COM 116, 117, 118, Structural Programming, Programming I, II

American University of Central Asia
Department of Software Engineering

1 Course Information

Course ID

COM 116, 2967
COM 117, 2968
COM 118, 4322

Course Repository

`https://github.com/auca/com.116-118`

Class Discussions

`https://piazza.com/class/j6tfld3rvnl50r`

Place

AUCA, room 434
AUCA, laboratory G30, G31

Time

Lecture: Monday 12:45
Lecture: Friday 12:45
Lab: Thursday 10:50
Lab: Thursday 12:45
Lab: Thursday 14:10

2 Contact Information

Instructor

Shostak Dmitrii Grigorievich
shostak_d@auca.kg
Toksaitov Dmitrii Alexandrovich
toksaitov_d@auca.kg

Office

AUCA, room 315
AUCA, Media Laboratory

Office Hours

Monday 15:25–17:00
Tuesday 15:25–17:00
Wednesday 10:00–17:00
Thursday 15:25–17:00
Friday 15:25–17:00

3 Course Overview

This course helps to equip students with basic skills needed for structural and object-oriented programming. At the completion of the course students should understand fundamental programming concepts such as flow control, objects, classes, methods, procedural decomposition, inheritance and polymorphism; be able to write simple applications using most of the capabilities of the Java programming language and apply principles of good programming practices throughout the process. This course is designed for Software Engineering majors and minors.

4 Topics Covered

- Introduction to the Process of Software Development
- Selections
- Loops
- Methods
- Single- and Multidimensional Arrays
- Objects and Classes
- Inheritance and Polymorphism
- Abstract Classes and Interfaces
- Exception Handling
- GUI and Computer Graphics Basics
- Generics and Container Classes
- Working with I/O

5 Exams

5.1 Lectures

Students will have to take midterm and final examinations on topics discussed during lectures. Each examination is in the form of a quiz with a set of open and multiple choice questions.

5.2 Labs

Students will have 8 laboratory tasks, get a number of problems from an Online Judge System, and have to finish two projects developing real-world applications. Students will have to defend their work to the instructor during separate midterm and final examination sessions.

6 Reading

Introduction to Java Programming, Comprehensive, 8th Edition by Y. Daniel Liang (AUCA Library Call Number: QA76.73.J38 L5218 2011, ISBN: 978-0132130806)

7 Grading

7.1 Lectures

- Class Participation (through Piazza) (5%)
- Midterm (15%)
- Final (20%)

7.2 Labs

- Labs 1–4 (10%)
- Online Judge Problems (10%)
- Project #1 (10%)

  Midterm Defense (Labs + Online Judge Problems + Project #1)

- Labs 5–8 (10%)
- Online Judge Problems (10%)
- Project #2 (10%)

  Final Defense (Labs + Online Judge Problems + Project #2)

  - 92%–100%: A
  - 85%–91%: A-
  - 80%–84%: B+
  - 75%–79%: B

- 70%–74%: B-
- 65%–69%: C+
- 60%–64%: C
- 55%–59%: C-
- 50%–54%: D+
- 45%–49%: D
- 40%–44%: D-
- Less than 40%: F

8 Rules

Students are required to follow the rules of conduct of the Software Engineering Department and American University of Central Asia.

Team work is NOT encouraged. The same blocks of code or similar structural pieces in separate works will be considered as academic dishonesty and all parties will get zero for the task.

Attendance is mandatory. Three or more skipped classes without a legitimate reason will decrease the final grade by 5% for each missed day.