

Course

GUI - Graphical User Interfaces

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^ General information

Long name	Graphical User Interfaces
Approving CModule	GUI_BaTIN
Responsible	Prof. Dr. Dieter Rosenthal Professor Fakultät IME
Level	Bachelor
Semester in the year	winter semester
Duration	Semester
Hours in self-study	60
ECTS	5
Professors	Prof. Dr. Dieter Rosenthal Professor Fakultät IME
Requirements	procedural and object-oriented programming in C/C++ and Java structure and functions of operating systems
Language	German
Separate final exam	Yes

Final exam

Details

Oral exam, in case of larger quantities of examinees also written exams

Students shall prove that they can 1.) explain and apply fundamental terms, 2.) apply programming concepts to solve application problems in the field of programming of graphical user interfaces. In written exams additional 3.) assess the correctness of statements and program code. Typical types of assignments are 1.) multiple choice questions, fill-in-the-blank texts, assessment of statements, 2.) write program code to solve given problems of limited size and 3.) finding errors in texts and program code.

Minimum standard

At least 50% of the total number of points.

Exam Type

Oral exam, in case of larger quantities of examinees also written exams

Students shall prove that they can 1.) explain and apply fundamental terms, 2.) apply programming concepts to solve application problems in the field of programming of graphical user interfaces. In written exams additional 3.) assess the correctness of statements and program code. Typical types of assignments are 1.) multiple choice questions, fill-in-the-blank texts, assessment of statements, 2.) write program code to solve given problems of limited size and 3.) finding errors in texts and program code.

^ Lecture / Exercises

Learning goals

Knowledge

fundamental terms and techniques of graphical user interfaces within Microsoft Windows
concepts of windows and messages

using of OS-given APIs in Java
including of AWT and Swing
discussion of their pros and cons

Skills

using of Microsoft's WinAPI

using of AWT and Swing classes for graphical user interfaces in Java

Expenditure classroom teaching

Type	Attendance (h/Wk.)
Lecture	2
Exercises (whole course)	1
Exercises (shared course)	1
Tutorial (voluntary)	0

Separate exam

^ Practical training

Learning goals

Knowledge

programming of graphical user interfaces as individual tasks - details see "Vorlesung/Übung"

Skills

using programming environments for guis

implementation of gui applications of medium complexity in small teams

Expenditure classroom teaching

Type	Attendance (h/Wk.)
Practical training	1
Tutorial (voluntary)	0

Separate exam

Exam Type

working on practical scenarion (e.g. in a lab)

Details

Students work in small teams. Each team completes multiple "rounds" with assigned appointments in the lab. In each round, programming assignments are solved.

For the preparation of a laboratory appointment a "preparation sheet" has to be solved. The acquired knowledge will be tested at the beginning of the appointment (short written entrance test, interview with the supervisor). In case of failure, a follow-up appointment must be taken; in case of multiple failures, the student will be excluded from the lab. In case of success, a "laboratory work sheet" with further tasks will be worked on under supervision (and, if necessary, with assistance).

Minimum standard

Successful participation in all laboratory appointments, i.e. in particular independent solution (or with some assistance if necessary) of the programming assignments.

