



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

Civil Engineering Program

Dept. of Civil Engineering

Course specification

Design of concrete structures (2-B) C323

1. Course Aim

Main Aim

a graduate Civil Engineer capable to design different shapes of frames and special reinforced concrete roof structures such as arches, sheds, vierendeel and trusses.

Sub-Aims

- Design of reinforced concrete arched slab and arched girder.
- Design of reinforced concrete trapezoidal and triangular shed.
- Design of reinforced concrete saw tooth slab and girder type.
- Design of reinforced concrete vierendeel.
- Design of reinforced concrete trusses.
- design different shapes of reinforced concrete frames as well as draw details of their reinforcement.
- design different reinforced concrete sheds, arches, saw tooth, vierendeel and trusses as well as draw details of their reinforcement.
- design and draw reinforcement of different reinforced concrete structures.

2. Course Content

Design of different systems of roofs- structural details - special problems

3. Course Topics

	subject	week
1 st topic	Design of both R.C trapezoidal and triangular sheds	1-2

2nd topic	Design of both R.C arched slab and arched girder structures.	3-6
3rd topic	Design of both R.C saw tooth slab and girder type.	7-11
4th topic	Design and details of R.C vierendeel	12, 13
5th topic	Design and details of R.C trusses	14

11.2 Grades Distribution

Assesment Methods		Percentage	
Final Exam		70%	
Oral Final Exam		-	
Semester Assessments*		30%	
Assessments	Written Exam	20%	30%
	Oral Exam	-	
	Tutorial assessment	10%	
	Project assessment	-	
	Report assessment	-	
	Quiz assessment	-	
	Presentation assessment	-	
	Laboratory test	-	
Total		100%	

11.2.1 Semester Assessments*

Semester Assessments	Percentage	Time
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Written Exam	20%	Week No. 10
Tutorial assessment	10 %	Each week
Report assessment	--	
Quiz assessment	--	
Presentation assessment	--	
Total	30%	

12.List of References

Course notes	Lecture notes
Required books	Egyptian Code of Practice
Recommended books	Books (part 1 and part 2) by Prof .Dr. Mashour Ghouneim
Periodicals, web sites.. etc.	