DEPARTMENT OF CIVIL ENGINEERING

Course Details						
Code			**Academic Year**		**Semester**	
BAU357			3		W.S-S.S	
Title			**T**	**A**	**L**	**ECTS**
Computer Applications in Civil Engineering			3	1	1	6

Language	German				
Level	**Undergraduate**	*	**Graduate**		**Postgraduate**
Department / Program	Civil Engineering				
Forms of Teaching and Learning	Formal				
Course Type	**Compulsory**		**Elective**	*	
Objectives	The students learn the basics of solving civil engineering problems with the computer and acquire skills to be able to independently solve smaller tasks in civil engineering with the computer.				
Content	- Object-oriented concepts for the description of civil engineering tasks - Implementation of object-oriented concepts in an object-oriented programming language - algorithms - Data structures in civil engineering - organizational structures - Sorting and search algorithms - Basics of graphical user interfaces - Exemplary application on civil engineering tasks				
Prerequisites					
Coordinator					
Lecturer(s)					
Assistant(s)					
Work Placement					

Recommended or Required Reading	
Books / Lecture Notes	
Other Sources	

Additional Course Material	
Documents	Informations verarbeitung in Bau unternehmen Struktur der Informationen zur Bearbeitung betriebswirtschaftlicher und baubetrieblicher Aufgaben Autoren: Huhnt, Wolfgang
Assignments	
Exams	

Course Composition	

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Mathematics und Basic Sciences		%
Engineering		%
Engineering Design		%
Social Sciences		%
Educational Sciences		%
Natural Sciences		%
Health Sciences		%
Expert Knowledge		%

Assessment

Activity	Count	Percentage (%)
Midterm Exam	1	40
Quiz		
Assignments		
Attendance		
Recitations		
Projects		
Final Exam	1	60
Total		**100**

ECTS Points and Work Load

Activity	Count	Duration	Work Load (Hours)
Lectures	14		84
Self-Study			
Assignments			
Presentation / Seminar Preparation			
Midterm Exam	2		7
Recitations	28		56
Laboratory	7		
Projects			
Final Exam			
Total Work Load			**168**
ECTS Points (Total Work Load / Hour)			**6**

Learning Outcomes

1	The students learn the basics of solving civil engineering problems with the computer and acquire skills to be able to independently solve smaller tasks in civil engineering with the computer. These basic skills are necessary on the one hand for understanding the software tools used in civil engineering, on the other hand, these basics are necessary for those engineers who want to work in the development and expansion of application programs for civil engineering.

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Weekly Content	
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Contribution of Learning Outcomes to Program Objectives (1-5)

	P1	P2	P3	P4	P5	P6	P7
1							
2							
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6							
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12							

Contribution Level	1: Low 2: Low-intermediate 3: Intermediate 4: High 5: Very High

Compiled by:	
Date of Compilation:	