

- I. COURSE DESCRIPTION:** This course is intended to acquaint the beginning student in construction technology with the principles of building construction with an overview of how the major components of a building fit together. Emphasis will also be placed on the rationale of why and how the intricacies of building details work and why they fail. It is impossible to cover all of the various building components and building techniques that exist in the field today under all anticipated working conditions; the topics that will be covered in this course should be applicable to most normal residential and light construction projects that the student will encounter in his chosen field, and will provide a useful context to which the various aspects of building design and construction can be related.
- II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**
(Generic Skills Learning Outcomes placement on the course outline will be determined and communicated at a later date.)

Upon successful completion of this course the student will demonstrate the ability to:

- 1) Generate information from a set of Contract Documents for the layout of a construction project

Potential Elements of the Performance:

- Determination of a coherent Work Schedule
- Presentation of required drawings dealing with the proposed work
- Development of an approved estimate of required materials for the proposed work

- 2) Explain the Concepts and Demonstrate the proper preparation of various Construction Methods and Materials

Potential Elements of the Performance:

- Identification of preliminary construction layout problems
- Demonstration of Appropriate Construction Practices
- Creation of various Construction Details

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE
(Continued)**

3) Successfully Manage and Build a given Construction Project

Potential Elements of the Performance:

- Access relevant databases
- Demonstrate ability to work within a team framework in a constricted environment
- Calculation of both individual Building Items and Assemblies
- Completing various Building Assemblies within budget and schedule requirements

III. TOPICS:

- 1) Fundamentals of Construction Practices and Related Health & Safety Issues
- 2) Site Layout
- 3) Foundation Layout and Formwork
- 4) Concrete Work
- 5) Structural Timber Framing
- 6) Masonry Construction
- 7) Floor Systems and Roof Systems
- 8) Building Insulation

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Principles & Practices of Heavy Construction 5 th edition, Cameron K Andres & Ronald C. Smith.
Prentice Hall ISBN 0-13-235326-1

- Approved Safety Boots
- Safety Glasses
- Hard Hats

COURSE NAME**COURSE NUMBER**

It should be noted that students without approved safety boots will not be allowed in the construction lab. The students will also be made aware as to when hard hats are required.

Various tools and equipment will be made available to the student in the lab, but students enrolled in this course are strongly encouraged to have their own

- tape measure
- hammer
- carpenter's pouch
- etc

It is also recommended that the student obtain a pad of grid paper.

V. EVALUATION PROCESS/GRADING SYSTEM

Students will be assigned a final grade in the course based on attendance, tests, assignments and projects administered during the semester.

Your final grade will be derived as follows:

Attendance & Site Readiness	15 %
Quizzes	15 %
Construction Works	50 %
Final Test	20 %

TOTAL	100%

The grading system used will be as follows:

A+	90% - 100%	Consistently outstanding achievement
A	80% - 89 %	Outstanding achievement
B	70% - 79 %	Consistently above average achievement
C	55% - 69 %	Satisfactory or acceptable achievement
X or R	0% - 54 %	Incomplete or Repeat

Assignments will be graded on dates specified and will be penalized if completed late, a total of ONE letter grade. All assignments must be handed in prior to the completion of the course.

A missed class (unless a reason deemed satisfactory by the instructor is given), will result in the loss of ½ of a percentage point.

If at the end of the semester the overall mark is below 55%, whether you receive an X (incomplete) or an R (repeat) grade, will be entirely at the discretion of the instructor. The decision will be based upon your final average. For example, a 49% would result in an R grade, while 50 % might result in an X-grade (based on your attendance during the semester, your attitude in the classroom and your perceived level of effort during the semester). If you find yourself with an X-grade, in order to up-grade your mark to a C, you will be required to complete a make-up assignment and/or test

COURSE NAME

COURSE NUMBER

within a specified time frame. It is the student's responsibility to finalize all mandatory requirements with the instructor.

VI. SPECIAL NOTES:

- Special Needs

If you are a student with special needs (eg. physical limitations, visual impairments, hearing impairments, learning disabilities), you are encouraged to discuss required accommodations with the instructor and/or contact the Special Needs Office, Room E1204, Ext. 493, 717, 491 so that support services can be arranged for you.

- Retention of Course Outlines

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other post-secondary institutions.

- Your instructor reserves the right to modify the course as he deems necessary to meet the needs of the students and the coverage of relevant course content.

VII. PRIOR LEARNING ASSESSMENT

Students who wish to apply for advanced credit in the course should consult the instructor.