

The Faculty of Mathematics and Information Science, Warsaw University of Technology  
**Graduate Programme (M.Sc.Eng.) in Computer Science**  
 (4-semester programme, specialization Artificial Intelligence,  
 valid from academic year 2017/2018)

**COMPUTER SCIENCE - winter semester (4SEM - AI sem.1 or 2)**

**Obligatory courses**

No.	Course	ECTS	Lc	Ex	Lab	P	Exam
1	<i>Advanced topics in mathematics (elective block)</i>	4			3		
2	Advanced algorithms	4	2	0	0	1	E
3	Programming 3 - advanced	4	2	0	2	0	
4	Electronic principles	4	2	1	0	0	
5	Data transmission	3	2	0	1	0	
6	Group project (lecture)	1	1	0	0	0	
7	<i>Humanities (elective)</i>	2			2		
Total:		22	12	3	3	1	1
Hours (total):					19		
Hours (without Sports, HES, Languages):					17		

**Specialization: Artificial intelligence**

No.	Course	ECTS	Lc	Ex	Lab	P	Exam
1	Calculus - advances	4	2	2	0	0	
2	<i>Elective 1</i>	4			3		
Total:		8	3	2	2	0	0
Hours (total):					7		

**COMPUTER SCIENCE - summer semester (4SEM - AI sem.1 or 2)**

**Obligatory courses**

No.	Course	ECTS	Lc	Ex	Lab	P	Exam
1	Elements of modern physics	4	2	1	0	0	
2	High performance computing	3	2	0	2	0	
3	Object oriented design	4	1	0	2	0	
4	Databases	4	2	0	2	0	E
5	UNIX fundamentals	2	0	0	2	0	
6	Humanities seminar	3	0	2	0	0	
Total:		20	7	3	8	0	1
Hours (total):					18		
Hours (without Sports, HES, Languages):					16		

**Specialization: Artificial intelligence**

No.	Course	ECTS	Lc	Ex	Lab	P	Exam
1	Neural networks	5	2	0	2	0	E
2	Knowledge representation and reasoning	5	2	0	2	0	E
Total:		10	4	0	4	0	2
Hours (total):					8		

**COMPUTER SCIENCE - winter semester (4SEM - AI sem.2 or 3)**

**Obligatory courses**

No.	Course	ECTS	Lc	Ex	Lab	P	Exam
1	IT projects management	4	2	0	0	2	E
2	Software engineering 1	4	2	1	0	0	
3	<i>Multilayer application development (elective block 1)</i>	4			3		
4	<i>Computer networks (elective block 2)</i>	4			3		
Total:		16	6	1	4	2	1
Hours (total):					13		

**Specialization: Artificial intelligence**

No.	Course	ECTS	Lc	Ex	Lab	P	Exam
1	Image and speech recognition	5	2	1	1	0	
2	Programming in logic and symbolic programming	4	1	0	2	0	
3	Data compression	3	2	0	1	0	
4	<i>Diploma seminar 1 (sem.3)*</i>	2	0	2	0	0	
Total:		14	5	3	4	0	0
Hours (total):					12		

**COMPUTER SCIENCE - summer or winter semester (4SEM - AI sem.4)**

**Obligatory courses**

No.	Course	ECTS	Lc	Ex	Lab	P	Exam
1	<i>Master thesis preparation</i>	16	0	0	0	0	
Total:		16	0	0	0	0	0
Hours (total):					0		

**Specialization: Artificial intelligence**

No.	Course	ECTS	Lc	Ex	Lab	P	Exam
1	<i>Diploma seminar 2</i>	2	0	2	0	0	
2	<i>Elective 2</i>	4			3		
3	<i>Elective 3</i>	4			3		
4	<i>Elective 4</i>	4			3		
Total:		14	3	2	6	0	0
Hours (total):					11		

\* The first semester of the diploma seminar takes place in the third semester,  
 i.e. winter for students beginning their course in the winter or summer for those beginning in the summer semester