

Academic Bachelor study programme “Computer science”
(In Latvian)

| Title of the course/module | Name of the responsible lecturer/docent | KP Credit points | Planning | | | | | |
|---|---|------------------------|-----------|----------|----------|----------|----------|----------|
| | | | 1st year | | 2nd year | | 3rd year | |
| | | | Semester | | | | | |
| | | | 1 | 2 | 3 | 4 | 5 | 6 |
| A Compulsory part | | 78 | | | | | | |
| Field basic guidelines (Compulsory part) | | 30 | 10 | 8 | 2 | 6 | 4 | |
| Mathematical analysis I | Gaļina Hiļķeviča | 4 | 4 | | | | | |
| Mathematical analysis II | Gaļina Hiļķeviča | 2 | | 2 | | | | |
| Linear Algebra un Analytical Geometry I | Jeļena Mihailova | 2 | 2 | | | | | |
| Linear Algebra un Analytical Geometry II | Jeļena Mihailova | 2 | | 2 | | | | |
| Mathematical logic | Gaļina Hiļķeviča | 2 | 2 | | | | | |
| Discrete mathematics | Gaļina Hiļķeviča | 2 | | 2 | | | | |
| Theory of algorithms | Vairis Caune | 2 | 2 | | | | | |
| Data structures and algorithms | Karina Šķirmante | 2 | | | | 2 | | |
| Probability theory and mathematical statistics | Oskars Rasnačs | 2 | | | 2 | | | |
| Differential equations | Gaļina Hiļķeviča | 2 | | 2 | | | | |
| Numerical methods | Gaļina Hiļķeviča | 2 | | | | | 2 | |
| Optimization methods | Jānis Vucāns | 2 | | | | 2 | | |
| Object Oriented Modelling | Raita Rollande | 2 | | | | | 2 | |
| Modelling of chaotic processes | Juris Žagars | 2 | | | | 2 | | |
| Actual Problems of the Field (Compulsory part) | | 28 | 4 | 4 | 4 | 8 | 8 | |
| Basics of computer science | Sergejs Hiļķevičs | 4 | 4 | | | | | |
| Programming | Estere Vītola | 4 | | 4 | | | | |
| Object Oriented Programming | Estere Vītola | 4 | | | 4 | | | |
| JAVA programming | Karina Šķirmante | 4 | | | | 4 | | |
| Visual programming languages | Vairis Caune | 4 | | | | | 4 | |
| Information systems analysis and design | Raita Rollande | 4 | | | | 4 | | |
| Software development tools and environment | Raita Rollande | 4 | | | | | 4 | |
| Interdisciplinary aspects (Compulsory part) | | 20 | 4 | 4 | 6 | 4 | 2 | |
| English I | Ieva Vizule | 2 | 2 | | | | | |
| English II | Ieva Vizule | 2 | | 2 | | | | |
| Foundations of entrepreneurship | Sergejs Hiļķevičs | 2 | | | 2 | | | |
| Basics of economics | Dmitrijs Smirnovs | 2 | | | | 2 | | |
| Basics of IT industry rules & regulations & standards | Andis Pilāns | 2 | | | | | 2 | |
| Physics I | Ilva Cinīte | 2 | 2 | | | | | |
| Physics II | Ilva Cinīte | 2 | | 2 | | | | |
| Electronics | Aigars Krauze | 4 | | | 4 | | | |
| Civil Protection | Varis Vītols | 1 | | | | 1 | | |
| Sustainable society and green thinking | Ivo Lemšs | 1 | | | | 1 | | |
| B part | | 26 | | | | | | |
| Compulsory elective courses | | 26 | 2 | 4 | 6 | 2 | 4 | 8 |
| Operating systems | Mārcis Naktiņš | 4 | | 4 | | | | |
| Network operating systems | Andris Vagalis | 2 | | | | 2 | | |

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|---|----------------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Database technologies | Vija Vagale | 4 | | | | | 4 | |
| Computer systems hardware and architecture | Mārcis Naktiņš | 2 | 2 | | | | | |
| Local area network design and administration | Mārcis Naktiņš | 4 | | | 4 | | | |
| Web technologies | Kārlis Immers | 2 | | | 2 | | | |
| Information systems security | Aleksandrs Berežņojs | 2 | | | | | | (2) |
| Basics of computer aided design | Aleksejs Klokovs | 4 | | | | | | (4) |
| Introduction to computer processing of satellite images | Linda Gulbe | 4 | | | | | | (4) |
| IT project management | Pēteris Lauriņš | 4 | | | | | | (4) |
| Software testing and automation | Madara Freimane | 2 | | | | | | (2) |
| Parallel programming | Jānis Hofmanis | 2 | | | | | | (2) |
| Internship | Gaļina Hilķeviča | 8 | | | | | | (8) |
| C part | | 6 | | | | | | |
| Optional courses | | 6 | | | 2 | | 2 | 2 |
| Bachelor thesis | | | | | | | | |
| Bachelor thesis | Gaļina Hilķeviča | 10 | | | | | | 10 |
| Total: | | 120 | 20 | 20 | 20 | 20 | 20 | 20 |

**Academic Bachelor study programme “Computer science”
(In English)**

| Title of the course/module | Name of the responsible lecturer/docent | KP Credit points | Planning | | | | | |
|---|---|------------------|-----------|----------|----------|----------|----------|---|
| | | | 1st year | | 2nd year | | 3rd year | |
| | | | Semester | | | | | |
| | | | 1 | 2 | 3 | 4 | 5 | 6 |
| A Compulsory part | | 78 | | | | | | |
| Field basic guidelines (Compulsory part) | | 30 | 10 | 8 | 2 | 6 | 4 | |
| Mathematical analysis I | Jesus Alberto Cazares Montes | 4 | 4 | | | | | |
| Mathematical analysis II | Jesus Alberto Cazares Montes | 2 | | 2 | | | | |
| Linear Algebra un Analytical Geometry I | Jesus Alberto Cazares Montes | 2 | 2 | | | | | |
| Linear Algebra un Analytical Geometry II | Jesus Alberto Cazares Montes | 2 | | 2 | | | | |
| Mathematical logic | Jesus Alberto Cazares Montes | 2 | 2 | | | | | |
| Discrete mathematics | Jesus Alberto Cazares Montes | 2 | | 2 | | | | |
| Theory of algorithms | Vairis Caune | 2 | 2 | | | | | |
| Data structures and algorithms | Karina Šķirmante | 2 | | | | 2 | | |
| Probability theory and mathematical statistics | Jesus Alberto Cazares Montes | 2 | | | 2 | | | |
| Differential equations | Jesus Alberto Cazares Montes | 2 | | 2 | | | | |
| Numerical methods | Gaļina Hilķeviča | 2 | | | | | 2 | |
| Optimization methods | Jānis Vucāns | 2 | | | | 2 | | |
| Object Oriented Modelling | Raita Rollande | 2 | | | | | 2 | |
| Modelling of chaotic processes | Juris Žagars | 2 | | | | 2 | | |
| Actual Problems of the Field (Compulsory part) | | 28 | 4 | 4 | 4 | 8 | 8 | |
| Basics of computer science | Estere Vītola | 4 | 4 | | | | | |
| Programming | Estere Vītola | 4 | | 4 | | | | |
| Object Oriented Programming | Estere Vītola | 4 | | | 4 | | | |

