

CE 567 - Prestressed Concrete Course Outline - Cr. Hrs: 3
Instructor: Dr. Hota V.S. GangaRao, P.E. -Fall 2018, T-Th: 8:00 -9:15 AM
Text: Prestressed Concrete -A Fundamental Approach by Edward O. Nawy, 5th ed., updated'09

1. Basic Concepts

Lecture 1: Section 1.3

Lecture 2: Section 1.4 -1.6

2. Materials and Systems for Prestressing

Lecture 3: Section 2.3.2, 2.4, 2.5 & 2.7

Lecture 4: Section 2.10. 1 & 2.10.3

3. Partial Loss of Prestress

Lecture 5: Section 3.2 -3.5

Lecture 6: Section 3.7 -3.10

4. Flexural Design of Prestressed Concrete Elements

Lecture 7: Section 4.2 & 4.3

Lecture 8: Section 4.4

Lecture 9: Section 4.5.1 -4.5.2

Lecture 10: Section 4.5.3 -4.5.4

Lecture 11: Exam 1

Lecture 12: Section 4.9

Lecture 13: Section 4.12

Lecture 14: Section 4.14 -4.15

5. Shear and torsional Strength Design

Lecture 15: Section 5.5 & 5.7

Lecture 16: Section 5.8 -5.10

Lecture 17: Section 5.12 -5.14

Lecture 18 & 19: Section 5.16, 5.17.1 & 5.17.5

Lecture 20: Exam 2

6. Indeterminate Prestressed Concrete Structures

Lecture 21: Section 6.4

Lecture 22: Section 6.5

Lecture 23: Section 6.7

Lecture 24: Section 6.8 & 6.9

Lecture 25: Section 6.12

7. Camber, Deflection, and Crack Control

Lecture 26: Section 7.4 -7.5

Lecture 27: Section 7.7, 7.10

8. Prestressed Compression and Tension Members

Lecture 28: Section 8.4 -8.5

Lecture 29 & 30: Section 8.6 to 8.10

Grading:

Homework -30%
Class Exams -40%
Final Exam -30%

Attendance is Mandatory