

Year	2011/2012
Faculty (institute)	Welding
Department	Welding Industrial Systems
Field of study	0923 Welding
Speciality	8.092302 Welding Industrial Systems
Degree	master
Qualification level	master
Qualification	research engineer

### First Year

First Semester		Second Semester	
Title	Credits	Title	Credits
Intellectual property	1,0	Pedagogics of higher school	1,5
Marketing	2,0	Foreign language	2,0
Foreign language	1,0		
Experimental research methods in welding	3,0	Fundamentals of scientific research	2,0
Quality monitoring	4,0	Mathematical methods of optimization	4,0
Special welding methods	3,0	Material treatment with concentrated energy flows	4,0
Statistical methods of risk management in welding	4,0	Renovational technologies of welding and related processes	3,0
Equipment and technology of biological tissues welding	3,0	Robots, robot-technological complexes and flexible transfer lines	7,5
Welding assembling units, machines and welding lines	3,0	Labour protection	1,0
Computer aided design in welding	3,0	Computer aided design in welding	3,0
Civil defence	1,0		
Scientific research	2,0	Scientific research	2,0
<b>Total</b>	<b>30,0</b>	<b>Total</b>	<b>30,0</b>

### Second Year

First Semester		Second Semester	
Title	Credits	Title	Credits
Foreign language	3,0		
Philosophic problems of scientific knowledge	1,5		
Fundamentals of the sustainable development of society	2,0		
Mathematical computer simulation techniques of systems and processes	4,0		
General bases of patents and copyright	2,0		
Physics of solids	3,0		
Applied analysis of experimental data	4,0		
Automation of scientific research	4,0	Research practice	6
Scientific research	8,0	Master Thesis Preparation	25,5
<b>Total</b>	<b>28,5</b>	<b>Total</b>	<b>31,5</b>

- humanities, social and economical courses
- mathematical, natural and scientific courses
- professional and practical courses