

Course Description Form

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| 1. Course Name: | |
| Theory of Structure II | |
| 2. Course Code: | |
| WCV-32-04 | |
| 3. Semester / Year: | |
| 2 st Semester / 3 rd Stage | |
| 4. Description Preparation Date: | |
| 23/10/2023 | |
| 5. Available Attendance Forms: | |
| Attendance | |
| 6. Number of Credit Hours (Total) / Number of Units (Total) | |
| 4 hrs. 3 Unite. | |
| 7. Course administrator's name (mention all, if more than one name) | |
| Name: Qassim Ali Husain PhD Email: Qassim.ali@uowa.edu.iq | |
| 8. Course Objectives | |
| Course Objectives | <ul style="list-style-type: none"> Providing students with a general knowledge skill about analyzing statically determinate and indeterminate structures Teaching the student, the skill of analyzing statically determinate structures (trusses, beams, and frame structures) and drawing the shear forces and bending moment diagrams for beams and frames. Teaching the student, how to draw the influence line by different methods and recognizing him the purpose of using the influence line. Teaching him to analyze statically indeterminate structures using approximate methods. |
| 9. Teaching and Learning Strategies | |
| Strategy | Explaining topics and directing continuous questions to students to continue their participation, using electronic means to clarify various topics, conducting surprise and monthly written tests, and giving homework for each topic that is explained. |
| 10. Course Structure | |

| Week | Hours | Required Learning Outcomes | Unit or subject name | Learning method | Evaluation method |
|------|-------|---|---|-----------------|-------------------|
| 1 | 2 | Introduction | Introduction | Attendance | Discussion |
| 2 | 2 | Types of Structures and Loads | Identify the types of structures and loads | Attendance | Exam |
| 3-4 | 8 | Teaching the criteria of stability and determinacy of structures | Criteria of stability and determinacy of structures | Attendance | Exam |
| 5-6 | 12 | Finding reactions and drawing shear force and bending moments diagrams | Analysis of determinate structures | Attendance | Exam |
| 7-8 | 16 | Teaching the influence lines for statically determinate structures by different methods | Influence Lines for Statically Determinate Structures | Attendance | Exam |
| 9-12 | 16 | Teaching Approximate Analysis of Statically Indeterminate Structures by different methods | Approximate Analysis of Statically Indeterminate Structures | Attendance | Exam |

11. Course Evaluation

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|-------------|--------------|--------------------|-----------------------------|-----------------------------|-----------------|
| Quizzes: 5% | Homework: 5% | Class activity: 5% | 1 st Exam: 12.5% | 2 nd Exam: 12.5% | Final Exam: 60% |
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12. Learning and Teaching Resources

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| Required textbooks (curricular books, if any) | <ul style="list-style-type: none"> Structural Analysis by R. C. Hibbeler, Tenth edition |
| Main references (sources) | |
| Recommended books and references (scientific journals, reports...) | <ul style="list-style-type: none"> Elementary theory of structures by Yuan-Yu Hsieh, second edition. Structural Analysis by Jack C. McCormac. |
| Electronic References, Websites | <ul style="list-style-type: none"> https://www.youtube.com/watch?v=MJL1QPNtwGQ |