NOTE to prospective students: This syllabus is intended to provide students who are considering taking this course an idea of what they will be learning. A more detailed syllabus will be available on the course site for enrolled students and may be more current than this sample syllabus. Summer term courses may be accelerated – please check the Ecampus Schedule of Classes for more information.

FW 303
SURVEY OF GEOGRAPHIC INFORMATION SYSTEMS IN NATURAL RESOURCE

COURSE CREDITS:
(3) This course combines approximately 90 hours of instruction, online activities, and assignments for 3 credits.

PREREQUISITES, CO-REQUISITES AND ENFORCED PREREQUISITES:
See the Office of the Registrar website for information on Prerequisite Enforcement.

COURSE DESCRIPTION FROM CATALOG
FW 303. SURVEY OF GEOGRAPHIC INFORMATION SYSTEMS IN NATURAL RESOURCE (3).
Concepts underlying geographic information systems, global positioning system, and remote sensing; application to management and research, data quality issues, and case studies. Not a lab/skills class.

CONTACT INFORMATION:
For more information, contact: Dr. Randall Moore, randy.moore@oregonstate.edu

Sample syllabi may not have the most up-to-date information. For accuracy, please check the ECampus Schedule of Classes to see the most current instructor information. You can search for contact information by name from the OSU Home Page.

LEARNING RESOURCES:
No textbooks are required for FW303. We make use of many sources of information in the course, but all are freely available via the internet and/or the Canvas course interface.

**NOTE:** For textbook accuracy, please always check the textbook list at the OSU Bookstore website. Sample syllabi may not have the most up-to-date information.

Students can also click the ‘OSU Beaver Store’ link associated with the course information in the Ecampus schedule of classes for course textbook information and ordering.

**COURSE SPECIFIC MEASURABLE STUDENT LEARNING OUTCOMES:**

When you complete the coursework for FW303, you will:

- Understand the basic functional principles of the 3 related spatial technologies upon which the course focuses: Global Positioning Systems (GPS), Remote Sensing (RS), and Geographic Information Systems (GIS).
- Understand how data acquired from GPS and RS systems are integrated and manipulated with a GIS.
- Be able to apply basic internet search skills that allow you to navigate online repositories of spatial data.
- Be able to apply your knowledge of spatial metadata to understand the nature of a given spatial data set.
- Be able to perform basic spatial analyses using online and open source GIS’s.

**COURSE CONTENT AND POLICIES:**

This course will provide an overview of Geographic Information Systems (GIS) and the related topics of GPS (global positioning systems) and Remote Sensing, as tools for the study and management of natural resources. Of benefit to nearly everyone who manages or studies any area of the earth is an understanding of the tremendous power of GIS for display and analysis of spatial datasets—in other words, *when* and *why* to use GIS, GPS and Remote Sensing.

At the end of the course, students will understand the basic concepts underlying these technologies, how each is applied, and what types of analyses can be conducted with them. Students will explore case studies that demonstrate a range of management and research questions utilizing these technologies in the management and investigation of natural resources.

Note that this course *does not* focus on training students in the use of GIS software. However, because there is an increasing array of GIS tools aimed at non-professional GIS users, the revised versions of FW303 now include lectures introducing you to open-source and free GIS programs. The purpose of these introductory lectures is still heavily focused on using these tools to help solidify the students’ conceptual grasp of how these technologies work and what we use them for; learning some basics of how to use a GIS is just a bonus.
Course management, content, and instruction will be Internet-based. Anticipated student activities include: web-based tutorials on GIS, GPS and Remote Sensing; interactive mapping; web searches on topics of specific interest; and very basic use of a fully functional open-source GIS program.

Lecture Topics

1. Introduction to FW303- GPS, Remote Sensing, and GIS
2. GPS Basics
3. Aerial Photography and Related Topics
4. Remote Sensing Basics
5. Image Analysis and Applications of Remote Sensing
6. Integration of Concepts, Introduction to GIS
7. Geospatial Data and Metadata
8. Internet Mapping, Map Basics, and Map Quality
9. Spatial Analysis Using GIS
10. Using an open-source GIS

Means of Assessment

Quizzes, Assignments, and Discussion Board Posts will make up 100% of your grade in FW303.

Lecture Quizzes (roughly 35%)

1. There are 5 Lecture-based quizzes and one comprehensive Final Quiz in FW303.
2. When preparing for a quiz, complete all of the Lecture activities and review your work. You may use your notes and any other course materials during the quiz.
3. You may take a Lecture quiz at any point during the term, though I strongly suggest taking them upon completing the lecture activities upon which they’re based.
4. If there is a quiz assigned for a particular lecture, it will be located in the Course Module for that lecture.
Assignments (roughly 35%)

1. Most weekly lectures will require completion of one or more assignments, directions for which will be imbedded in the lecture.
2. There will be an upload link in the appropriate Course Module for every assignment.

Grading Scale

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<thead>
<tr>
<th>Grade</th>
<th>Percent</th>
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<tbody>
<tr>
<td>A</td>
<td>100.0 - 92.5</td>
</tr>
<tr>
<td>A-</td>
<td>92.4 - 90.0</td>
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<tr>
<td>B+</td>
<td>89.9 - 87.5</td>
</tr>
<tr>
<td>B</td>
<td>87.4 - 82.5</td>
</tr>
<tr>
<td>B-</td>
<td>82.4 - 80.0</td>
</tr>
<tr>
<td>C+</td>
<td>79.9 - 77.5</td>
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<tr>
<td>C</td>
<td>77.4 - 72.5</td>
</tr>
<tr>
<td>C-</td>
<td>72.4 - 70.0</td>
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<tr>
<td>D+</td>
<td>69.9 - 67.5</td>
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<tr>
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<td>62.4 - 60.0</td>
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<tr>
<td>F</td>
<td>&lt;60</td>
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</tbody>
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EVALUATION OF STUDENT PERFORMANCE:

In the OSU online catalog, refer to AR 18 and AR 19 regarding assignment of grades.
COURSE SITE LOGIN INFORMATION
Information on how to login to your course site can be found HERE.

STATEMENT REGARDING STUDENTS WITH DISABILITIES
Oregon State University is committed to student success; however, we do not require students to use accommodations nor will we provide them unless they are requested by the student. The student, as a legal adult, is responsible to request appropriate accommodations. The student must take the lead in applying to Disability Access Services (DAS) and submit requests for accommodations each term through DAS Online. OSU students apply to DAS and request accommodations at our Getting Started with DAS page.

Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at 541-737-4098.

ACADEMIC INTEGRITY AND STUDENT CONDUCT (OSU POLICY)
Students are expected to be honest and ethical in their academic work. Intentional acts of academic dishonesty such as cheating or plagiarism may be penalized by imposing an “F” grade in the course.

Student conduct is governed by the universities policies, as explained in the Office of the Dean of Student Life: Student Conduct and Community Standards. In an academic community, students and faculty, and staff each have responsibility for maintaining an appropriate learning environment, whether online or in the classroom. Students, faculty, and staff have the responsibility to treat each other with understanding, dignity, and respect.

Students are expected to conduct themselves in the course (e.g. on discussion boards, email postings, etc.) in compliance with the university’s regulations regarding civility. Students will be expected to treat all others with the same respect as they would want afforded to themselves. Disrespectful behavior (such as harassing behavior, personal insults, inappropriate language) or disruptive behaviors are unacceptable and can result in sanctions as defined by Student Conduct and Community Standards.

For more info on these topics please see:
- Statement of Expectations for Student Conduct
- Student Conduct and Community Standards - Offenses
**Policy On Disruptive Behavior**

**PLAGIARISM**
You are expected to submit your own work in all your assignments, postings to the discussion board, and other communications, and to clearly give credit to the work of others when you use it. Academic dishonesty will result in a grade of “F.”

- **Statement of Expectations for Student Conduct**
- **Avoiding Academic Dishonesty**

**TECHNICAL ASSISTANCE**
If you experience computer difficulties, need help downloading a browser or plug-in, assistance logging into the course, or if you experience any errors or problems while in your online course, contact the OSU Help Desk for assistance. You can call (541) 737-3474, email osuhelpdesk@oregonstate.edu or visit the OSU Computer Helpdesk online.

- **COURSE DEMO**
- **GETTING STARTED**

**TUTORING**
For information about possible tutoring for this course, please visit our Ecampus NetTutor page. Other resources include:

- **Writing Center**
- **Online Writing Lab**

**STUDENT EVALUATION OF TEACHING**
The online Student Evaluation of Teaching form will be available in week 9 and close at the end of finals week. Students will be sent instructions via ONID by the Office of Academic Programs, Assessment, and Accreditation. Students will log in to “Student Online Services” to respond to the online questionnaire. The results on the form are anonymous and are not tabulated until after grades are posted. Course evaluation results are very important and are used to help improve courses and the learning experience of future students. Results from questions are tabulated anonymously and go directly to instructors and unit heads/supervisors. Unless a comment is “signed,” which will associate a name with a comment, student comments on the open-ended questions are anonymous and forwarded to each instructor. “Signed” comments are forwarded to the unit head/supervisor.

**REFUND POLICY INFORMATION**

This course is offered through Oregon State University Extended Campus. For more information, contact:

**Web:** ecampus.oregonstate.edu  **Email:** ecampus@oregonstate.edu  **Tel:** 800-667-1465
Please see the [Ecampus website](https://ecampus.oregonstate.edu) for policy information on refunds and late fees.