

KARTA PRZEDMIOTU

Nazwa przedmiotu: **Computer Engineering Graphics (ZIPAOZ>SI2CEG22O)**

Nazwa w języku polskim:

Nazwa w jęz. angielskim:

Dane dotyczące przedmiotu:

Jednostka oferująca przedmiot: Wydział Organizacji i Zarządzania

Przedmiot dla jednostki: Politechnika Śląska

Domyślny typ protokołu dla przedmiotu:

ZAL

Język wykładowy:

angielski

Skrócony opis:

The purpose of the course is to acquire structured knowledge and skills in the development of drawing documentation using methods and principles, including the acquisition of social competence in communicating technical information.

Opis:

Structured knowledge and skills in the development of drawing documentation using methods and principles, including the acquisition of social competence in communicating technical information. Basic methods, techniques, tools and materials used in solving simple engineering tasks of creating and processing technical documentation in the product life cycle.

Description of classes conducted:

LECTURES:

Lecture in the form of oral communication, supplemented by presentations (text, images, videos), real-time demonstration.

Lecture content:

1. Location of computer aiding in human activities.
2. COMPUTER NOTATION OF CONSTRUCTION. 3D MODELING. Division of geometric models and their applications. Principles of solid models creation.
3. 3D modeling in practice. Attributes and blocks. Rendering.
4. Convert 3D models to flat documentation.
5. Modern design methods. Concurrent design - Rapid prototyping. Reverse Engineering.

PROJECT:

Overview in the form of oral communication, supplemented by presentations (text, images, videos) of the topic implemented in class. Individual consultation of completed drawing works.

Application of CAD methods and tools to design a selected manufacturing/technological process. Design based on three-dimensional modeling.

Attendance at classes in accordance with the study regulations.

FORM OF ACTIVITY (Hours/ECTS points)

Number of hours of activity, regardless of its form 45/1,5

Students' own work 1- Theoretical preparation for lab. and project classes 15/0,5

Students' own work 2 - Drawing works at home 60/2

Total: Number of ECTS credits allocated to the classes 120/4

Efekty uczenia się:

KNOWLEDGE: knows and understands

SOCIAL COMPETENCE: is ready for

K1A_W3 - Basic engineering processes and technologies in the life cycle of technical equipment, objects and systems and ways of solving typical engineering tasks, particularly in relation to the organization of production processes and production management. (Lecture)

K1A_W7 - Fundamental problems of contemporary civilization relevant to the production engineering. (Lecture)

SKILLS: is able to

K1A_U6 - Design - in accordance with the given specification – the new and supervise existing objects, production and exploitation processes and systems, using appropriate methods, techniques, tools and materials. (Lab., Proj.)

K1A_U8 - Solve practical engineering tasks taking into account engineering standards and norms and applying specific technologies appropriate to production engineering, using experience gained in a professional engineering environment. (Lab., Proj.)

SOCIAL COMPETENCE: is ready for

K1A_K1 - Critical evaluation of knowledge and received content, recognition of the importance of knowledge in solving cognitive and practical problems, and consulting experts in the event of difficulties in solving problems on their own. (Lecture, Lab., Proj.)

Metody i kryteria oceniania:

LECTURE: Positive grade for the lecture will be given by taking a test with single or multiple choice questions. A passing grade (3,0) requires scoring 50% of the points being the sum of the points for correct answers.

PROJECT: The project class will be credited by solving drawing tasks according to the guidelines indicated by the instructor teacher.

The final grade is the average of grades from all forms of classes.

Przynależność do grup przedmiotów w cyklach:

Opis grupy przedmiotów	Cykl pocz.	Cykl kon.
Przedmioty obowiązkowe ang. semestr 2 (ZIPAOZ>SI-2-22-O)	2022/2023-L	2022/2023-L
Przedmioty obowiązkowe ang. semestr 2 (ZIPAOZ>SI-2-23-O)	2023/2024-L	

Punkty przedmiotu w cyklach:

<bez przypisanego programu>

Typ punktów	Liczba	Cykl pocz.	Cykl kon.
Europejski System Transferu Punktów (ECTS)	4	2022/2023-L	