SYLLABUS

1. Data about the program of study

1.1	Institution	Technical University of Cluj-Napoca
1.2	Faculty	Faculty of Automotive, Mechatronics and Mechanical Engineering
1.3	Department	Department of Mechatronics and Machine Dynamics
1.4	Field of study	Mechatronics and Robotics
1.5	Cycle of study	Bachelor of Science
1.6	Program of study/Qualification	Mechatronics
1.7	Form of education	Full time

2. Data about the subject

2.1	Subject name			***Social and Humanistic Subject I***		Subject code	**7.00**
2.2	Course responsible/lecturer			S.l.dr. Sechel Ioana Cristina - Ioana.Sechel@auto.utcluj.ro			
2.3	Teachers in charge of seminars			S.l.dr. Sechel Ioana Cristina -Ioana.Sechel@auto.utcluj.ro			
2.4 Year of study	1	2.5 Semester	1	2.6 Assessment			C
2.7 Subject category DID DOB	Formative category						DC
	Optionality						DOB

3. Estimated total time

3.1 Number of hours per week	2	of which	3.2 Course	1	3.3 Seminar	1	3.3 Laboratory		3.3 Project	
3.4 Total hours in the curriculum	28	of which	3.5 Course	14	3.6 Seminar	14	3.6 Laboratory		3.6 Project	

3.7 Individual study:	
(a) Manual, lecture material and notes, bibliography	9
(b) Supplementary study in the library, online and in the field	-
(c) Preparation for seminars/laboratory works, homework, reports, portfolios, essays	8
(d) Tutoring	2
(e) Exams and tests	3
(f) Other activities	-

3.8 Total hours of individual study (sum (3.7(a)…3.7(f)))	22
3.9 Total hours per semester (3.4+3.8)	50
3.10 Number of credit points	2

4. Pre-requisites (where appropriate)

4.1	Curriculum	Romanian language and mathematics in high school
4.2	Competence	English language, Computer operation,

5. Requirements (where appropriate)

5.1	For the course	-
5.2	For the applications	-

6. Specific competences

Professional competences	-To know forms and means of communication specific to mechanical engineering and the market economy. - To understand the connections between the different fields of activity and the importance of interdisciplinarity in the design and production of goods and services, as well as the role and means of presenting them in a competitive market. - To evaluate information received mainly visually and to interpret it based on the messages given by the association of conceptual elements of technical-economic language. - To synthesize the processed information and find forms of communication with maximum content, exercises that stimulate imagination and creativity.
Cross competences	After completing the course, students will be able to: -Know how to use words associated with graphic elements to communicate messages with maximum content; Know how to interpret and create a form of presentation of a product or service After completing the course, students will be able to: - Use the computer to create technical reports, curriculum vitae, letters of intent - Use the computer to communicate technically and economically - Know how to analyze data obtained from studies and find forms or schemes for their representation-implementation;

7. Expected learning outcomes

Knowledge	The student is familiar with the basic concepts of interpersonal, technical, and socioeconomic communication; the elements of verbal, nonverbal, and written communication; and the principles of delivering an academic or professional presentation
Skills	The student applies methods for organizing and conveying information, prepares documents and presentations with technical content, interprets verbal and nonverbal messages, and uses digital tools for professional communication.
Responsibility and autonomy	Students take responsibility for formulating clear, accurate, and ethical messages; manage individual and team tasks in academic and professional communication contexts; and demonstrate autonomy in preparing presentation materials.

8. Discipline objectives (as results from the *key competences gained*)

8.1	General objective	Developing skills in the field of technical communication
8.2	Specific objectives	To think independently and effectively solve technical-organizational problems.

9. Contents

9.1. Lecture (syllabus)	Number of hours	Teaching methods	Notes
1. Introduction to Communication. (Oral communication. Written communication. Distance communication -). Conceptual elements of information in communication.	2	Speech, presentation using computer and Powerpoint slides	
2. Editing written documents. Methods for improving writing for optimal communication	2		
3. The role of mathematics and geometry in perceiving the environment and synthesizing information. The role of science and creativity in communication. The importance of communication in design activity.	2		
4. The role of information technology in communication. 5. Standardization as the main regulatory factor in the field of technical communication	2		
6. Functions and classification of visual communications. Means of visual communication. Methods for improving copywriting for optimal communication.	2		
7. The Internet, a major factor in communication.	2		
8. Creating a technical project and presenting it	2		
Bibliography 1. Kiraly A., Comunicarea inginerească de la principii la practică, Editura Mega 2016, ISBN 978-606-543-760-9 2. Kiraly A., Comunicarea pentru ingineri, Editura Mega 2013, ISBN 978-606-543-274-1 3. Kiraly A., Tehnici de comunicare, Editura Mega 2013, ISBN 978-606-543-243-7			
9.2. Seminars /Laboratory/Project	Number of hours	Teaching methods	Notes
1. Introduction to engineering communication. Student presentation in front of the group.	2		
2. Written communication. Written communication, Composing a message on a given topic (Curriculum Vitae and cover letter).	2		
3. Verifying and fixing knowledge regarding communication and carrying out activities in the technical academic environment.	2		
4. Solving technical communication problems using symbols, mathematical language	2		
5. Solving technical communication problems using geometry and trigonometry methods.	2		
6. Verifying and fixing knowledge regarding technical terms and communication through different units of measurement.	2		

7. Colloquium (C). Presentation and analysis of a technical paper written by students.	2		

Bibliography

1. Kiraly A., Comunicarea inginerească de la principii la practică, Editura Mega 2016, ISBN 978-606-543-760-9
2. Kiraly A., Comunicarea pentru ingineri, Editura Mega 2013, ISBN 978-606-543-274-1
3. Kiraly A., Tehnici de comunicare, Editura Mega 2013, ISBN 978-606-543-243-7

10. Bridging course contents with the expectations of the representatives of the community, professional associations and employers in the field

The acquired skills will be necessary for mechanical engineers in the performance of their professional activities.

11. Evaluation

Activity type	10.1 Assessment criteria	10.2 Assessment methods	10.3 Weight in the final grade
11.4 Course	Ability to communicate technical information in writing and verbally specific to mechanical engineers	The student will choose a topic that they will prepare in advance and present at the end of the semester.	50 %
10.5 Seminars /Laboratory/Project	The level of assimilation of the knowledge taught as well as the ability to convey it in writing	A knowledge assessment test will be given at each seminar.	50 %
10.6 Minimum standard of performance			
65% correct answer to the proposed application (report)			

Date of filling in:	Responsible	Title Surname Name	Signature
11.05.2026	Courses	S.l.dr. Sechel Ioana Cristina	
	Applications	S.l.dr. Sechel Ioana Cristina	

Approval from the Head of the Department coordinating the course, only if this is different from the department organizing the study program.	Head of Department Prof.Dr.Ing, Istvan Barabas

Date of approval in the Department of Mechatronics and Machine Dynamics 28.05.2026	Head of Department Prof.dr.eng. Mircea Bara
Date of approval in the Faculty of Automotive, Mechatronics and Mechanical Engineering 16.09.2026	Dean Prof.dr.eng. Nicolae Filip