

## **Syllabus: GPHY 466 - Environmental Planning**

**Fall Semester, 2019**

### **Course and Instructor Details**

Instructor: Dave Shively

Department: Geography

Institution: University of Montana

Course Meets: Tuesday & Thursday, 9:00-10:20 AM, STON 217

Instructor Office: Stone Hall Room 212

Instructor Email: [david.shively@umontana.edu](mailto:david.shively@umontana.edu)

Instructor Office Hours: T 10:30-11:30; W 3:00-4:00; R 10:30-11:30; and by Appt

Phone: 406-243-6478

### **Course Description**

This course is designed to engage the student in the practice of environmental planning which includes elements of physical planning, planning design at the landscape scale, and conservation planning. It is intended for students of planning, but others are welcome.

### **Course Objectives**

Upon successful completion of the course, you should be able to:

- Describe the use and practicality of different farmland protection tools;
- Distinguish between and recognize the utility and practicality of planning approaches such as land capability and/or suitability assessment, & conservation & green infrastructure planning;
- Using appropriate maps, information sources, and field observation, identify elements of and apply appropriate watershed and waterway protection tools and strategies;
- Describe the process and outcomes of planning for hazards;
- Describe the impacts of urban and regional development and growth on water availability, wastewater, stormwater, water quality, wetlands, and air quality management, programs for managing these impacts, and the elements of such programs.

### **Texts & Required Materials**

- Randolph, John. 2012. *Environmental Land Use Planning and Management* (2<sup>nd</sup> Edition). Washington, D.C.: Island Press.
- Other Assigned Readings: These will be made available as weblinks and/or documents available from the course Moodle site accessible via UMOonline.

### **Supplementary Materials**

- A course Moodle supplement is provided through UM Online Moodle (visit for syllabus, writing guidelines, and resources).

## Course Requirements

<b>Element</b>	<b>Grads</b>	<b>Undergrads</b>
Attendance/Quizzes/Discussions	30 percent	30 percent
Course Project	30 percent	30 percent
Activities	40 percent	40 percent

*Note: Undergraduates and graduates will be evaluated separately.*

### **Reading Reviews/Participation**

This is a senior/graduate level course, and as such your participation and responsibility with regard to preparation is expected - READ the ASSIGNED MATERIAL and COME TO CLASS PREPARED. To ensure that this expectation is met, you should have reviewed the readings corresponding to each class session and be prepared to contribute meaningfully to class discussion,

### **Quizzes**

Quizzes will be scheduled for those class days for which readings were assigned, and any quiz will query that assigned material with a random question or two. The expectation is that the quiz will require 5-10 minutes for response.

They will be graded as follows: 3 pts – quite thorough; 2 pts – somewhat thorough; 1 point – not very thorough; 0 points – not received.

### **Course Project**

You must engage in one course project, either individually or with a partner. This should take the form of a report on the application/analysis of one or more of the environmental planning topics visited during the semester (you might scan ahead in the syllabus schedule) in context of a selected place (community level; city, metro, county). Graduate students are expected to incorporate a stronger review of the literature into their projects. Papers and reports should be double spaced, with 1 inch margins, and 12 pt. Times New Roman Text. Undergrad papers should range between 10-15 pages, not including title page and figures/tables (appropriately labeled, captioned, and attached at rear), and Grad papers should range between 12-18 pages of text.

The report shall be: word processed; free of errors; follow Turabian style guidelines for the title page for a class paper (See Figure A.1 in Turabian\_Title\_Page\_Examples.pdf in Resources area of Blackboard site, and Annals of AAG format for use of headings, citations (parenthetical) and references for resources utilized (see Huber paper provided in Moodle/Section 5).

### **Activities**

Several activities will be assigned throughout the semester. You should work on these with a partner or two. A brief report should be submitted for each. Document formatting should be done as described for Course Project report above. Each report should document the problem, the objective, the resources utilized, the method(s) utilized, the results, a conclusion, and references/resources utilized. Attach any field notes (legible and complete) and similar items as appendices where appropriate.

### **Grading**

Though I will examine the distribution of course scores (totals) to ensure that it is an appropriate and fair one, I do not practice grading that contributes to “grade-inflation.” The best individual strategy to ensure that you receive a grade you can live with is to work to meet and/or exceed course requirements. Remember, A’s are rewards for Superior Performance, B’s for Above Average Performance, and C’s for Average Performance. Those who just manage to meet project requirements will not receive as high a grade as those who give their projects an extra something (initiative, creativity, quality of writing and/or presentation, depth and breadth of critical analysis). Course grades will be based upon the following percentages of the total points possible for the course as weighted by the criteria specified in course requirements. Please note, this class is offered for traditional letter grade only, it is not offered under the credit/no credit option.

#### **Scale:**

**A ≥ 93.0% A- = 90.0-92.9%**

B+ = 87.0-89.9%    B = 83.0-86.9%    B- = 80.0-82.9%

C+ = 77.0-79.9%    C = 73.0-76.9%    C- = 70.0-72.9%

D+ = 67.0-69.9%    D = 63.0-66.9%    D- = 60.0-62.9%

F ≤ 59.9%

### **Policies**

Attendance is expected – you will benefit from this. Attendance will be recorded, and quiz and discussion activities are scheduled to ensure that you will attend, and be timely to class. A handful (i.e., 4) of absences will be discounted from attendance/quiz/discussion scoring – please use these judiciously. Please notify the instructor of planned absences, and in the event you have an unplanned absence notify the instructor as soon as you are able.

Late work will lose one-half a letter grade (i.e., A to A-) for each day late *including weekends*. Work is due at the start of class on day specified. Please do not make excuses for late work – I will need advance notification of any factors that will affect your ability to turn in work on time and/or to meet other course requirements. Save, back-up, and be prepared to submit digital (i.e., on disk) copies of any work produced during the semester in case of technology failures.

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code.

It is extremely disruptive to have students arrive late and/or leave early. I know that you have nothing else on your schedule during the class period, therefore your presence throughout the entire class period is expected. Not only will this keep me happy, it will help you to master the material.

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students. If you think you may have a disability adversely affecting your academic performance, and you have not already registered with Disability Services, please contact Disability Services in Lommasson Center 154 or 406.243.2243. I will work with you and Disability Services to provide an appropriate modification.

Important Information Concerning UM Deadlines for Add/Drop, Etc.

Please see: [Fall 2019 Official Dates and Deadlines](#)

Deadline	Description	Date
To 15 <sup>th</sup> instructional day	Students can drop classes on CyberBear with refund & no "W" on Transcript	September 16, @5 PM
16 <sup>th</sup> to 45 <sup>th</sup> instructional day	A class drop requires a form with instructor and advisor signature, a \$10 fee from registrar's office, student will receive a 'W' on transcript, no refund.	September 17 – October 28 @5 PM
Beginning 46 <sup>th</sup> instructional day	<b><u>Students are only allowed to drop a class under very limited and unusual circumstances.</u></b> Not doing well in the class, deciding you are concerned about how the class grade might affect your GPA, deciding you did not want to take the class after all, switching majors, and similar reasons are not among those limited and unusual circumstances. If you want to drop the class for these sorts of reasons, make sure you do so by the end of the 45 <sup>th</sup> instructional day of the semester. Requests to drop must be signed by the instructor, advisor, and Associate Dean (in that order) so if you pursue this request, <b><u>leave sufficient time to schedule meetings with each of these individuals</u></b> (generally this will take at least 3-5 working days). A \$10 fee applies if approved. Instructors must indicate whether the individual is Passing or Failing the class at the time of request.	October 28 – December 6 @5 PM

Commented [FW1]:

### Provisional Course Schedule

<b>Week</b>	<b>Topic</b>	<b>Reading(s)</b>	<b>Activities</b>
<b>1</b> (8/27 & 8/29)	<b>T:</b> Intro <b>R:</b> Environmental Management for Sustainability	<b>T:</b> NA <b>R:</b> Randolph Ch.1,	<b>T:</b> Discuss planning, syllabus, course requirements, etc. <b>R:</b> Quiz/Discussion
<b>2</b> (9/3 & 9/5)	<b>T:</b> Environmental Planning for Sustainability <b>R:</b> Institutional & Legal Framework for Planning and Land Use Regulation	<b>T:</b> Ch. 2. <b>R:</b> Institutional-Legal Framework (Moodle).	<b>T:</b> Quiz/Discussion <b>R:</b> Quiz/Discussion
<b>3</b> (9/10 & 9/12)	<b>T:</b> Planning & Growth Mgmt. Tools <b>R:</b> Soils, Agriculture, LESA	<b>T:</b> Ch. 17 <b>R:</b> <b>(1)</b> Ch. 6 (pp 143-164, 173182); <b>(2)</b> Lapeer County PDR Document (Moodle)	<b>T:</b> Quiz/Discussion <b>R:</b> <b>Activity 1 – Rating Tool</b> (begin)
<b>4</b> (9/17 & 9/19)	<b>T:</b> <b>Soils, Agriculture,</b> LESA Cont'd <b>R:</b> Land Capability/ Suitability Analysis	<b>T:</b> Ch. 6 (pp 182-end) <b>R:</b> <b>(1)</b> Ch. 14 (pp 490-497); <b>(2)</b> Steiner (Steiner Readings – Moodle); <b>(3)</b> <a href="http://www.ci.missoula.mt.us/DocumentCenter/View/22439/UFDAProject-Staff-Recommendation7-30-2008?bidId=">http://www.ci.missoula.mt.us/DocumentCenter/View/22439/UFDAProject-Staff-Recommendation7-30-2008?bidId=</a>	<b>T:</b> <b>Activ 1 work</b> <b>R:</b> <b>Activ 1</b> (cont'd)
<b>5</b> (9/24 & 9/26)	<b>T:</b> <b>Activity 1</b> <b>R:</b> <b>Activity 1</b>	<b>T:</b> Larsen et al – Opps & Constraints (Steiner Rdgs-Moodle) <b>R:</b> Larsen et al – Visions & Strategies (Steiner RdgsMoodle)	<b>T:</b> <b>Activity 1</b> (cont'd) <b>R:</b> <b>Activity 1</b> (cont'd)
<b>6</b> (10/1 & 10/3)	<b>T:</b> Hazard Mitigation Planning <b>R:</b> Floodplains	<b>T:</b> <b>(1)</b> Ch. 13 (pp 443-452); <b>(2)</b> Hazard Mitigation Plans (Folder in Moodle Readings Area); <b>(3)</b> Where FEMA Fails (Moodle) <b>R:</b> <b>(1)</b> Ch. 7 (pp 186-198, 207213); <b>(2)</b> Marsh – Streamflow, etc.(Moodle); <b>(3)</b> Ch. 13 (452-467) <a href="http://www.ci.missoula.mt.us/DocumentCenter/View/22432">http://www.ci.missoula.mt.us/DocumentCenter/View/22432</a>	<b>T:</b> <b>Activity 2 – HMP Assessment</b> (begin) <b>R:</b> <b>Activ 2 work</b>
<b>7</b> (10/8 & 10/10)	<b>T:</b> Floodplain Regulation <i>Guest Speaker?</i> <b>R:</b> Fire	<b>T:</b> Ch. 13 (pp. 467-480) <b>R:</b> Ch. 13 (pp. 481-486)	<b>T:</b> <b>Activ 2 work</b> <b>R:</b> <b>Quiz/Discussion</b>

<b>Week</b>	<b>Topic</b>	<b>Reading(s)</b>	<b>Activities</b>
<b>8</b> (10/15 & 10/17)	<b>T:</b> Riverine Systems <b>R:</b> Streamside Protection	<b>T:</b> (1) Ch. 7 (pp. 229-234, 282-289); (2) Fisher & Sponseller (Moodle) (3) Vannote et al. (Moodle); (4) <a href="http://dnrc.mt.gov/licenses-andpermits/stream-permitting">http://dnrc.mt.gov/licenses-andpermits/stream-permitting</a> <b>R:</b> TBD (Montana, Missoula, Ravalli, Gallatin Cos.; OR, MI).	<b>T: Activ. 3: Waterway protection (begin)</b> <b>R: Activ 3 work</b>

<b>9</b> (10/22 & 10/24)	<b>T:</b> Wetlands <b>R:</b> Field Trip?	<b>T (1)</b> Ch. 10 (pp. 342-355); (2) Planning Guide for Protecting MT Wetlands/Riparian Areas (Chapter 5 in Moodle); Realtor Wetland Booklet (Moodle) <b>R:</b> n/a	<b>T: Activ 3 work</b> <b>R: Activ 3 work</b>
<b>10</b> (10/29 & 10/31)	<b>T:</b> Water Rights <b>R:</b> Instream Flows	<b>T:</b> Buyers Guide to Montana Water Rights (Moodle) <b>R:</b> Gillilian & Brown (Moodle)	<b>T: Activ 3 work</b> <b>R: Quiz/Discussion</b>
<b>11</b> (11/5 & 11/7)	<b>T:</b> Groundwater <b>R:</b> Protecting Water Quality – <i>Travis Ross, Director, Missoula Valley Water Quality District.</i>	<b>T: (1)</b> Ch. 9; (2) Review Montana Source Water Protection Program items on Moodle site <b>R: (1)</b> Ch. 7 (pp. 213-226); (2) Ch. 6 (pp. 159-165) (3) Missoula Valley Water Quality Ordinance (Moodle); <b>Maybe:</b> Clark Fork River Pend Oreille Watershed Mgmt Plan (Moodle)	<b>T: Quiz/Discussion</b> <b>R: Quiz/Discussion</b>
<b>12</b> (11/12 & 11/14)	<b>T:</b> Storm Water <b>R:</b> Air Quality – CAA & LU	<b>T: (1)</b> Ch. 7 (pp 195-200); Ch. 8 (2) Marsh Stormwater... (Moodle) <b>R:</b> EPA Chs. 3 -7 (Moodle)	<b>T: Quiz/Discussion</b> <b>R: Quiz/Discussion</b>
<b>13</b> (11/19 & 11/21)	<b>T:</b> Air Quality Cont'd <b>R:</b> Conservation Planning	<b>T:</b> TBD <b>R:</b> Ch. 15	<b>T: Quiz/Discussion</b> <b>R: Quiz/Discussion</b>
<b>14</b> (11/26 & 11/28)	<b>T:</b> Green Infrastructure <b>R: Thanksgiving</b>	<b>T:</b> Benedict & McMahon <b>R: n/a</b>	<b>T: Quiz/Discussion</b> <b>R: Quiz/Discussion</b>
<b>15</b> (12/3 & 12/5)	<b>T:</b> Green Infrastructure <b>R:</b> Wrapping Up	<b>T:</b> GreenPrint (Moodle; pp 1-42) <b>R: n/a</b>	<b>T: Quiz/Discussion</b> <b>R: Quiz/Discussion</b>
<b>FINAL</b>	<b>TBD</b>	<b>n/a</b>	<b>Course Project Due: TBD</b>

Note: Provisional nature of course schedule indicates that though every attempt will be made to adhere to this schedule, it is not written in stone. Any impact of deviations from the schedule on course activities will be considered and adjusted for.