COURSE SYLLABUS

Course Information

<table>
<thead>
<tr>
<th>Course Code</th>
<th>5710443</th>
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<tbody>
<tr>
<td>Course Section</td>
<td>1</td>
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<tr>
<td>Course Title</td>
<td>INTRO. TO OBJECT-ORIENTED PROGRAMMING LANGUAGES AND SYSTEMS</td>
</tr>
<tr>
<td>Course Credit</td>
<td>3</td>
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<td>Course ECTS</td>
<td>6.0</td>
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Catalog Description

Prerequisites
Background of an Object-Oriented PL, UML, Database, Multithreading, etc.

Schedule
Wednesday, 09:40 - 10:30, BMB5
Monday, 15:40 - 17:30, BMB5

Website
https://cow.ceng.metu.edu.tr/Courses/index.php?course=ceng443

Instructor Information

Name          | Dr. Cevat ŞENER |
Office Address| Dept. of Computer Engineering, B206, METU, 06800 Ankara |
Email         | csener@metu.edu.tr, sener@ceng.metu.edu.tr |
Website       | http://www.ceng.metu.edu.tr/~sener |
Office Phone  | +90 312 210 5549 |
Office Hours  | Wednesday, 10:30-11:30 |

Course Assistant

Name         | Çağrı Utku AKPAK |

Course Objectives

At the end of this course, students will be able to:

- **Use** major object-oriented technologies and tools that are covered in the course.
- **Apply** major object-oriented design principles when designing software systems.
- **Point out** the advantages and disadvantages of various object-oriented solutions.
- **Evaluate** and **compare** existing system designs in terms of flexibility and modularity.
- **Identify** and **revise** components of existing system designs for better performance.
- **Create** UML class diagrams to model software systems with realistic requirements.
- **Design** and **implement** object-oriented software solutions to realistic problems.
Tentative Weekly Outline

1. Introduction, Overview of Java Programming Language
2. Java, Object Oriented Programming Basics, Encapsulation
3. Generics, Garbage Collection, Packages
4. Exceptions, Inner Classes
5. Reflection
6. Multi-Threaded Applications
7. Concurrency
8. Serialization, Streams
9. Graphical User Interfaces (GUI)
10. Java Database Connectivity (JDBC)
11. Remote Method Invocation (RMI)
12. JVM Internals
13. Security

Reading(s)


Course Grading

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Attendance and Participation</td>
<td>4%</td>
<td>Throughout the semester</td>
</tr>
<tr>
<td>Assignment 1</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Assignment 2</td>
<td>14%</td>
<td></td>
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<tr>
<td>Assignment 3</td>
<td>13%</td>
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<tr>
<td>Midterm Exam</td>
<td>27%</td>
<td>9-April-2019, Tuesday</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(tentative, to be fixed and announced by the Dept.)</td>
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<tr>
<td>Final Exam</td>
<td>29%</td>
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Course Policies

Class Attendance
Attendance & Participation is encouraged and supported by the grading policy.

Late Submission of Assignments
A penalty of $5 \times \text{LateDay}^2$ is applied for the late submission of the assignments for at most 3 days unless otherwise is stated.

Makeup for Exams
Makeup exam is possible only if a legal documented excuse (e.g. medical report approved by METU Medical enter) is provided.

Final Exam Entrance Conditions
In order to be allowed to take the final exam, students MUST score weighted total of at least 30% from the Attendance & Participation and the Assignments graded.

Other
No grouping or cooperation is allowed for the assignments unless otherwise stated.
The university regulations will be applied in case of cheating on attendance, assignments, exams, etc.