Subject programme

1. Subject name / subject module: **User Interface Design**
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: **Skiba Małgorzata, mgr 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				38	50	3,5																**3,5**
Part-time studies																						
Credit rigor				Graded assignment																		

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 lectures	-
Participation in laboratory classes	38
Preparation to laboratory classes	16
Preparation of final project	16
Independent study of the subject	16
Participation in an exam / graded assignment	2
Total student workload (TSW)	88
ECTS credits	3,5
* Student's workload related to trainings	88
Student's workload in classes requiring direct participation of academic teachers	38

7. Implementation notes: recommended duration (semesters), recommended admission requirements, relations between the forms of classes:
   - Recommended admission requirements – 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**			
Skills				
K_U16	**A student is able to use appropriate methods, techniques and tools - in accordance with the given specification - to design a mobile application, website or desktop software.**	**Laboratory work**	**Inquiry methods**	**Student learning activities**
K_U07	**A student is able to use information and communication techniques with particular emphasis on the creation of sketches and prototypes of user interface elements.**			

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

0% - 50%	ndst	**80% - 86%**	db
51% - 70%	dst	**87% - 93%**	db+
71% - 79%	dst+	**94% - 100%**	bdb

Activity	Grades	Calculation	To Final
Lab reports	dst, db, bdb, db (3,4,5,4)	arithmetic mean (3,4,5,4) * 50%	2,0
Final project	bdb (5)	5.0 * 50%	2,5
Final result			4,5
Grade		4,5/5 = 90%	**db+ (4,5)**

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

(Laboratory work)

1. Basic concepts related to raster and vector graphics;
2. Introducing graphic design software such as Adobe Pho-toshop and Affinity Designer;
3. Usage of layers, masks, transforms, curves, Blend Modes, Adjustments and Effects;
4. Layout elements on websites, mobile applications, desktop programs;
5. Creating concepts of user experience;
6. Sketching and prototyping UI elements;
7. Designing user interfaces;
8. Usage of third-party components (icons, stock images, fonts, etc.).

11. Required teaching aids:

a. Lecture - multimedia projector.

b. Laboratory classes - specialist laboratory.

c. Exercises - a room adapted for conducting classes in the form of exercises / workshops, multimedia projector.

12. Literature:

a. Basic literature:

- Dave Lawrence, Soheyla Tavakol, "Balanced Website Design", Springer, 2007
- Ryan Cohen, Tao Wang, "GUI Design for Android Apps", Springer, 2014

b. Supplementary literature:

- The official Affinity Designer Workbook

c. Internet sources:

- https://affinity.serif.com/en-gb/tutorials/designer/desktop/, tutorials on how to use Affinity Designer

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. Lecture	
2. Laboratory classes	Skiba Małgorzata, mgr inż.