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DEPARTMENT OF
GEOGRAPHY AND PLANNING

GPHY 102 - Physical Geography and Natural Resources

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Contact Time	Three 1.0 hour lectures per week; One 1.0 hour tutorial per week	
Format	Lectures and Tutorials Lectures are asynchronous (i.e., pre-recorded and posted to OnQ) and introductions to exercises and assignments will also be pre-recorded as well as introduced during the tutorial. Students will be assigned to a tutorial section, most of which are in-person. There are limited remote tutorial sessions.	
Class Assessment	Tutorial Assignments (4) 60% Lecture Tests (3 of 4) 15% Final Exam 25%	

COURSE OVERVIEW

This course introduces the major concepts studied in physical geography and natural resources. The processes and interrelationships between the atmosphere, hydrosphere, biosphere, and lithosphere, particularly at, or near the Earth's surface, are investigated to serve as a basis for understanding the nature and distribution of natural resources.

LEARNING OUTCOMES

To complete this course, students will demonstrate:

- Knowledge of key concepts and laws governing physical geography / Earth system science (e.g., electromagnetic radiation, climatology and meteorology, geomorphology, hydrology, geography of soils, biogeography);
- Understanding of the processes giving rise to patterns and phenomena observed in the Earth system at local, regional and global scales;
- Use and implementation of basic tools and techniques used by geographers to study spatial and temporal patterns (maps, remote sensing, data analysis);
- Appreciation of the manner in which humans are linked to and impact the Earth system (e.g., climate change, biodiversity, pollution, carbon and nutrient cycling); and
- Application of physical geography processes to natural resources.

COURSE TOPICS

- Weather and Climate Systems (the global energy system, atmospheric processes, temperature, precipitation, winds/currents, climates across latitudes)
- Plant Geography and Soils (biogeographic processes, terrestrial biomes, soil systems)
- Systems and Cycles of the Solid Earth (the lithosphere and the tectonic system)
- Landform Evolution (weathering, the water cycle, fluvial processes, glacial systems, water resources)
- Physical Geography and Environmental Issues

COURSE READINGS

Arbogast, A.F., Ford, L., and Dagesse, D., 2018. Discovering Physical Geography, Canadian Edition, Wiley, Toronto, Canada, 618 pp. [Available at the Queen's University Bookstore and on three-hour reserve in Stauffer Library.]