



COURSE OUTLINE

ENVS 040z/ENVS 225z
ENVIRONMENTAL CHANGE AND FISH & WILDLIFE HEALTH

45 Hours
3 credits

PREPARED BY: Larry Gray, instructor
DATE: January 2010

APPROVED BY: Jeff Wolosewich, Dean
DATE: January 2010

YUKON COLLEGE

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Yukon College
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ENVS 040z/ENVS 225z
ENVIRONMENTAL CHANGE AND FISH & WILDLIFE HEALTH

INSTRUCTOR: Larry Gray

OFFICE HOURS: Wednesdays, 4:00 – 8:00 pm
OFFICE LOCATION: A2310

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COURSE OFFERING

DAYS & TIMES: Tuesdays and Thursdays 10:30 am-12:00 pm

COURSE DESCRIPTION

This course has been developed partly in collaboration with Canada 's Northern Contaminants Program (NCP) and Trent University's Department of Indigenous Environmental Studies. It will be of interest to all northerners, but especially anyone interested in fisheries, wildlife, and land and resource management. The first half of the course covers the issue of long-range contaminants in northern ecosystems; what they are, where they come from, how they get here, the latest research results on levels and trends, and what it all means for northern fisheries & wildlife. The second half of the course covers a range of issues affecting the health of northern fish and wildlife including climate change, contaminants from mining, selected fish and wildlife diseases and other topics. The course will integrate both traditional knowledge and science. Students will have the opportunity to undertake practical activities and research in their own community.

LEARNING OUTCOMES:

With successful completion of the course, students will have demonstrated

- a. Recognition and appreciation of the geographic and global scope of the long-range contaminants issue, and of the history, roles and activities of the Northern Contaminants Program and the Arctic Monitoring and Assessment Program.
- b. Understanding of the spiritual, mental, physical and emotional connections between the land/wildlife and health, wellness and culture.

- c. Understanding of the sources (natural and human-made), pathways, action, levels and trends of contaminants in arctic ecosystems, including food webs, biomagnification and bioaccumulation.
- d. Knowledge and understanding of the major diseases and disease processes of northern fish and wildlife and how environmental change such as climate change may affect these processes.
- e. Understanding of environmental monitoring principles, procedures and programs that are currently used in the Yukon.

DELIVERY METHODS/FORMAT:

This course is designed for distance delivery. There will be two 1 ½ hour videoconferences each week and a course website, including a discussion forum and links to other information sources.

PREREQUISITES:

Pre-requisite is 2nd year standing or permission of the instructor.

COURSE REQUIREMENTS/EVALUATION:

Attendance and Participation

Attendance at all videoconference sessions is mandatory. Unexcused absences in excess of 10% of scheduled activities may result in dismissal from the course at the instructor's discretion.

Assignments

Weekly assignments are given. Students will also undertake a major research project on a "real-life" environmental change and fish and wildlife health issue, demonstrating the links between the two. The project will be written up as a term paper.

Evaluation

The coursed grade will be arrived at as follows:

Assignments	20%
Mid-term Exam	20%
Research Project & Paper	30%
Final Exam	30%

PLAGIARISM

It should be noted that plagiarism (academic dishonesty) is a serious academic offence and will result in your receiving a mark of zero on the assignment or the course. In certain cases, it can also result in dismissal from the College. Plagiarism involves representing the words of someone else as your own, without citing the source from which the material is taken. If the words of others are directly quoted or paraphrased, they must be cited according to standard procedures. The resubmission of a paper for which you have previously received credit and the submission of the same paper for two courses also constitutes plagiarism and academic dishonesty. **Do not jeopardize your academic future**

with plagiarism. It is dishonest and can have serious consequences.

REQUIRED TEXTBOOKS/MATERIALS:

There is no formal textbook. A compendium of selected readings and on-line resources will form the text for the course.

EQUIVALENCY/TRANSFERABILITY:

In progress.

ENVS 225 COURSE SYLLABUS

DATE	TOPIC
Week 1	Introduction to the course Global Perspectives An Overview of Environmental Issues and Changes in Yukon
Week 2	Concepts of a Healthy Land and People Traditional Foods and their Importance to Northern Cultures
Week 3	Issue #1 Long-Range Contaminants What is a contaminant? The 4 major categories of contaminants
Week 4	Sources (natural and human-made), pathways and action of contaminants in arctic ecosystems) Food webs, biomagnification and bioaccumulation
Week 5	Levels and spatial and temporal trends of contaminants in arctic fish & wildlife with focus on the Yukon
Week 6	Levels and trends (cont'd) Current management tools and regulations (national and international) regarding long-range contaminants
Week 7	Issue #2 Fish & Wildlife Health and Disease Disease processes in fish & wildlife that can result from exposure to specific contaminants
Week 8	Issue #2 Fish & Wildlife Health and Disease (cont'd) Disease processes in fish & wildlife that can result from exposure to specific contaminants
Week 9	Issue #3 Contaminants and Mining in the Yukon
Week 10	Issue #3 Contaminants and Mining in the Yukon
Week 11	Issue #4 Climate Change and Fish & Wildlife Health
Week 12	Issue #4 Climate Change and Fish & Wildlife Health (cont'd)
Week 13	Issue #5 Environmental Monitoring and Sampling
Week 14	Issue #6 Community Education in Environmental Change and Fish & Wildlife Health