

Year	2011/2012
Faculty (institute)	Welding
Department	Welding Production
Field of study	6.050504 Welding
Speciality	Welding Technology and Equipment
Degree	bachelor
Qualification level	bachelor

First Year

First Semester		Second Semester	
Title	Credits	Title	Credits
Foreign language	1,5	Foreign language	1,5
History of Ukraine	3	Ukrainian language: Professional communications	2
Mathematics - 1: Analytic geometry and differential calculus	7	Mathematics - 2: Integral calculus and differential equations	5
Physics - 1: Mechanics and molecular physics	6	Physics - 2: Electricity and magnetics	4
Chemistry	5	Engineering and computer graphics - 2: Engineering graphics	2
Engineering and computer graphics - 1: Descriptive geometry	3	Information and computer science - 2: Computer science software	3
Information and computer science - 1: Computer science hardware	3		
		Technology of metal production and physical metallurgy	3
		Engineering mechanics	5
		Surface physical-chemical processes	3
Introduction to mathematical analysis	3		
Total	31,5	Total	28,5

Second Year

First Semester		Second Semester	
Title	Credit	Title	Credit
Foreign language	1,5	Foreign language	1,5
Philosophy	3		
Mathematics - 3: Numerical and functional series	4	Electrical engineering - 2: Electromechanical systems	2
Engineering and computer graphics - 3: Computer graphics	1,5	Strength of materials - 2: Methods of strength analysis, stiffness, steadyness and shift calculation	2,5
Electrical engineering - 1: Electric and magnetic cirquits	4	Ecology	2
Strength of materials - 1: Theory of mode of deformation	4		
Welding physics - 1: Welding heat sources and thermal processes	4,5	Welding physics - 2: Welding physical-chemical and metallurgical processes	3
Machine parts - 1: Interchangeability, standardization and technical measurement	1,5	Fusion welding technology and equipment - 1: Fusion welding processes and equipment	3
		Welding power supplies	3,5
		Gas-thermal material treatment	3,5
		Fundamentals of sputtering and welding deposition - 1: Fundamentals of welding deposition	4
Physical metallurgy and heat treatment of welded joints	5	Triboengineering	5
Probabilistic schemes in engineering	2	Psychology	2
Total	31	Total	32

Third Year

First Semester		Second Semester	
Title	Credits	Title	Credits
		History of Ukrainian culture	2
Machine parts - 2: Machine parts	5,5	Machine parts - 1: Machine parts	1
Fusion welding technology and equipment - 2: Fundamentals of constructional materials' welding	4	Pressure welding technology and equipment	4
Fundamentals of sputtering and welding deposition - 2: Fundamentals of sputtering	4	Work practice	4,5
Safety of labour and life activities	1,5		
Welding tensions and deformations	4		
Economics of industrial production planning	3	Economics of industrial production planning	3
Foreign language	1,5	Foreign language	1,5
Weldability of constructional materials	3	Welding of special materials	4
History of science and technics	2	Brazing and soldering	4
Manual arc welding	3,5	Methods of analysis of welding processes	4
		Science of law	2
Total	32	Total	30

Fourth Year

First Semester		Second Semester	
Title	Credits	Title	Credits
Foreign language	2		
Science of law	1,5		
Political science	1,5		
Pressure welding technology and equipment	0,5	Pregraduation practice	4,5
Economics and industrial engineering of welding production	3	Diploma project (work) performance	9
Quality control	4	Welded constructions peoduction - 2: Mechanical equipment for welding production	4
Automated control in welding	4	Precision of welded constructions' production	3,5
Welded constructions production - 1: Welded constructions production	7,5	Welding consumables	3
Methods of analysis of welding processes	2,5	Operational management in welding production	4
Fundamentals of probability theory	2		
Total	28,5	Total	28

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