



GEOG 122: Global Physical Systems

Syllabus, Summer 2021 (May 31st – June 25th)

Contact the Course Instructor:

Instructor	Office	Electronic Mail	Phone
Dr. Rob Hellström	#203, Conant Science Bldg.	rhellstrom@bridgew.edu	(508) 531-2842

Course Prerequisites: none. You may add the class if the course is not full.

Credits: 3

Required textbook book:

This text contains required readings, homework exercises, helpful diagrams and tables to successfully complete this course; it is available at the Bridgewater State U. bookstore:

Physical Geography: Physical Geography: Mason et al., 2015, **The Global Environment.**

5th ed. Oxford University Press. 626 pp.

ISBN: 9780190246860

[paper or e-book](#)

Course Objectives:

This course introduces students to the interactions among the physical components of ecosystems through a regional approach. Human societies and communities continuously interact with features of the Earth's natural environment such as weather patterns, climate change, water, mountains, soils, animals and vegetation. This course will focus on weather patterns, climate change, biogeography, and processes that reshape natural and human landscapes. The main objective of this course is to explore how changes within the Earth System alter physical features that impact life on Earth.

Assignments:

Quizzes: Each unit in the textbook begins with Objectives that you should understand after completing the reading assignments (see last page) in this class. At the end of units are Appendices that will help you find terms and a Glossary at the end of the textbook defines terms. The weekly (most weeks) quizzes (see due dates on last page) will reinforce the Objectives through multiple choice and T&F questions. All quizzes have equal weight toward your grade. All questions are equally weighted for a maximum of 100%. You should use the textbook and posted class lecture notes to answer the questions, as all questions are based from material in the textbook.

Homework project: In addition to quizzes you will have four homework assignments on a topic of your choice but related to Physical Geography. The final two assignments require building a PowerPoint presentation. Contact the Instructor for more ideas or peruse the units in the textbook for topics. You will find detailed requirements in the Homework section of the Blackboard course site.

Grading:

Your final grade is based on 10 Quizzes and 4 Homework assignments.

- **Quizzes (60%):** There are ten (10) quizzes, each 6% of your final grade, which consist of questions related to lectures and directly from reading material; all answers can be found within the textbook.
- **Homework Assignments (40%):** Each of four assignments is worth 10% of your grade. The assignments build upon the previous homework. Your ultimate goal is to produce a 15 to 20 slide PowerPoint presentation on a topic of your choice related to Physical Geography.
- **Questions and feedback (please ask early):** you may ask questions by emailing the Instructor at rhellstrom@bridgew.edu.

Special needs: Any student eligible for and needing academic adjustments or accommodations because of a disability is requested to speak with the professor no later the first week of class.

GEOG 122: *The Physical World*
Lecture, Homework (HW) and Quizzes(Q), Summer

Week	Topic	Reading (unit)	Due
1	<i>Introducing Physical Geography and Earth</i>	1 and 2	
	<i>Mapping Earth's Surface</i>	3	Q1
	Earth-Sun Relations	4	
	<i>Radiation and Heat Balance</i>	5	Q2
	Topic + References for Project	--	HW1
2	<i>Temperature of the Lower Atmosphere</i>	7	
	<i>Atmospheric Moisture and the Water Balance</i>	11	Q3
	Precipitation, Air Masses and Fronts	12	
	Project Outline with Notes	--	HW2
	<i>Weather Systems</i>	13	Q4
	<i>Climate Classification and Regionalization</i>	14	
	Natural Climate Change	18	
	<i>Human Impacts on Climate</i>	19	Q5
3	<i>Biogeochemical Cycles: Climate, Soil, Plants and Animals</i>	20	
	<i>Classification and Mapping of Soils</i>	23	Q6
	<i>Biogeographic Processes</i>	24	
	<i>The Global Distribution of Plants</i>	25	
	Zoography: Spatial Aspects of Animal Populations	26	Q7
	PowerPoint Presentation Draft	--	HW3
4	<i>Plates and the Lithosphere</i>	30	
	<i>Earthquakes and Landscapes</i>	33	Q8
	<i>The Formation of Landforms and Landscapes</i>	35	
	<i>Water in the Lithosphere</i>	38	Q9
	<i>Coastal Processes</i>	48	Q10
	Prepare Final Presentation	--	
	Final PPT Presentation with notes	--	HW4