COM 116, 117, 118, 119 Structural Programming, Programming I, II

American University of Central Asia
Software Engineering Program

1 Course Information

Course ID

COM 116, 2967
COM 117, 2968
COM 118, 4322
COM 119, 4357

Course Repository

`https://github.com/auca/com.116-119`

Class Discussions

`https://piazza.com/auca.kg/spring2019/com119`

Place

AUCA, room 410
AUCA, laboratory G30, G31

Time

Lecture: Monday 12:45–14:00
Lecture: Monday 14:10–15:25
Lab: Monday 14:10–15:25
Lab: Friday 12:45–14:00
Lab: Friday 14:10–15:25
Lab: Tuesday 10:50–12:05
Lab: Tuesday 12:45–14:00
Lab: Tuesday 14:10–15:25

2 Contact Information

Instructor

Shostak Dmitrii Grigorievich
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Teacher Assistants
Samuel Ramaley Furr
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Office
AUCA, room 315

Office Hours
Sat, Sun (remotely through Skype)
Additional office hours are scheduled by the TA

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 Course Materials, Recordings and Screencasts

Students will find all the course materials on GitHub. We hope by working with GitHub students will become familiar with the Git version control system and the popular (among developers) GitHub service. Though version control is not the focus of the course, some course tasks may have to be submitted through it on the GitHub Classroom service.

Every class is screen casted online and recorded to YouTube for students convenience. An ability to watch a class remotely MUST NOT be a reason to not attend the class. Active class participation is necessary to succeed on this course.

7 Reading

Introduction to Java Programming, Comprehensive, 10th Edition by Y. Daniel Liang (AUCA Library Call Number: QA76.73.J38 L5218 2011, ISBN: 978-0132130806)

8 Grading

8.1 Lectures

- Midterm (14%)
- Final (14%)

8.2 Labs

- Labs 1–4 (16%)
- Online Judge Problems (10%)

- Project #1 (10%)

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

- Labs 5–8 (16%)
- 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

9 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. More than three misses without a reason will result in 5 points being deducted from the student. If a student has health/family/personal emergency, he must notify the instructor if possible (through e-mail), to increases the chances for the miss to be not counted.

Active work during the class may be awarded with up to 10 points at the instructors discretion.

Poor student performance during a class can lead to up to 3 points deducted from his final grade.

Late submissions will receive a penalty of 10 points for every day after the deadline.