



Vilniaus  
universitetas

|                           |              |
|---------------------------|--------------|
| <b>Dalyko pavadinimas</b> | <b>Kodas</b> |
| Java programavimas        | INTT3124     |

|                         |   |
|-------------------------|---|
| <b>Dėstytojas (-ai)</b> | <b>Padalinys (-iai)</b>   |
| Raivydas Šimėnas        | Matematikos institutas<br>Matematikos ir informatikos fakultetas<br>Naugarduko g. 24, 03225 Vilnius |

|                       |                           |
|-----------------------|---------------------------|
| <b>Studijų pakopa</b> | <b>Dalyko tipas</b>       |
| 1 (bakalauras)        | Individualiosios studijos |

|                           |                             |                             |
|---------------------------|-----------------------------|-----------------------------|
| <b>Igyvendinimo forma</b> | <b>Vykdyimo laikotarpis</b> | <b>Vykdyimo kalba (-os)</b> |
| Auditorinė                | 5 semestras                 | Anglų                       |

|                                     |                                   |
|-------------------------------------|-----------------------------------|
| <b>Reikalavimai studijuojančiam</b> |                                   |
| Išankstiniai reikalavimai:<br>Nėra  | Gretutiniai reikalavimai:<br>Nėra |

|                                 |                                    |                                   |                                    |
|---------------------------------|------------------------------------|-----------------------------------|------------------------------------|
| <b>Dalyko apimtis kreditais</b> | <b>Visas studento darbo krūvis</b> | <b>Kontaktinio darbo valandos</b> | <b>Savarankiško darbo valandos</b> |
| 5                               | 130                                | 48                                | 82                                 |

|   |                        |                          |
|---|------------------------|--------------------------|
| <b>Dalyko tikslas: studijų programos ugdomos kompetencijos</b>  |                        |                          |
| Dalyku Java programavimas siekiama ugdyti studentų mokymosi įgūdžius. Siekiama studentus supažindinti su Java programavimo kalba ir Spring Boot karkasu. Taip pat siekiama studentus paruošti programuotojo darbui ar kitai susijusiai veiklai. |                        |                          |
| <b>Dalyko studijų siekiniai</b>   | <b>Studijų metodai</b> | <b>Vertinimo metodai</b> |

|  |  |   |
|--|--|---|
| Gebės suprasti pagrindinius Java programų kūrimo principus | Tradicinė paskaita<br>Programų rašymas | Programavimo pratimai<br>Projektas<br>Egzaminas |
| Gebės programuoti Java ir Spring Boot                      | Tradicinė paskaita<br>Programų rašymas | Programavimo pratimai<br>Projektas<br>Egzaminas |
| Gebės bendrauti anglų kalba atitinkamose situacijose       | Tradicinė paskaita                     | Egzaminas                                       |

| Temos  | Kontaktinio darbo valandos |                           |                       |                  |  |                  |  | Savarankiškų studijų laikas ir užduotys         |  |
|--|----------------------------|---------------------------|-----------------------|------------------|--|------------------|--|---|--|
|  | Pa<br>ska<br>itos          | Ko<br>nsu<br>ltac<br>ijos | Se<br>min<br>ara<br>i | Pra<br>tyb<br>os | La<br>bor<br>ato<br>rini<br>ai<br>dar<br>bai | Pra<br>ktik<br>a | Vis<br>as<br>ko<br>nta<br>kti<br>nis<br>dar<br>bas | Sa<br>var<br>an<br>kiš<br>ka<br>s<br>dar<br>bas | Užduotys                                     |
| Programavimo įrankiai: IntelliJ IDEA, Git, GitHub, programavimo aplinkos sukūrimas | 8                          |                           |                       |                  |  |                  | 8  | 14  | Literatūros studijavimas                     |
| Java pagrindai   | 20                         |                           |                       |                  |  |                  | 20   | 34  | Literatūros studijavimas<br>Programų rašymas |
| Spring Boot pagrindai  | 20                         |                           |                       |                  |  |                  | 20   | 34  | Literatūros studijavimas<br>Programų rašymas |
| <b>Iš viso</b>   | <b>48</b>                  |                           |                       |                  |  |                  | <b>48</b>  | <b>82</b>                                       |  |

| Vertinimo strategija  | Svoris (proc.) | Atsiskaitymo laikas | Vertinimo kriterijai                               |
|-----------------------|----------------|---------------------|--|
| Programavimo pratimai | 30             | Semestro metu       | Studentai turės atsiskaityti programavimo pratimus |

|           |    |                    |   |
|-----------|----|--------------------|---|
| Projektas | 20 | Semestro pabaigoje | Semestro pabaigoje studentai turės pristatyti CRUD projektą   |
| Egzaminas | 50 | Semestro pabaigoje | Semestro pabaigoje studentai turės laikyti egzaminą iš visos kurso medžiagos  |
| Eksternas |    | Semestro pabaigoje | Studentas gali kursą klausyti eksternu. Kaupiamojo balo nėra. Reikės pristatyti CRUD projektą. Maksimalus įvertinimas - 5 |

| Autorius                      | Leidimo metai | Pavadinimas  | Periodinio leidinio nr. ar leidinio tomas | Leidimo vieta ir leidykla ar internetinė nuoroda |
|-------------------------------|---------------|--|---|--|
| <b>Privalomoji literatūra</b> |               |  |   |  |
| David J. Eck                  | 2022          | Introduction to Programming Using Java (9th edition) |   | David J. Eck                                     |
| <b>Papildoma literatūra</b>   |               |  |   |  |
| Joshua Bloch                  | 2017          | Effective Java (3rd edition)                         |   | Addison-Wesley Professional, Boston, MA          |



**Vilnius  
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| Course title     | Code |
|------------------|------|
| Java Development |      |

| Instructor       | Department   |
|------------------|--|
| Raivydas Šimėnas | Institute of Mathematics<br>Department of Mathematics and Informatics<br>Naugarduko g. 24, 03225 Vilnius |

| Cycle          | Type of course unit |
|----------------|---------------------|
| 1st (Bachelor) | Individual studies  |

| Mode of delivery | Semester or period when the course unit is delivered | Language of instruction |
|------------------|--|-------------------------|
| Face-to-face     | 5th semester   | English                 |

| Prerequisites and corequisites |                       |
|--------------------------------|-----------------------|
| Prerequisites:<br>None         | Corequisites:<br>None |

| Number of ECTS credits allocated | Student's workload | Number of contact work hours | Number of standalone work hours |
|----------------------------------|--------------------|------------------------------|---------------------------------|
| 5                                | 130                | 48                           | 82                              |

| Purpose of the course unit: program competences to be developed  |
|--|
| The purpose of the Java development course is to develop students' study skills. We aim to introduce the students to the Java programming language and the Spring Boot framework. In |

careers in programming

|  |   |  |
|--|---|--|
| addition, we aim to prepare students for careers in programming or related fields. |   |  |
| <b>Learning outcomes of the course unit: students will be able to</b>              | <b>Teaching and learning methods</b>    | <b>Assessment methods</b>                |
| Understand the main principles of writing Java programs                            | Traditional lecture<br>Writing programs | Programming exercises<br>Project<br>Exam |
| Can program in Java and Spring Boot  | Traditional lecture<br>Writing programs | Programming exercises<br>Project<br>Exam |
| Able to communicate their ideas in English in related situations                   | Traditional lecture                     | Exam                                     |

| Course content: breakdown of the topics   | Contact hours |           |          |            |     |          |               | Individual work: time and assignments |   |
|---|---------------|-----------|----------|------------|-----|----------|---------------|---------------------------------------|---|
|   | Lectures      | Tutorials | Seminars | Practicals | Lab | Practice | Contact hours | Individual work                       | Assignments                             |
| Programming tools: IntelliJ IDEA, Git, GitHub, and creating the programming environment | 8             |           |          |            |     |          | 8             | 14                                    | Studying literature                     |
| Java basics   | 20            |           |          |            |     |          | 20            | 34                                    | Studying literature<br>Writing programs |
| Spring Boot basics  | 20            |           |          |            |     |          | 20            | 34                                    | Studying literature<br>Writing programs |
| <b>Total</b>  | <b>48</b>     |           |          |            |     |          | <b>48</b>     | <b>82</b>                             |   |

| Assessment strategy | Weight (%) | Assessment time | Assessment criteria  |
|---------------------|------------|-----------------|----------------------|
| Programming         | 30         | During semester | During the semester, |

careers in programming

|            |    |                 |  |
|------------|----|-----------------|--|
| exercises  |    |                 | the students will have to write programming exercises                    |
| Project    | 20 | End of semester | The students will have to present a CRUD project                         |
| Final exam | 50 | End of semester | The students will be examined on the course material                     |
| Extern     |    | End of semester | The students will have to present their CRUD project. Maximum grade is 5 |

| Author                     | Year | Title  | Number | Publisher or URL                        |
|----------------------------|------|--|--------|---|
| <b>Required reading</b>    |      |  |        |   |
| David J. Eck               | 2022 | Introduction to Programming Using Java (9th edition) |        | David J. Eck                            |
| <b>Recommended reading</b> |      |  |        |   |
| Joshua Bloch               | 2017 | Effective Java (3rd edition)                         |        | Addison-Wesley Professional, Boston, MA |