

The Faculty of Mathematics and Information Science, Warsaw University of Technology
Undergraduate Programme (B.Sc.) in Computer Science and Information Systems
 valid from academic year 2023/2024

COMPUTER SCIENCE AND INFORMATION SYSTEMS - semester 1

No.	Course	ECTS	Lc	Ex	Lab	P	Exam	
1	Calculus 1	6	2	2	0	0	E	
2	Linear algebra with geometry	5	2	2	0	0	E	
3	Introduction to formal logic and set theory	5	2	2	0	0	E	
4	Physics 1	4	2	1	0	0		
5	Programming 1 - fundamentals	6	2	1	2	0		
6	Computer architecture	4	2	1	0	0		
6	Electronic principles	4	2	1	0	0		
Total:		30	12	9	2	0	3	
Hours (total):							23	
Hours (without Sports, HES, Languages):							23	

COMPUTER SCIENCE AND INFORMATION SYSTEMS - semester 2

No.	Course	ECTS	Lc	Ex	Lab	P	Exam	
1	Calculus 2	5	2	3	0	0	E	
2	Discrete mathematics 1	4	2	2	0	0		
3	Physics 2	4	2	1	1	0	E	
4	Programming 2 - object oriented	5	2	0	2	0		
5	Fundamentals of information theory	4	2	0	1	0		
5	Introduction to digital systems	4	2	1	0	0		
6	UNIX fundamentals	2	0	0	2	0		
7	Humanities 1	2	0	2	0	0		
7	Communication skills (humanities)	2	0	2	0	0		
8	Language	4	0	4	0	0		
9	Physical education and sports 1	0	0	2	0	0		
Total:		30	10	14	6	0	2	
Hours (total):							30	
Hours (without Sports, HES, Languages):							22	

COMPUTER SCIENCE AND INFORMATION SYSTEMS - semester 3

No.	Course	ECTS	Lc	Ex	Lab	P	Exam	
1	Mathematical modeling	5	2	2	0	0	E	
1	Differential equations	4	2	2	0	0	E	
2	Discrete mathematics 2	4	2	2	0	0	E	
3	Algorithms and data structures	7	2	2	2	0	E	
4	Programming 3 - advanced	4	2	0	2	0		
5	Data transmission	4	2	0	1	0		
5	Data transmission	3	2	0	1	0		
6	Operating systems 1	2	1	0	1	0		
7	Humanities 2	2			2			
8	Language	4	0	4	0	0		
9	Physical education and sports 2	0	0	2	0	0		
Total:		30	11	12	6	0	3	
Hours (total):							29	
Hours (without Sports, HES, Languages):							23	

COMPUTER SCIENCE AND INFORMATION SYSTEMS - semester 4

No.	Course	ECTS	Lc	Ex	Lab	P	Exam	
1	Probability	4	2	2	0	0	E	
2	Object oriented design	4	1	0	2	0		
3	Programming in graphical environment	4	2	0	2	0		
4	Databases	4	2	0	2	0	E	
5	Numerical methods 1	4	2	1	1	0	E	
6	Operating systems 2	4	2	0	1	0		
7	Humanities 2	2			2			
8	Language	4	0	4	0	0		
9	Physical education and sports 3	0	0	2	0	0		
Total:		30	13	9	8	0	3	
Hours (total):							30	
Hours (without Sports, HES, Languages):							22	

COMPUTER SCIENCE AND INFORMATION SYSTEMS - semester 5

No.	Course	ECTS	Lc	Ex	Lab	P	Exam
1	Computer statistics	5	2	0	2	0	E
2	Automata theory and formal languages	5	2	2	0	0	E
3	Software engineering 1	4	2	0	0	1	
4	Numerical methods 2	4	2	1	1	0	
5	Computer networks	4	2	0	1	0	
6	<i>Multilayer application development (elective block 1)</i>	4			3		
7	<i>Elective 1</i>	4			3		
	Total:	30	12	3	8	1	2
	Hours (total):				24		
	Hours (without Sports, HES, Languages):				24		

COMPUTER SCIENCE AND INFORMATION SYSTEMS - semester 6

No.	Course	ECTS	Lc	Ex	Lab	P	Exam
1	Artificial intelligence fundamentals	4	2	0	0	1	E
2	Software engineering 2	5	0	0	3	0	
3	Computer graphics 1	5	2	0	2	0	E
4	<i>Embedded systems (elective block 2)</i>	4			3		E
5	<i>Elective 2</i>	4			3		
6	<i>Elective 3</i>	4			3		
7	<i>Elective 4</i>	4			3		
	Total:	30	8	0	13	1	3
	Hours (total):				22		
	Hours (without Sports, HES, Languages):				22		

COMPUTER SCIENCE AND INFORMATION SYSTEMS - semester 7

No.	Course	ECTS	Lc	Ex	Lab	P	Exam
1	Algorithms and computability	4	2	1	1	0	
2	<i>Diploma seminar</i>	2	0	2	0	0	
3	<i>Group project</i>	3	1	0	0	1	
4	<i>Elective 5</i>	4			3		
5	<i>Humanities 3</i>	2			2		
6	<i>Bachelor diploma thesis</i>	15	0	0	0	0	
	Total:	30	6	3	3	1	0
	Hours (total):				13		
	Hours (without Sports, HES, Languages):				11		

Student Internship (after sem 4 or sem. 6) - 4 weeks, 4 ECTS, not within the ECTS limits