

**STUDY PROGRAMME  
(Excerpt)**

**INFORMATICS (Computer Science)**

**1. NAME AND AIMS OF THE STUDY PROGRAMME**

The legal basis for the creation of study program implemented by "Banja Luka College" (hereinafter - BLC) is the Law on high education of Republika Srpska (Republika Srpska Official Gazette no. 85/06 and 30/07), other laws and regulations relating to high education. The basis for the creation of the study program is, in line with the mentioned legal basis, the Declaration of European Ministers of (high) education of Bologna from 1999, as well as declarations and other acts accompanying this declaration.

**2. A MODEL OF A STUDY PROGRAM**

Study program is implemented as one whole in the form of two models, as a three year and as a four year study:

- A model of a study program for a three year study: 3+0+0
- A model of a study program for a four year study: 4+0+0

**3. SCIENTIFIC FIELD THE STUDY PROGRAM BELONGS TO**

The study program belongs to natural sciences / scientific field: Computer and information sciences / and social sciences / scientific field: Media and communications.

**4. TYPES OF STUDIES AND THE OUTCOME OF LEARNING PROCESS**

Study program is organized as an academic study in one cycle: as the first cycle. The first cycle leads to the academic title of completed undergraduate studies (the degree of Bachelor), lasting at least 3 years or at the most 4 years of studies, which are awarded at least 180, that is, up to 240 ECTS points (EUROPEAN CREDIT TRANSFER SYSTEM – ECTS). One academic year bears 60 ECTS points. One semester of studies bears 30 ECTS points.

The study program is structured in such a way that the students have the possibility to select a study area (profile) until the second year of study (fourth semester), within a study program, for the following:

**4.1. A study lasting three /3/ academic years /six semesters/  
Study areas (profiles):**

1. Business Informatics
2. Information Technologies
3. Graphic design and computer graphics

**4.2. A study lasting four /4/ academic years /eight semesters/  
Study areas (profiles):**

1. Business informatics and management of information systems
2. Information technologies and management of information systems
3. Graphic design, computer graphics and management of information systems

In the course of studies students acquire appropriate knowledge of informatics, business informatics, information technologies, information systems, electronic business, projecting information systems, computer systems, computer graphics, graphic design, and management of information systems. Along with these, students also get basic knowledge of management, economy and business, business administration, law, media and communications, and other social sciences and foreign languages.

For the purpose of educating students for successful performing of work immediately upon completion of studies, which is an important precondition for employment, particular attention was paid to education for technical work and practical education of students. This is achieved through: exercises, student's practice, writing and analyzing different projects, acts and similar, by internship and other forms of practical learning, writing the final (graduation) paper.

**5. TECHNICAL, ACADEMIC, OR SCIENTIFIC TITLES**

**5.1. A study lasting three /3/ academic years /six semesters/**

Completion of the first cycle lasting at least 3 years (6 semesters) and acquiring at least 180 ECTS points, awards the academic title:

1. Graduated IT operator for business informatics
2. Graduated IT operator for information technologies
3. Graduated IT operator for graphic design and computer graphics

## **5.2. A study lasting four /4/ academic years /eight semesters/**

Completion of the first cycle lasting four /4/ years (8 semesters) and acquiring 240 ECTS points, awards the academic title:

1. Graduated IT operator for business informatics and management of information systems
  2. Graduated IT operator for information technologies and management of information systems
  3. Graduated IT operator for graphic design, computer graphics and management of information systems
- 6. LIST OF STUDY AREAS AND TEACHING SUBJECTS WITH FRAMEWORK CONTENTS AND CORE STATUS**

The study program contains mandatory and selected subjects. Mandatory subjects are:

1. INFORMATICS (Computer Science)
2. Microeconomics
3. Management
4. Labor law
5. Business Informatics
6. Human Resource Management
7. Mathematics
8. Marketing
9. Public Relations and communications management

A list of study areas (profiles) and list of selected subjects are given in parts: type of study and outcome of learning process and the curricula. The framework contents of teaching subjects are given at the end of study program within the curriculum.

A student is obliged to pass at least a half of selected subjects for the study area (profile) he/she enrolled, in relation to the total number of selected subject a student is obliged to pass in order to complete the studies, in accordance with the Senate decision.

## **7. THE WAY OF PERFORMING STUDIES, TIMEFRAME FOR PERFORMING PARTICULAR FORMS OF STUDIES, STUDENTS' OBLIGATIONS AND DYNAMICS OF STUDYING**

The BLC organize studies in a way that student's obligations are expressed in ECTS points. A student is obliged to fulfill set obligations, to pass exams and to gather at least 180 ECTS points for the completion of first cycle on a three year studies, or to gather 240 ECTS points for the completion of first cycle on a four year studies.

**8. THE POINT VALUATION OF A SUBJECT IS SHOWN IN ACCORDANCE WITH ECTS AND A NUMBER OF CLASSES FOR PARTICULAR SUBJECTS**

The point valuation of all subjects is shown in ECTS points in a way that an academic year bears 60 ECTS points, and a semester 30 ECTS points.

The point value of each subject is presented at the end of a study program in the Curriculum.

The planned number of classes for particular subjects is shown at the end of a study program in the Curriculum.

**9. POINT VALUATION OF THE FINAL (GRADUATION) PAPER IS SHOWN IN ACCORDANCE WITH ECTS**

The graduation (final) work is valued 10 ECTS points.

**10. CRITERIA AND WAY OF QUALITY ENSURING**

The criteria and quality ensuring are defined by the Rule book on ensuring the quality, in accordance with rules, criteria and guidelines for quality ensuring set by the competent institutions, and are implemented by the Senate. The quality ensuring system, in the purpose of securing and valuating the quality, is a regular activity implemented at least once during a school year. At the end of the school year the Senate adopts the self-evaluation report.

**CURRICULUM**  
**INFORMATICS (COMPUTER SCIENCE)**

**THE FIRST YEAR**

**THE FIRST SEMESTER**

	<b>P</b>	<b>C</b>	<b>E</b>
1. Management	6	30	30
2. Informatics	6	30	30
3. Microeconomics	6	30	30
4. Foreign language 1	6	30	45
5. Selected subject	6	30	30
<b>Total</b>	<b>30</b>	<b>150</b>	<b>165</b>

**SECOND SEMESTER**

	<b>P</b>	<b>C</b>	<b>E</b>
1. Labor law	6	30	30
2. Foreign language 2	6	30	45
3. Selected subject	6	30	30
4. Selected subject	6	30	30
5. Selected subject	6	30	30
<b>Total</b>	<b>30</b>	<b>150</b>	<b>165</b>

**Notice:**

- The first column (P) shows number of ECTS points for particular subject
- The second column (C) shows number of classes/lectures in a semester
- The third column (E) shows number of exercise classes in a semester.

**SELECTED SUBJECTS**

From the following optional subjects from the domain of informatics, a student has to select 2:

1. Introduction to information technologies
2. Information systems
3. Introduction to operational systems
4. Web design
5. Statistics and probability

## THE SECOND YEAR

### THIRD SEMESTER

	<b>P</b>	<b>C</b>	<b>E</b>
1. Business Informatics	6	30	30
2. Human Resource Management	6	30	30
3. Mathematics	6	30	30
4. Foreign language 3	6	30	45
5. Selected subject from study program	6	30	30
Total	30	150	165

### FOURTH SEMESTER

	<b>P</b>	<b>C</b>	<b>E</b>
1. Marketing	6	30	30
2. Public Relations and communications management	6	30	30
3. Foreign language 4	6	30	45
4. Selected subject from study program	6	30	30
5. Selected subject from study program	6	30	30
Total	30	150	165

Notice:

- The first column (P) shows number of ECTS points for particular subject
- The second column (C) shows number of classes/lectures in a semester
- The third column (E) shows number of exercise classes in a semester

### OPTIONAL SUBJECTS IN A STUDY PROGRAM

#### ON SECOND AND THIRD YEAR OF STUDY

From the following optional subjects from the domain of informatics, a student has to select 2:

1. Data bases
2. Programming basics
3. Computer networks
4. Mathematics 2 (Math in computer science)

**THE THIRD YEAR**

**A STUDY LASTING THREE /3/ ACADEMIC YEARS /SIX SEMESTERS/**

**THE FIFTH SEMESTER**

	<b>P</b>	<b>C</b>	<b>E</b>
1. Selected subject from the sphere of informatics from a study profile	8	30	60
2. Selected subject from the sphere of informatics from a study profile	8	30	60
3. Selected subject from the sphere of informatics from a study profile	8	30	60
4. Selected subject from the sphere of informatics from study program	6	30	30
Total	30	120	210

**THE SIXTH SEMESTER**

	<b>P</b>	<b>C</b>	<b>E</b>	<b>PR</b>
1. Selected subject from the sphere of informatics from a study profile	8	30	60	0
2. Study practice (within a study program or profile)	12	0	50	160
3. The final (graduation) paper in informatics	10	0	0	0
Total	30	30	110	160

**A STUDY LASTING FOUR /4/ ACADEMIC YEARS /EIGHT SEMESTERS/**

**THE FIFTH SEMESTER**

	<b>P</b>	<b>C</b>	<b>E</b>
1. Selected subject from the sphere of informatics from a study profile	8	30	60
2. Selected subject from the sphere of informatics from a study profile	8	30	60
3. Selected subject from the sphere of informatics from a study profile	8	30	60
4. Selected subject from the sphere of informatics from study program	6	30	30
Total	30	120	210

**THE SIXTH SEMESTER**

	<b>P</b>	<b>C</b>	<b>E</b>
1. Selected subject from the sphere of informatics from a study profile	8	30	60
2. Selected subject from the sphere of informatics from a study profile	8	30	60
3. Selected subject from the sphere of informatics from a study profile	8	30	60
4. Selected subject from the sphere of informatics from study program	6	30	30
Total	30	120	210

Notice:

- The first column (P) shows number of ECTS points for particular subject
- The second column (C) shows number of classes/lectures in a semester
- The third column (E) shows number of exercise classes in a semester
- The fourth column (PR) shows the number of practical classes/hours

## **THE THIRD YEAR**

### **OPTIONAL SUBJECTS IN STUDY AREAS (PROFILES) ON THIRD YEAR OF STUDY**

#### **Profile: Business Informatics**

List of optional subjects from study area /profile/:

1. Electronic business
2. Programming
3. Information technologies in business
4. Information systems in support to decision-making

#### **Profile: Information technologies**

From the following optional subjects from the profile, a student has to select 3:

1. Information technologies
2. Programming
3. Internet programming - JAVA
4. Projecting of information systems

#### **Profile: Graphic design and computer graphics**

From the following optional subjects from the profile, a student has to select 3:

1. Graphic design
2. Raster graphics
3. Printing technology and printing forms
4. Design
5. Graphics

## THE FOURTH YEAR

### SEVENTH SEMESTER

	<i>P</i>	<i>C</i>	<i>E</i>
1. Selected subject in informatics from the study area / profile	8	30	60
2. Selected subject in informatics from the study area / profile	8	30	60
3. Selected subject in informatics from the study area / profile	8	30	60
4. Foreign language in informatics	6	30	45
Total	30	120	225

### EIGHTH SEMESTER

	<i>P</i>	<i>C</i>	<i>E</i>	<i>PR</i>
1. Selected subject in informatics from the study area / profile	8	30	60	
2. Student's practice (in study program or profile)	12	0	50	160
3. Graduation work in the field of informatics	10	0	0	
Total	30	30	110	160

Remark:

- First column (P) shows the number of ECTS points for particular subject
- Second column (C) shows the number of lecture classes in a semester
- Third column (E) shows the number of exercise classes in a semester
- The fourth column (PR) shows the number of practical classes/hours

## **ELECTED SUBJECTS ON STUDY AREAS (PROFILES)**

(List of optional subjects within a study program per profile):

Profile: **Business informatics and management of information systems**

From the following optional subjects from the profile, a student has to select 3:

1. Management of information systems
2. Electronic business
3. Programming
4. Information technologies in business
5. Information systems in support to decision-making
6. Information technologies
7. Internet programming - JAVA

Profile: **Information technologies and management of information systems**

From the following optional subjects from the profile, a student has to select 3:

1. Management of information systems
2. Information technologies
3. Operating systems
4. Internet programming - JAVA
5. Projecting of information systems
6. Protection of information systems
7. Software engineering

Profile: **Graphic design, computer graphics and management of information systems**

From the following optional subjects from the profile, a student has to select 3:

1. Management of information systems
2. Graphic design
3. Raster graphics
4. Printing technology and printing forms
5. Design
6. Graphics
7. Computer systems