Valid from 2026.HS

Module description: Computer Science Programming 1

Module Code	t.BA.XXI6.PROG1.26HS
ECTS Credits	4
Language of Instruction/Examination	German
Organizational Unit	InIT
Module Coordinator	Leonardo Militano
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 weekly lab 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 (Competencies)

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

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Performance Assessment

End-of-module exam	Assessment	Length (min.)	Weighting	Social Form	Scenario/Format
written exam		90	80%	acc. to module agreement	

	Assessment	Length (min.)	Weighting	Social Form	Scenario/Format
Exercises *Excercises during the semester*	Grade		20%	acc. to module agreement	

Classroom Attendance Requirement	None