

UNIVERSITY OF ZIELONA GÓRA

FACULTY OF MATHEMATICS, COMPUTER SCIENCE AND ECONOMETRICS

FULL-TIME COURSE PROGRAMME

course: **COMPUTER SCIENCE AND ECONOMETRICS**

cycle: **first cycle**

profile: **general academic**

recruitment in the academic year

**2024/2025**

Recommended:

Resolution No. 16 of the Mathematics Discipline Council

of 8 March 2023

Approved by Faculty Education Council at the Faculty of Mathematics, Computer Science and Econometrics:

Resolution No 1 of 9 March 2023

## 1. General characteristics of the course programme

Course	<b>Computer Science and Econometrics</b>
Cycle	First-cycle programme
Profile	General academic
Course delivery method	Full-time
Specification of the fields of science and scientific disciplines or fields of art and artistic disciplines to which the learning outcomes apply (including the leading discipline), and specification of percentage share of each discipline in the number of ECTS credits required to obtain qualifications corresponding to the level of education	Exact and natural sciences  Disciplines: Mathematics (139 ECTS - 77%) – leading discipline Computer Science ( 41 ECTS - 23%)
Professional title awarded to graduates	Bachelor (Polish title : <i>licencjat</i> )
Scientific category held by the basic organizational unit of the university	B

## 2. Indication of the relationship between the course programme and the mission of the university and its development strategy

The graduates are specialists in the use of information systems in managing enterprises and the national economy, as well as the application of quantitative methods to analyse macro and micro economic processes.

The introduction of the course is consistent with the objective [K2] "Broadening the educational offer - orientation of learning outcomes to the needs of the labour market" specified in the "Development Strategy of the University of Zielona Góra until 2020" in the area of "Education". In addition, the course complies with the "Digital Agenda for Europe" and the "Agenda for New Skills and Jobs" in the Europe 2020 EU strategy.

## 3. Description of competencies expected from a candidate applying for admission to the first-cycle programme, second-cycle programme or single cycle master's programme

The candidate applying for admission to the first-cycle programme of *computer science and econometrics* must be the holder of the secondary school-leaving certificate. Recruitment is carried out in accordance with the rules of recruitment for first-cycle studies set out in the general regulations.

#### 4. Analysis of the compliance of the assumed learning outcomes with the needs of the labour market

The graduates have knowledge in economics, management and finance, information systems as well as statistics and econometrics. They are specialists in the design and use of information systems in company management and the use of mathematical, statistical and econometric methods and tools to analyse macroeconomic and microeconomic processes.

Students graduating from *business analytics* can be employed as business analysts, e.g. in economic information processing centres or in business management departments.

Students graduating from *statistics and econometrics* can be employed in economic information processing centres or in business management centres.

Students graduating from *information systems* can be employed in computer companies and IT centres.

#### 5. Description of methods of verifying and evaluating learning outcomes achieved by students throughout the entire educational process

The methods of verification and assessment of the learning outcomes achieved by the student are included in the syllabuses for individual subjects.

#### 6. Course programme:

1.1 Description of the expected learning outcomes, with the indication of the field of science and scientific disciplines or fields of art and artistic disciplines to which the learning outcomes for this course relate.

See Appendix for:

- *Learning outcomes;*
- *Reference to Polish Qualifications Framework descriptors*

#### 1.2 Programme indicators

Programme indicators concerning the evaluated course	
Number of ECTS credits required to obtain qualifications corresponding to the level of education	180 ECTS credits (minimum)
Number of semesters required to obtain qualifications corresponding to the level of education	6
Number of ECTS credits assigned to classes requiring direct participation of academic teachers and students	at least 90 (50%)

Number of ECTS credits assigned to the modules of classes related to the conducted scientific research in the field/fields of science/art corresponding the evaluated course during which the student acquires in-depth knowledge and the ability to conduct scientific research (for academic profile courses)	at least 156 (87%)
Number of ECTS credits assigned to the modules of classes related to practical vocational preparation aimed at acquiring practical skills and social competencies by the student (for courses of practical profile)	-
Number of ECTS credits assigned to classes in humanities or social sciences (in the case of courses assigned to fields other than humanities or social sciences, respectively)	humanities – at least 3 social sciences - 25
Number of ECTS credits assigned to elective courses/modules	at least 59 (33%)
Number of ECTS credits assigned to internships and number of hours of internships (if the programme provides for internships)	3
Number of hours of physical education classes – for full-time first-cycle and single-cycle courses	60 h

<b>Modules of classes related to conducted scientific research in the field of science or art related to the programme, aimed at gaining in-depth knowledge and skills to conduct scientific research by the student</b>			
Module	Instructional method(s)	Total number of hours	ECTS credits
Core subjects, including social science classes (25 ECTS credits): Corporate Finance, Public Finance, Macroeconomics, Microeconomics, Law, Accounting, Management	L, C	255	27
Subjects in the major area of study	L, C, Lab, S	1035	84
Subjects offered for the course / compulsory subjects for specialisation courses	L, C, Lab, P, Pra	525	min 45
<b>Total:</b>		1815	156 (87%)

*General academic profile – includes classes related to scientific activity conducted at the university in the discipline or disciplines to which the course is assigned, in the amount*

*exceeding 50% of ECTS credits and takes into account the participation of students in classes preparing for conducting scientific activity or participation in this activity.*

<b>Elective classes modules</b>			
Module	Instructional method(s)	Total number of hours	ECTS credits
Subjects offered for the course / compulsory subjects for specialisation courses	L, C, Lab, P, Pra	525	at least 45
Humanities subjects	C	30	at least 3
Elective subjects needed to obtain 30 ECTS credits in semester	L, C, Lab, P	135	at least 11
<b>Total:</b>		690	at least 59 (33%)

*The student is allowed to choose classes to which ECTS credits are assigned in the amount of not less than 30% of the total number of ECTS credits.*

1.3 Description of subjects or groups of subjects - with learning outcomes, content, instruction forms and teaching methods ensuring the achievement of the outcomes, and ECTS credits (syllabuses);

Appendix – subject catalogue in the SylabUZ system

1.4 Methods of verifying and evaluating the student's achievement of the assumed learning outcomes

Methods of verifying and evaluating the achievement of learning outcomes are described in the syllabuses.

The rules regarding diplomas are defined in the resolution: Rules for the preparation and evaluation of diploma theses at the Faculty of Mathematics, Computer Science and Econometrics.

1.5 Study programme with class modules

See appendix.

### **Graduation requirements**

The course in *computer science and econometrics* lasts 3 years (6 semesters). The minimum number of ECTS credits is 180. The student must obtain at least 30 ECTS credits in each semester.

- The student of *computer science and econometrics* is awarded the bachelor degree (In

Polish: *licencjat*) after

1. completing courses for which they obtained at least 180 ECTS credits, including
  - compulsory module for *computer science and econometrics*,
  - additional subjects module offered in *computer science and econometrics* programme for which the student obtained at least 45 ECTS credits, including student internship,
  - humanities module offered in *computer science and econometrics* programme for which the student obtained at least 3 ECTS credits,

2. passing the diploma examination for which they received grade 3 or higher.

• The student of *computer science and econometrics* is awarded the bachelor degree (in Polish *licencjat*) with one of the following specialisations: *Business Analytics, Statistics and Econometrics, Information Systems* after

1. completing courses for which they obtained at least 180 ECTS credits, including
  - compulsory module for computer science and econometrics course,
  - specialisation compulsory module for which the student obtained 45 ECTS credits,
  - humanities module offered to computer science and econometrics students for which they obtained at least 3 ECTS credits,
2. passing the diploma examination for which they received grade 3 or higher.

NOTE: The student internship lasts 3 weeks and is carried out before the beginning of the sixth semester. The rules for completing and crediting internships are determined by the Dean of the Faculty of Mathematics, Computer Science and Econometrics.

#### 1.6 The duration, rules and form of student internships

The internship of 75 hours (3 ECTS credits) lasts three weeks and is carried out before the beginning of the sixth semester,

The internship takes place during the summer break (the student is entitled to choose where and when they will carry out the internship).

Internships are supervised by the Internship Coordinator appointed by the Dean of the Faculty.