THOMPSON RIVERS UNIVERSITY

"Located on the Tk'emlups te Secwepemc territory within the unceded traditional lands of Secwepmecul'ecw (Secwepemc Nation)"

Course Outline

Architectural and Engineering Technology
Faculty of Science

ARET 1200 – 3
Materials & Applications 1 – Specifications (3,1,0)
Fall, 2019

Instructor: **Mindy Marshall** Phone/Voice Mail: (250) 371-5934
Office: TT 165 E-Mail: mmarshall@tru.ca
Office Hours: posted outside office or email for appointment

Calendar Description

This course introduces the student to some of the more common materials and methods applied in contemporary building construction. Lectures will include an introduction to contract documents (specifications and working drawings), the advantages and limitations of the various types of contracts, bidding procedure using bid depository regulations, and the types of bonds most currently in use. Field trips will form an integral part of this course.

Educational Objectives/Outcomes

Students will be familiar with common building materials, practices, methods and specifications. Wood frame construction will be emphasized to create a base of knowledge for further courses in the winter semester. Students will design a wood frame house using Architectural Desktop. Students will have a general knowledge of the overall process of constructing buildings.

Prerequisites

Admission to the Architectural & Engineering Technology program *or* written consent of the Chairperson.

Corequisites

ARET 1100

Texts/Materials

Required:

Canadian Wood-Frame House Construction, 2005, 19th Edition - PDF download	**Required**
TRU notes and handouts from Moodle	**Required**
British Columbia Building Code 2012	**Required**
CSA approved Safety footwear	**Required**

Student Evaluation

Quizzes	30%
Assignments	20%
Final Exam	25%
Term Project	25%
Total	100%

Attendance: Attendance will comply with TRU Policy ED 3-1, Student Attendance. Refer to the policy at https://www.tru.ca/__shared/assets/Policy_ED_03-135351.pdf

Letter Grades assigned will conform to TRU Policy ED (24) 3-5, Grading System for Academic/Career/Developmental Programs. Refer to the policy at https://www.tru.ca/__shared/assets/Grading_Systems-24735.pdf

Course Topics

Construction process
Owner, Designer, Contractor relationships
Building characteristics
Specifications
Construction Techniques
- a. Sitework
- b. Soil Investigation Techniques
- c. Soils Classification
- d. Laboratory Tests
- e. Field Density Tests
- f. Foundations, Piles, Caissons
- g. Western Platform Framing
- h. Thermal and Moisture Protection
- i. Roofing Systems

Building Materials
- a. Concrete
- b. Masonry
- c. Wood
- d. Doors, Windows, Glass
- e. Finishes
- f. Special Construction

Special Course Activities

Field Trips will be an integral part of this course. Safety footwear is required.

Methods for Prior Learning Assessment and Recognition

Students applying for credit on the basis of prior leaning assessment and recognition must consult with the department chairperson. In general, students who have take a similar course that covers at least 80 percent of the course material within the last five (5) years can receive advanced credit. Students who are seeking credit on the basis of life experience will be expected to demonstrate their comprehension of the course material to the satisfaction of the department.