Course Description Object Oriented Systems 2

Keywords: programming paradigms, libraries, graphical interfaces

Target Group:	**3rd Semester SWB**	**Module Number:**	**SWB 329**
Workload:	**5 ECTS**		**150 h**
Divided into:	**Contact time**		**60 h**
	Self-study		**60 h**
	Exam preparations		**25 h**
Course language:	**German and English**		
Module director:	**Prof. Dr.-Ing. Kai Warendorf**		
Valid from:	**01.03.2014**		

Requirements:

Knowledge of an object-oriented programming language

Overall Aims of the Module:

Students will acquire fundamental knowledge in computer science and in programming.

The following courses contribute to the overall aims of this module:

- Programming 1-2
- Object Oriented Systems 1-2
- Software Engineering
- Algorithms and Data Structures
- Computer Architecture

Aim of this course:
Students will increase their knowledge of object-oriented programming paradigms and the practical applications of such paradigms. They will be able to implement various programming paradigms, create libraries, as well as create and apply graphical interfaces

Contents:

Programming paradigms:

- parallel programming
- functional programming
- generic programming

Libraries
Graphical Interfaces

- layout management
- event handling

Literature:

Deitel & Deitel: Java How to Program: Late Objects Version, Prentice Hall 2010.

Offered:

Every semester

Submodules and Assessment:

Type of instruction/learning:	Lecture with homework/self-study
Type of assessment:	Written exam (90 minutes)
Hours per week:	3 SWS
Estimated student workload:	120 hours

Learning outcomes:

Students will gain and strengthen their skills with programming paradigms, as well as with graphical interface composition.

Type of instruction/learning:	Laboratory exercises
Type of assessment:	Report
Hours per week:	1 SWS
Estimated student workload:	30 hours

Learning outcomes:

Using professional tools, students will be proficient in parallel and graphical programming implementation.

Overall Assessment:

Written exam, non-graded course attendance certificate