

## STUDY PROGRAMME CURRICULUM METALLURGICAL TECHNOLOGIES

2025/2026

Name of study programme	<b>Metallurgical Technologies</b>
Programme characteristics	
Type	higher professional
Cycle	bachelor
University of Ljubljana members	<ul style="list-style-type: none"> <li>• Faculty of Natural Sciences and Engineering, Aškerčeva cesta 12, 1000 Ljubljana, Slovenija</li> </ul>

Year 1, 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.	0067673	Mathematics 1	izr. prof. dr. 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, prof. dr. 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	izr. prof. dr. 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	prof. dr. Boštjan Markoli	45	0	30	0	0	75	150	5	2nd semester	no
11.	0067675	Mettalurgical Practicum	Matija Zorc, prof. dr. 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

	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.	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	prof. dr. 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	prof. dr. Andreja Jaklič	30	30	0	0	0	60	120	4	2nd semester	yes
8.	0643484	Holistic Thinking and Acting	prof. dr. Andrej Demšar	30	30	0	0	0	60	120	4	2nd semester	yes

9.	0643973	Circular economy of materials	doc. dr. Jože Kortnik, prof. dr. Jožef Medved	30	15	15	0	0	60	120	4	2nd semester	yes
10.	0643981	Information competences	doc. dr. Danica Dolničar	30	15	15	0	0	60	120	4	2nd semester	yes
Total				345	180	165	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	prof. dr. Boštjan Markoli	50	0	25	0	0	75	150	5	1st semester	no
2.	0067681	Electrotechnics	Blaž Karpe, Milan Bizjak	30	15	30	0	0	75	150	5	1st semester	no
3.	0067691	Thermodynamics of Metallurgical Processes	izr. prof. dr. Maja Vončina, prof. dr. Jožef Medved	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	prof. dr. Goran Kugler, prof. dr. Milan Terčelj	45	15	15	0	0	75	150	5	1st semester	no
6.	0067687	Practicum Measurements and Regulations	Blaž Karpe, Borut Kosec, David	15	0	45	0	15	75	150	5	1st semester	no

			Bombač, Peter Fajfar										
7.	0067683	Steelmaking	doc. dr. Matjaž Knap	45	15	15	0	0	75	150	5	2nd semester	no
8.	0067685	Non-ferrous Metals	izr. prof. dr. Maja Vončina, prof. dr. Jožef Medved	45	0	30	0	0	75	150	5	2nd semester	no
9.	0067688	Materials Testing	Matija Zorc, Milan Bizjak, prof. dr. Aleš Nagode	45	0	30	0	0	75	150	5	2nd semester	no
10.	0067686	Organisation and Company Management	prof. dr. Goran Kugler	30	30	15	0	0	75	150	5	2nd semester	no
11.	0067690	Process-Foundry Practicum	doc. dr. Tilen Balaško, Mitja Petrič, prof. dr. Primož Mrvar	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, prof. dr. 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	prof. dr. Aleš Nagode	45	0	30	0	0	75	150	5	1st semester	no
4.	0067699	Welding	Borut Zorc, prof. dr. Primož Mrvar	45	0	30	0	0	75	150	5	1st semester	no
5.	0067697	Design for Manufacture	David Bombač, prof. dr. Milan Terčelj	45	15	15	0	0	75	150	5	1st semester	no
6.	0100798	Practicum in Materials Testing	Matija Zorc, Milan Bizjak, prof. dr. Aleš Nagode	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	izr. prof. dr. Maja Vončina	0	0	0	0	150	150	300	10	2nd semester	no
Total				360	30	355	0	155	900	1800	60		

## 2. in 3. letnik - Strokovni izbirni

	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.	0077579	Failure Analysis	Borut Kosec, prof. dr. Aleš Nagode	45	0	30	0	0	75	150	5	2nd semester	yes



1.	0077593	Practicum Special Metallurgical Production Technology	doc. dr. Matjaž Knap	45	0	30	0	0	75	150	5	2nd semester	yes
2.	0077592	Practicum Innovative Metallurgical Products and Equipment	David Bombač, Peter Fajfar	30	0	45	0	0	75	150	5	1st semester	yes
3.	0077586	Practicum In Product Management	prof. dr. Goran Kugler	45	15	15	0	0	75	150	5	2nd semester	yes
Total				120	15	90	0	0	225	450	15		