 1998. Washington, DC.
- Rosgen, D. *Applied River Morphology*. Wildland Hydrology. 1996. Pagosa Springs.
- Strand, M. and Lowell Rothschild. *Wetlands Deskbook*. ELI Press. 2009. Washington, DC.
- Thorp, J. H., et. al. *The Riverine Ecosystem Synthesis*. Academic Press. 2008. London.
- Westman, W. E. *Ecology, Impact Assessment and Environmental Planning*. Wiley. 1985. New York.
- 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 a requirement for the Regional Planning Environmental Planning Track and recommended for students in the Regional Planning Land Use Planning and GIS Track and suitable for the Geography 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 as a Special Topics Geography 481/581. First offered in spring 2008 with an enrollment of 19 students. The course is being offered again in the fall of 2010. This class has an enrollment of 24 students.

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

This course will not 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 Regional Planning Majors and will be required for those in the Environmental Planning Track and will be recommended for those students in the Regional Planning Land Use Planning and GIS Track. 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.

Yes, faculty resources are adequate, this course has been taught as a 481 and is already in the course rotation.

- 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 (every other semester).

- 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?

Thirty five (35) students is the anticipated maximum number of students expected for this course. The justification for this maximum is because more students than 35 would diminish the level of 400-level instruction.

- 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.
