

## SYLLABUS

**1. Course title:**

Object Oriented Programming

**2. Code:**

RI202

**3. Cycle of study:**

1

**4. ECTS credits:**

6

**5. Type of course:** Mandatory  Elective**6. Prerequisites:**

[RI101] Introduction to Programming

**7. Class restrictions:****8. Duration / semester:** 1 3**9. Weekly contact hours:**

9.1. Lectures:

3

9.2. Seminars:

1

9.3. Laboratory/Practice classes:

1

**10. Faculty:**

Faculty of Electrical Engineering

**11. Department/study program:**

Electrical Engineering and Computer Science

**12. Lecturer:**

Ph.D. Amer Hasanović, full professor

**13. Lecturer's e-mail:**

amer.hasanovic@untz.ba

**14. Web site:****15. Course aims:**

After completing the course the students will have practical knowledge of the C++ programming language, including the important parts of the standard library, and have the ability to utilise object oriented techniques to create simple programs.

**16. Learning outcomes:**

After completing the course the students will have practical knowledge of the C++ programming language, including the important parts of the standard library, and have the ability to utilise object oriented techniques to create simple programs.

**17. Course content:**

C++ basics. Standard library: containers, iterators and algorithms. Template functions. References. Pointers. Memory management. Class and structure types (members, methods, encapsulation). Template class types. Inheritance and dynamic binding.

**18. Learning methods:**

Lectures, auditive exercises, individual work of students on homeworks and projects.

**19. Assessment methods:**

The final grade is based on the continuous assessments, which are performed throughout the semester with quizzes and a midterm test, and the final exam, which includes the questions related to the entire content of the course, focusing on the areas that are not covered by the midterm test.

**20. Assessment components:**

Pre-exam activities: 70%

Final exam: 30%

The final grade is formed in accordance with the Studying regulations based on the points obtained through continuous assessment during the semester (homeworks, tests) and the final exam.

**21. Required reading list:**

A. Koenig and B. E. Moo, Accelerated C++ Practical Programming by Example, Addison Wesley, 2000.

B. Stroustrup, The C++ Programming Language, Addison Wesley, 1997.

S. B. Lippman, J. Lajoie, B. E. Moo, C++ Primer, Addison Wesley, 2005.

**22. Web sources:****23. Applicable starting from the academic year:**

2016/2017

**24. Adopted in the Faculty/Academy session:**

04.04.2016