

Required Program Core Course

CONM 101 – Materials of Construction

Course Information

Division ASET
Contact Hours 60
Theory 40
Lab Hours 20
Total Credits 3

Prerequisites: RDG 090 and MATH 090 or qualifying scores on accepted placement tests or instructor consent

Course Description: This course is designed to give students the skills required to understand the materials needed used in construction projects ranging from residential, commercial and small industrial type projects. The course provides an understanding of these materials and their basic properties and how they are used and utilized for installation. Students will obtain a strong understanding of how these materials interact and work together to make a building along with past industry lessons learned, improvements that were made with innovation.

This course is a required core course for students pursuing an AAS in Construction Management Technology.

Program Outcomes Addressed by this Course:

Upon successful completion of this course, students should be able to meet the program outcomes listed below:

- A. Analyze, interpret and understand the fundamental processes used to create project designs and construction documents.
- B. Define the roles, relationships and responsibilities of the participants in the design and construction process.
- C. Use clear and effective written and oral communication methods to facilitate interaction with all project team participants.
- D. Employ the methods, materials, used in the design and construction of buildings and civil works.
- E. Accurately quantify materials required for project construction.
- F. Interpret construction documents to accurately predict project costs and assign resources.
- G. Utilize construction operations planning methods to create accurate project schedules and monitor productivity.
- H. Interpret and apply applicable building codes and regulations in construction processes.
- I. Operate industry-standard software for computer-aided design and drafting (CADD), project cost estimating, and project scheduling.
- J. Utilize a working knowledge of safety, health, and environmental issues related to construction activities.
- K. Utilize modern surveying methods for land measurement and construction layout



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Course Outcomes

In order to evidence success in this course, the students will be able to:

1. Demonstrate knowledge of residential building type materials.

In addition, following program outcomes are met by above outcome.

- A. Analyze, interpret and understand the fundamental processes used to create project designs and construction documents.
- D. Employ the methods, materials, used in the design and construction of buildings and civil works.
- E. Accurately quantify materials required for project construction.
- F. Interpret construction documents to accurately predict project costs and assign resources.

2. Demonstrate knowledge of commercial & industrial type materials.

In addition, following program outcomes are met by above outcome.

- A. Analyze, interpret and understand the fundamental processes used to create project designs and construction documents.
- D. Employ the methods, materials, used in the design and construction of buildings and civil works.
- E. Accurately quantify materials required for project construction.
- F. Interpret construction documents to accurately predict project costs and assign resources.
- K. Utilize modern surveying methods for land measurement and construction layout

3. Demonstrate knowledge of the equipment needed to install these different types of materials safely & efficiently.

In addition, following program outcomes are met by above outcome.

- A. Analyze, interpret and understand the fundamental processes used to create project designs and construction documents.
- B. Define the roles, relationships and responsibilities of the participants in the design and construction process.
- C. Use clear and effective written and oral communication methods to facilitate interaction with all project team participants.
- D. Employ the methods, materials, used in the design and construction of buildings and civil works.
- J. Utilize a working knowledge of safety, health, and environmental issues related to construction activities.

4. Demonstrate knowledge to be able to efficiently discuss design changes as it relates to materials used to construct the structure.

In addition, following program outcomes are met by above outcome.

A. Analyze, interpret and understand the fundamental processes used to create project designs and construction documents.



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- B. Define the roles, relationships and responsibilities of the participants in the design and construction process.
- C. Use clear and effective written and oral communication methods to facilitate interaction with all project team participants.
- F. Interpret construction documents to accurately predict project costs and assign resources.
- G. Utilize construction operations planning methods to create accurate project schedules and monitor productivity.
- I. Operate industry-standard software for computer-aided design and drafting (CADD), project cost estimating, and project scheduling.

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