Course Description  Object Oriented Systems 2

Keywords: programming paradigms, libraries, graphical interfaces

Target Group: 3rd Semester SWB  
Module Number: SWB 329

Workload: 5 ECTS  
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