SYLLABUS

Name: ***Software Project (InfAAu-CGS>SI6SP19)***
Name in Polish:
Name in English: ***Software Project***

Information on course:

Course offered by department: Faculty of Automatic Control, Electronics and Computer Science
Course for department: Silesian University of Technology

Default type of course examination report:

ZAL

Language:

English

Course homepage:

https://platforma.polsl.pl/rau2/course/view.php?id=506

Short description:

The aim of the subject is to prepare students for effective teamwork on a real IT project. Students
gain practical experience in organizing teamwork, iterative planning, communication and using
modern tools supporting the creation, management and implementation of software. Particular emphasis is placed on the development of soft skills, conscious use of version control systems, process automation and solving problems
resulting from teamwork.

The subject shapes practical skills.
The subject shapes engineering competences.
Stationary.

Description:

Scope of project activities:
1. Team organization and preparation of the work environment
a. Selection of technology and division of roles in the team
b. Configuration of the Git repository
c. Review of tools supporting teams
d. Cooperation and integration of code
2. Iterative planning and technical documentation
a. Backlog, tasks, estimation, iteration schedule
3. Development of functionality and testing
4. Unit and integration tests
5. Presentation of progress, retrospection, feedback
6. Final presentation and documentation of the project
ECTS: 2
Total hours: 75h (contact 45h / own work 30h)
Project 45
Student's own work: 30 - preparation for classes, familiarization with the literature, preparation of the project and report.

Bibliography:

Robert C. Martin – Clean Code: A Handbook of Agile Software Craftsmanship
Gene Kim, Jez Humble, Patrick Debois, John Willis – The DevOps Handbook
Scott Ambler, Mark Lines – Disciplined Agile Delivery: A Practitioner's Guide to Agile Software Delivery in the Enterprise

Learning outcomes:

Knows modern methodologies of managing programming projects Has knowledge of modern tools supporting teamwork Understands the role of automation, testing and continuous integration in the software development process. K1A_W13

Can develop a user requirement specification in the form of a backlog, user stories and acceptance criteria. Can present the architecture and structure of the application using lightweight technical documentation K1A_U20

Can develop a simple application that works on various platforms Designs functional and useful user interfaces, taking into account accessibility, ergonomics and responsiveness. Can integrate various elements of the application (logic, interface, database) into a coherent solution. K1A_U26

Can plan and document the course of project work in iterative cycles (sprint plan, retrospectives, reviews). Can set tasks, estimate their implementation time and control the progress of work using management tools (Jira, Trello, GitHub Projects). Responsibly approaches assigned tasks and the project schedule. K1A_U30

Effectively cooperates with team members, conducts regular technical and organizational communication. Actively participates in code reviews, knowledge sharing and joint problem solving. Understands the dynamics of teamwork and is able to adapt to the adopted project roles and work culture. K1A_U31

Assessment methods and assessment criteria:

Final assessment based on the project and project documentation.

The syllabus is valid from the academic year 2025/26 and its content is not subject to change during the semester

Course credits in various terms:

<without a specific program>

Type of credits	Number	First term	Last term
European Credit Transfer System (ECTS)	2	2020/2021-L	