

**Degree Structure for Master of Foundry of Ferrous and Non-ferrous Metals**

**Fifth Year**

First Semester		Second Semester	
Course Title	Credit	Course Title	Credit
Foreign Language of professional direction	1,5	Foreign Language of professional direction	1,5
Basics of Management	1,5	Intellectual Property	1
Cast-Iron Foundry	3	Basics of Marketing	1,5
Steel Foundry	3,5	Construction of Foundry Details	3,5
Special and Extraordinary Foundry Types	5,5	Casting of Non-Ferrous Alloys	4,5
Bases of scientific researches and theory of Experiment	4	Automated Control Systems of Foundry Technological Processes	3
		Labour Protection in the Branch	1
Bases of scientific and technical creation	2	Computer-Aided Design Systems	3
Scientific Researches of Foundry Processes-1	3,5	Scientific Researches of Foundry Processes-1	3,5
Planning of casting workshops	2	Mathematical Methods of Optimization	4
Civil defence	1	Pedagogics of High school	1,5
		Basics of Scientific Researches	2
		Thermodynamics of processes of melting	1,5
Elective Courses			
Design of the systems and processes	2,5		
<b>Total</b>	<b>30</b>	<b>Total</b>	<b>31,5</b>

**Specialization:** Technologies of artistic and jeweler casting

Technologies of artistic and jeweller casting-1: Metals and alloys for artistic and jeweler casting	2,5	Technologies of the artistic and jeweller casting-2: Technologies of making of artistic and jeweler goods	4,5
<b>Total</b>	<b>2,5</b>	<b>Total</b>	<b>4,5</b>

**Specialization:** Making of poured stomatological and orthopedic prostheses

Making of poured stomatological and orthopaedic prostheses -1: Anatomy, <u>biocompatible</u> alloys and technology of making prostheses	3,5	Making of poured stomatological and orthopaedic prostheses -2: Technologies of melting of <u>biocompatible</u> alloys, whole piece prostheses and protective covering	3,5
<b>Total</b>	<b>3,5</b>	<b>Total</b>	<b>3,5</b>

**Specialization:** Computerizing of technological processes

Computerizing of technological processes-1. Technical support of computer technologies of processes of Casting	3	Computerizing of technological processes-2. Software support of computer technologies of processes of casting	4
<b>Total</b>	<b>3</b>	<b>Total</b>	<b>4</b>

### Sixth Year

First Semester		Second Semester	
Course Title	Credit	Course Title	Credit
Foreign Language of professional direction	1,5	Research practice	6
Philosophic Problems of Scientific Knowledge	1,5	Preparation of Master's Thesis	22,5
Mathematical Modelling of Systems and Processes	4		
Basics of Society's Sustainable Development	2		
Science of Patent and Copyright	2		
Scientific Research on the Subject	12		
Elective Courses			
There are Computer technologies in casting production	4,5		
Theory and structure of metallic and slag fusions	2,5		
Total	30	Total	28,5