CIVL103-Civil Engineering Drawing

Department:
Civil Engineering

Program Name:
Civil Engineering Drawing

Program Code: 22

Course Number: CIVL103
Credits: 3 Cr

Required Course ☒ Elective Course ☐

Prerequisite(s):
None

Catalog Description:
The emphasis of Computer Aided Design is placed on drawing set-up; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects; adding text and dimensions; using layers and coordinating systems in terms of Civil engineering and Architectural drawings.

Course Web Page:
http://civil.emu.edu.tr/courses/civl103

Textbook(s):
• All documents which are related to hand drawing and computer aided drawing present in web page.

Indicative Basic Reading List:
• An Introduction to Drawing for Civil Engineers; A. Elsheikh; McGraw-Hill; 1995.
• Mastering AutoCAD 2008 and AutoCAD LT 2008; George Omura; Wiley Publishing; 2007.

Course Outline:

Week 1: Introduction to drawing instrument and Orthographic drawing.

Week 2: Orthographic drawing (Sketched) by using 3- dimensional models.

Week 3: Orthographic drawing with instrument for 3- dimensional models.

Week 4: Drawing Floor Plan and scaling system.

Week 5: Section details.


Week 7-8: Mid-Term Examination

Week 9: Constructive Editing of Graphics.

Week 10: Drawing Plan I.

Week 11: Hatching & Title Blocks.

Week 12: Section details.

Week 13: Drawing Plan II and section details.

Week 14: In term Final Examination
Course Learning Outcomes:

- Interpreting architectural civil engineering plans.
- Understanding of Building Information Modelling (BIM).
- Ability to use Auto-CAD and drawing instruments.
- Ability to draw architectural and civil engineering plans by using AutoCAD.
- Understanding of general Auto-CAD terminology, coordinate systems, inquiry commands, draw commands, edit commands, dimensioning, block commands, layers, display commands, utility commands, and setting prototype drawings.
- Ability to create designs, drawings, and assemblies of abstract geometrical forms involving real or conceptual objects, and will be able to utilize creativity and visualization skills to solve engineering design problems.

Class Schedule:
2 hrs. of lectures per week

Laboratory Schedule:
3 hrs. of laboratory per week

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<th>Assessment</th>
<th>Method</th>
<th>No</th>
<th>Percentage</th>
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<tbody>
<tr>
<td></td>
<td>Midterm Exam(s)</td>
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<td>Final Examination</td>
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<td>Participation</td>
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<td>In term Final Exam.</td>
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Contribution of Course to Criterion 5

Credit Hours for:
- Mathematics & Basic Science : 0
- Engineering Design : 3
- General Education : 0

Relationship of Course to Program Outcomes
The course has been designed to contribute to the following program outcomes:
- An ability to apply knowledge of mathematics, science, and engineering,
- An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability,
- An ability to function on multidisciplinary teams,
- A recognition of the need for, and an ability to engage in life-long learning,
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Coordinator: Assist. Prof. Dr. Alireza Rezaei
Lecturer: Alireza AfsharGhotli / Sanaz Khodam Abbasi
Date Prepared: 16 Feb. 2011