

CB444 Design of Metallic Structures

COURSE INFORMATION

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Laborator y	
CB343	4	8	4	2	0	3

COURSE AIM

The course covers the subjects of planning, bracing of metal structures and the design of its elements and their connections. The course deals with also the subject of the construction of metal structures in addition to the safety precautions, durability and sustainability.

COURSE WEEKLY CONTENTS

- 1 Introduction to metallic structures.
- 2 Planning and bracing of steel structures, Applications.
- 3 Design of steel tension members, Worked examples.
- 4 Design of axially loaded compression steel members, Worked examples (1,2).
- 5 Design of axially loaded compression steel members, Worked examples (1,2).
- 6 Continue
- 6 Design of steel beams and its supports, Worked examples.
- 7 Design of steel beam-columns, Worked examples (1,2) and. Midterm Exam
- 8 Design of steel beam-columns, Worked examples (1,2). continue
- 9 Design of bolted steel connections, Worked examples.
- 10 Design of welded steel connections, Worked examples.
- 11 Design of special steel connections, Worked examples.
- 12 Design of steel frames and 12th week Assesment.
- 13 Design of steel bridges (1,2).
- 14 Design of steel bridges (1,2). continue
- 15 Construction of steel structures.

STUDENT GRADING & ASSESSMENT

Weeks	Exams	Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	20 Midterm	←	1 0	M A R K S		→	30
To be freely distributed among possible assessments							
8 to 12	←		2 0	M A R K S		→	20
13 to 15	←		1 0	M A R K S		→	10
16 or 17	40 Final						40
Total	Exams	Assign.	Quizzes	Reports	Present.	Lab.	100

REFERENCES

- Textbook** Behavior, Analysis and design of Structural Steel Elements by MACHALY, EL-SAYED BAHAA Publisher: Vol. 1, Cairo university, Egypt, Seventh Edition, 2010.
- Behavior, Analysis and design of Steelwork Connections by MACHALY, EL-SAYED BAHAA Publisher: Vol. 3, Cairo university, Egypt, Seventh Edition, 2010.
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- Other** Behavior, Analysis and design of Structural Steel Elements by MACHALY, EL-SAYED BAHAA Publisher: Vol. 2, Cairo university, Egypt, Seventh Edition, 2010.
- Egyptian Code of Practice for Steel Constructions and Bridges, Code No. 205-2001, 2010.