**Bachelor study programme "Information Systems" 240 ECTS, full time studies, duration - 4 years**

| Study Course | Name of the responsible academic staff member | Block | ECTS | Planning | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1st year | | 2nd year | | 3rd year | | 4th year | |
| | | | | Semester | | | | | | | |
| | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| ***Compulsory study courses*** | | | ***240*** | ***30*** | ***30*** | ***30*** | ***30*** | ***30*** | ***30*** | ***30*** | ***30*** |
| **General educational study courses** | | | 30 | 9 | 12 | 0 | 6 | 3 | 0 | 0 | 0 |
| Environment, Labour and Civil Protection | Valentīna Djakona, Ph.D. | A | 3 | | 3 | | | | | | |
| Business Communication in English / Latvian for Foreigners | Tatjana Lapaine, Mg.paed./ Sandra Plota, Ph.D. | A | 3 | 3 | | | | | | | |
| Business Management | Victoria Riashchenko, Ph.D. | A | 9 | 6 | 3 | | | | | | |
| Basics of Project Management | Ivars Linde, Ph.D. | A | 3 | | 3 | | | | | | |
| Research Methodology | Zaiga Oborenko, Ph.D. | A | 3 | | 3 | | | | | | |
| Applied Statistics | Kristīne Hamruna, Mag.sc.ing. | A | 6 | | | | 6 | | | | |
| Critical Thinking | Jeļena Čaiko, Ph.D. | A | 3 | | | | | 3 | | | |
| **Theoretical basic courses in the field of professional activity** | | | 54 | 12 | 12 | 6 | 6 | 15 | 3 | 0 | 0 |
| Introduction to Programming using Python | Jeļena Čaiko, Ph.D. | B | 9 | 9 | | | | | | | |
| Mathematical Foundations for Software Engineering | Evija Liepa, Ph.D. | B | 9 | 3 | 6 | | | | | | |
| Algorithms and Data Structures | Jeļena Čaiko, Ph.D. | B | 6 | | 6 | | | | | | |
| Computer Networks Architecture and Operating Systems | Rostislavs Kopitovs, PhD. | B | 6 | | | | 6 | | | | |
| Physics | Kristīne Hamruna, Mag.sc.ing. | B | 6 | | | | | 6 | | | |
| Automata Computability and Complexity | Jurijs Čižovs, PhD. | B | 6 | | | 6 | | | | | |
| Optimization Theory and Large Systems Synergetics | Irina Gonsalesa-Ortisa, Mag.sc.ing. | B | 6 | | | | | 6 | | | |
| Systems Theory and System Analysis | Juris Roberts Kalniņš, Dr.habil.phys | B | 6 | | | | | 3 | 3 | | |
| **Professional specialization courses** | | | 75 | 9 | 6 | 24 | 12 | 6 | 6 | 12 | 0 |
| Internet and Web Basics | Jurijs Šamšins, PhD. | B | 6 | 6 | | | | | | | |
| Relational DBMS Foundations | Jurijs Šamšins, PhD. | B | 3 | | | 3 | | | | | |
| API Foundations | Jurijs Čižovs, PhD. | B | 3 | 3 | | | | | | | |
| Development Process and Tooling Foundations | Andrejs Bondarenko, PhD. | B | 3 | | | 3 | | | | | |
| System and Object-Oriented Programming | Alexander Mrochko, PhD. | B | 6 | | | 6 | | | | | |
| Terminal and OS | Dmitrijs Skorodihins, Mag.sc. | B | 3 | | | 3 | | | | | |
| Java Development Fundamentals | Viktors Gopejenko,PhD. | B | 3 | | | 3 | | | | | |
| Advanced Software Development | Andrejs Bondarenko, PhD | B | 6 | | | | 6 | | | | |
| Mathematical Modelling | Viktors Gopejenko,PhD. | B | 6 | | | | | 6 | | | |
| Mathematical and Numerical Methods | Inese Trušiņa Mg.sc.ing. | B | 6 | | | 6 | | | | | |
| Information Security, Protection and Cryptography | Viktors Gopejenko, PhD. | B | 6 | | | | | | | 6 | |
| Computer Modelling and Computer Graphics | Juris Roberts Kalniņš, Dr.habil.phys | B | 6 | | | | | | | 6 | |
| IT Software Project Management | Jurijs Čižovs, PhD. | B | 3 | | 3 | | | | | | |
| Course projects | | B | 15 | | 3 | | 6 | | 6 | | |
| ***Compulsory Elective Study Courses*** | | | ***24*** | | | | | | ***6*** | ***18*** | |
| **Computer Science Specific Courses** | | | 24 | | | | | | 6 | 18 | |
| Advanced Software Architecture | Jurijs Čižovs, PhD. | B1 | 6 | | | | | | 6 | | |
| Advanced Development Tooling | Jurijs Čižovs, PhD. | B1 | 6 | | | | | | | 6 | |
| Cloud Development and Architecture | Andrejs Bondarenko, PhD. | B1 | 6 | | | | | | | 6 | |
| NoSQL DBMS Advanced Topics | Andrejs Bondarenko, PhD. | B1 | 6 | | | | | | | 6 | |
| **Computer Science Specific Courses** | | | 24 | | | | | | | | |
| Data Science Foundations | Juris Roberts Kalniņš, Dr.habil.phys | B2 | 6 | | | | | | 6 | | |
| Scientific Visualization in Python | Jurijs Čižovs, PhD. | B2 | 6 | | | | | | | 6 | |
| Automation and Data scraping in Python | Jurijs Čižovs, PhD. | B2 | 6 | | | | | | | 6 | |
| Machine Learning | Jurijs Čižovs, PhD. | B2 | 6 | | | | | | | 6 | |
| ***Free Elective Study courses (from list or any other study course)*** | | | ***9*** | | | | | ***6*** | ***3*** | | |
| Big Data Processing | Andrejs Bondarenko, PhD. | C | 3 | | | | | | | | |
| Java Development for Enterprise (Spring) | Viktors Gopejenko, PhD. | C | 3 | | | | | | | | |
| Enterprise Development in C# | Andrejs Bondarenko, PhD. | C | 6 | | | | | | | | |
| DevOPs Course | Dmitrijs Skorodihins, Mag.sc. | C | 3 | | | | | | | | |
| Applications Monitoring | Andrejs Bondarenko, PhD | C | 3 | | | | | | | | |
| Android Development | Viktors Gopejenko, PhD. | C | 6 | | | | | | | | |
| iOS Development | Andrejs Bondarenko, PhD. | C | 6 | | | | | | | | |
| Java Script Development - Foundations | Viktors Gopejenko, PhD. | C | 3 | | | | | | | | |
| Java Script Development - React | Viktors Gopejenko, PhD. | C | 3 | | | | | | | | |
| Java Script Development - Node.js | Viktors Gopejenko, PhD. | C | 3 | | | | | | | | |
| Java Script Development - Advanced | Viktors Gopejenko, PhD. | C | 3 | | | | | | | | |
| Robotics | Jeļena Čaiko, Ph.D. | C | 3 | | | | | | | | |
| **Traineeship** | | | 30 | | | | 6 | | 12 | | 12 |
| Professional Traineeship 1 | | P | 6 | | | | 6 | | | | |
| Professional Traineeship 2 | | P | 12 | | | | | | 12 | | |
| Qualification Traineeship | | P | 12 | | | | | | | | 12 |
| **Thesis** | | D | 18 | | | | | | | | 18 |