Department of Civil Engineering

**Course Name:**

Prestressed Concrete Structures

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| **Course Number:** 20-137 | **Credit:** 3 |
| **Program:** Graduate | **Course Type:** Technical Selective |
| **Prerequisite**: - | **Corequisite:** - |

**Course Description (Objectives):**

In this course, students become familiar with the principles, concepts, and design of prestressed concrete structures and members.

**Course Content (outline):**

- Chapter 1: Basic Concepts
- Chapter 2: Materials; Concrete, Steel.
- Chapter 3: Flexural Analysis
- Chapter 4: Flexural Design
- Chapter 5: Shear and Torsion
- Chapter 6: Partial Loss of Prestressing Force
- Chapter 7: Composite Beams
- Chapter 8: Continuous Beams and Frames
- Chapter 9: Deflection in Prestressed Concrete Members
- Chapter 10: Moment-Curvature Analysis
- Chapter 11: Use of Prestressing in Retrofitting

**References:**

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