



Valid from 2026.HS

| <b>Module description: Software Projects</b> |  |                     |                   |
|--|--|---------------------|-------------------|
| <b>Module Code</b>                           | t.BA.DS.PM1.20HS   |                     |                   |
| <b>ECTS Credits</b>                          | 4  |                     |                   |
| <b>Language of Instruction/Examination</b>   | German   |                     |                   |
| <b>Organizational Unit</b>                   | InIT   |                     |                   |
| <b>Module Coordinator</b>                    | Elio Bazzi   |                     |                   |
| <b>Legal Framework</b>                       | 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.   |                     |                   |
| <b>Module Characteristic</b>                 | Type 4*<br><br>4 lab lessons per semester week and half-class  |                     |                   |
| <b>Module Description</b>                    | In this first project module, the knowledge from other modules is applied and enriched with initial experiences of project work in a team. This includes requirements specification, software design, technical writing, teamwork, project planning and code management.   |                     |                   |
| <b>Module Content</b>                        | <ul style="list-style-type: none"> <li>• Students create and analyze program code independently in small teams and apply the learning content from the simultaneous course Computer Science Programming 1. The objective is to consistently apply and deepen what has been learned so far (Python programming, testing, etc.).</li> <li>• In this module no additional technical learning topics are provided. Project know-how is provided, such as team roles, leading meetings and writing minutes, communicating technical content to the right people and developing functional descriptions.</li> <li>• In addition to the focus on these skills, interdisciplinary skills like self-organization, teamwork, research, and oral and written communication of technical content are also taught.</li> </ul> |                     |                   |
| <b>Prerequisite Knowledge</b>                | Coordinated with lecture Computer Science Programming 1 (Informatik Programmieren 1)   |                     |                   |
| <b>Learning Objectives (Competencies)</b>    | <b>Students...</b>   | <b>Competencies</b> | <b>Taxonomies</b> |
|  | The students apply their acquired specialized knowledge from the lecture computer science programming 1 (Informatik Programmieren 1) and deepen it with the execution of several software projects from the idea, planning to the implementation.  | F, M                | K3                |
|  | They work actively and goal-oriented together in a team and take partial responsibility for the development of the common project.   | SO                  | K3                |
|  | They are able to communicate their own project results, technical decisions and solutions in a professional and linguistically correct manner, appropriate to the target audience.   | M                   | K3                |
|  | They can identify missing knowledge for the processing of a problem definition and procure the information necessary for the problem solution in time and independently.   | SE                  | K3                |

