



COURSE OUTLINE

GEOL 103

EXPLORATION AND MINE SAFETY

1.5 CREDITS

PREPARED BY: _____
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DATE: _____

APPROVED BY: _____
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DATE: _____



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EXPLORATION AND MINE SAFETY

INSTRUCTOR: Dr. Joel Cubley

OFFICE HOURS: Fridays (2:30 -4:30 pm),
or by appointment

OFFICE LOCATION: T1090

CLASSROOM: M111

EMAIL: jcubley@yukoncollege.yk.ca

TIME: Thursdays 1:00 - 4:00 pm

TELEPHONE: (867) 456-8605

DATES: Sept. 7, 2017 - Dec. 7, 2017

COURSE DESCRIPTION

This course provides an overview of exploration safety techniques and standards to prepare students for working in Yukon's mineral industry. Training modules include, but are not restricted to: proper camp configuration and management, bear awareness training, backcountry navigation, ATV safety, and drilling safety. The course includes independent certification courses that are required for the Geological Technology program. Lectures will be coordinated by a college instructor but will incorporate numerous guest speakers from all areas of the mining community.

PREREQUISITES

Admission to the Geological Technology, Science, or Northern Science programs; and/or permission from the instructor.

EQUIVALENCY/TRANSFERABILITY

In Progress.

LEARNING OUTCOMES

Upon successful completion of the course, students will:

- Understand how to live and work safely in a backcountry and/or industrial environment without putting themselves or others at direct risk.
- Understand how to safely travel to, from, and at a job site, be it the backcountry, on a forestry road, or in the air.
- Recognize how to conduct oneself around exploration drilling operations and on an active mine site.
- Know how to safely interact with wild animals in the backcountry, and the emergency procedures necessary in case an accident should occur.
- Understand government regulations regarding their rights and responsibilities as a worker in the minerals industry.

DELIVERY METHODS/FORMAT:

The course is fifteen weeks long, with a single 3-hour lecture each week.

COURSE EVALUATION

The GEOL 103 course will be evaluated on a pass/fail basis. Students must attend all of the regularly scheduled course lectures and participate in activities as required. Attendance will be taken. Students are encouraged to see the instructor immediately if circumstances arise that prevent them from attending a lecture class.

REQUIRED TEXTBOOKS/MATERIALS

Reading materials will be distributed to students throughout the course.

ACADEMIC AND STUDENT CONDUCT

Information on academic standing and student rights and responsibilities can be found in the current Academic Regulations that are posted on the Student Services/ Admissions & Registration web page.

PLAGIARISM

Plagiarism is a serious academic offence. Plagiarism occurs when students present the words of someone else as their own. Plagiarism can be the deliberate use of a whole piece of another person's writing, but more frequently it occurs when students fail to acknowledge and document sources from which they have taken material. Whenever the words, research or ideas of others are directly quoted or paraphrased, they must be documented according to an accepted manuscript style (e.g., APA, CSE, MLA, etc.). Resubmitting a paper which has previously received credit is also considered plagiarism. Students who plagiarize material for assignments will receive a mark of zero (F) on the assignment and may fail the course. Plagiarism may also result in dismissal from a program of study or the College.

YUKON FIRST NATIONS CORE COMPETENCY

Yukon College recognizes that a greater understanding and awareness of Yukon First Nations history, culture and journey towards self-determination will help to build positive relationships among all Yukon citizens. As a result, to graduate from ANY Yukon College program, you will be required to achieve core competency in knowledge of Yukon First Nations. For details, please see www.yukoncollege.yk.ca/yfnccr.

ACADEMIC ACCOMMODATION

Reasonable accommodations are available for students requiring an academic accommodation to fully participate in this class. These accommodations are available for students with a documented disability, chronic condition or any other grounds specified in section 8.0 of the Yukon College Academic Regulations (available on the Yukon College website). It is the student's responsibility to seek these accommodations. If a student requires an academic accommodation, he/she should contact the Learning Assistance Centre (LAC) at (867) 668-8785 or lassist@yukoncollege.yk.ca.

TOPIC OUTLINE

Module	Topic
1	<p>Workplace Hazardous Materials Information System (WHMIS): Maintain current WHMIS training requirements and protect yourself against controlled products and hazardous materials at work. Ensure you know how to properly read and understand labels, identifiers, and material safety and data sheets as you explore the responsibilities of suppliers, importers, distributors, employees and employers. Successfully complete the course to receive a WHMIS certificate.</p>
2	<p>Transportation of Dangerous Goods (TDG): Legislation requires all people involved with transporting dangerous goods to learn the skills and principles taught in this course. Protect yourself and the public by learning how to avoid dangerous accidents and understanding your responsibilities as a shipper/handler. Earn a TDG certificate in the process.</p>
3	<p>Industrial Safety: An introduction to the general principles and concepts of working safely in an industrial setting; taught through classroom instruction and practical exercises. Instruction areas are: safety around moving machinery, fire prevention, personal protective equipment, lockout procedures when working on machinery, etc.</p>
4	<p>Canadian Firearms Safety Course: This 2-day course covers the following topics: the evolution of firearms, major parts, types and actions; basic firearms safety practices; ammunition; operating firearm actions; safe handling and carry procedures; firing techniques and procedures; care of non-restricted firearms; responsibilities of the firearms owner/user; and safe storage, display, transportation and handling of non-restricted firearms. Following successful completion of this course, students may apply for their Possession and Acquisition Licence (PAL).</p>
5	<p>Bear Awareness: An overview of the skills required to travel and work safely in bear country with a specific focus on working in exploration camps and on mine sites.</p>
6	<p>Worker's Compensation Board (WCB): Learn the role of the WCB in the workplace. Understand and discuss the rights of mineral resource industry employees.</p>
7	<p>Laboratory safety: An introduction to general safety protocols in an assay or metallurgical lab, including: chemical handling protocols, MSDS sheets, lock-out/tag-out procedures, respirator fit testing, and spill response.</p>

8	Emergency response plans: An introduction to the components of emergency response plans, with practice drafting site-specific plans and mock emergency scenarios requiring the implementation of those plans.
9	Emergency communications equipment: An overview of the communications equipment commonly used in the field, focusing on appropriate usage, limitations, maintenance, and licensing. Includes satellite telephones, SPOT devices, DeLorme inReach devices, UHF/VHF radios for aeronautical communications, and marine-band VHF radios.
10	Camp safety: An introduction to proper camp location and design, general health and safety considerations including sanitation and hygiene, camp stove and tent safety, fire hazards and prevention, strategies for minimizing wildlife encounters.
11	Drilling safety: An overview of safe conduct practices when moving and operating around diamond, reverse circulation (RC) and air rotary drill rigs. Taught by faculty from the Yukon College Centre for Northern Innovation in Mining (CNIM)'s Driller Helper program.
12	Wilderness survival and traverse safety: An introduction to safe mountain travel, including equipment requirements and guidelines for approaching problem environments (creeks, ridges, glaciers, avalanche paths, etc.). Discussion of survival measures and recommendations in the case of a backcountry emergency.