

2019.HS

Module Name: Einführung Java-Programmierung			
Module Code	w.BA.XX.2JAVAPG.XX		
Module Description	This module teaches the basics of procedural and object-oriented programming with Java. Students are trained in algorithmic and object-oriented thinking and practice these skills. The main goal is to gain an understanding of the possibilities and challenges of software development based on the programming language they learn.		
Program and Specialization	<ul style="list-style-type: none"> § Business Administration - Accounting, Controlling, Auditing § Business Administration - Banking and Finance § Business Administration - Banking and Finance (FLEX) § Business Administration - Banking and Finance (PiE) § Business Administration - Economics and Politics § Business Administration - General Management § Business Administration - General Management (Flex) § Business Administration - General Management (PiE) § Business Administration - Risk and Insurance § Business Administration - Risk and Insurance (Flex) 		
Legal Framework	Academic Regulations BSc dated 29.01.2009, Appendix to the Academic Regulations for the degree programs in Business Administration, Business Information Technology, and Business Law, first adopted on 12.05.2009		
Module Category	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Module Type: Compulsory Elective</td> <td style="width: 50%;">Program Phase: Main Study Period</td> </tr> </table>	Module Type: Compulsory Elective	Program Phase: Main Study Period
Module Type: Compulsory Elective	Program Phase: Main Study Period		
ECTS	3		
Organizational Unit	W Institut für Wirtschaftsinformatik Ltg		
Module Coordinator	David Grünert (grud)		
Deputy Module Coordinator	-		
Prerequisite Knowledge	-		
Contribution to Program Learning Goals (Affected by Module)	<ul style="list-style-type: none"> § Professional Competence § Methodological Competence § Social Competence § Self-Competence 		
Contribution to Program Learning Objectives	<ul style="list-style-type: none"> Professional Competence <ul style="list-style-type: none"> § Knowing and Understanding Content of Theoretical and Practical Relevance § Apply, Analyze, and Synthesize Content of Theoretical and Practical Relevance § Evaluate Content of Theoretical and Practical Relevance Methodological Competence <ul style="list-style-type: none"> § Problem-Solving & Critical Thinking § Scientific Methodology § Work Methods, Techniques, and Procedures § Information Literacy § Creativity & Innovation Social Competence <ul style="list-style-type: none"> § Written Communication § Oral Communication § Intercultural Insight & Ability to Change Perspective Self-Competence <ul style="list-style-type: none"> § Self-Management & Self-Reflection § Learning & Change 		
Module Learning Objectives	<p>Students...</p> <ul style="list-style-type: none"> § have a foundation knowledge of procedural programming. § have a foundation knowledge of object-oriented programming. § evaluate and read requirements for software. § design algorithms to meet requirements. § translate algorithms into a Java program. § are able to work independently in developing Java programming skills. § are able to learn a new programming language more easily. 		
Module Content	<ul style="list-style-type: none"> § Data structures: variables, lists, arrays, maps § Procedural programming: variables, assignments, operations, conditions, loops, methods, return values, arguments § Object-oriented programming: classes, class attributes, class methods, objects, pointers, associations § Programming reactive software: command lines, GUI § Tool knowledge: programming environment (Eclipse) 		

Links to other modules	-		
Methods of Instruction	§ Application Tasks § Exercises § Problem-Oriented Teaching § Project Work § Online course	Social Settings Used: Individual Work	
Digital Resources	§ Reader § Teaching Videos § Teaching Materials § Practice and Application Exercises (with Key) § Multiple Choice Tests		
Type of Instruction	Classroom Instruction	Guided Self-Study	Autonomous Self-Study
Large Class	-	-	
Small Class	-	-	
Group Instruction	-	-	
Practical Work	-	90 h	
Seminar	-	-	
Total	0 h	90 h	0 h
Performance Assessment			
End-of-module exam	Form	Length (min.)	Weighting
Written exam	Specified documentation	60	70,00 %
Permitted Resources	No calculator	With dictionary	
Others			
Others		Assessment	Length (min.)
Three programming projects. Weighting: 10%.		Grade	-
Theory assignments. Condition: At least 80% solved		Pass/Fail	-
Programming tasks. Condition: At least 80% solved		Pass/Fail	-
Classroom Attendance Requirement	-		
Language of Instruction/Examination	German		
Compulsory Reading	-		
Recommended Reading	-		
Comments	The module is designed as a full online course without classroom instruction. The course comprises approx. 44 lessons consisting of a theory part and a task part. The theory is taught using videos, texts, and interactive examples. The task part includes both theory and programming tasks. In each lesson there is also a chapter of an ongoing story which conveys general knowledge from the field of computer science. Three projects will be completed and submitted during the course. Together with a written exam, these projects form the grade-relevant part of the performance assessment. In addition, 80% of the theoretical and programming tasks must be completed.		