



**Faculty of Engineering – Assiut University  
Bachelor Degree**

**Civil Engineering Program**

**Dept. of Civil Engineering  
Course specification**

**Design of steel Construction (B) C322**

1. Course Aim	
<b>Main Aim</b>	Learn the student analysis and design the steel structures elements
<b>Sub-Aims</b>	This course enables students to design of axially loaded columns, design of columns subjected to axial load and bending , design of built-up columns design of beams considering lateral tensional buckling and the effects of moment gradient and frame structures.

**2. Course Content**

Design of columns and supports – Design of different beam types – Design and analysis of multistory structures – design of composite structures of steel and concrete.....

3. Course Topics		
	Subject	Week
<b>1<sup>st</sup> topic</b>	Design of Steel beams, Loads straining actions, stresses and cross sections considering lateral torsional buckling and the effects.	1-5
<b>2<sup>nd</sup> topic</b>	Design of columns , axially loaded columns ,columns subjected to axial load and flexure analysis of multistory structures	6-12

<b>3<sup>rd</sup> topic</b>	Design of columns supports hinge support and roller support ,fixed and bases of support	13-15
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### 11.2 Grades Distribution

Assesment Methods		Percentage	
<b>Final Exam</b>		70 %	
<b>Assessments</b>	<b>Written Exam</b>	<b>15 %</b>	30 %
	<b>Tutorial assessment</b>	<b>10 %</b>	
	<b>Quiz assessment</b>	<b>5 %</b>	
<b>Total</b>		<b>%100</b>	

### 4. List of References

Course notes	<b>Lecture notes</b>
Required books	Egyptian Code of Practice (building_loads_2008)  Egyptian code of practice for steel construction and bridges, 2001
Recommended books	Fathalla M. El-Amin and Mohamed Farag “Steel design for civil engineers” student handbook Assiut University
Periodicals, web sites.. etc.	web sites.. etc.