TOROS ÜNİVERSİTESİ

Vocational School Construction Technology

Course Information

| STEEL STRUCTURES | | | | | | |
|------------------|----------|-------------|----------|-----------------|-------------|--|
| Code | Semester | Theoretical | Practice | National Credit | ECTS Credit | |
| | | Hour / Week | | | | |
| ITP 202 | Spring | 3 | 0 | 3 | 4 | |

| Prerequisites and co- requisites | none |
|---|--|
| Language of instruction | Turkish |
| Туре | Required |
| Level of Course | Associate |
| Lecturer | Lect. H. Turgay Atınç |
| Mode of Delivery | Face to Face |
| Suggested Subject | none |
| Professional practise (internship) | None |
| Objectives of the Course | Explanation of the joining elements and techniques for the steel elements to be able to work together with steel elements, carrier system provision according to international and national standard and technical specification rules |
| Contents of the Course | Introducing the structural steel types and joining elements, and introducing the bolt and welded joints in accordance with associate degree education level. Explanation of welding techniques and types. Elasticity calculations in plaster / bending bars.Basinç bars.Case systems, calculation and projecting example |

Learning Outcomes of Course

| # | Learning Outcomes |
|---|---|
| 1 | Evaluates the relationship between industry and construction industry. |
| 2 | Explains the importance of steel as a semi-prefabricated element |
| 3 | Evaluates the necessity of source, correct source and source control. |
| 4 | It shows the relation of production-control |
| 5 | Describes what should be in a safe steel structure |
| 6 | It establishes the manufacturing-assembly order. |
| 7 | In earthquake areas, it evaluates the importance of lightweight construction. |
| 8 | Explains the importance of light steel roof in industrial constructions |

Course Syllabus

| # | Subjects | Teaching Methods and Technics |
|---|--|--------------------------------------|
| 1 | Building Steel, Steel Tests, Behaviors and Styles, Safety Stresses | Expression |
| 2 | Bullets and rivets | Expression |
| 3 | Calculation principles of bulleted combinations and sampling | Expression |
| 4 | Welding and welding types and welding techniques | Expression |
| 5 | Principles of calculation of source combination and sampling | Expression |
| 6 | Tension bars account and withdrawal bar combinations | Expression |
| 7 | Pressure rods and buckling | Expression |

| 8 | Midterm | Midterm |
|----|---|------------|
| 9 | Pressure bars account and combinations | Expression |
| 10 | Bending rods, section account | Expression |
| 11 | Bending rods, section account | Expression |
| 12 | Bending rods, section calculations In hull elements, combinations of cutting and cutting effect | Expression |
| 13 | Bar calculations of isostatic steel cage systems | Expression |
| 14 | Isostatic steel lattice systems, knot points | Expression |
| 15 | Course summary and summary | Expression |
| 16 | Final Exam | Final Exam |

Course Syllabus

| # | Material / Resources | Information About Resources | Reference / Recommended Resources | | |
|---|--------------------------------------|-----------------------------|-----------------------------------|--|--|
| 1 | Steel Constructions (Deren, Uzgider) | | | | |
| 2 | Image | | | | |

Method of Assessment

| # | Weight | Work Type | Work Title |
|---|--------|---------------|---------------|
| 1 | 20% | Mid-Term Exam | Mid-Term Exam |
| 2 | 20% | Mid-Term Exam | Mid-Term Exam |
| 3 | 60% | Final Exam | Final Exam |

Relationship between Learning Outcomes of Course and Program Outcomes

| # | Learning Outcomes | Program Outcomes | Method of Assessment |
|---|---|------------------|----------------------|
| 1 | Evaluates the relationship between industry and construction industry. | 2,4 | 1,2,3 |
| 2 | Explains the importance of steel as a semi-prefabricated element | 2,4 | 1,2,3 |
| 3 | Evaluates the necessity of source, correct source and source control. | 2,4 | 1,2,3 |
| 4 | It shows the relation of production-control | 2,4 | 1,2,3 |
| 5 | Describes what should be in a safe steel structure | 2,4 | 1,2,3 |
| 6 | It establishes the manufacturing-assembly order. | 2,4 | 1,2,3 |
| 7 | In earthquake areas, it evaluates the importance of lightweight construction. | 2,4 | 1,2,3 |
| 8 | Explains the importance of light steel roof in industrial constructions | 2,4 | 1,2,3 |

PS. The numbers, which are shown in the column Method of Assessment, presents the methods shown in the previous table, titled as Method of Assessment.

Work Load Details

| # | Type of Work | Quantity | Time (Hour) | Work Load |
|---|---|----------|----------------|--------------|
| 1 | Course Duration | 14 | 3 | 42 |
| 2 | Course Duration Except Class (Preliminary Study, Enhancement) | 14 | 2 | 28 |
| 3 | Presentation and Seminar Preparation | 0 | 0 | 0 |
| 4 | Web Research, Library and Archival Work | 14 | 1 | 14 |
| 5 | Document/Information Listing | 1 | 8 | 8 |
| 6 | Workshop | 0 | 0 | 0 |
| 7 | Preparation for Midterm Exam | 2 | 2 | 4 |
| 8 | Midterm Exam | 2 | 2 | 4 |
| | | | | |

| 9 | Quiz | 0 | 0 | 0 |
|----|----------------------------|---|-----|----|
| 10 | Homework | 1 | 10 | 10 |
| 11 | Midterm Project | 0 | 0 | 0 |
| 12 | Midterm Exercise | 0 | 0 | 0 |
| 13 | Final Project | 0 | 0 | 0 |
| 14 | Final Exercise | 0 | 0 | 0 |
| 15 | Preparation for Final Exam | 1 | 8 | 8 |
| 16 | Final Exam | 1 | 2 | 2 |
| | | | 120 | |