DET2120 - Structural Design and Detailing

Credits:	3 (2/1/0)
Description:	This course provides a comprehensive introduction to structural drafting and design, utilizing industry-standard tools to develop fundamental knowledge of structural engineering principles. Students learn to create detailed structural models, drawings and documentation. Key topics include the modeling of structural components, creation of professional construction documentation, and the coordination of structural designs within multidisciplinary projects.
Prerequisites:	• CADD1000
Corequisites:	
Pre/Corequisites*:	
Competencies:	1. Develop accurate, detailed construction documentation and structural schedules. 2. Master structural modeling techniques in Revit, including the design of beams, columns, foundations and reinforcement. 3. Use Bluebeam for efficient document review, comparison and collaboration. 4. Demonstrate proficiency in utilizing architectural and engineering scales to create precise and accurate designs. 5. Understand the role of structural systems and apply general engineering principles to drafting tasks. 6. Identify and evaluate essential building materials, emphasizing their structural properties and practical applications. 7. Explore and discuss sustainable building practices, focusing on their impact on modern structural design and construction. 8. Explain the significance of Building Information Modeling (BIM) and its transformative role in streamlining structural design, collaboration and project management.
MnTC goal areas:	None

Can be taking as a Prerequisite or Corequisite.