
Course title: FUNDAMENTALS OF COMPUTER-AIDED DESIGN

ECTS credit allocation (and other scores): 5.0

Semester: spring

Level of study: ISCED-6 - first-cycle programmes (EQF-6)

Branch of science: Engineering and technology

Language: English

Number of hours per semester: 60

Course coordinator/ Department and e-mail: prof. dr hab inż. Marcin Zieliński/Department of Environmental Engineering; marcin.zielinski@uwm.edu.pl

Type of classes: classes

Substantive content

CLASSES: During the course, the student learns the basics of using CAD (Computer Aided Design) tools. Programming elements – communication with the program, types of coordinates and units, model and sheet space, drawing boundaries. Creating 2D objects, Precise drawing, (characteristic points, tracking, base point), deleting objects, transforming objects. Editing object properties. Commands for changing objects. Layer operations: lines and styles, text input, text styles. Block operations. Object dimensioning and drawing scale. Basics of creating 3D objects, viewports, views. Print parameter settings.

LECTURES: -

Learning purpose: Acquainting with the basic computer programs in the CA environment.

On completion of the study programme the graduate will gain:

Knowledge: The student has knowledge of the use of CAD tools for design. The student knows the basic operation of CAD programs for creating technical drawings and knows the methods of communication with the program and its operation.

Skills: The student uses IT programs in engineering design, can create drawings in CAD programs in the field of 2D and 3D objects. The student is able to edit objects by changing their properties, create drawings using layers and using the created styles, as well as perform operations on blocks, dimension and describe objects. Appreciates the need for self-education.

Social Competencies: He works independently and in a team.

Basic literature:

1) Maciej Sydor, Podstawy komputerowego wspomaganie projektowania, wyd. wyd. Wydawnictwo Naukowe PWN, 2009; 2) Andrzej Jaskulski, Autodesk Inventor 2010PL/2010 Metodyka projektowania dla użytkowników wersji 2009", Wydawnictwo Naukowe PWN, 2009; 3) Andrzej Jaskulski, Inventor 2009PL/2009+ Metodyka projektowania", Wydawnictwo Naukowe PWN, 2009

Supplementary literature:

1) Mariusz Rogulski, EDCL CAD, wyd. Wydawnictwo Naukowe PWN, 2009

The allocated number of ECTS points consists of:



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Contact hours with an academic teacher: 2.48

Student's independent work: 1.52