	Course title:	RF Electronics		
Course code	**Course status**	**Semester**	**Number of ECTS credits**	**Lecture hours**
PA3204	**Elective**	**II**	**5**	**3P+1V**

Study program:
Postgraduate master studies, ELECTRICAL ENGINEERING, study program: Electronics, Telecommunications and Computer engineering (studies last for 10 semesters, 300 ECTS credits).

Prerequisites:
Radiotechnique

Course aims:
Students are introduced with actual analitical tools for projecting radiotechnique circuits and architectures

Teacher(s) first and last names: Ph. D. Ivo Kostić

Studying method:
Lectures, work on projects, consultations.

Course synopsis:

Preliminary week	Preparation and semester enrolment.
I week	Introduction
II week	Description and analysis of linear circuits based on s parameters
III week	Analysis and projection of LNA
IV week	RF oscilator analysis and projection
V week	Complex mixer analysis and sintesis
VI week	Software radio concept
VII week	**Free week**
VIII week	**I colloquium**
IX week	Linearization PA –sistem aspects
X week	Feed – forward method
XI week	Predistortion method
XII week	Feedback method
XIII week	Model AM - AM and AM – PM conversion
XIV week	UWB structures
XV week	**II Colloquium**
XVI week	**Final exam**
Final week	Administrative procedures.
XVIII-XXI week	

STUDENT WORKLOAD

per week	per semester
Working hours: **5** credits x **40/30** = **6** h **40**min. **Working hours structure**: **3** hours for teaching **1** hour for exercises **2** hours and **40**min for individual work, including consultations.	**Teaching and the final exam**: (**6**h **40**min) x **16** = **106**h **40**min. **Necessary preparation** (before semester): **2** x (**6**h **40**min) =**13**hours **20**min. **Total work hours for the course**: **150**hours **Additional hours** for preparing correction of the final exam, including the exam taking: up to **36**hours. **Work hours structure**: **106**h **40**min (lectures) + **13**hours **20**min (preparation) + **30**hours (additional work)

Lessons attendance is mandatory for students, project, two colloquiums, etc.

Literature: ***B. Razavi, RF Microelecronics, Prentice-Hall, 1998.***
W. Tuttlebee, Ed., Software Defined Radio, Wiley, 2002.
Knjige i/ili članci za potebe određenog projekta

The forms of knowledge testing and grading:
- Permanent reporting about project work carries **10** points.
- Colloquiums carry 20 points each (40 points total).
- Project presentation (50 points total)

Student gets the passing grade by collecting **51** points at least.

Special remarks for the course: ***In project team work recommended - one project three students. Every student has specific task. Project is defined in second course week.***

Teacher(s) who provided the information: Ph.D. Ivo Kostić
Note: *repeated exam regards improvments in project work*