[A-3]COURSE SYLLABUS

1. Course Description (Approximately 100 words)

Majorly, this course will expand matters with regard to reinforced concrete theory for flexure, shear, compression; strength & serviceability limit states; slabs - lower bound analysis. Strength & deformation properties; material selection; mix design & specification; durability; code requirements; case studies and laboratory practicals.

2. Course Goals and Objectives (Approximately 100 words)

1. Students will understand the general mechanical behavior of reinforced concrete.
2. Students will be able to analyze and design reinforced concrete flexural members.
3. Student will be able to analyze and design reinforced concrete compression members.
4. Students will be able to analyze and design for vertical and horizontal shear in reinforced concrete.

3. Textbook (Title, Author, Publisher, Year of Publication, etc.)

Reinforced Concrete Structures: Analysis and Design, Second Edition (P/L Custom Scoring Survey)Sep 16, 2015 by David Fanella

4. Reference

Reinforced Concrete StructuresJul 1975 by Robert Park and Thomas Paulay

5. Course Requirements and Grades

CAT 20%
ASSIGNMENT 30%
EXAM 50%

6. Course Calendar

Week	Main Content
1	LIMIT STATE DESIGN OF BEAMS FOR FLEXURE
2	STRESS STRAIN CURVE:
3	DESIGN OF SHEAR WALLS AND DEEP BEAMS
4	DEEP BEAMS:BEHAVIOUR OF DEEP BEAMS
5	DESIGN OF SPECIAL RCC MEMBERS:FLAT SLABS
6	DESIGN CONCEPT FOR FLAT PLATESYSTEM
7	DESIGN OF GRIDS:ADVANTAGES OF GRID BEAMS,LOAD DISTRIBUTIC
8	STATIC ANALYSIS OF BEAMS:STIFFNESS METHOD OF STRUCTURAL
9	THE FLEXURE AND SHEAR DESIGN OF CORBEL(BRACKET)FLEXURE
10	BUNKERS AND SILOS
11	Silos:Types of silos,Flat Bottom silos,Truck load silos,Temperature variation
12	DESIGN OF EARTHQUAKEENGINEERING:RESPONSE OF RCC BUILDIN
13	Lateral load calculation by modal analysis – SRSS method
14	FINAL EXAMINATION