

BAI0182 Programming Languages II.

Course description

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Topic

1. Basic concepts and principles of object-oriented programming.
2. Basic elements of the Java language, concepts, expressions, assignment, selections, loops.
3. Creating classes. Writing methods, polymorphism.
4. Frequently used classes, wrapper classes, text-type classes.
5. Handling arrays. Inheritance, overriding methods.
6. First assignment
7. Nested classes.
8. Generic programming, interfaces, abstract classes.
9. Collections 1.
10. Collections 2.
11. Exception handling.
12. I/O operations, channel and file management.
13. Assignment
14. Results, evaluating assignments, semester performance

Attendance at classes

Participation in practical classes is mandatory. The permissible amount of absence per semester is three times the number of weekly contact hours of the subject. If this is exceeded, the semester cannot be assessed (TVSz 8.§ 1.)

Weekly Online Tasks: It is mandatory to continuously and successfully complete the weekly online exercises. This includes weekly Moodle tests, quiz questions, and CodeRunner tasks.

Failure to continuously complete these weekly online assignments will result in an automatically insufficient (failed) practical grade, regardless of mid-term assignment scores.

Requirement

Practical grade

Method and schedule of assessment

2 assignments in weeks 6 and 13. Changes may occur, e.g. in the case of national holidays.

Requirements for mid-term examinations

Minimum of 40% is required in both assignments.

Requirements for mid-term assignments

During the semester, it is mandatory to write and present the assigned small exercises. Programs must be written for the two assignments. The assignments are evaluated in percentage, there are no partial points for the tasks. The grade is calculated from the average result of the two assignments. If either assignment does not reach the minimum of 40%, the grade achieved is automatically insufficient. The grades are determined as follows: 40% is sufficient, 50% is average, 60% is good, and 70% is excellent. An unsuccessful practical grade can be corrected once during the exam period.

Bibliography

- Java: A Beginner's Guide, Ninth Edition 9th Edition by Herbert Schildt (Publisher: McGraw Hill) 2022.
- Effective Java, Third Edition by Bloch Joshua (Publisher Financial Times Prentice Hall) 2018.