Tools and strategies for learning

Course description sheet

Basic information

Field of study Mechatronic Engineering with English as instruction language **Major** - **Organisational unit** Faculty of Mechanical Engineering and Robotics **Study level** First-cycle (engineer) programme **Form of study** Full-time studies **Profile** General academic	**Didactic cycle** 2026/2027 **Course code** RIMAS.li1.19231.26 **Lecture languages** English **Mandatoriness** Obligatory **Block** Humanities and Social Sciences Modules **Course related to scientific research** No

Course coordinator	Joanna Iwaniec
Lecturer	Joanna Iwaniec, Patrycja Pyzik

Period	**Method of verification of the learning outcomes**	**Number of ECTS credits**
Semester 1	Completing the classes **Activities and hours** Lectures: 12 Workshop classes: 14	2

Goals

C1	Understand the university structure and academic communication.
C2	Develop effective learning and memory strategies.
C3	Master digital tools and work organization.
C4	Build motivation, time management and career planning skills.

Course's learning outcomes

Code	Outcomes in terms of	Learning outcomes prescribed to a field of study	Methods of verification
Knowledge – Student knows and understands:			
W1	the organizational structure of the university, basic digital tools supporting studying, academic communication, etiquette as well as health and safety rules applicable at the university.	IMA1A_W15	Activity during classes, Participation in a discussion, Test results
W2	memory mechanisms and effective learning strategies.	IMA1A_W01	Activity during classes, Participation in a discussion
W3	principles of time management, motivation and career planning.	IMA1A_W13, IMA1A_W17	Activity during classes, Participation in a discussion
Skills – Student can:			
U1	use university systems and digital tools for work organization and communication.	IMA1A_U01, IMA1A_U02, IMA1A_U19	Activity during classes, Participation in a discussion
U2	prepare a proper email to a lecturer and a presentation according to academic standards.	IMA1A_U03, IMA1A_U04	Activity during classes, Participation in a discussion
U3	apply mnemonic techniques and learning strategies in practice.	IMA1A_U06	Activity during classes, Participation in a discussion, Report
U4	use tools for organizing references, creating graphic materials and formatting text.	IMA1A_U01, IMA1A_U04	Report, Test results
Social competences – Student is ready to:			
K1	planning personal development and improving professional competences.	IMA1A_K01	Activity during classes, Participation in a discussion
K2	responsible communication in the academic environment and teamwork.	IMA1A_K03, IMA1A_K04	Activity during classes, Participation in a discussion
K3	critical assessment of own skills and seeking expert opinions.	IMA1A_K08	Activity during classes, Participation in a discussion

Program content ensuring the achievement of the learning outcomes prescribed to the module

The course introduces university structures, academic etiquette, and the essential IT systems (USOS, UPEL, Teams) required for organized studying. It emphasizes the development of soft and digital skills, covering effective learning techniques, time management, and professional communication or documentation standards.

Student workload

Activity form	Average amount of hours* needed to complete each activity form

Lectures	12
Workshop classes	14
Preparation for classes	6
Preparation of project, presentation, essay, report	8
Contact hours	5
Realization of independently performed tasks	8
Examination or final test/colloquium	2
Student workload	**Hours** 55
Workload involving teacher	**Hours** 26

* hour means 45 minutes

Program content

No.	Program content	Course's learning outcomes	Activities
1.	Part 1: University Survival • Understanding the organizational structure of the university, academic communication principles, etiquette, and health and safety rules. • Introduction to administrative and digital tools supporting studying, such as USOS, SKOS, Teams, and UPEL, and their use in organizing work and communication. • Overview of types of classes and assessment methods, including conditional passes and exams. • Access to knowledge sources such as the university library and online resources as well as student support services and scientific clubs.	W1, U1, U2, K2	Lectures
2.	Part 2: Memory • Explanation of memory mechanisms and cognitive processes, including System 1 and System 2. • Strategies for building understanding and improving retention. • Practical application of mnemonic techniques and guidelines on what information should be memorized and why.	W2, U3, K1	Lectures

No.	Program content	Course's learning outcomes	Activities
3.	Part 3: Toolbox • Practical use of digital tools for studying, including reference management software. • Tools for creating graphics, formatting text, and preparing academic presentations. • Application of artificial intelligence tools, such as ChatGPT, in learning and project work.	U1, U4, K2	Workshop classes
4.	Part 4: Motivation and Future Outlook • Techniques for time management and maintaining motivation. • Work-life balance strategies and gamification of career development. • Discussion of career paths, including master's studies, doctoral studies, industry employment, and entrepreneurship.	W3, K1, K2, K3	Lectures, Workshop classes

Extended information/Additional elements

Teaching methods and techniques :

Discussion, Group work, Workshop, Lecture

Activities	Methods of verification	Credit conditions
Lectures	Activity during classes, Participation in a discussion, Test results	Meeting threshold for participation tokens collected during classes.
Workshop	Activity during classes, Participation in a discussion, Report	Meeting threshold for participation tokens collected during classes.

Additional info

During classes, student collects tokens for attendance, activity, doing homeworks, reports and participation in group activities. These tokens are used as a means for determining whether the course is passed, and with what grade.

Conditions and the manner of completing each form of classes, including the rules of making retakes, as well as the conditions for admission to the exam

There are no means of retakes. There is no exam.

Method of determining the final grade

The final grade is determined based on the number of tokens collected by the end of the classes. Detailed passing thresholds are provided in the course presentation shown during first classes and available online.

Manner and mode of making up for the backlog caused by a student justified absence from classes

There are two tokens possible for make up for absences. Longer absences may cause lack of possibility of passing the course and will require decision from the course coordinator.

Rules of participation in given classes, indicating whether student presence at the lecture is obligatory

Participation in all classes is not considered obligatory, but classes allow for acquisition of tokens which in turn allow for passing the course. The details of token acquisition and usage are documented in the course presentation shown during first classes and available online.
Tokens can be achieved through: attendance, doing homeworks and reports, class activity and participation in group activities.

Literature

Obligatory

1. Readings and supporting resources included in the course introduction.

Optional

1. Daniel Kahneman - Thinking, Fast and Slow (2022)
2. Jak studiowac i nie zwariować, AGH krok po kroku - Poradnik Uczelnianej Rady Samorządu AGH (https://samorzad.agh.edu.pl/wp-content/uploads/2024/02/4-poradnik.pdf)

Learning outcomes prescribed to a field of study

Code	Content
IMA1A_K01	understanding of the need and knowledge of the possibility of constant individual learning (MA, PhD, postgraduate studies, courses) to improve professional, personal and social competence
IMA1A_K03	awareness of the importance of professional conduct, observing professional ethics and respect of different standpoints and cultures
IMA1A_K04	awareness of the responsibility for own work and readiness to comply with the rules of team work and accepting responsibility for tasks performed collectively
IMA1A_K08	Readiness to critical assessment of own knowledge and perceived content, acknowledge of knowledge importance in problem solving and readiness to consult experts
IMA1A_U01	ability to acquire information from literature, databases and other sources, integrate, select and interpret the information, draw conclusions, formulate and justify opinions
IMA1A_U02	ability to work individually or in team, to estimate the time needed to complete an assigned task; able to develop and complete a schedule of works and meet the deadlines
IMA1A_U03	ability to develop documentation related to the completion of an engineering task and prepare text discussing the results of the task
IMA1A_U04	ability to prepare and give a brief presentation of the results of the engineering task completed
IMA1A_U06	competence in independent study, also to improve professional qualifications
IMA1A_U19	observing health and safety rules
IMA1A_W01	extensive knowledge of mathematics, including algebra, analysis, probabilistic and elements of discrete and applied mathematics, including numerical and mathematical methods, necessary for formulating and solving complex problems in mechatronics
IMA1A_W13	knowledge of the current state and recent development trends of mechatronics
IMA1A_W15	elementary knowledge to understand non-technical aspects of engineering; knowledge of basic health and safety rules in the industries of mechatronics
IMA1A_W17	elementary knowledge of management, including quality management and business activity