Course Prefix / Number: OCE4265 6175

Course Title: Ocean Remote Sensing

Course Credit Hours: 3SH

Instructor Name and Contact Information: Dr. Wilbur Hugli, 850-499-5797; whugli@uwf.edu

An Introduction to Ocean Remote Sensing (Paperback); by Seelye Martin

ISBN – 9780521003414

Publisher: Cambridge University Press

Prerequisites or Co-Requisites: EVR4023 (Call Department for permission)

Course Description

This course provides a foundation in cartographic and remote sensing principles, and practical experience with remote sensing applications as they relate to the world’s oceans. It examines basic concepts of electromagnetic radiation and its interaction with earth. Remotely sensed images from sensors such as SeaWiFS, AVHRR, and Topex/Poseidon will be discussed. Exercises will cover ocean color, sea surface temperature altimetry, and sea ice.

Course Goals

Upon completion of the course, students will be able to:

- Identify technical and operational capabilities of remote sensors covering ocean and marine areas.
- Assist in the design and selection of sensors for application to oceanography programs and research.
- Review, correlate, and apply remote sensing data and imagery to oceanography projects.
- Determine the validity and reliability of remote sensing data.
Program Goals

This is a required course for the UWF Online Marine Oceanography degree program.

Topics

Refer: Schedule and Assignements Overview

- preview - Introduction
- session 1 - Background
- session 2 - Ocean surface phenomena and Electromagnetic Radiation
- session 3 - Atmospheric properties and radiative transfer, reflection, transmission and absorption at the atmosphere/ocean
- session 4 - Ocean color and infrared observations of sea surface temperature
- session 5 - Introduction to microwave imagers and passive microwave observations of the atmosphere and ocean surfaces
- session 6 - Introduction to radars
- session 7 - Scattermeter observations
- session 8 - The altimeter
- session 9 - Imaging radars
- session 10 - Future oceanographic satellite systems: 2013 to 2020
- session 11 - Summary and final comments
- session 12 - Tie up loose ends and final

Student Learning Outcomes (SLOs)

Are located in the respective topic assignments.

Texts / Materials

Required texts:

An Introduction to Ocean Remote Sensing (Paperback); by Seelye Martin
ISBN – 9780521003414

Publisher: Cambridge University Press

Recommended or Supplemental texts (Suggested not required library resources):
1. Remote Sensing and Image Interpretation (5th Ed), by Lillesand et al

Required Materials:
- Internet Access (broadband is recommended)
- Activated UWF ArgoNet E-mail Account
- Recommendation: A computer that will allow Video and Flash presentations (iPad will not work for some presentations)

Topics and Module/Chapter Student Learning Outcomes:
Each weekly class session will have specific topics and desired student learning outcomes identified. Students are responsible for text material whether or not this material is entirely covered in lecture, presentation, or supplemental material provided. It is expected that the text and required readings will be completed prior to each online class. Students will be a primary source of information to be shared via threaded discussions each week with the entire class.

About this Course:
This course is delivered completely online. You must have consistent access to the Internet. Learning at a distance may be a very different environment for many of you. You will generally set your own schedules, participate in class activities at your convenience, and work at your own pace. You may spend some additional time online during the first few weeks while you become acclimated to the online class format and you may feel overwhelmed. You should also be prepared to spend approximately 6 - 8 hours per week online completing lessons, activities, and participating in class discussions. Finally, you may want to incorporate these tips to help you get started:
1. Set yourself a schedule -- check the course web site early in the class week to see what tasks you'll need to work on for the week.

2. Become very familiar with the site and how to use it. It is a tool to help you learn!

3. Team up with your classmates to discuss class assignments and questions you might have. Check the “Classlist” and student introductions for biography info and email addresses.

4. Ask questions when you need answers. If you have problems, contact your instructor ASAP! I will help you come up with a solution!

5. Course Weeks run for Monday 8:30am to the following Sunday at 6:00pm! Time is in Central Daylight time. Some presentation material will be in Greenwich (GMT) or Universal time (UMT).

Tests:

Weekly online quizzes will be available to all students and will used to evaluate student learning and goal achievement. Questions are randomly selected from a larger test bank and each students quiz should be different. Online quizzes (15 to 20 questions) are timed (two minutes per question) and will close at the end of the allotted time. Save after each question. Once closed, the quizzes cannot be reopened.

The final exam will be formatted to evaluate student comprehension of concepts using essay responses. Students can review their weekly progress on Monday by checking eLearning Grades

Misc:

Some optional course information may be available as we proceed through the course. I will notify you by e-mail and as a NEWS Bulletin.

There are eLearning Dropboxes for your homework and other material submitted for grade

Elluminate software may be used for some presentations and communications. Please log into eLearning and work through the self-paced instructions to familiarize yourself with this learning tool. If you plan to fully use Elluminate a video camera is advisable. If you use a video camera please insure that it is always seeing an appropriate background view.
Students are not authorized to place class notes or resources on the Internet or sell them to Internet sources.

There may be assignments included in the gradebook for which there will no assignment or grade. I use these to swap assignments for different class sections.

**E-mail communications** – You must include your name and class information in the subject line. This will prevent your e-mail from being treated as spam. If you have not received a reply within 72 hours I have not received you mail.

**Grading / Evaluation**

University grade scale will be used based on the statistical norm conversion of points for work completed versus what could have been completed. Each correct quiz answer is worth one point.

Participation in each threaded discussion and/or journal entries is worth from 0 to 10 points based on posts and reviews in total. Your initial post is worth 0 to 3 points. Two replies to posts are each worth 0 to 3 points. One point is mine to use in evaluation of your total discussion performance. There is a grading rubric I use for all courses in CONTENT. Late work is by exception and permission and maybe reduced in grade by 10 percent.

Cheating and plagiarism will result in failing grades.

Students can review their progress by accessing the class eLearning web site: “Grades.” The eLearning grades book is the official course gradebook.

**Points Distribution**

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<th>Item</th>
<th>Quantity</th>
<th>Possible Points Each</th>
<th>Total</th>
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<tbody>
<tr>
<td>Journal Entries</td>
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<td>10</td>
<td>100</td>
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<tr>
<td>(participation)</td>
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<tr>
<td>Discussions</td>
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<td>10</td>
<td>110</td>
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<tr>
<td>(participation)</td>
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<tr>
<td>Quizzes (Syllabus and Integrity)</td>
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<td>15/11</td>
<td>26</td>
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<tr>
<td>Quizzes (Modules)</td>
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<td>10</td>
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<td>Final Exam</td>
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<tr>
<td><strong>Total Possible Points</strong></td>
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Letter grades may be assigned as follows:

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<tr>
<td>376 to 385</td>
<td>A</td>
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<tr>
<td>360 to 375</td>
<td>B +</td>
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<tr>
<td>346 to 359</td>
<td>B</td>
</tr>
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<td></td>
<td>D</td>
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**Detailed Evaluation Criteria**
Attendance Policy

University students are adults who are responsible for their conduct, performance and class attendance. Excused absences will be credited for grade only if all assignments are completed with permission and as scheduled. Completion of the online assignments includes attendance commitments. The university absence-drop policy is applicable. Students failing to complete work in two consecutive weeks may be dropped from the class. Individuals are responsible to make up work missed due to absences; however, this work may be graded with reduced credit. If you cannot complete an assignment for a viable reason let me know. Changes that affect the entire class will be sent using the ArgoNet Group Mail system embedded in the ARGUS and eLearning systems—remember to have this account forwarded to your regularly used e-mail account. Attendance is included in the grade evaluation.

Minimum Technical Skills and Special Technology Utilized by Students

This course is totally online. All instructional content and interaction takes place over the WWW. In addition to baseline word processing skills and sending/receiving email with attachments, students will be expected to search the internet and upload/download files. In addition, students may need one or more of the following plug-ins:

- Real Player: [http://www.real.com/realplayer/search](http://www.real.com/realplayer/search)
- Configure your computer for Online Room (Elluminate Live!) sessions: [http://support.blackboardcollaborate.com/ics/support/default.asp?deptID=8336&task=knowledge&questionID=1279](http://support.blackboardcollaborate.com/ics/support/default.asp?deptID=8336&task=knowledge&questionID=1279)
Expectations for Academic Conduct / Plagiarism Policy

Academic Conduct Policy: (Web Site) | (PDF Format) |
UWF Library Online Tutorial: Plagiarism |

Assistance for Students with Disabilities

The Student Disability Resource Center (SDRC) at the University of West Florida supports an inclusive learning environment for all students. If there are aspects of the instruction or design of this course that hinder your full participation, such as time-limited exams, inaccessible web content, or the use of non-captioned videos and podcasts, please notify the instructor or the SDRC as soon as possible. You may contact the SDRC office by e-mail at sdrc@uwf.edu or by phone at (850) 474-2387. Appropriate academic accommodations will be determined based on the documented needs of the individual.

Accessibility Resources

- Follow this link for information on accessibility features in eLearning.
- Follow this link for information on accessibility features in UWF’s Learning Management System (LMS), Desire2Learn.

TurnItIn

UWF maintains a university license agreement for an online text matching service called TurnItIn. At my discretion, I will use the TurnItIn service to determine the originality of student papers. If I submit your paper to TurnItIn, it will be stored in a TurnItIn database for as long as the service remains in existence. If you object to this storage of your paper:

1. You must let me know no later than two weeks after the start of this class.
2. I will utilize other services and techniques to evaluate your work for evidence of appropriate authorship practices.

Weather Emergency Information
In the case of severe weather or other emergency, the campus might be closed and classes cancelled. Official closures and delays are announced on the UWF website and broadcast on WUWF-FM.

- WUWF-FM (88.1MHz) is the official information source for the university. Any pertinent information regarding closings, cancellations, and the re-opening of campus will be broadcast.
- In the event that hurricane preparation procedures are initiated, the UWF Home Web Page and Argus will both provide current information regarding hurricane preparation procedures, the status of classes and the closing of the university.
- Students remote from the UWF Campus should monitor their local weather and weather advisory resources.

Emergency plans for the University of West Florida related to weather or other emergencies are available on the following UWF web pages:

- Information about hurricane preparedness plans is available on the UWF web site:
  http://uwfemergency.org/hurricaneprep.cfm
- Information about other emergency procedures is available on the UWF web site:
  http://uwfemergency.org/