



Module	Developing Software as a Product
Code	V5_15
Degree Programme	Master of Science in Life Sciences (MSLS)
ECTS Credits	3 ECTS
Workload	90h: 30h Lecture (2 Lessons/W), 60h Exercise/Project/Self-study
Module Coordinator	<p>Name Dr. Jūlija Pečerska</p> <p>Email pece@zhaw.ch</p> <p>Address ZHAW Zürcher Hochschule für Angewandte Wissenschaften Life Sciences and Facility Management Schloss 1 CH-8820 Wädenswil</p>
Lecturers	Dr. Jūlija Pečerska
Entry Requirements	Required: Programming, Data Structures, and Algorithms module or equivalent
Learning Outcomes and Competences	<ul style="list-style-type: none"> • Produce a piece of software that is “complete”: contains documentation with installation and usage instructions, is tested, is usable, is packaged in a meaningful way; • Know how to use tools to your advantage (IDE, debugger, profiler, compilers, CI, git); • Know how to judge complexity and when to optimise; • Know how to work effectively as a team on a single project and not let it fall apart if someone leaves.
Module Content	<p>The main goal of the course is to familiarise the students with software as a product and not as a piece of code that will be run once and then forgotten. As software developers or programmers, we have two types of users: the actual end user of the final code – someone who will install and run the tool/service to get results – and the code users – other engineers/programmers who will have to interact/extend/maintain the codebase. We want code to be sustainable: we spend a lot of time on the code, and it would be a shame if our work is deleted when we leave a team because no other person can understand and maintain the code. We also want code to be usable: the perfect tool is useless if no one can install and run it without special training/knowledge.</p>
Teaching / Learning Methods	<p>Lectures: 40%, in person interactive lecture with exercises</p> <ul style="list-style-type: none"> • Self study: 60%, research and project work
Assessment of Learning Outcome	Project work 100%
Bibliography	Lecture materials, exercises and any accompanying reading will be provided on Moodle.
Language	English

Comments	
Last Update	27.02.2025