Module description: Computer Science Programming 1

Module Code	t.BA.XXI.PROG1.19HS
ECTS Credits	4
Language of Instruction/Examination	German
Organizational Unit	InIT
Module Coordinator	Henrik Stormer
Legal Framework	The module description is part of the legal basis in addition to the general academic regulations. It is binding. During the first week of the semester a written and communicated supplement can specify the module description in more detail.
Module Characteristic	Type 3a 2 lecture lessons per semester week and class+ 2 lab bi-weekly lessons per semester and half-class
Module Description	Introduction to software development with Python.
Module Content	**Introduction to procedural proramming** **Elementary data types, variables and operators** **Conditional statements, logical variables** **Repetition statements (loops)** **Subprograms and parameters** **Regular expressions and text parsing** **Arrays, one and multi-dimensional** **Strings and files** **Modules and libraries**
Prerequisite Knowledge	https://gpmpublic.zhaw.ch/GPMDocProdDPublic/2_Studium/2_02_Grundlagen_Studium/T_CL_Modulauspraegungen_SM2025.pdf

Learning Objectives (Competences)	Students...	Competencies	Taxonomies
	(3) In doing this, they are able to: - proceed in a structured manner;	SE, F, M	K3, K4
	(1) They know the basic data types and the essential procedural constructs.	F	K1, K2
	(4) - apply procedural constructs and data types appropriate to the situation; - use pre-defined modules from libraries.	M	K3, K4
	(2) They are able to develop independently software solutions (approximately one A-4 page) for limited problems in a modern scripting language.	M, F	K3, K5

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Performance Assessment	**End-of-module exam**	**Assessment**	**Length (min.)**	**Weighting**	**Form**
	written exam	Grade	90	80	acc. to module agreement

	Performance assessment during the semester	**Assessment**	**Length (min.)**	**Weighting**	**Form**
	Exercises *Excercises during the semester*	Grade		20	acc. to module agreement

Classroom Attendance Requirement	None
Learning material	
Comments	