Teacher: **Mohsen Ramezani**

E-mail: m.ramezani@uok.ac.ir

Webpage: eng.uok.ac.ir/mramezani/teaching

References: Java tutorial (can be downloaded from the webpage).

Persian reference:"آموزش گام به گام برنامه نویسی به زبان جاوا– **جعفر نژاد قمی**".

Projects and Homeworks will be uploaded on the LMS (lms.uok.ac.ir) every Thursday.

Evaluation: **30**% Midtern+**30**% final exam+**40**% projects.

| Session No. | Week | Topic |
|---|---|---|
| Session 1 | 1 | Introduction to Advanced Programming |
| Session 2 | 1 | Introduction to Java+Programming with Java |
| Session 3 | 2 | Variables+Strings in Java |
| Session 4 | 2 | Relations in Java (computational and …)+Rings+Conditions |
| Session 5 | 3 | Functions in Java |
| Session 6 | 3 | Functions in Java |
| Session 7 | 4 | Utilizing public variables |
| Session 8 | 4 | Implementing some sample programs+Mathematical relations |
| Session 9 | 5 | Introduction to Object Oriented programming |
| Session 10 | 5 | Implementing sample object-oriented programs |
| Session 11 | 6 | Object-Oriented+Inheritance |
| Session 12 | 6 | Implementing educational system |
| Session 13 | 7 | Implementing educational system (2) |
| Session 14 | 7 | How to create simple menu for a program+implementing OO program sample |
| Session 15 | 8 | Introduction to Exceptions+Sample programs |
| Session 16 | 8 | Exception Handling+Implementing sample programs |
| Session 17 | 9 | Introduction to Thread+Multi-threading in Java |
| Session 18 | 9 | Using Multi-threading in java (Sample programs) |
| Session 19 | 10 | Midterm |
| Session 20 | 10 | Overview+implementing sample games in java |
| Session 21 | 11 | Implementing sample games in java using multi-threading |
| Session 22 | 11 | Introduction to GUI+Java GUI classes+Implementing sample programs using swing class |
| Session 23 | 12 | Implementing a java GUI form with different GUI elements |
| Session 24 | 12 | Introduction to Events+Utilizing objects of AWT class in the implemented GUI |
| Session 25 | 13 | Implementing a graphical stop-watch |
| Session 26 | 13 | Implementing sample graphical game |
| Session 27 | 14 | Introduction to I/O in Java+implementing sample program |
| Session 28 | 14 | Utilizing I/O reader and writer in a before implemented project |
| Session 29 | 15 | Re-implementing a before implemented game using GUI, Events, and I/O which can be saved and restored several times. |
| Session 30 | 15 | Overview |