

**Akadēmiskā bakalaura studiju programmas
"Datorzinātnes" studiju plāns (latviešu valodas plūsma)**

LR izglītības klasifikācijas kods (IKK) 43484

| Kursa/ moduļa nosaukums | Atbildīgā mācībspēka vārds, uzvārds | KP / ECTS | Plānojums | | | | | |
|--|-------------------------------------|----------------|-----------|-----------|----------|-----------|-----------|-----------|
| | | | 1.kurss | | 2. kurss | | 3.kurss | |
| | | | Semestrīs | | | | | |
| | | | 1 | 2 | 3 | 4 | 5 | 6 |
| A daļa | | 78 | | | | | | |
| Nozares pamatnostādnes (obl.d.) | | 45 | 15 | 12 | 3 | 9 | 6 | 0 |
| Matemātiskā analīze I | Gaļina Hīļkeviča | 6 | 6 | | | | | |
| Matemātiskā analīze II | Gaļina Hīļkeviča | 3 | | 3 | | | | |
| Lineārā algebra un analītiskā ģeometrija I | Jeļena Mihailova | 3 | 3 | | | | | |
| Lineārā algebra un analītiskā ģeometrija II | Jeļena Mihailova | 3 | | 3 | | | | |
| Matemātiskā loģika | Gaļina Hīļkeviča | 3 | 3 | | | | | |
| Diskrētā matemātika | Gaļina Hīļkeviča | 3 | | 3 | | | | |
| Algoritmu teorija | Vairis Caune | 3 | 3 | | | | | |
| Datu struktūras un pamatalgoritmī | Karina Šķirmante | 3 | | | | 3 | | |
| Varbūtību teorija un matemātiskā statistika | Oskars Rasnačs | 3 | | | 3 | | | |
| Diferenciālvienādojumi | Gaļina Hīļkeviča | 3 | | 3 | | | | |
| Skaitliskās metodes | Gaļina Hīļkeviča | 3 | | | | | 3 | |
| Optimizācijas metodes | Jānis Vucāns | 3 | | | | 3 | | |
| Objektorientētā modelēšana | Raita Rollande | 3 | | | | | 3 | |
| Haotisko procesu modelēšana | Juris Žagars | 3 | | | | 3 | | |
| Nozares aktuālās problēmas (obl.d.) | | 42 | 6 | 6 | 6 | 12 | 12 | 0 |
| Datorzinātņu pamati | Sergejs Hīļkevičs | 6 | 6 | | | | | |
| Programmēšana | Estere Vičola | 6 | | 6 | | | | |
| Objektorientētā programmēšana | Estere Vičola | 6 | | | 6 | | | |
| Programmēšana tīmeklī (JAVA) | Karina Šķirmante | 6 | | | | 6 | | |
| Vizuālās programmēšanas valodas | Vairis Caune | 6 | | | | | 6 | |
| Informācijas sistēmu analīze un projektēšana | Raita Rollande | 6 | | | | 6 | | |
| Programmu izstrādes rīki un vides | Raita Rollande | 6 | | | | | 6 | |
| Starpnozaru aspekti (obl.d.) | | 30 | 6 | 6 | 9 | 6 | 3 | 0 |
| Angļu valoda I | Ieva Vizule | 3 | 3 | | | | | |
| Angļu valoda II | Ieva Vizule | 3 | | 3 | | | | |
| Uzņēmējdarbības pamati | Sergejs Hīļkevičs | 3 | | | 3 | | | |
| Ekonomikas pamati | Dmitrijs Smirnovs | 3 | | | | 3 | | |
| IT nozares tiesību pamati un standarti | Andis Pilāns | 3 | | | | | 3 | |
| Fizika I | Ilva Cīnīte | 3 | 3 | | | | | |
| Fizika II | Ilva Cīnīte | 3 | | 3 | | | | |
| Elektronika | Aigars Krauze | 6 | | | 6 | | | |
| Civilā aizsardzība un vides ilgtspēja ¹ | Ivo Lemšs | 3 | | | | 3 | | |
| B daļa | | 39 | | | | | | |
| Nozares ierobežotās izvēles kursi | | 39 (69) | 3 | 6 | 9 | 3 | 6 | 12 |
| Operētājsistēmas | Mārcis Naktiņš | 6 | | 6 | | | | |
| Tīklu operētājsistēmas | Andris Vagalis | 3 | | | | 3 | | |
| Datu bāzu tehnoloģijas | Vija Vagale | 6 | | | | | 6 | |
| Datorsistēmu arhitektūra un uzbūve | Mārcis Naktiņš | 3 | 3 | | | | | |
| LAN projektēšana un administrēšana | Mārcis Naktiņš | 6 | | | 6 | | | |
| Tīmekla tehnoloģijas | Kārlis Immers | 3 | | | 3 | | | |
| Informācijas sistēmu drošība | Aleksandrs Berežnojs | 3 | | | | | (3) | |

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|--|------------------|------------|----|----|----|----|-----------|
| Datorizētās projektēšanas pamati | Aleksejs Klokovs | 6 | | | | | (6) |
| Ievads satelītattēlu apstrādē | Linda Gulbe | 6 | | | | | (6) |
| IT projektu vadība | Pēteris Lauriņš | 6 | | | | | (6) |
| Programmatūras testēšana un automatizācija | Madara Freimane | 3 | | | | | (3) |
| Paralēlā programmēšana | Jānis Hofmanis | 3 | | | | | (3) |
| Ievads mākslīgajā intelektā | Ēvalds Urtāns | 3 | | | | | (3) |
| Prakse | Gaļina Hīlķeviča | 12 | | | | | (12) |
| C dala | | 9 | | | | | |
| Brīvas izvēles kursi | | 9 | | 3 | 3 | 3 | |
| Bakalaura darbs | | 15 | | | | | |
| Bakalaura darbs | Gaļina Hīlķeviča | 15 | | | | | 15 |
| Kopā: | | 180 | 30 | 30 | 30 | 30 | 30 |

¹ Atbilst Civilās aizsardzības un katastrofas pārvaldīšanas likuma un Vides aizsardzības likuma prasībām.

Academic Bachelor study programme “Computer science”

LR education classification code 43484 (In Latvian)

| Title of the course/module | Name of the responsible lecturer/docent | Credit points / ECTS | Planning | | | | | |
|---|---|----------------------|----------------|----------------|----------|----------------|----------------|----------|
| | | | 1st year | | 2nd year | | 3rd year | |
| | | | Semester | | | | | |
| | | | 1 | 2 | 3 | 4 | 5 | 6 |
| A Compulsory part | | 78 | | | | | | |
| Field basic guidelines (Compulsory part) | | 45 | 1 5 | 1 2 | 3 | 9 | 6 | 0 |
| Mathematical analysis I | Gaļina Hīlķeviča | 6 | 6 | | | | | |
| Mathematical analysis II | Gaļina Hīlķeviča | 3 | | 3 | | | | |
| Linear Algebra un Analytical Geometry I | Jeļena Mihailova | 3 | 3 | | | | | |
| Linear Algebra un Analytical Geometry II | Jeļena Mihailova | 3 | | 3 | | | | |
| Mathematical logic | Gaļina Hīlķeviča | 3 | 3 | | | | | |
| Discrete mathematics | Gaļina Hīlķeviča | 3 | | 3 | | | | |
| Theory of algorithms | Vairis Caune | 3 | 3 | | | | | |
| Data structures and algorithms | Karina Šķirmante | 3 | | | | 3 | | |
| Probability theory and mathematical statistics | Oskars Rasnačs | 3 | | | 3 | | | |
| Differential equations | Gaļina Hīlķeviča | 3 | | 3 | | | | |
| Numerical methods | Gaļina Hīlķeviča | 3 | | | | | 3 | |
| Optimization methods | Jānis Vucāns | 3 | | | | 3 | | |
| Object Oriented Modelling | Raita Rollande | 3 | | | | | 3 | |
| Modelling of chaotic processes | Juris Žagars | 3 | | | 3 | | | |
| Actual Problems of the Field (Compulsory part) | | 42 | 6 2 | 6 2 | 6 | 1 6 | 1 6 | 0 |
| Basics of computer science | Sergejs Hīlķevičs | 6 | 6 | | | | | |
| Programming | Estere Vītolā | 6 | | 6 | | | | |
| Object Oriented Programming | Estere Vītolā | 6 | | | 6 | | | |
| JAVA programming | Karina Šķirmante | 6 | | | | 6 | | |
| Visual programming languages | Vairis Caune | 6 | | | | | 6 | |
| Information systems analysis and design | Raita Rollande | 6 | | | 6 | | | |

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|--|----------------------|--------------------|----------------|----------------|----------------|----------------|----------------|-----------|
| Software development tools and environment | Raita Rollande | 6 | | | | | 6 | |
| Interdisciplinary aspects (Compulsory part) | | 30 | 6 | 6 | 9 | 6 | 3 | 0 |
| English I | Ieva Vizule | 3 | 3 | | | | | |
| English II | Ieva Vizule | 3 | | 3 | | | | |
| Foundations of entrepreneurship | Sergejs Hīlķevičs | 3 | | | 3 | | | |
| Basics of economics | Dmitrijs Smirnovs | 3 | | | | 3 | | |
| Basics of IT industry rules & regulations & standards | Andis Pilāns | 3 | | | | | 3 | |
| Physics I | Ilva Cinīte | 3 | 3 | | | | | |
| Physics II | Ilva Cinīte | 3 | | 3 | | | | |
| Electronics | Aigars Krauze | 6 | | | 6 | | | |
| Civil Protection and Environmental Sustainability ¹ | Ivo Lemšs | 3 | | | | 3 | | |
| B part | | 39 | | | | | | |
| Compulsory elective courses | | 39 (69) | 3 | 6 | 9 | 3 | 6 | 12 |
| Operating systems | Mārcis Naktiņš | 6 | | 6 | | | | |
| Network operating systems | Andris Vagalis | 3 | | | | 3 | | |
| Database technologies | Vija Vagale | 6 | | | | | 6 | |
| Computer systems hardware and architecture | Mārcis Naktiņš | 3 | 3 | | | | | |
| Local area network design and administration | Mārcis Naktiņš | 6 | | | 6 | | | |
| Web technologies | Kārlis Immers | 3 | | | 3 | | | |
| Information systems security | Aleksandrs Berežnojs | 3 | | | | | | (3) |
| Basics of computer aided design | Aleksejs Klokovs | 6 | | | | | | (6) |
| Introduction to computer processing of satellite images | Linda Gulbe | 6 | | | | | | (6) |
| IT project management | Pēteris Lauriņš | 6 | | | | | | (6) |
| Software testing and automation | Madara Freimane | 3 | | | | | | (3) |
| Parallel programming | Jānis Hofmanis | 3 | | | | | | (3) |
| Introduction in Artificial Intelligence | Ēvalds Urtāns | 3 | | | | | | (3) |
| Internship | Gaļina Hīlķeviča | 12 | | | | | | (12) |
| C part | | 9 | | | | | | |
| Optional courses | | 9 | | | 3 | | 3 | 3 |
| Bachelor thesis | | 15 | | | | | | |
| Bachelor thesis | Gaļina Hīlķeviča | 15 | | | | | | 15 |
| Total: | | 180 | 3 0 | 3 0 | 3 0 | 3 0 | 3 0 | 30 |

¹Corresponds to requirements of the Civil Defense and Disaster Management Law and the Environmental Protection Law