If I have seen farther than others, it is because I have stood on the shoulders of giants. – Sir Isaac Newton

Course Description

This course is designed to provide an introductory study of the methods, and to a lesser extent materials, commonly used in Civil Engineering construction. Students address various equipment and their applications in the field. Efficiency and effectiveness are emphasized along with effective logistical management of a site. This course includes a significant Health and Safety component.

Course Overview

- Health and Safety
- Bridge Inspection
- Construction Materials
- Heavy Construction
- Calculations in Construction
- Integrity in Engineering

Required Materials

- Construction Methods and Management
- WHMIS
- Guide to the Occupational Health and Safety Act
- Computer
- Internet

Professor
Mary Spencer

Mary.spencer@georgiancollege.ca

Suggested Weekly Structure

Monday

AM: Take a look at the learning opportunities for the week

@Noon: Ask any questions about the week

Through the Week

Explore and **complete** the learning activities for the week

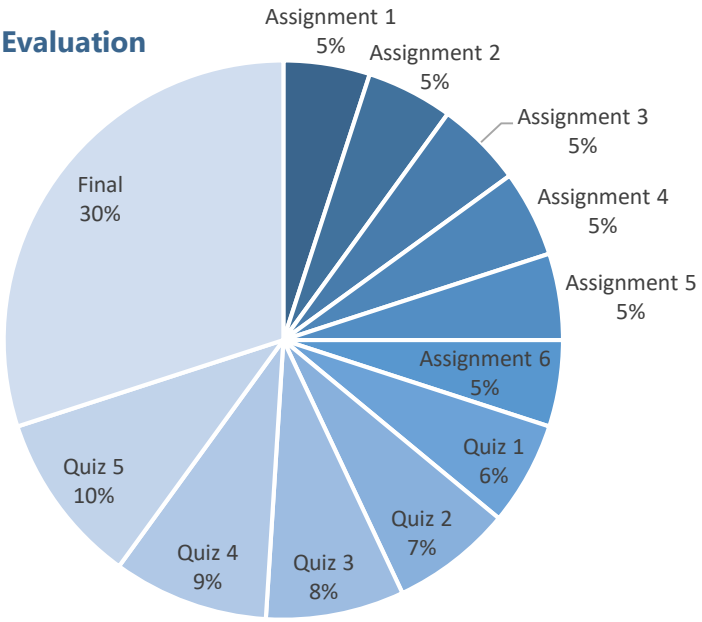
Communicate if you have questions

Thursday

@ Class time: tune into the synchronous meeting.

Finish assignments or study for your quiz

Course Evaluation



Important Thoughts

- Interact positively
- Engage in the work weekly
- Attend synchronous sessions
- Communicate! Ask questions
- Be honest and kind

Important Course Dates

There are certain dates that are important for you to be **available online during class time**. Please mark these down:

- October 5th and 8th – advising meetings
- November 16th – OACETT Webinar
- December 14th and 17th – Final Exam
- Please see the full calendar in the syllabus for deadlines

Week	Day	Evaluation Due Dates	Synchronous Meetings	Key Content
1	Mon		Orientation	• Introduction • Course expectations • Construction industry • Career paths • Construction
	Thurs		Intro Lecture	
2	Mon Sep	Assign 1 (5%)	Q&A	• Ethics and Integrity in Engineering • Bridges
	Thurs		Ethics Discussion	
3	Mon	Quiz 1 (6%)	Q&A	• Cirque Case Study • New Legislation • Health and Safety
	Thurs		H&S discussion	
4	Mon	Assign 2 (5%) **(DUE SUNDAY OCT 4th)**	Advising meetings	• OSIM • Bridge Inspection • Visit to bridge
	Thurs		Advising meetings	
5	Mon	**Thanksgiving**		
	Thurs	Quiz 2 (7%)		• Health and safety rights • PPE • Angle of repose
6	Mon	Assign 3 (5%)	Q&A	• Project organizational structures • Refusal to work • Hazard assessment
	Thurs		Hazard Assessment	
7	Mon	Quiz 3 (8%)	Q&A	• Heavy equipment • WHMIS • Visit to construction site
	Thurs			
Reading Week				
8	Mon	Assign 4 (5%)	Q&A	• Earth moving • engineering drawings • Construction H&S • Cross section method
	Thurs		Engineering Drawings and Cross Section Method	
9	Mon	Quiz 4 (9%)	OACETT Webinar	• OACETT Webinar • aggregate resources • loading and hauling
	Thurs		Calculations	
10	Mon	Assign 5 (5%)	Q&A	• Avening pit • Trenchless technology • Backhoe • borehole log
	Thurs		Calculations	
11	Mon	Quiz 5 (10%)	Q&A	• Shovel • Compaction • grader
	Thurs		Cross Section Method	
12	Mon	Assign 6 (5%)	Q&A	• Material properties • Paving • Review
	Thurs		Review	
13	Mon	Final Exam Part 1		
	Thurs	Final Exam Part 2		

Legend

Important Dates	Q&A Sessions
Assignments	Quizzes