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Department of Civil Engineering	
Design of Steel Structures (61420)	
Total Credits	**3**
major compulsory	
Prerequisites	P1 : Structural Analysis II (61317) OR Structural Analysis II (61316)

Course Contents

Introduction to steel design, design of tension members, design of compression members, design of beam-columns, and design of connections.

Intended Learning Outcomes (ILO's)		Student Outcomes (SO's)	Contribution
1	An ability to design eccentric, concentric connections and tension members	C	45 %
2	An ability to design steel beam-columns	C	40 %
3	An ability to effectively participate in team work.	G	5 %
4	An ability to use a software package to solve steel design problems.	K	10 %

Textbook and/ or Refrences

1. Segui, W. T. (2013), Steel Design, 5th edition, Cengage Learning, Stamford, CT, US. 2. McCormac J.C. (2008), Structural Steel Design, 4th edition, Prentice Hall, NJ 3. ASCE 7-10. (2010), Minimum Design Loads for Buildings &Other Structures: Revisions of ANSI/ASCE 7-10, American Society of Civil Engineers, Reston, VA. 4. AISC (2010), Steel Construction Manual, 13th edition, AISC, Chicago, IL.

Assessment Criteria	Percent (%)
First Exam	20 %
Second Exam	20 %
Projects	20 %
Final Exam	40 %

Course Plan

Week	Topic
1-2	[1] Introduction to design: Design requirements, methods of design, material properties, loading &loading combinations.
3-4	[2] Design of tension members.
5-6	[3] Design of Simple connections. Bolted and welded connections.
.	First Hour Exam [24 / 9 / 2013 at 4:00 pm]
7-8	Design of Eccentric connections. Bolted and welded connections.
9-10	[4] Design of compression members
11-12	[5] Design of beams Second Hour Exam [12 / 11 / 2013 at 4:00 pm]
13-15	[6] Design of beam-columns
16	Final Exam