

# Diplomirani bioinformatik (un)/diplomirana bioinformatičarka (un)

# **Selected qualifications**

Name of qualification	Diplomirani bioinformatik (un)/diplomirana bioinformatičarka (un)
Translated title (no legal status)	Bachelor of Science in bioinformatics
Type of qualification	Diploma prve stopnje (UN)
Category of qualification	Izobrazba
Type of education	Academic bachelor's education
Duration	3 years
Credits	180 credits

Admission requirements	<ul> <li>Matura or</li> <li>vocational matura in any secondary school programme and an examination in one of the matura subjects; the selected subject may not be a subject which the candidate has already taken in the vocational matura; or</li> <li>school-leaving examination (prior to 1 June 1995) under any four-year secondary school programme.</li> </ul>
ISCED field	Field Naravoslovje, matematika in statistika
ISCED subfield	subfield interdisciplinarne izobraževalne aktivnosti/izidi, pretežno naravoslovje, matematika in statistika
Qualification level	SQF 7 EQF 6 First level

# **Learning outcomes**

The qualification holder will be able to:

(general competences)

- analyse, synthesise and anticipate solutions and the consequences of factors in biochemistry,
- critically assess developments in the field of the natural sciences (above all in biology, biochemistry and molecular genetics),
- use mathematics and computer and information science in the field of the natural sciences (above all in biology, biochemistry and molecular genetics),
- develop communication skills and abilities,
- cooperate with co-workers, work in a team and work on projects,
- autonomously seek out and acquire specialist knowledge and integrate it with existing knowledge,
- seek and interpret new information and place it in the context of bioinformatics,
- demonstrate autonomy in professional work,
- take a holistic view of the development of bioinformatics as a new science,
- demonstrate proficiency in basic natural sciences education,
- analyse specific situations, critically verify information and anticipate solutions and consequences,
- apply theoretical and practical research methods, various procedures and technologies,
- prepare strategies and creatively address problems that occur in the field of the application of biological information,
- demonstrate a commitment to ethics,

(subject-specific competences)

- describe a biological phenomenon in mathematical or computer language,
- demonstrate understanding of mathematical concepts and principles,
- address problems through the use of modern information technology,
- apply an algorithmic approach: develop an algorithm to resolve a given problem,
- analyse a given problem both numerically and in graphical and algorithmic terms,

- deduce new conclusions from given data,
- confidently address a given problem in bioinformatics and demonstrate the ability to find a solution,
- find approximative solutions to problems with the help of numerical methods,
- integrate knowledge from different spheres of biology, chemistry, genetics, biochemistry, mathematics, computer science and information technology,
- place new research results and scientific and scholarly findings, information and interpretations in the context of bioinformatics,
- demonstrate familiarity with the nature of biological information on the world wide web and use this in their work (in a laboratory, business, etc.).

#### **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 graded 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**

Students may enrol in a higher year if by the end of the academic year they have met all enrolment requirements defined by the study programme.

# **Transitions**

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

#### **Condition for obtaining certificate**

In order to complete the programme, students must complete at least 180 credits, which includes all course units within individual subjects of the programme (homework, seminars and examinations) and the preparation and defence of a concluding project assignment, to be defended in the context of a seminar.

# **Awarding body**

University of Primorska, Faculty of Mathematics, Natural Sciences and Information Technologies