
Diplomirani inženir kemijske tehnologije (vs)/diplomirana inženirka kemijske tehnologije (vs)

Selected qualifications

Name of qualification	Diplomirani inženir kemijske tehnologije (vs)/diplomirana inženirka kemijske tehnologije (vs)
Translated title (no legal status)	Bachelor of Applied Science in chemical technology
Type of qualification	Diploma prve stopnje (VS)
Category of qualification	Izobrazba
Type of education	Professional bachelor's education
Duration	3 years
Credits	180 credits
Admission requirements	• Matura or • vocational matura; or • school-leaving examination (prior to 1 June 1995) under any four-year secondary school programme

ISCED field

Field
Tehnika, proizvodne tehnologije in gradbeništvo

ISCED subfield

subfield kemijsko inženirstvo in procesi

Qualification level

SQF 7
EQF 6
First level

Learning outcomes

The qualification holder will be able to:

(general competences)

- acquire specialised knowledge through the study of theoretical and engineering/technological contents,
- use theoretical knowledge and transfer and apply it in practice,
- demonstrate understanding of the interdependence of basic scientific laws and technical implementation in technological systems,
- carry out experiments, collect relevant data about the experiment or process, and evaluate them,
- show the initiative and autonomy necessary to make decisions and lead complex work, laboratories or plants,
- take part in group work,
- communicate with colleagues and experts from other disciplines, which enables cooperation in multidisciplinary projects,
- communicate with regard to technical matters in both national and international contexts,
- keep abreast of technical and scholarly literature in their own field and transfer findings into practice,
- demonstrate professional ethical and environmental responsibility,
- take part in the planning of new, safer and more environmentally friendly processes,
- work safely with chemicals and manufacture them safely,
- pursue learning in their own professional field.

(specific vocational competences)

- acquire specialised knowledge through the study of theoretical and methodological concepts in the fields of general subjects, chemistry, biochemistry, chemical technology, biotechnology and engineering,
- demonstrate understanding of the structure of a substance and its connection with the properties of matter and materials,
- demonstrate familiarity with both inorganic and organic classifications,
- demonstrate familiarity with chemical reactions and their thermodynamics and kinetics,
- demonstrate familiarity with and apply various procedures of analysis and characterisation of substances from simple analyses to complex instrumental methods,
- demonstrate familiarity with basic synthesis pathways in organic and inorganic chemistry,
- carry out high-quality and safe work in a laboratory, with knowledge of laboratory equipment and relevant laboratory techniques,
- demonstrate familiarity with the problems of passing from the laboratory level to the pilot or

industrial level,

- demonstrate familiarity with the basic types of industrial processes (catalysis, processing of mineral raw materials, electrochemical processes, high-temperature processes, cryogenics and other processes involving technical gases, polymerisation and the processing of artificial substances) and problem-solving in industry,
- demonstrate familiarity with the issue of the raw-material basis of industrial processes, enrichment and processing of raw materials,
- demonstrate familiarity with the energy bases of industrial processes and the rational use of energy,
- demonstrate familiarity with the impact and interconnection of the raw-material and energy bases and the technological process itself with the environment, and ways to reduce these impacts,
- transfer and apply theoretical knowledge into practice and problem-solving,
- work in and manage industrial plants in the chemical and processing industries,
- work with the most complex laboratory equipment, instruments and apparatus,
- demonstrate familiarity with the processes, methods of work and conditions that ensure the successful operation of processes,
- lead control, analysis and related activities and laboratories in which these activities take place,
- acquire knowledge for safe work in laboratories and participate in the preparation of risk assessments,
- demonstrate knowledge and capacities that satisfy conditions for initial employment in the chemical, pharmaceutical and other related industries.

Assessment and completion

Students' knowledge is assessed by means of practical exercises and seminar papers, and also via products, projects, performances, services, etc. and by examinations. Examination performance is scored as follows: 10 (excellent); 9 (very good: above-average knowledge but with some mistakes); 8 (very good: solid results); 7 (good); 6 (adequate: knowledge satisfies minimum criteria); 5-1 (inadequate). In order to pass an examination, a candidate must achieve a grade between adequate (6) and excellent (10).

Progression

In order to enrol in the next year, students must have confirmation of the previous year, i.e. signed proof of registration and attendance for all subjects for the individual year. The following progression conditions also apply:

- in order to enrol in the second year, candidates must have completed 60 credits.
- in order to enrol in the third year, students must have completed all first-year course units (60 credits) and 60 second-year credits.

Transitions

Second-cycle master's study programmes (SQF level 8)

Condition for obtaining certificate

In order to complete a first-cycle programme, students must complete course units in all subjects of the programme in which they have enrolled, for a total of 180 credits, and write and successfully defend a bachelor's thesis in accordance with the provisions of the bachelor's thesis rules adopted by the Senate of the Faculty of Chemistry and Chemical Technology at the University of Ljubljana.

Awarding body

University of Ljubljana, Faculty of Chemistry and Chemical Technology

URL

<http://www.fkkt.uni-lj.si/en/about/>
