Course Overview:
This course is designed to expose students to the multifaceted components of environmental planning. In doing so, a wide spectrum of selected contemporary environmental issues will be identified and discussed. Students will integrate their knowledge of natural systems and natural factors into the planning process. Furthermore, the natural environment is inherently spatial. As such, students will cultivate the technical skills necessary to utilize GIS as a vehicle to further advance their understanding of selected environmental factors and processes. The rigor of this course will build as students develop and conduct a spatial environmental sensitivity analysis. This is designed to further develop each student’s GIS capabilities, fortify their environmental knowledgebase, and engage them in methodologies for infusing these data into the environmental planning process. The course will culminate by further integrating the environmental sensitivity analysis into the development of a conservation and open space plan.

Course Goals and Objectives:
1) Build on the student’s understanding of natural system processes, their interactions with built environments, and their application in environmental planning:
   a) Explore, inventory, and develop an understanding of a wide array ecological landscape elements and concepts as they pertain to the environmental planning.
   b) Formulate approaches for integrating and infusing these ecological elements in the land use planning process.
   c) Devise a comprehensive planning methodology which further addresses these elements in the form of landscape design and planning alternatives.
2) Develop geospatial skills which facilitate a spatial understanding of ecological landscape elements and environmental factors while advancing physical planning:
   a) Acquire technical skill sets pertaining to GIS system operation.
   b) Obtain, display, analyze, and model landscape elements and environmental factors.
   c) Engage in geospatial methodologies for assessing and modeling environmentally sensitive areas within the land use planning context.

3) Further integrate geospatial techniques and analysis as the cornerstone in environmental and land use planning:
   a) Explore the application of utilizing environmental constraints in the environmental planning process.
   b) Utilize environmental constraints modeling to modify and better inform planned urban growth.
   c) Further refine and integrate an environmental sensitivity analysis as means of developing a conservation and open space plan.

Course Format:
This course will utilize a combination of lectures, seminars, discussions, labs, and outside readings in order to convey the broad spectrum of materials being covered. This is designed to be an adaptive means of utilizing the best conveyance media possible for each topic and to fully engage the students in a variety of ways. Student contributions and involvement are paramount to the success of this course. As the course relies on student initiative and interest, students are encouraged to share their own experiences, understanding of the material and constructive commentary with the class.

GIS lab work makes up a major component of this course. Students will be provided with a student desk copy of the GIS software so that work may be conducted on their own personal machine. Students will have access to the lab during the designated course time; this time however should not be expected to be used as work time. Students will gain lab access whenever a designated course is not scheduled in the lab; you will need to consult the lab schedule regularly as restricted lab access will not be an accepted excuse for late work.

Course Attendance and Grading:
Students are required to be on time and attend each class session. As this course meets once a week, missing even a single session results in a large disconnect of content and continuity.

An unexcused failure to attend a scheduled class session will result in an automatic 5% deduction from your final course grade. Excused absences must be discussed with the instructor, in writing, prior to missing the class. Excused absences are only those which are outlined by official U of A policy.
Additionally, students should expect to work a great deal out of class in order to assure appropriate mastery of the material and assigned work. Your grade will be based upon your overall participatory willingness/attitude, performance in class exercises, assignments, and the final project/plan.

The following criteria will be used:

- **Attitude**: Overall willingness to perform the required work and a healthy respect for the professors, classmates, and all invited guests
- **Understanding and Application**: Grasp and integration of the issues at hand
- **Process and Effort**: Diligence in performance of assigned tasks
- **Craftsmanship**: A sign of care, interest, and skill in adding to course material and contributions

The relative value of course requirements will be apportioned as shown below. These are subject to change as the course schedule is finalized.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Attitude, Attendance, and Preparedness</td>
<td>15%</td>
</tr>
<tr>
<td>Readings and Exercises</td>
<td>25%</td>
</tr>
<tr>
<td>Assignments</td>
<td>30%</td>
</tr>
<tr>
<td>Final Project/Plan</td>
<td>30%</td>
</tr>
</tbody>
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The following standards will be used:

- **A=Excellent (90-100)**: The work reflects significant depth of understanding of the assignments, to their full potential. The problems have been both fully developed and communicated exceedingly well in written, graphic, or other media. This means outstanding work.

- **B=Good (80-89)**: Work shows an above-average depth of understanding. The problem solutions demonstrate an attention to detail and a consciousness of good craft. This means above-average work.

- **C=Fair (70-79)**: All the requirements of the assignments have been met and the problems have been solved adequately, but the solutions lack depth of understanding and development. The overall work demonstrates skills barely appropriate for this level. This means average work.

- **D=Poor (60-69)**: The work is extremely weak and lacks full resolution of the stated problems. Craft is weak. Skills appropriate to this level have not been demonstrated. This means poor work.

- **F=Failed (0-59)**: The work is incomplete and/or poorly portrayed. The solutions to problems evidence a lack of understanding and skills appropriate to this level, and a general lack of effort in fulfilling assignments. This means unacceptable work and the student must repeat course to get credit.
Course Materials:
There will likely be two required texts for this course. In an effort to minimize costs to the students however, texts are currently being reviewed to assure that they are indeed valuable resources to you in this class and in the future. A complete reading list is also being compiled and will be distributed during the next class.

In addition to the required texts, digital literature in the form of excerpts from other texts, professional documents, and journal articles will be posted on D2L on a weekly basis. This content will be posted at least 4 days prior to class period in which it will be discussed. It is the requirement of all students to have read this supplemental material fully, and be able to discuss in a critical way, the content and concepts of this material during class.

Prerequisites:
At this time, there are no prerequisites for this course. Students are strongly encouraged however to have taken, or be enrolled in, RNR/PLG 472/572 Environmental Land Use Planning, and an introductory GIS course. This course will build on the knowledgebase of natural systems, factors, and technical skills acquired in these courses. GIS will however be taught at an introductory level and built on rapidly in this course in order to address a lack of this encouraged prerequisite.

Academic Integrity:
Your conduct in this course is a reflection of your professional integrity. All materials presented in this course are subject to proper citation; this includes all data, images, text, ideas, concepts, etc. You will NEVER be reprimanded for citing materials; you will however receive a failing grade for the course for plagiarizing other’s work or cheating.

The official University of Arizona Code of Academic Integrity states:

“Integrity and ethical behavior are expected of every student in all academic work. This Academic Integrity principle stands for honesty in all class work, and ethical conduct in all labs and clinical assignments. This principle is furthered by the student Code of Conduct and disciplinary procedures established by ABOR Policies 5-308 through 5-404, all provisions of which apply to all University of Arizona students.”

Accommodation for Special Needs:
Special needs will be accommodated for based on official U of A policy. If you require any assistance on this matter whatsoever please contact me immediately and we formulate a plan for addressing your needs and moving forward.

Open Door Policy:
I have a vested interest in your personal and professional success, I want nothing more than for you to succeed and excel both in this course and beyond. My door is always open to discuss course materials, your personal and professional interests, and anything else to which you feel I may be of use. I will make every effort to get to know you better and I am truly excited to be working with you in this course and in the future.