

Master in Life Sciences

A cooperation between
BFH, FHNW, HES-SO, ZFH

Module	Developing Software as a Product
Code	
Degree Program	Master of Science in Life Sciences (MSLS)
ECTS Credits	3
Workload	90h: 30h Lecture (2 Lessons/W), 15h Exercise (1 Lessons/W), 45h Self-study/project (2 Lessons/W)
Module Coordinators	Dr. Julija Pecerska Email pece@zhaw.ch Address ZHAW, LSFM, Schloss 1, 8820 Wädenswil
Lecturers	Julia Pecerska
Entry Requirements	<ul style="list-style-type: none">• 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	tbd

Master in Life Sciences

A cooperation between
BFH, FHNW, HES-SO, ZFH

Assessment of Learning Outcome	Written exam 50% (if more than 10 students, otherwise oral) Project 50%
Bibliography	tbd
Language	English