SYLLABUS

1. Course title:

Introduction to Programming

2. Code:

RI101

3. Cycle of study:

1

4. ECTS credits:

6

5. Type of course:

(•) Mandatory ( ) Elective

6. Prerequisites:

[RI001] Introduction to Computer Science

7. Class restrictions:

Students of Faculty of electrical engineering who have fulfilled the preconditions

8. Duration / semester:

1 2

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. Nermin Sarajlić, assoc. prof.

13. Lecturer's e-mail:

nermin.sarajlic@untz.ba

14. Web site:

15. Course aims:

To learn programming using the C programming language.

16. Learning outcomes:

At the end of the semester, successful students, that have been continuously performing their obligations during the entire period of teaching, will be able to solve problems using the C programming language.

17. Course content:

Algorithms. Data types. Operators and expressions. Program flow control: selection (if, if-else, switch) and loops (for, while, do-while).Functions and program structure (passing arguments by value and by reference, function return value, local, global, extern and static variables) Recursion. Pointers. Pointers and addresses. Pointers to pointers. Arrays (onedimensional and multidimensional arrays). Pointers and arrays. Pointers, arrays and functions. Pointers to functions. Structures. User defined data types (structures, structures and functions) arrays of structures, pointers to structures, typedef command, unions. Dynamic memory allocation. File management (formatted, unformatted files). Sequential and random access files. Linked list.

18. Learning methods:

Lectures: The content of the subject is elaborated with an example (program code) for each part of the subject. Auditorial exercises and laboratory exercises (obligatory attendance for the students): with the active participation of the students, examples are elaborated and tasks are solved, that are related to the fields discussed in the lectures.

19. Assessment methods:

1. Midterms
2. Final exam

Midterms

During the semester, students will have three tests with tasks related to the specific areas. Tests will be conducted after completion of planned lectures and theoretical exercises. Tests are held in the eighth, twelfth and last week of the semester after the realization of the expected lectures and auditorial exercises. Students can win a maximum of 45 points (15 points per test). During the semester, students get two tasks (homeworks) from laboratory exercises and can win a maximum of 10 points (5 points per homework).

Final exam

Students who get a lecturers verification for completing the course are allowed to do the Final exam. Final exam is organized three times per school year (in a form of Final exam, Corrective final exam and Additional corrective final exam) according to schedule of final exams made by Senate of University of Tuzla at the beginning of school year.

20. Assessment components:

The final grade is based on the total number of points that student has obtained by fulfilling the pre-requisites and/or passing the final exam. Students can achieve a maximum of 100 points according to the following:
Attendance (L+TE+LE): 6 points
First test: 15 points
Second test: 15 points
Third test: 15 points
Tasks (homework): 10 points
Final exam: 39 points
Total: 100 points

21. Required reading list:

N. Prljača, M. Glavić: Programiranje u C programskom jeziku, Fakultet elektrotehnike u Tuzli, Tuzla, 2000.
B. Kernighan, D. Ritchie: The C programming language, Prentice Hall (prijevod), Naučna knjiga, Beograd , 1989.
N. Sarajlić, E. Skejić, E. Pjanić, A. Šerifović: Zbirka riješenih zadataka iz C programskog jezika, Univerzitet u Tuzli, 2005.

22. Web sources:

23. Applicable starting from the academic year:

2016/2017

24. Adopted in the Faculty/Academy session:

04.04.2016