

SYLLABUS

1. Course title:

Linear Dynamic Systems and Signals

2. Code:

AR102

3. Cycle of study:

1

4. ECTS credits:

6

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

[MAT1] Mathematics I, [MAT2] Mathematics II

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

1

4

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:

Phd. Zenan Šehić, full professor

13. Lecturer's e-mail:

zenan.sehic@untz.ba

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

The aim of the course is to introduce students with fundamental methods of analysis of linear dynamic systems and signals.

16. Learning outcomes:

Learning outcomes are that students overcome the knowledge of fundamental methods of analyzing linear dynamic systems and signals.

17. Course content:

18. Learning methods:

Planned activities: concrete experience, observation and reflection, creation of abstract concepts and active experimentation. Preferred learning styles are: visual style, auditory, verbal, kinesthetic, logical-mathematical, social and independent. The most important learning methods are:

- Lectures with the use of multimedia resources, active learning techniques and with student's active participation and discussion;
- Auditive exercises;
- Preparation and presentation of group and individual seminar papers

19. Assessment methods:

The exam is conducted orally and in writing. The written exam is a combination of theoretical issues and computational examples done on lectures and laboratory exercises. The final exam is oral exam consisting of theoretical issues.

20. Assessment components:

Student's obligations	Points
Attendance at lectures	5
Attendance at exercises	5
Seminar	10
Mini tests	30 (2x15)
Total preexam obligations	50
Final exam up to	50

21. Required reading list:

Z. Gajić, Linear Dynamic Systems and Signals, Prentice – Hall, 2003
Oppenheim et al, Signals and systems, Prentice-Hall, 1996.
S. Haykin, Signals and systems, John Wiley&Sons, 2002.
H. Hsu, Schaum's Outline of Signals and Systems, 2004.

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

2016/2017

24. Adopted in the Faculty/Academy session:

04.04.2016