

STUDY PROGRAMME CURRICULUM METALLURGICAL TECHNOLOGIES

2024/2025

Name of study programme	Metallurgical Technologies
Programme characteristics	
Type	higher professional
Cycle	bachelor
University of Ljubljana members	Faculty of Natural Sciences and Engineering, Aškerčeva cesta 12, 1000 Ljubljana, Slovenija

Year 1, obvezni

				Contact hours									
	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0067673	Mathematics 1	Janko Bračič	45	0	45	0	0	90	180	6	1st semester	no
2.	0067671	Physics	Matej Komelj	45	0	30	0	0	75	150	5	1st semester	no
3.	0067672	Chemistry	Romana Cerc Korošec	60	0	15	0	0	75	150	5	1st semester	no
4.	0089700	Introduction to mechanical engineering	David Bombač, Milan Terčelj	45	15	15	0	0	75	150	5	1st semester	no
5.	0067678	Computer Science Practicum	Blaž Karpe, Borut Kosec	30	0	45	0	0	75	150	5	1st semester	no
6.	0111935	General optional course 01		30	0	30	0	0	60	120	4	1st semester	no
7.	0067674	Mathematics 2	Janko Bračič	45	0	45	0	0	90	180	6	2nd semester	no
8.	0067679	Thermo Technical Calculations	Borut Kosec	30	15	30	0	0	75	150	5	2nd semester	no

9.	0067677	Foundations of Mechanics	George Mejak	45	0	30	0	0	75	150	5	2nd semester	no
10.	0067676	Fundamentals of Physical Metallurgy	Boštjan Markoli	45	0	30	0	0	75	150	5	2nd semester	no
11.	0067675	Mettalurgical Practicum	Aleš Nagode	15	0	60	0	0	75	150	5	2nd semester	no
12.	0111936	General optional course 02		30	0	30	0	0	60	120	4	2nd semester	no
Total				465	30	405	0	0	900	1800	60		

Year 1, Splošni izbirni

				Contact hours									
	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0077623	Introduction to Economic Analysis	Polona Domadenik	45	0	45	0	0	90	180	6	1st semester	yes
2.	0089722	Project Management	ALJAŽ STARE	30	15	15	0	0	60	120	4	1st semester	yes
3.	0077626	Fundamentals of marketing	Tomaž Kolar	30	30	0	0	0	60	120	4	1st semester	yes
4.	0077624	Fundamentals of Business Finance	Dušan Mramor	45	0	45	0	0	90	180	6	1st semester	yes
5.	0100799	Economy of Business in Montanistic Companies	Željko Vukelić	30	15	15	0	0	60	120	4		yes
6.	0077622	Environmental Economics	Bogomir Kovač	45	30	15	0	0	90	180	6	1st semester	yes
7.	0643483	Business Communication	Andreja Jaklič	30	30	0	0	0	60	120	4	2nd semester	yes
8.	0643484	Holistic Thinking and Acting	Andrej Demšar	30	0	30	0	0	60	120	4	2nd semester	yes
9.	0643973	Circular economy of materials	Jože Kortnik, Jožef Medved	30	15	15	0	0	60	120	4	2nd semester	yes

10.	0643981	Information competences	Danica Dolničar	30	15	15	0	0	60	120	4	2nd semester	yes
		Total		345	150	195	0	0	690	1380	46		

Year 2, obvezni

	University Course Code	Course title	Lecturers	Contact hours					Individual student work	Total hours	ECTS	Semesters	Elective
				Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study					
1.	0067684	Metallography	Boštjan Markoli	50	0	25	0	0	75	150	5	1st semester	no
2.	0067681	Electrotechnics	Milan Bizjak	30	15	30	0	0	75	150	5	1st semester	no
3.	0067691	Thermodynamics of Metallurgical Processes	Jožef Medved, Maja Vončina	45	0	30	0	0	75	150	5	1st semester	no
4.	0067682	Information and Computer Support for Metallurgical Processes	Blaž Karpe, Borut Kosec	30	0	45	0	0	75	150	5	1st semester	no
5.	0067689	Workability of Metallic Materials	Goran Kugler, Milan Terčelj	45	15	15	0	0	75	150	5	1st semester	no
6.	0067687	Practicum Measurements and Regulations	Blaž Karpe, Borut Kosec, David Bombač, Peter Fajfar	15	0	45	0	15	75	150	5	1st semester	no
7.	0067683	Steelmaking	Matjaž Knape	45	15	15	0	0	75	150	5	2nd semester	no
8.	0067685	Non-ferrous Metals	Jožef Medved, Maja Vončina	45	0	30	0	0	75	150	5	2nd semester	no
9.	0067688	Materials Testing	Aleš Nagode, Milan Bizjak	45	0	30	0	0	75	150	5	2nd semester	no

10.	0067686	Organisation and Company Management	Goran Kugler	30	30	15	0	0	75	150	5	2nd semester	no
11.	0067690	Process-Foundry Practicum	Mitja Petrič, Primož Mrvar, Tilen Balaško	10	0	65	0	0	75	150	5	2nd semester	no
12.	0111937	Optional professional course 1		45	0	30	0	0	75	150	5	2nd semester	no
Total				435	75	375	0	15	900	1800	60		

Year 3, obvezni

				Contact hours									
	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0067694	Manufacturing Technologies - Casting	Mitja Petrič, Primož Mrvar	45	0	30	0	0	75	150	5	1st semester	no
2.	0067695	Manufacturing Technologies - Forming	David Bombač, Peter Fajfar	45	0	25	0	5	75	150	5	1st semester	no
3.	0067698	Heat Treatment	Aleš Nagode	45	0	30	0	0	75	150	5	1st semester	no
4.	0067699	Welding	Borut Zorc, Primož Mrvar	45	0	30	0	0	75	150	5	1st semester	no
5.	0067697	Design for Manufacture	David Bombač, Milan Terčelj	45	15	15	0	0	75	150	5	1st semester	no
6.	0100798	Practicum in Materials Testing	Aleš Nagode, Milan Bizjak	0	15	60	0	0	75	150	5	1st semester	no
7.	0067696	Practical Training	David Bombač	0	0	75	0	0	75	150	5	2nd semester	no

8.	0111938	Optional professional course 2		45	0	30	0	0	75	150	5	2nd semester	no
9.	0111939	Optional professional course 3		45	0	30	0	0	75	150	5	2nd semester	no
10.	0111940	Optional practical		45	0	30	0	0	75	150	5	2nd semester	no
11.	0067693	Diploma Work	Maja Vončina	0	0	0	0	75	75	150	10	2nd semester	no
Total				360	30	355	0	80	825	1650	60		

2. in 3. letnik - Strokovni izbirni

				Contact hours									
	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0077579	Failure Analysis	Aleš Nagode, Borut Kosec	45	0	30	0	0	75	150	5	2nd semester	yes
2.	0067702	Powder Metallurgy	Aleš Nagode	30	0	45	0	0	75	150	5	2nd semester	yes
3.	0077590	Engineering Materials	Aleš Nagode	45	15	15	0	0	75	150	5	2nd semester	yes
4.	0077587	Testing Methods of Metallurgical Raw Materials	Matjaž Knap	45	0	30	0	0	75	150	5	2nd semester	yes
5.	0077583	Metallurgical Furnaces	Borut Kosec	45	0	15	0	15	75	150	5	2nd semester	yes
6.	0077580	Casting Materials	Mitja Petrič, Primož Mrvar	45	0	30	0	0	75	150	5	2nd semester	yes
7.	0067701	Quality Management	Borut Kosec, Primož Mrvar	30	45	0	0	0	75	150	5	2nd semester	yes
8.	0067703	Metallurgical Ceramics	Matjaž Knap	45	0	30	0	0	75	150	5	2nd semester	yes
9.	0077585	Special Forming Techniques	David Bombač, Peter Fajfar	45	0	30	0	0	75	150	5	2nd semester	yes

10.	0067704	Artistic Forming of Materials	David Bombač, Mitja Petrič, Peter Fajfar, Primož Mrvar	30	0	45	0	0	75	150	5	2nd semester	yes
11.	0077584	Business	Goran Kugler	45	15	15	0	0	75	150	5	2nd semester	yes
12.	0077588	Foreign Language - Technical English	Barbara Luštek Preskar, prof. angl. in nem.	45	0	30	0	0	0	75	5	2nd semester	yes
Total				495	75	315	0	15	825	1725	60		

Year 3, Izbirni praktikum

				Contact hours									
	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0077593	Practicum Special Metallurgical Production Technology	Matjaž Knap	45	0	30	0	0	75	150	5	2nd semester	yes
2.	0077592	Practicum Innovative Metallurgical Products and Equipment	Peter Fajfar	30	0	45	0	0	75	150	5	1st semester	yes
3.	0077586	Practicum In Product Management	Goran Kugler	45	15	15	0	0	75	150	5	2nd semester	yes
Total				120	15	90	0	0	225	450	15		