

Academic Year/course: 2021/22

25870 - Mathematics II

Syllabus Information

Academic Year: 2021/22

Subject: 25870 - Mathematics II

Faculty / School: 110 - Escuela de Ingeniería y Arquitectura

Degree: 558 - Bachelor's Degree in Industrial Design and Product Development Engineering

ECTS: 6.0

Year: 1

Semester: Second semester

Subject Type: Basic Education

Module:

1. General information

2. Learning goals

2.1. Competences

BC01. Students have demonstrated knowledge and understanding in a field of study that is part of the general secondary education curricular, and is typically at a level which, although it is supported by advanced textbooks, includes some aspects that involve knowledge of the forefront of their field of study.

BC02. Students can apply their knowledge to their work or vocation in a professional manner and have competences typically demonstrated through devising and defending arguments and solving problems within their field of study.

BC03. Students have the ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include an important reflection on social, scientific or ethical issues.

BC04. Students can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.

BC05. Students have developed those skills needed to undertake further studies with a high degree of autonomy.

GC04. Ability to organize time effectively and coordinate activities to acquire new knowledge quickly and perform under pressure.

GC05. Capacity to collect, manage, analyze and synthesize information from various sources for the development of design projects and product development. Capacity to use this documentation to obtain conclusions aimed at solving problems and making decisions with initiative, creativity and critical thinking, in order to generate new product concepts, new ideas and solutions.

GC06. Ability to generate the necessary documentation for the proper transmission of ideas through graphics, reports and technical documents, models and prototypes, oral presentations in Spanish and other languages.

GC07. Ability to use and master techniques, skills, tools and techniques and communication and others specific of design engineering needed for design practice.

GC08. Ability to learn continuously, to develop autonomous learning strategies and to work in multidisciplinary groups with motivation and determination to achieve goals.

SC01. Ability to solve mathematical problems that may arise in Engineering in Industrial Design and Product Development. Ability to apply knowledge of linear algebra; geometry; differential geometry; differential and integral calculus; differential equations and partial differential equations; numerical methods; numerical algorithmic; statistical and optimization.

Group work									X	X	X	X	X		
Exams								X							X
Autonomous work	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

For further details concerning the timetable, classroom, office hours, assessment dates and other details regarding this course will be provided on the first day of class or please refer to the "Escuela de Ingeniería y Arquitectura de la Universidad de Zaragoza", website, <https://eina.unizar.es/>.