

**The Faculty of Mathematics and Information Science, Warsaw University of Technology**  
**Undergraduate Program (B.Sc.) in Computer Science**  
**(2008/2009 I year AP)**

**Semester 1**

No	Course	Responsible / Lecturer	ECTS	Lc	E	L	P	Exam
1.	Calculus 1		6	2	2	0	0	
2.	Linear Algebra with Geometry		6	2	2	0	0	E
3.	Introduction to Modern Mathematics		6	2	2	0	0	E
4.	Programming 1 (fundamentals, C)		5	2	2	1	0	E
5.	Physics 1		4	2	1	1	0	
6.	Electronic Principles		3	1	1	0	0	
7.	Physical Education and Sports		0	0	2	0	0	
Total:			<b>30</b>	<b>11</b>	<b>12</b>	<b>2</b>	<b>0</b>	<b>3</b>
Hours - total:						<b>25</b>		
Hours - (without Sports, HES, Languages):						<b>23</b>		

**Semester 2**

No	Course	Responsible / Lecturer	ECTS	Lc	E	L	P	Exam
1.	Calculus 2		6	2	2	0	0	E
2.	Discrete Mathematics 1		5	2	2	0	0	
3.	Programming 2 (object oriented, C++)		5	2	0	2	0	
4.	Physics 2		4	2	1	0	0	E
5.	Introduction to Digital Systems		4	2	1	1	0	
6.	Techniques of Auto-presentation		2	0	2	0	0	
7.	Language		4	0	4	0	0	
8.	Physical Education and Sports		0	0	2	0	0	
Total:			<b>30</b>	<b>10</b>	<b>14</b>	<b>3</b>	<b>0</b>	<b>2</b>
Hours - total:						<b>27</b>		
Hours - (without Sports, HES, Languages):						<b>19</b>		

**Semester 3**

No	Course	Responsible / Lecturer	ECTS	Lc	E	L	P	Exam
1.	Discrete Mathematics 2		5	2	1	0	0	E
2.	Differential Equations		5	2	2	0	0	E
3.	Algorithms & Data Structures		6	2	2	2	0	E
4.	Programming 3 (advanced, Java)		5	2	0	2	0	
5.	Internet Programming		3	1	0	2	0	
6.	Humanities - elective		2	0	2	0	0	
7.	Language		4	0	4	0	0	
8.	Physical Education and Sports		0	0	2	0	0	
Total:			<b>30</b>	<b>9</b>	<b>13</b>	<b>6</b>	<b>0</b>	<b>3</b>
Hours - total:						<b>28</b>		
Hours - (without Sports, HES, Languages):						<b>20</b>		

**Electives - Winter Semester (3)**

No	Course	Responsible / Lecturer	ECTS	Lc	E	L	P	Exam
1.	Personnel Management		2	0	2	0	0	
2.	Effective Communication		2	0	2	0	0	
Total:			<b>4</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>
Hours - total:						<b>4</b>		

**Semester 4**

No	Course	Responsible / Lecturer	ECTS	Lc	E	L	P	Exam
1.	Probability		4	2	2	0	0	E
2.	Numerical Methods		4	2	1	0	1	E
3.	Mathematical Foundation of Engineering		4	2	2	0	0	
4.	Programming 4 (in graphical environment)		4	2	0	2	0	
5.	Operating Systems		3	2	0	1	0	
6.	Data Transmission		3	2	0	1	0	
7.	Data Bases		4	1	0	2	0	
8.	Language		4	0	4	0	0	
9.	Physical Education and Sports		0	0	2	0	0	
Total:			<b>30</b>	<b>13</b>	<b>11</b>	<b>6</b>	<b>1</b>	<b>2</b>
Hours - total:						<b>31</b>		
Hours - (without Sports, HES, Languages):						<b>25</b>		

**Semester 5**

No	Course	Responsible / Lecturer	ECTS	Lc	E	L	P	Exam
	Electives x 3		12	3		6		E
1.	Automata Theory and Languages		5	2	2	0	0	E
2.	Computer Statistics		4	2	0	2	0	E
3.	Software Engineering		4	2	1	0	0	
4.	Computer Networks		3	2	0	1	0	
5.	Language		2	0	2	0	0	
6.	Physical Education and Sports		0	0	2	0	0	
	Total:		30	11	7	9	0	3
	Hours - total:							27
	Hours - (without Sports, HES, Languages):							23

**Semester 6**

No	Course	Responsible / Lecturer	ECTS	Lc	E	L	P	Exam
	Electives x 2		8	2		4		E
1.	Computer Graphics		4	2	0	2	0	E
2.	Artificial Intelligence Fundamentals		4	2	0	0	1	
3.	Software engineering		4	0	0	3	0	
4.	UNIX Programming		4	1	0	2	0	
5.	Project (individual)		4	0	0	0	3	
6.	Social Issues in Computing		2	0	2	0	0	
7.	Physical Education and Sports		0	0	2	0	0	
	Total:		30	7	4	11	4	2
	Hours - total:							26
	Hours - (without Sports, HES, Languages):							22

**Semester 7**

No	Course	Responsible / Lecturer	ECTS	Lc	E	L	P	Exam
	Elective		4	1	0	2	0	
1.	Diploma Seminar		3	0	2	0	0	
2.	Project (group)		4	1	0	0	1	
3.	Algorithms and Computability		4	2	1	1	0	
4.	Bachelor Thesis		15	0	0	0	0	
	Total:		30	4	3	3	1	0
	Hours - total:							11

Additionally, in sem. 7 there are 180 hours for Bachelor Thesis preparation

**Electives - Winter Semester (5)**

No	Course	Responsible / Lecturer	ECTS	Lc	E	L	P	Exam
1.	Parallel and Distributed Programming		4	2	1	0	0	E
2.	.NET Programming		4	2	0	2	0	
3.	Introduction to TCP/IP networks		4	2	0	2	0	
4.	Assemblers		4	2	0	1	0	
5.	Stochastic simulation		4	2	1	1	0	E
	Total:		20	10	2	6	0	2
	Hours - total:							18

**Electives - Summer Semester (6)**

No	Course	Responsible / Lecturer	ECTS	Lc	E	L	P	Exam
1.	Symbolic and Numeric Calculations		4	0	0	2	0	
2.	Oracle Database Administration		4	2	0	2	0	E
3.	Network Operating Systems		4	1	0	2	0	
	Total:		12	3	0	6	0	1
	Hours - total:							9

**Electives - Winter Semester (7)**

No	Course	Responsible / Lecturer	ECTS	Lc	E	L	P	Exam
1.	Data Mining		4	2	0	1	0	
2.	Advanced Artificial Intelligence		4	2	0	0	1	
3.	Oracle Database Programming		4	2	0	0	2	
4.	Distributed Operating Systems		4	2	0	1	0	
	All electives from sem.5							
	Total:		16	8	0	2	3	0
	Hours - total:							13