

## SYLLABUS

**1. Course title:**

Computer Networks

**2. Code:**

RI501

**3. Cycle of study:**

1

**4. ECTS credits:**

6

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

[RI401] Operating Systems

**7. Class restrictions:****8. Duration / semester:**

1

6

**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:**

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**15. Course aims:**

After completing the course, the students will learn the principles of computer networking, as well as the Internet architecture and protocols on all network layers. The students should be able to develop network applications based on the BSD sockets.

**16. Learning outcomes:**

After completing the course, the students will learn the principles of computer networking, as well as the Internet architecture and protocols on all network layers. The students should be able to develop network applications based on the BSD sockets.

**17. Course content:**

Computer networks and the Internet. Application layer: HTTP, FTP, SMTP and DNS. Sockets. Transport layer: UDP i TCP. Network layer: routing, modeling, analysis and performance. Data link layer.

**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:**

J. F. Kurose and K. W. Ross, Computer Networking: A Top-Down Approach Featuring the Internet, Addison Wesley, 2001.

A.S.Tanenbaum, Computer Networks, Prentice-Hall, 2003.

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

2016/2017

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

04.04.2016