



Univerza v Mariboru

Fakulteta za kemijo  
in kemijsko tehnologijo

Smetanova ulica 17  
2000 Maribor, Slovenia

**UNIVERSITY OF MARIBOR**  
**FACULTY OF CHEMISTRY AND CHEMICAL ENGINEERING**  
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**MASTER'S (2<sup>ND</sup>-CYCLE) PROGRAMMES:**

1. CHEMICAL ENGINEERING
2. CHEMISTRY

**Location:** Maribor  
**Duration:** 120 ECTS, 2 years

**Admission requirements:**

1. CHEMICAL ENGINEERING

**Tracks:**

1. Chemical Engineering
2. Biochemical Engineering

Candidates select the desired track in their application. Tracks are being implemented in the first semester.

Candidates who completed the following may apply for the master's (second-cycle) programme "Chemical Engineering":

1. A bachelor's (first-cycle) programme in a relevant field: chemistry (4420), chemical technology (5241), chemical and process engineering (5240), process technology (5242), biochemical technologies and engineering (5243), training for teachers in natural science subjects – chemistry (1451);
2. A bachelor's (first-cycle) programme in a field different from the ones specified under the preceding point: engineering and engineering trades (5200) and science (4000). Candidates must fulfil study obligations corresponding to 47 ECTS credits under the bachelor's programme, a training programme or by taking qualifying exams prior to enrolment. Candidates must fulfil the following obligations: "General Chemistry" (8 ECTS), "Inorganic Chemistry" (4 ECTS), "Organic Chemistry I" (4 ECTS), "Organic Chemistry II" (7 ECTS), "Physical Chemistry I" (4 ECTS), "Heat Transfer" (5 ECTS), "Mass Transfer" (5 ECTS), "Separation Processes II" (5 ECTS) and "Chemical Reaction Engineering I" (5 ECTS);
3. A bachelor's vocational programme adopted prior to 11 June 2004 in a relevant field: chemistry (4420), chemical technology (5241), chemical and process engineering (5240), process technology (5242), biochemical technologies and engineering (5243);
4. A bachelor's vocational programme adopted prior to 11 June 2004 in a field different from the ones specified under the preceding point: engineering and engineering trades (5200) and science (4000). Candidates must fulfil study obligations corresponding to 47 ECTS credits under the bachelor's programme, a training programme or by taking qualifying exams prior to enrolment. Candidates must fulfil the following obligations: "General Chemistry" (8 ECTS), "Inorganic Chemistry" (4 ECTS), "Organic Chemistry I" (4 ECTS), "Organic Chemistry II" (7 ECTS), "Physical Chemistry I" (4 ECTS), "Heat Transfer" (5 ECTS), "Mass Transfer" (5 ECTS), "Separation Processes II" (5 ECTS) and "Chemical Reaction Engineering I" (5 ECTS);
5. An undergraduate programme adopted prior to 11 June 2004 in a relevant field: chemistry (4420), chemical technology (5241), chemical and process engineering (5240), process technology (5242), biochemical technologies and engineering (5243), training for teachers in natural science subjects – chemistry (1451). These candidates are typically awarded 60 ECTS credits\* and may enrol in the second year provided they satisfy the transfer criteria laid down in the accredited degree programme;
6. An undergraduate programme adopted prior to 11 June 2004 in field different from the ones specified under the preceding point: engineering and engineering trades (5200) and science (4000). These candidates are awarded up to 30 ECTS credits\* and may enrol in the corresponding year;
7. A bachelor's vocational programme adopted prior to 11 June 2004 and a specialisation programme adopted prior to 11 June 2004 in a relevant field: chemistry (4420), chemical technology (5241), chemical and process engineering (5240), process technology (5242), biochemical technologies and engineering (5243). These candidates are typically awarded 60 ECTS credits\* and may enrol in the second year provided they satisfy the transfer criteria laid down in the accredited degree programme;

8. A bachelor's vocational programme adopted prior to 11 June 2004 and a specialisation programme adopted prior to 11 June 2004 in a field different from the ones specified under the preceding point: engineering and engineering trades (5200) and science (4000). These candidates are awarded up to 30 ECTS credits\* and may enrol in the corresponding year

\*The Academic Affairs Committee decides on the recognition of study obligations on a case-by-case basis. In addition, the Committee decides on the admission of candidates from other fields on a case-by-case basis.

<b>Selection criteria in the event of limited enrolment:</b>
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If the number of applications exceeds the number of positions available, candidates will be ranked according to:

1. Grade awarded for the bachelor's thesis (20 %);
2. Grade point average under the bachelor's programme (50 %);
3. Average grade in the following exams: "Mathematics III" and "Chemical Reaction Engineering I" (30 %).

<b>Transfer criteria:</b>
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In accordance with the transfer criteria, candidates may transfer to the master's (2<sup>nd</sup>-cycle) programme "Chemical Engineering" from programmes in the field of chemistry, chemical technology, chemical and process engineering, process technology, biochemical technologies and engineering, training for teachers in natural science subjects (chemistry) provided they lead to the acquisition of comparable competencies and provided that at least half of the obligations under the former study programme relating to compulsory subjects of the new programme can be recognized.

Under the recognition process, satisfied obligations that may be recognized fully or partially are identified and new obligations required for completion of the new programme are laid down.

Candidates must submit an official printout of the programme and a certificate of the exams passed. The Academic Affairs Committee decides on admissions and transfers from affiliated fields on a case-by-case basis.

<b>Mode of study:</b> full-time
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The full-time programme will be implemented in the event of five or more candidates.

## 2. CHEMISTRY

Candidates who completed the following may apply for the master's (second-cycle) programme "Chemistry":

1. A bachelor's (first-cycle) programme in a relevant field: chemistry (4420), biochemistry (4212), pharmacy (7271), chemical technology (5241), training for teachers in natural science subjects – chemistry (1451);
2. A bachelor's (first-cycle) programme in a field different from the ones specified under the preceding point: science (4000). Candidates must fulfil study obligations corresponding to 45 ECTS credits under the bachelor's programme, a training programme or by taking qualifying exams prior to enrolment. Candidates must fulfil the following obligations: "General Chemistry" (12 ECTS), "Inorganic Chemistry" (4 ECTS), "Organic Chemistry I" (4 ECTS), "Organic Chemistry II" (7 ECTS), "Analytical Chemistry I" (8 ECTS), "Analytical Chemistry II" (6 ECTS), "Physical Chemistry I" (4 ECTS);
3. A bachelor's vocational programme adopted prior to 11 June 2004 in a relevant field: chemistry (4420), chemical technology (5241), chemical and process engineering (5240), biochemical technologies and engineering (5243);
4. A bachelor's vocational programme adopted prior to 11 June 2004 in a field different from the ones specified under the preceding point: science (4000). Candidates must fulfil study obligations corresponding to 45 ECTS credits under the bachelor's programme, a training programme or by taking qualifying exams prior to enrolment. Candidates must fulfil the following obligations: "General and Inorganic Chemistry I" (12 ECTS), "General and Inorganic Chemistry II" (4 ECTS), "Organic Chemistry I" (4 ECTS), "Organic Chemistry II" (7 ECTS), "Analytical Chemistry I" (6 ECTS), "Analytical Chemistry II" (8 ECTS), "Physical Chemistry" (4 ECTS);
5. An undergraduate programme adopted prior to 11 June 2004 in a relevant field: chemistry (4420), biochemistry (4212), pharmacy (7271), chemical technology (5241), chemical and process engineering (5240), biochemical technologies and engineering (5243), training for teachers in natural science subjects – chemistry (1451). These candidates are typically awarded 60 ECTS credits\* and may enrol in the second year provided they satisfy the transfer criteria laid down in the accredited degree programme;
6. An undergraduate programme adopted prior to 11 June 2004 in field different from the ones specified under the preceding point: science (4000). These candidates are awarded up to 30 ECTS credits\* and may enrol in the corresponding year;
7. A bachelor's vocational programme adopted prior to 11 June 2004 and a specialisation programme adopted prior to 11 June 2004 in a relevant field: chemistry (4420), biochemistry (4212), pharmacy (7271), chemical technology (5241), chemical and process engineering (5240), biochemical technologies and engineering (5243). These candidates are typically awarded 60 ECTS credits\* and may enrol in the second year provided they satisfy the transfer criteria laid down in the accredited degree programme;

8. A bachelor's vocational programme adopted prior to 11 June 2004 and a specialisation programme adopted prior to 11 June 2004 in a field different from the ones specified under the preceding point: science (4000). These candidates are awarded up to 30 ECTS credits\* and may enrol in the corresponding year.

\*The Academic Affairs Committee decides on the recognition of study obligations on a case-by-case basis. In addition, the Committee decides on the admission of candidates from other fields.

**Selection criteria in the event of limited enrolment:**

If the number of applications exceeds the number of positions available, candidates will be ranked according to:

1. Grade awarded for the bachelor's thesis (20 %);
2. Grade point average under the bachelor's programme (50 %);
3. Average grade in the following exams: "Mathematics III" and "Organic Synthesis" (30 %).

**Transfer criteria:**

In accordance with the transfer criteria, candidates may transfer to the master's (2<sup>nd</sup>-cycle) programme "Chemistry" from programmes in the field of chemistry, biochemical technologies and engineering, pharmacy, chemical technology, training for teachers in natural science subjects (chemistry) provided they lead to the acquisition of comparable competencies and provided that at least half of the obligations under the former study programme relating to compulsory subjects of the new programme can be recognized.

Under the recognition process, satisfied obligations that may be recognized fully or partially are identified and new obligations required for completion of the new programme are laid down.

Student must submit an official printout of the programme and a certificate of the exams passed. The Academic Affairs Committee decides on admissions and transfers from affiliated fields on a case-by-case basis.

**Mode of study:** full-time

The full-time programme will be implemented in the event of five or more candidates.

## DOCTORAL (3<sup>RD</sup>-CYCLE) PROGRAMME "CHEMISTRY AND CHEMICAL ENGINEERING"

**Location:** Maribor  
**Duration:** 180 ECTS, 3 years

### Admission requirements:

Candidates who completed the following may apply for the doctoral (3<sup>rd</sup>-cycle) programme "Chemistry and Chemical Engineering":

1. A master's (2<sup>nd</sup>-cycle) programme in any field;
2. An undergraduate programme adopted prior to 11 June 2004;
3. A bachelor's vocational programme adopted prior to 11 June 2004 and a specialisation programme. Prior to enrolment, candidates must fulfil study obligations in the field of chemistry and chemical engineering corresponding to 30 ECTS credits. These obligations are determined by the Academic Affairs Committee;
4. A study programme educating students for professions regulated by EU directives or another master's programme (also in fields not related to chemistry and chemical engineering) corresponding to 300 ECTS credits.

### Selection criteria in the event of limited enrolment:

If the number of applications exceeds the number of positions available, candidates will be ranked according to their academic performance, as follows:

- Grade point average under the undergraduate or master's programme (80%);
- Grade awarded for the undergraduate or master's thesis (20%).

### Transfer criteria:

In accordance with the transfer criteria, candidates who completed the following may be admitted to the second year of the doctoral (3<sup>rd</sup>-cycle) programme "Chemistry and Chemical Engineering":

1. A master's programme (MSc) adopted prior to 11 June 2004 – these candidates are awarded 60 ECTS credits;
2. An undergraduate programme adopted prior to 11 June 2004 and a specialisation programme – these candidates are awarded 60 ECTS credits.

The competent department of the Faculty decides on the recognition of study obligations on a case-by-case basis.

**Mode of study:** part-time

**Number of available positions:** The number of positions available is published in a table, which is attached to and represents an integral part of the call text.