

| Add. 3 | | Course program for the first, second and third level (cycle) of studies | | | |
|--------|---|---|------------------------|---------------|---|
| 1. | Course title | Object-oriented Programming | | | |
| 2. | Code | 234 | | | |
| 3. | Study group(s) | Production Informatics | | | |
| 4. | The organizer of the study program (unit, institute, department) | Faculty of Mechanical Engineering - Skopje | | | |
| 5. | Level (first, second, third) | First | | | |
| 6. | Academic year / semester | Second / winter | 7. | ECTS credits | 6 |
| 8. | Instructor | Emilija Celakoska | | | |
| 9. | Prerequisites | Programming Languages | | | |
| 10. | Course objectives (competences): Introduction to data structures, programming constructions and techniques, and their implementation using object-oriented programming language. | | | | |
| 11. | Course content: Using Java programming language: notions of classes, objects, methods, inheritance and polymorphism. Java programming of windows and graphics. | | | | |
| 12. | Study methods: interactive lectures, laboratory practice (student work), project assignments, individual assignments, self-learning | | | | |
| 13. | Total hours | 6 ECTS x 30 hours = 180 hours | | | |
| 14. | Hours allocation per activity: | 30 + 30 + 30 + 30 + 60 | | | |
| 15. | Lectures/Lab | 15.1. | Lectures | 30 | |
| | | 15.2. | Lab (student work) | 30 | |
| 16. | Project Work/Assignments | 16.1. | Project assignments | 30 | |
| | | 16.2. | Individual assignments | 30 | |
| | | 16.3. | Self-learning | 60 | |
| 17. | Points/Marks: | | | | |
| | 17.1. | Tests | 50 points | | |
| | 17.2. | Projects | 40 points | | |
| | 17.3. | Attendance | 10 points | | |
| 18. | Grading scale | Under 50 | | 5 (five) (F) | |
| | | 50-59 points | | 6 (six) (E) | |
| | | 60- 69points | | 7 (seven) (D) | |
| | | 70 -79points | | 8 (eight) (C) | |
| | | 80-89points | | 9 (nine) (B) | |
| | | 90- 100 points | | 10 (ten) (A) | |
| 19. | Prerequisites for taking the final exam | / | | | |
| 20. | Language of Instruction | Macedonian | | | |
| 21. | Course evaluation | Student questionnaire | | | |

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| 22. | Textbooks | | | | | |
| | 22.1. | Instruction materials | | | | |
| | | No. | Author | Title | Publisher | Year |
| | | 1. | Liang Y.D. | Introduction to Java Programming | Prentice Hall | 2007 |
| | | 2. | | | | |
| | 3. | | | | | |
| | 22.2. | Supplemental Instruction Materials | | | | |
| | | No. | Author | Title | Publisher | Year |
| | | 1. | | | | |

