Subject programme

1. Subject name / subject module: **Specialist IT systems**
2. Lecture language: **English**
3. **The location of the subject in study plans:**
   - Area or areas of the studies: Computer Engineering and Mechatronics
   - Degree of the studies: **1st degree studies**
   - Field or fields (implementation of effects standard): **Mechatronics**
4. Supervision of subject implementation:
   - The Institute / Another unit: **Institute of Informatics and Mechatronics**
   - The person responsible for the subject: **Kashuba Svietlana, dr inż.**
   - People cooperating in the development of the programme of the subject:
5. The number of hours and forms of teaching for individual study system and the evaluation method

Teaching activities with the tutor																							
Mode of study	Form of classes																						Total
		SOW	ECTS	Laboratory work	SOW	ECTS	...	SOW	ECTS	...	SOW	ECTS	...	SOW	ECTS	...	SOW	ECTS	...	SOW	ECTS	ECTS
Full-time studies				14	11	1																1
Part-time studies																						
Credit rigor	...			pass/fail grading																		

6. Student workload – ECTS credits balance
   1 ECTS credit corresponds to 25-30 hours of student work needed to achieve the expected learning outcomes including the student's own work

Activity (please specify relevant work for the subject)	**Hourly student workload (full-time studies/part-time studies)**
Participation in laboratory classes	**14/0**
Independent study of the subject – preparing for final grading	**9/0**
Participation in an exam / graded assignment / final grading	**2/0**
Total student workload (TSW)	**25/0**
ECTS credits	**1**
* Student's workload related to practical forms	**25/0**
Student's workload in classes requiring direct participation of academic teachers	**14/0**

7. Implementation notes: recommended duration (semesters), recommended admission requirements, relations between the forms of classes:
   None
   Recommended duration of the subject is taken from the course plan.

8. Specific learning outcomes – knowledge, skills and social competence

Specific learning outcomes for the subject		**Form**	**Teaching method**	**Methods for testing of (checking, assessing) learning outcomes**
Outcome symbol	**Outcome description**			
Knowledge				
K_W06	**Student knows and understands selected specific issues in the field of technical computer science related to programming, computer networks, databases, engineering graphics as well as practical applications of this knowledge through the use of a sp**	**Laboratory work**	**inquiry methods**	**Activity in laboratory classes, passing individual laboratory exercises.**
Skills				
K_U14	**Student is able to see problems, imperfections in functioning or newly designed mechatronic systems, identify the problem and formulate a specification of simple solutions for the perceived simple engineering problems with use of specjalist IT syst**	**Laboratory work**	**inquiry methods**	**Activity in laboratory classes, passing individual laboratory exercises.**

9. Assessment rules / criteria for each form of education and individual grades

0% - 50%	ndst	**81% - 90%**	db
51% - 70%	dst	**91% - 93%**	db+
71% - 80%	dst+	**94% - 100%**	bdb

Activity	Grades	Calculation	To Final
Class tasks	**db, dst, bdb (4,3,5)**	**Average (4+3+5)/3=4 -> 4*70%**	**2,8**
Homework	**ndst, db, dst (2,4,3)**	**Average (2+3+4)/3=3 -> 3*20%**	**0,6**
Attendance	**at 80% of classes**	**5*10%**	**0,5**
Final result			**3,9**

10. The learning contents with the form of the class activities on which they are carried out

Laboratory classes

1. Working with Microsfot Visio: Creating UML diagrams using Visio; Application of templates; Connecting to data sources; Advanced Visio features;
2. 2. Microsoft Project: Organization of work in MS Project; Creating teamwork schedules in MS Project; Advanced schedule formatting;

11. Required teaching aids

Laboratory classes - specialist laboratory

12. Literature:

a. Basic literature:

- Eric Frick: "Information Technology Essentials: Basic Foundations for Information Technology Professionals", 2017
- Richard T. Watson (editor): "Information Systems", University of Georgia, 2007

b. Supplementary literature:

- National Learning Corporation: "Management Information Systems Specialist", National LEARNING Corporation, 2019

c. Internet sources:

13. Available educational materials divided into forms of class activities (Author's compilation of didactic materials, e-learning materials, etc.)

14. Teachers implementing particular forms of education

Form of education	Name and surname
1. Laboratory classes	Kashuba Svietlana, dr inż.