

## PhD program in Radio Physics and Electronics Engineering (2013)

The total minimum required number of credits:	94 credits
- Courses work:	24 credits
+ Basic courses:	12 credits
• Required:	09 credits
• Elective:	03/6 credits
+ Advanced foreign languages for academic purposes:	04 credits
+ Advanced courses:	06/12 credits
+ Overview:	02 credits
- Research	
- PhD Thesis:	70 credits

### Available curriculum:

No.	Code	Subjects	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
<b>I</b>	<b>Part 1. Coursework</b>						
<b>I.1</b>	<b>Basic courses</b>		<b>12</b>				
<i>I.1.1</i>	<i>Required</i>		<b>9</b>				
1	PHY8031	<i>Microwave Techniques</i>	3	45			PHY6039
2	PHY8032	<i>Channel Coding</i>	3	30	15		PHY6038
3	PHY8033	<i>Multidimensional Digital Signal Processing</i>	3	30	15		PHY6031
<i>I.1.2</i>	<i>Elective</i>		<b>3/6</b>				
4	PHY8034	<i>Spread Spectrum Technologies and Applications</i>	3	30	15		PHY6032 PHY6038
5	PHY8035	<i>Design and simulation</i>	3	15	30		PHY6032

No.	Code	Subjects	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
		<i>of microwave components</i>					PHY6038
<b>I.2</b>	<b>Advanced English for Academic Purposes</b>		<b>4</b>				
6	ENG8001	<i>Advanced English for Academic Purposes</i>	4			60	
<b>I.3</b>	<b>Advanced courses</b>		<b>6/12</b>				
7	PHY8036	<i>Parameter Oscillation Systems</i>	3	45			PHY6035
8	PHY8037	<i>Basics of Multicarrier Modulation</i>	3	30	15		PHY6038
9	PHY8038	<i>Fundamentals of Nanoelectronics</i>	3	45			
10	PHY8039	<i>Smart Antennas</i>	3	30	15		PHY6031 PHY6036
<b>I.4</b>	<b>Overview</b>		<b>2</b>				
11	PHY8040	<i>Research perspective report</i>	2			30	
<b>II</b>	<b>Part 2. Research (research planning, publishing ...)</b>						
<b>III</b>	<b>Part 3. Doctoral Thesis</b>						
12	PHY9003	<i>Doctoral thesis</i>	70				
		<b>Total</b>	<b>94</b>				