

Steel Design II

Course Description Form

1. Course Name:	
Steel Design II	
2. Course Code:	
CIV42102	
3. Semester / Year:	
Second semester / fourth year	
4. Description Preparation Date:	
1/10/2025	
5. Available Attendance Forms:	
In class	
6. Number of Credit Hours (Total) / Number of Units (Total)	
The. 4 hr. / 5 Units	
7. Course administrator's name (mention all, if more than one name)	
Name: Mohammed Wasea Sabbar Email: mohammed.w.sabbar@muc.edu.iq	
8. Course Objectives	
Course Objectives	Graduation of civil engineers qualified to work in their various fields of specialization: 1. Providing the student with the necessary skills and mechanisms to deal with the latest developments in scientific and technical progress in their field of specialization. 2. Special care for outstanding students and enabling them to put forward them ideas. 3. Providing the student with high skill and the ability to solve problems and teamwork. 4. Instilling the spirit of diligence and perseverance and encouraging them to create and innovate.
9. Teaching and Learning Strategies	
Strategy	Introduce students to definition of structural steel design. • Self-regulated learning (i.e., planning, monitoring and evaluating one's own learning process in the classwork / Class team work). • Practice testing (short question answers and exams). • Self-explanation (i.e., explaining to oneself how new information is related to old information or explain steps taken when solving a problem or a task).

10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1.	4	1. Students should be able to analysis and evaluate structural steel members	Members subjected to combined bending and axial tension force.	1. Interactive Learning 2. Collaborative Learning 3. Technology-enhanced 4. Learning Problem-based Learning	Several Ways (Exams + Assignments)
2.	4	subjected to combined bending and axial tension force. 2. Students should be able to design structural steel members	members subjected to combined bending and axial compression force (beam – column).		Several Ways (Exams + Assignments)
3.	4	subjected to combined bending and axial tension force. 3. Students should be able to analysis and evaluate structural steel members	members subjected to combined bending and axial compression force (beam – column)		Several Ways (Exams + Assignments)
4.	4	subjected to combined bending and axial compression force (beam –column).	Design of Beam-Columns in Braced Frames		Several Ways (Exams + Assignments)
5.	4	4. Students should be able to design structural steel members	Design of Beam-Columns in Unbraced Frames		Several Ways (Exams + Assignments)
6.	4	1. Students should be able to analysis and evaluate different types of bolted steel connections.	Bolted Connections		Several Ways (Exams + Assignments)
7.	4	2. Students should be able to design different types of bolted steel connections.	Bolted Connections		Several Ways (Exams + Assignments)
8.	4	3. Students should be able to analysis and evaluate different types of riveted steel connections.	Eccentrically Loaded Bolted Connections		Several Ways (Exams + Assignments)
9.	4		Eccentrically Loaded Bolted Connections		Several Ways (Exams + Assignments)
10.	4		Eccentrically Loaded Bolted Connections + Riveted Connections		Several Ways (Exams + Assignments)
11.	4		Welded Connections		Several Ways (Exams + Assignments)
12.	4				
13.	4				

14.	4	4. Students should be able to design different types of riveted steel connections.	Welded Connections		Several Ways (Exams + Assignments)
15.	4	18. Students should be able to analysis and evaluate different types of welded steel connections. 5. Students should be able to design different types of welded steel connections.	Welded Connections		Several Ways (Exams + Assignments)

16. Course Evaluation

1. Final Exam: 60%
2. Monthly Exams: 15%
3. Reports and Assignments: 10%
4. Attendance and Daily Participation: 10%
5. Oral Evaluation: 5%

17. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1- AISC Manual of Steel Construction, 15th Edition, 2017,American Institute of Steel Construction. 2-McCormac, J.C., "Structural Steel Design", 6th Edition,2018.
Main references (sources)	
Recommended books and references (scientific journals, reports...)	1- William T. Segui, "Steel Design", 5th Edition, 20 2- Spiegel, L and Limbrunner, G.F., "Applied Structural Steel Design", 4th Edition, 2002.
Electronic References, Websites	https://www.aisc.org