

**Module/Course Syllabus**  
**Program: COMPUTER SCIENCE**  
 Full-time master degree program

<b>Course:</b>	<b>Science project - planning</b>
<b>Type of the course:</b>	elective
<b>Course code:</b>	I2S2.17
<b>Year:</b>	I
<b>Semester:</b>	2
<b>Form of the degree program:</b>	full-time
<b>Form of classes and number of hours per semester:</b>	15
Lecture	0
Classes	0
Laboratory	0
Project	15
<b>Number of ECTS credits:</b>	2
<b>Form of assessment:</b>	course completion assessment
<b>Course language:</b>	English

<b>Course objective (CO)</b>	
<b>CO1</b>	Practical familiarization of students with the methodology of preparing a research experiment
<b>CO2</b>	Developing the ability to search and critically analyze scientific literature.

<b>Prerequisites in terms of knowledge, skills and other competencies</b>	
<b>1</b>	The ability to plan an experiment.
<b>2</b>	Knowledge of methods of working with scientific literature and text bases.
<b>3</b>	Ability to think logically and creatively.

<b>Learning outcomes (LO)</b>	
	In terms of knowledge:
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	In terms of skills:
<b>LO 1</b>	Has the practical ability to formulate theses and research hypotheses.
<b>LO 2</b>	Has the practical ability to search, select and analyze literature on a given topic.
<b>LO 3</b>	Has the practical ability to plan a research experiment.
	In terms of social competence:
<b>LO 4</b>	He is ready to critically evaluate his knowledge and use it in solving research problems.

<b>Course content</b>	
<b>Form of classes – project (P)</b>	
	Course content
<b>Lab1</b>	Issuing research problems to students and getting to know them. Forming research teams.
<b>Lab2</b>	Literature research on the research problem. Development of a report - literature review.
<b>Lab3</b>	Formulation of theses and research hypotheses. Selection of research methods.
<b>Lab4</b>	Presentation of the results of the literature review, theses and research hypotheses.
<b>Lab5</b>	Planning a research experiment. Development of the report.

<b>Lab6</b>	Presentation of the results of the work. Discussion and possible modification of the research plan.
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<b>Didactic methods</b>	
<b>1</b>	Working with scientific databases.
<b>2</b>	Preparation of a multimedia presentation.

<b>Assessment methods and criteria</b>		
<b>Assessment method symbol</b>	<b>Assessment method description</b>	<b>Passing threshold</b>
<b>A1</b>	Presentation.	<b>51%</b>

<b>Required textbooks and other course materials</b>	
<b>1</b>	Mańczak K., Technika Planowania Eksperymentu, WNT, Warszawa, 1976
<b>2</b>	ZiębaA., Analiza danych w naukach ścisłych i technice, PWN, ebook, Warszawa 2013
<b>Recommended textbooks and other course materials</b>	
<b>1</b>	Pytkowski W. Organizacja badań i ocena prac naukowych, wyd. 2, PWN, Warszawa 1985

<b>Student workload</b>	
<b>Form of activity</b>	<b>Average number of hours to complete the activity</b>
<b>Contact hours with the lecturer, including:</b>	15
<i>participation in lectures</i>	
<i>participation in projects</i>	15
<b>Student's own work, including:</b>	35
<i>implementation of the project</i>	25
<i>preparation of the presentation of the results of the work</i>	10
<b>Total student workload</b>	50
<b>Total number of ECTS credits</b>	2

<b>Learning outcomes matrix</b>					
<b>Learning outcome</b>	<b>Reference to learning outcomes defined for the master's program</b>	<b>Course objectives</b>	<b>Course content</b>	<b>Didactic methods</b>	<b>Assessment methods</b>
LO 1	I2A_U07 ++ I2A_U11 +	CO1	P1, P3	1	A1
LO 2	I2A_U01 +++ I2A_U02 +++ I2A_U03 ++	CO2	P2, P4	1, 2	A1
LO 3	I2A_U01 ++ I2A_U02 ++ I2A_U03 ++ I2A_U04 +++ I2A_U07 ++	CO1	P5, P6	1, 2	A1
LO 4	I2A_K01 ++ I2A_K02 ++	CO1, CO2	P2, P3, P5, P6	1, 2	A1

<b>The author of the program:</b>	dr inż. Marek Miłosz, prof. uczelni
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