Welcome to Global Physical Environments. The Earth is the place where we live, the water that we drink, the air that we breathe, and the home to all known life in the universe. The earth is a system, composed of many interacting subsystems: the atmosphere, hydrosphere, biosphere, geosphere, and anthrosphere. The earth is dynamic. We live in a swiftly changing world, characterized by rapidly changing climates, shifting landscapes, and growing human populations. Now, more than ever, it's essential to understand how the Earth system works, how it affects our livelihoods, and how we are altering the physical environment of our planet.

Geography/IES 120 provides a critical foundation for students by introducing them to how the Earth system works and what makes Earth livable. Through this course you will gain a deeper appreciation for the diverse processes that shape our local, regional and global landscapes. Many students take this course to fulfill their physical science requirement. Others use it as a gateway to majors and careers in Geography, Environmental Studies, and Environmental Science.

INSTRUCTORS
Professor Jack Williams, 208 Science Hall (1st half of the semester), jww@geography.wisc.edu
Twitter: @IceAgeEcologist Office Hours: Tuesday 4-5pm, Thursday 2:30-3:30pm, or by appointment.
Professor Erika Marin-Spiotta, 223 Science Hall (2nd half of the semester), marinspiotta@wisc.edu
Office Hours: TBA and by appointment

TEACHING ASSISTANTS: Ben Watson (head TA), Kevin Burke, and Laura Szymanski. See the Discussion Syllabus for their office hours and contact information.

FORMAT: Lecture 2 hours per week and discussion section 1 hour per week. Discussion sections elaborate the principal points of class lectures and discuss topics of student interest related to lecture material.

LECTURES: Lecture Section 11-11:50am, Humanities 3650
We are using lecture capture technology this semester and plan to record all lectures. We plan to post recorded lectures via Learn@UW, but caution that this technology is not 100% reliable and should be considered a backup, not a primary means of getting the lecture material.

CREDITS: 3 credits in physical science.

Geosystems, 8th Edition, Christopherson, 2012, Prentice-Hall (Chapters 10 & 20 only). These chapters will be posted to Learn@UW.

EXAMINATIONS: Four 50-minute in-class examinations will be given at roughly 4-week intervals. The last exam will be on the last day of instruction. Each exam will stress the material covered since the previous exam. There is no final comprehensive exam during the end-of-semester examination week.

GRADING: The final grade will be determined from a curve of cumulative points achieved on the class examinations and the discussion section. Each class exam will be worth approximately 30 points and the discussion section grade will count for 50 points. Discussion section points will be
earned from worksheets and activities described on the syllabus provided by the TAs at the first section meeting. The potential total number of points for the course is 170.

DISCUSSION: Discussion section points are based on attendance (which is mandatory), in-class exercises and discussion participation. The schedule of discussion activities will be handed out in section. NOTE: Discussion sections will not meet until the week of September 14, the first full week of instruction.

PREREQUISITES: There are no prerequisite courses for this class, but students are expected to be geographically literate. You should know the location of the world’s continents and oceans, the location of the 50 states and be able to read latitude and longitude on a map. Much of this information is included in the first two chapters of your textbook or in any student atlas.

HONORS: If you are registered for honors, please contact a TA early in the semester to discuss the project.

EXTRA CREDIT: Extra credit is not offered.

ATTENDANCE: Attendance at class lectures is your responsibility; however, success in this course usually requires regular attendance and good note-taking. Attendance allows you to ask questions, and hear other students’ questions answered. We welcome questions and discussion during or after lecture.

ACADEMIC MISCONDUCT: Instances of plagiarism, cheating, and other forms of academic misconduct have serious consequences for the students involved. To avoid any possibility of misunderstanding, you are strongly encouraged to consult the campus academic integrity web page: students.wisc.edu/doso/acadintegrity.html. The documents referenced by this page contain explanations of what constitutes misconduct and related policies and procedures.

ONLINE RESOURCES:

learnuw.wisc.edu Password-protected course materials, including 1) News, used by the instructors for class announcements, 2) Content, where the instructors post materials for download, 3) Discussion, containing bulletin boards for student questions and feedback, and 4) Grades.
**LECTURE SCHEDULE Fall 2015:**

| Week 1 | W | Sep 02 | 1) Introduction to Geography and Earth System Science, *Units 1-3*[^1]  
Week 2 | M | 07 | *No Class - Labor Day*  
| W | 16 | 4) Earth’s Energy Cycle, *Unit 5*  
Week 4 | M | 21 | 5) Earth’s Energy Cycle and Temperature, *Units 5, 7*  
| W | 23 | 6) Atmospheric Forces and Motion, *Unit 8, What If: Global Windstorm?* [http://on.mash.to/1tzdktj](http://on.mash.to/1tzdktj)  
| W | 30 | 8) *** FIRST EXAM ***  
Week 6 | M | Oct 05 | 9) Atmospheric Circulation, *Unit 9*  
| W | 07 | 10) Weather, Fronts, and Mid-latitude Cyclones, *Units 12, 13*  
| W | 14 | 12) Water Cycle and Water Resources, *Units 11, 38*  
Week 8 | M | 19 | 13) Global Climates and Biomes, *Christopherson Chapters 10, 20*  
| W | 21 | 14) Global Climate Change, *Units 18,19*  
Week 9 | M | 26 | 15) *** SECOND EXAM ***  
| W | 28 | 16) Human Effects on Global Biogeochemical Cycles, *Unit 20 and Focus on the Science Box p. 292*  
Week 10 | M | Nov 02 | 17) Soil Systems & Soil Forming Environments, *Units 21-23*  
| W | 04 | 18) Characteristics of Earth’s Surface and Interior, *Units 27-29*  
Week 11 | M | 09 | 19) Characteristics of Earth’s Surface and Interior, *Units 27-29*  
| W | 11 | 20) Earth’s Tectonic Systems, *Units 30-31*  
Week 12 | M | 16 | 21) Volcanic and Earthquake Hazards, *Units 32-34, What If: Richter 15?*  
| W | 18 | 22) *** THIRD EXAM ***  
Week 13 | M | 23 | 23) Weathering Processes, *Units 35, 36, 42*  
| W | 25 | 24) Mass-Movement Processes and Hazards, *Units 36, 37*  
Week 14 | M | 30 | 25) Fluvial Erosion and River Processes, *Units 38-41*  
| W | Dec 02 | 26) Arid and Aeolian Systems, *Units 47*  
Week 15 | M | 07 | 27) Glacier Landforms and Sediments, *Units 43-45*  
| W | 09 | 28) Responses of Glacier Systems to Climate Change, *Units 46, 18, 19*  
Week 16 | M | 14 | 29) *** FOURTH EXAM ***

[^1]: Unit 1 will be covered in lecture – you are expected to read Units 2-3 on your own and be responsible for this material.
[^2]: ‘Units’ always refers to readings from the de Blij textbook.