

The Faculty of Mathematics and Information Science, Warsaw University of Technology
Undergraduate Program (B.Sc.) in Computer Science
(2007/2008 I year AO)

Semester 1

| No | Course | Responsible / Lecturer | ECTS | Lc | E | L | P | Exam |
|-------------------------------------------|------------------------------------|------------------------|-----------|-----------|-----------|----------|----------|----------|
| 1. | Calculus 1 | dr L. Zabielski | 6 | 2 | 2 | 0 | 0 | |
| 2. | Linear Algebra with Geometry | dr T. Traczyk | 6 | 2 | 2 | 0 | 0 | E |
| 3. | Introduction to Modern Mathematics | dr T. Traczyk | 6 | 2 | 2 | 0 | 0 | E |
| 4. | Programming 1 (fundamentals, C) | dr R. Podraza | 5 | 2 | 2 | 1 | 0 | E |
| 5. | Physics 1 | dr J. L. Nowiński | 4 | 2 | 1 | 1 | 0 | |
| 6. | Electronic Principles | mgr M. Pilarski | 3 | 1 | 1 | 0 | 0 | |
| 7. | Physical Education and Sports | | 0 | 0 | 2 | 0 | 0 | |
| Total: | | | 30 | 11 | 12 | 2 | 0 | 3 |
| Hours - total: | | | | | 25 | | | |
| Hours - (without Sports, HES, Languages): | | | | | 23 | | | |

Semester 2

| No | Course | Responsible / Lecturer | ECTS | Lc | E | L | P | Exam |
|-------------------------------------------|--------------------------------------|---------------------------------------------------|-----------|-----------|-----------|----------|----------|----------|
| 1. | Calculus 2 | dr L. Zabielski | 6 | 2 | 2 | 0 | 0 | E |
| 2. | Discrete Mathematics 1 | prof. dr hab. Z. Lonc dr K. Junosza-Szaniawski | 5 | 2 | 2 | 0 | 0 | |
| 3. | Programming 2 (object oriented, C++) | dr R. Podraza | 5 | 2 | 0 | 2 | 0 | |
| 4. | Physics 2 | dr J. L. Nowiński | 4 | 2 | 1 | 0 | 0 | E |
| 5. | Introduction to Digital Systems | prof. nzw. dr hab. T. Adamski | 4 | 2 | 1 | 1 | 0 | |
| 6. | Techniques of Auto-presentation | dr J. L. Nowiński | 2 | 0 | 2 | 0 | 0 | |
| 7. | Language | | 4 | 0 | 4 | 0 | 0 | |
| 8. | Physical Education and Sports | | 0 | 0 | 2 | 0 | 0 | |
| Total: | | | 30 | 10 | 14 | 3 | 0 | 2 |
| Hours - total: | | | | | 27 | | | |
| Hours - (without Sports, HES, Languages): | | | | | 19 | | | |

Semester 3

| No | Course | Responsible / Lecturer | ECTS | Lc | E | L | P | Exam |
|-------------------------------------------|--------------------------------|---------------------------------------------------|-----------|----------|-----------|----------|----------|----------|
| 1. | Discrete Mathematics 2 | prof. dr hab. Z. Lonc dr K. Junosza-Szaniawski | 5 | 2 | 1 | 0 | 0 | E |
| 2. | Differential Equations | dr T. Świrszcz | 5 | 2 | 2 | 0 | 0 | E |
| 3. | Algorithms & Data Structures | dr K. Bryś | 6 | 2 | 2 | 2 | 0 | E |
| 4. | Programming 3 (advanced, Java) | mgr K. Kaczmarek | 5 | 2 | 0 | 2 | 0 | |
| 5. | Internet Programming | dr M. Grzenda | 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: | | | 30 | 9 | 13 | 6 | 0 | 3 |
| Hours - total: | | | | | 28 | | | |
| Hours - (without Sports, HES, Languages): | | | | | 20 | | | |

Electives - Winter Semester (3)

| No | Course | Responsible / Lecturer | ECTS | Lc | E | L | P | Exam |
|----------------|-------------------------|------------------------|----------|----------|----------|----------|----------|----------|
| 1. | Personnel Management | mgr I. Stawowa | 2 | 0 | 2 | 0 | 0 | |
| 2. | Effective Communication | mgr I. Stawowa | 2 | 0 | 2 | 0 | 0 | |
| Total: | | | 4 | 0 | 4 | 0 | 0 | 0 |
| Hours - total: | | | | | 4 | | | |

Semester 4

| No | Course | Responsible / Lecturer | ECTS | Lc | E | L | P | Exam |
|-------------------------------------------|------------------------------------------|----------------------------------|-----------|-----------|-----------|----------|----------|----------|
| 1. | Probability | prof. nzw. dr hab. P. Szablowski | 4 | 2 | 2 | 0 | 0 | E |
| 2. | Numerical Methods | dr hab. A. Smoktunowicz | 4 | 2 | 1 | 0 | 1 | E |
| 3. | Mathematical Foundation of Engineering | prof. dr hab. A. Romanowska | 4 | 2 | 2 | 0 | 0 | |
| 4. | Programming 4 (in graphical environment) | mgr K. Mossakowski | 4 | 2 | 0 | 2 | 0 | |
| 5. | Operating Systems | dr hab. L. Opalski | 3 | 2 | 0 | 1 | 0 | |
| 6. | Data Transmission | mgr M. Pilarski | 3 | 2 | 0 | 1 | 0 | |
| 7. | Data Bases | dr M. Grzenda | 4 | 1 | 0 | 2 | 0 | |
| 8. | Language | | 4 | 0 | 4 | 0 | 0 | |
| 9. | Physical Education and Sports | | 0 | 0 | 2 | 0 | 0 | |
| Total: | | | 30 | 13 | 11 | 6 | 1 | 2 |
| Hours - total: | | | | | 31 | | | |
| Hours - (without Sports, HES, Languages): | | | | | 25 | | | |

Semester 5

| No | Course | Responsible / Lecturer | ECTS | Lc | E | L | P | Exam |
|----|-------------------------------------------|--------------------------|------|----|---|---|---|------|
| | Electives x 3 | | 12 | 3 | | 6 | | E |
| 1. | Automata Theory and Languages | dr W. Homenda | 5 | 2 | 2 | 0 | 0 | E |
| 2. | Computer Statistics | dr hab. P. Grzegorzewski | 4 | 2 | 0 | 2 | 0 | E |
| 3. | Software Engineering | mgr K. Kaczmarek | 4 | 2 | 1 | 0 | 0 | |
| 4. | Computer Networks | mgr J. Sobczyk | 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 | dr P. Kotowski | 4 | 2 | 0 | 2 | 0 | E |
| 2. | Artificial Intelligence Fundamentals | dr hab. J. Arabas | 4 | 2 | 0 | 0 | 1 | |
| 3. | Software engineering | mgr K. Kaczmarek | 4 | 0 | 0 | 3 | 0 | |
| 4. | UNIX Programming | mgr M. Borkowski | 4 | 1 | 0 | 2 | 0 | |
| 5. | Project (individual) | dr W. Homenda | 4 | 0 | 0 | 0 | 3 | |
| 6. | Social Issues in Computing | dr M. Paprzycki | 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 | dr F. Okulicka-Dłużewska | 3 | 0 | 2 | 0 | 0 | |
| 2. | Project (group) | dr W. Homenda | 4 | 0 | 0 | 0 | 3 | |
| 3. | Algorithms and Computability | dr W. Homenda | 4 | 2 | 1 | 1 | 0 | |
| 4. | Bachelor Thesis | | 15 | 0 | 12 | 0 | 0 | |
| | Total: | | 30 | 3 | 15 | 3 | 3 | 0 |
| | Hours - total: | | | | | | | 24 |
| | Hours - (without Bachelor Thesis): | | | | | | | 12 |

Electives - Winter Semester (5)

| No | Course | Responsible / Lecturer | ECTS | Lc | E | L | P | Exam |
|----|--------------------------------------|-------------------------------|------|----|---|---|---|------|
| 1. | Parallel and Distributed Programming | dr L. Stapp | 4 | 2 | 1 | 0 | 0 | E |
| 2. | .NET Programming | mgr K. Mossakowski | 4 | 2 | 0 | 2 | 0 | |
| 3. | Introduction to TCP/IP networks | dr M. Kozłowski | 4 | 1 | 0 | 2 | 0 | |
| 4. | Assemblers | prof. nzw. dr hab. T. Adamski | 4 | 2 | 0 | 1 | 0 | |
| 5. | Risk Theory | dr Z. Dudek | 4 | 2 | 1 | 0 | 0 | E |
| | Total: | | 20 | 9 | 2 | 5 | 0 | 2 |
| | Hours - total: | | | | | | | 16 |

Electives - Summer Semester (6)

| No | Course | Responsible / Lecturer | ECTS | Lc | E | L | P | Exam |
|----|--------------------------------|----------------------------------|------|----|---|---|---|------|
| 1. | Elements of Sampling Theory | prof. nzw. dr hab. P. Szablowski | 4 | 2 | 1 | 0 | 0 | E |
| 2. | Oracle Database Administration | mgr R. Mączewski | 4 | 2 | 0 | 0 | 2 | E |
| 3. | Network Operating Systems | dr J. Oleniacz | 4 | 1 | 0 | 2 | 0 | |
| | Total: | | 12 | 5 | 1 | 2 | 2 | 2 |
| | Hours - total: | | | | | | | 10 |

Electives - Winter Semester (7)

| No | Course | Responsible / Lecturer | ECTS | Lc | E | L | P | Exam |
|----|----------------------------------|------------------------|------|----|---|---|---|------|
| 1. | Data Mining | dr K. Bryś | 4 | 2 | 0 | 1 | 0 | |
| 2. | Advanced Artificial Intelligence | dr hab. J. Arabas | 4 | 2 | 0 | 0 | 1 | |
| 3. | Oracle Database Programming | mgr R. Mączewski | 4 | 2 | 0 | 0 | 2 | |
| | Electives sem.5 | | | | | | | |
| | Total: | | 12 | 6 | 0 | 1 | 3 | 0 |
| | Hours - total: | | | | | | | 10 |