

## **SO262: Physical Geography**

*Autumn 2011*

**Instructor:** Dr. Gina R. Henderson

**Office:** CH 206

**Office Hours:** by appointment

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**Class meeting time and Place:** MW in room CH161, F in room CH087, 0755-0845

**Online Course Information:** via Blackboard

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### **Required Textbook:**

Christopherson, Elemental Geosystems, 6th Ed.

### **Readings:**

- Reading assignments are listed in the course syllabus. Students will complete readings prior to each class, and these may be included on quizzes prior to coverage in lecture. The instructor may lecture on material not readily available to the student. It is imperative that students keep well organized class notes. Students are responsible for all material covered in class and in assignments. The instructor will cover major topics and supplement text material in lecture, but some testable material will only be found by reading the text. The frequency of unannounced quizzes will be driven by the level of interest and preparation demonstrated by students in class.
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### **Course Description:**

The ultimate goal of this course is to provide each student with a better appreciation and understanding of physical environment of planet earth. This course takes an earth systems approach to studying the planet we inhabit. All of the Earth's spheres – the atmosphere (weather & climate), hydrosphere (water in all its forms), lithosphere (earth's surface), and biosphere (living organisms (plants and animals)) – are examined in detail. The lectures, assignments and project explore the complex interactions between these spheres as well as how they affect (and are affected by) humans.

The lectures cover the fundamental principles that are necessary for understanding earth systems science (also referred to as physical geography) and the exercises and project offer “hands-on” experience to reinforce these concepts. The exercises provide students with the opportunity to utilize freely available remotely sensed earth system science data to explore

surface features discussed throughout the course. Other exercises require students to differentiate climates, interpret topographic maps, and think like a hydrologist.

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## II. Policy Statement

### a. Grade weights

Activity	Quantity	% of Final Grade	Comment
Quizzes & Exercises		20%	
Project		15%	
Tests	2	40%	Each worth 20% of final grade
Final Exam (cumulative)	1	25%	15% of final grade

Grades will be assigned as follows (Instructor reserves the right to adjust the grading system):

A: 100%-90%    B: 89%-80%    C: 79%-70%    D: 69%-60%    F: 59% and below

### b. Deliverables

- i. Quizzes and exercises (20% of final grade): the quizzes will be a mixture of definition, short answer and problems. There will be announced quizzes approximately every other week. The quiz portion of the grade will include; 1) scheduled quizzes, 2) scheduled exercises and 3) a short (approx. 5 minute) presentation on a satellite image related to one day's lecture.
- ii. Project (15% of final grade): there will be a project required for this course. You will be responsible for collecting data and performing an analysis of a region to demonstrate that you can apply the principles of physical geography.
- iii. Tests (40% of final grade): the tests will be a mixture of definition, short answer and problems.
- iv. Final Exam (25% of final grade): comprehensive final exam will be given at the end of the course. If a student is unable to attend an exam, they must make prior arrangements with the instructor.

### c. Section Leader:

- A Section Leader and Assistant Section Leader will be assigned and are expected to become thoroughly familiar with COMDTMIDNINST 1080.1.
- Section Leaders are responsible for calling the section to attention at the beginning & end of class.
- If a student is not present when class is called to attention, an absence will be reported by the Section Leader.

- If the instructor is not present at the start of class or during class for any reason, the Section Leader is responsible for maintaining class order until given further instruction or being relieved by a faculty member.

**d. Attendance:**

- Attendance is governed by the table of priorities in COMDTMIDNINST 5400. If you will miss a class or a lab due to an authorized absence you must notify the instructor at least one day in advance and make other arrangements.
- You are responsible for obtaining any materials provided or covered during a missed class or laboratory period.
- Class presentations, exercises, and handouts can be obtained from another student, downloaded from the course page on Blackboard, or can be obtained by making special arrangements with the instructor.
- The Instructor reserves the right to give a grade of zero to any assignment, quiz, Laboratory Exercise/Report, or Exam that is missed due to an unexcused absence.

**e. Extra Instruction:**

- Extra instruction (EI) is available by appointment in advance. Email is the preferred method for scheduling and arranging EI. Please do not hesitate to ask for assistance and do not wait until the last minute.

**f. Classroom Policy:**

- Proper military etiquette & courtesy is expected at all times. Use the same standards of appearance & conduct expected by your company officer.
- Unless required for official watch duties, all cell phones, personal computers, PDAs, or any other electronic devices should be turned off while in class or lab.
- Walking out of class in the middle of a lecture or laboratory is disruptive to your instructor and classmates. Midshipmen will refrain from leaving during the middle of class unless absolutely necessary. In such cases, get the instructor's attention, ask permission to leave and, when given permission, quietly excuse yourself. Return promptly and quietly to the classroom, minimizing disruption of the class or lab in session. Leaving class during a Quiz or Exam will only be allowed in special situations.
- You may bring a personal calculator to class or lab but you may not use it on Exams or Quizzes. ***Personal calculators may only be used for simple mathematical calculations and will not be pre-programmed or loaded with any additional applications, equations, functions, information, or data related to the course.*** When required for an Exam or Quiz, a calculator will be provided by the Oceanography Department.
- Classroom discussion and participation is highly encouraged. Please get the instructor's attention and be recognized before asking a question or presenting a topic for discussion.

- Bring a pencil with eraser, pen, and assigned readings/materials to each lab and class.
- No food or drink is allowed in the classroom or laboratory except drinks in a closeable, leak-proof container.

**g. Honor:**

As future leaders of the Navy & Marine Corps and our nation, ***the Honor Concept is always in effect.***

*“Midshipmen are persons of integrity: We stand for that which is right. We tell the truth and ensure that the full truth is known. We do not lie. We embrace fairness in all actions. We ensure that work submitted as our own is our own, and that assistance received from any source is authorized and properly documented. We do not cheat. We respect the property of others and ensure that others are able to benefit from the use of their own property. We do not steal.”*

Plagiarism is stealing, using, and/or presenting someone else’s ideas, words, products, or other intellectual property as your own without permission and without giving proper acknowledgement or credit. Plagiarism is an act of theft and fraud. Be sure you fully and openly credit any sources used. If at any time you have a question or a doubt as to whether your actions or behavior are in accordance with the Honor Concept, it is your duty to immediately bring the issue to the attention of the Instructor for clarification and guidance. This Course Policy Statement is meant to offer additional guidelines specific to this course and in no way supersedes official guidance promulgated in *USNAINST 1610.3H (HONOR CONCEPT OF THE BRIGADE OF MIDSHIPMEN)* or *USNAINST 1531.53B (Policies Concerning Graded Academic Work)*.

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### III. Course Schedule\*

\*Course syllabus is TENTATIVE and may be changed at the discretion of the instructor.

WK	DAY	DATE 2011	CH	TOPIC	ASSIGN	STUDENT
1	M	08/22/11		Course introduction		
	W	08/24/11	1	Geography, maps, remote sensing & GIS		
	F	08/26/11	1	Geography, maps, remote sensing & GIS		
2	M	08/29/11	1	Geography, maps, remote sensing & GIS		
	W	08/31/11	2	Solar energy, seasons & the atmosphere	Ex #1	
	F	09/02/11	2	Solar energy, seasons & the atmosphere		
3	T*	09/06/11	3	Atmospheric energy & global temperature		
	W	09/07/11	3	Atmospheric energy & global temperature	Quiz #1	
	F	09/09/11		<b>Exercise #2 – begin in class</b>	Ex #2	
4	M	09/12/11	4	Atmosphere & ocean circulation		
	W	09/14/11	4	Atmosphere & ocean circulation		
	F	09/16/11	5	Water, weather & climate systems	<b>Approval of project topic due.</b>	
5	M	09/19/11	5	Water, weather & climate systems		
	W	09/21/11	5	Water, weather & climate systems		
	F	09/23/11		<b>EXAM #1</b>	<b>EXAM #1</b>	
6	M	09/26/11	6	Test review & begin Water Resources		
	W	09/28/11	6	Water resources		
	F	09/30/11	6	Water resources, <b>Exercise #3 – begin in class</b>	Ex #3	
7 *	M	10/03/11	7	Climate systems & climate change		
	W	10/05/11		<b>Exercise #4 – in class</b>	Ex #4	
	F	10/07/11	7	Climate systems & climate change		
8 *	M	10/10/11		<b>COLUMBUS DAY – NO CLASS</b>		
	W	10/12/11		Guest lecture CDR Smith: Intro to environmental assessment		
	F	10/14/11	8	Plate tectonics		
9	M	10/17/11	9	Tectonics, earthquakes & volcanoes	Quiz #2	
	W	10/19/11	9	Tectonics, earthquakes & volcanoes		Lockett
	F	10/21/11	9	Tectonics, earthquakes & volcanoes		Whitaker, O’Leary
10	M	10/24/11	10	Weathering, karst & mass movement		Tyler
	W	10/26/11	10	Weathering, karst & mass movement		Depaco

	F	10/28/11	11	River systems & landforms		Powell
11	M	10/31/11	11	River systems & landforms		Hunting
	W	11/02/11	11	River systems & landforms		Aitken
	F	11/04/11		EXAM #2	EXAM #2	
12	M	11/07/11		Test review		Hamby
	W	11/09/11	12	Wind processes & desert landscapes		Torres
	F	11/11/11		VETERANS DAY – NO CLASS		
13	M	11/14/11	12	Wind processes & desert landscapes		Bowron
	W	11/16/11	14	Glacial & periglacial landscapes		Carminati
	F	11/18/11		Exercise #5	Ex #5	
14	M	11/21/11	14	Glacial & periglacial landscapes		Caban
	W	11/23/11	15	Soils	Quiz #3	Harrell
	F	11/25/11		THANKSGIVING – NO CLASS		
15	M	11/28/11	15	Soils		Thorn
	W	11/30/11	15	Soils		Strouse, McMurtrie
	F	12/02/11	16	Ecosystems & biomes		Darling
16	M	12/05/11	16	Ecosystems & biomes, <b>Projects Due</b>	<b>Projects Due</b>	Pagani
	W	12/07/11	17	Earth & humans		
	F	12/09/11		LAST DAY OF CLASS - COURSE REVIEW		

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