SYLLABUS

1. Course title:

Web Application Development

2. Code:

RI601

3. Cycle of study:

1

4. ECTS credits:

6

5. Type of course:

(•) Mandatory ( ) Elective

6. Prerequisites:

[TK001] Tools for Technical Documentation, [RI302] Software Development, [RI501] Computer Networks

7. Class restrictions:

8. Duration / semester:

1 8

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:

Dr.Sc. Edin Pjanić, assistant prof.

13. Lecturer's e-mail:

edin.pjanic@untz.ba

14. Web site:

15. Course aims:

Course main objectives are to teach students basic concepts and technologies for development of web applications, as well as techniques for development of a relatively simple and complex interactive web applications, including utilyzing popular server and client web technologies.

16. Learning outcomes:

Upon completion this course the students will be able to:
- understand Web applications concepts and technologies,
- develop simple Web applications based on CGI, Java Servlet and JSP server side technologies, as well as JavaScript for client side of application,
- develop simple Web based database applications,
- create simple interactive Web applications using Ajax and WebSockets technologies.

17. Course content:

HTTP (Hypertext Transfer Protocol). Overview of various Web technologies. Evolution of Web applications. Server side and client side programming concepts. CGI (Common Gateway Interface) programming concepts. Java servlets. Java servlets container. Servlets lifecycles. Java Servlets API. Cookies. Sessions. Database driven Web applications. Java Servlet Pages. Model-View-Controller architecture. Introduction to JavaScript. AJAX (Asyncronous JavaScript and XML). Web sockets.

18. Learning methods:

Lectures are accompanied by presentations and other materials which are uploaded on the course web site. Discussions with teaching assistant, laboratory excersizes, homeworks and an individual final project.

19. Assessment methods:

The final grade is based on the continuous assessments that are performed during the semester (homeworks, quizzes) and the final project. The final project is related to the entire content of the course. The project is presented in the term of the final exam.

20. Assessment components:

Grading scale:
Homeworks, quizes: 60%
Final project: 40%
The final grade is based on the continuous assessments that are performed during the semester (homeworks, quizzes) and the final project.

21. Required reading list:

M. Hall, L. Brown, "Core Servlets and JavaServer Pages", 2nd ed., Prentice Hall, 2004

22. Web sources:

23. Applicable starting from the academic year:

2016/2017

24. Adopted in the Faculty/Academy session:

04.04.2016