## Khazar University

### Syllabus

<table>
<thead>
<tr>
<th>Identification</th>
<th>Subject</th>
<th>Advanced Software Engineer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>Computer Science</td>
<td></td>
</tr>
<tr>
<td>Program</td>
<td>Bachelor</td>
<td></td>
</tr>
<tr>
<td>Term</td>
<td>Autumn, 2017</td>
<td></td>
</tr>
<tr>
<td>Instructor</td>
<td>Hüseyn Həsonli</td>
<td></td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:qala2009@gmail.com">qala2009@gmail.com</a></td>
<td></td>
</tr>
<tr>
<td>Classroom/hours</td>
<td>Mehseti street (Neftchilar campus)</td>
<td></td>
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</tbody>
</table>

### Prerequisites

None

### Language

Azerbaijani

### Compulsory/Elective

Required

### Required textbooks and course materials

There is no course textbook. See the Web sites for general books on Software Engineering.

### Course website

None

### Course outline

Software engineering is a field of engineering, for designing and writing programs for computers or other electronic devices. A software engineer, or programmer, writes software (or changes existing software) and compiles software using methods that improve it. Better quality software is easier to use. Better documentation helps other people understand and maintain it and add new features. Becoming a software engineer requires experience and practice writing code. Software engineering may be very difficult work. It may be repeated during the software release life cycle.

### Course objectives

Course objectives are:

- Learn The Process of Software Development
- Learn Feasibility Studies
- Learn Legal Aspects of Software Development
- Learn Requirements
- Learn Usability
- Learn System Architecture
- Learn Design
- Learn Business Aspects of Software Engineering
- Learn Risk in Software Development

Learning outcomes
By the end of the course the students should be able to understand Software Engineering.

Teaching methods
<table>
<thead>
<tr>
<th>Methods</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>X</td>
</tr>
<tr>
<td>Group discussion</td>
<td>X</td>
</tr>
<tr>
<td>Experiential exercise</td>
<td>X</td>
</tr>
<tr>
<td>Simulation</td>
<td>X</td>
</tr>
<tr>
<td>Case analysis</td>
<td>X</td>
</tr>
<tr>
<td>Others</td>
<td></td>
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</table>

Evaluation

<table>
<thead>
<tr>
<th>Methods</th>
<th>Date/deadlines</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm Exam</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>Attendance</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Assignment and quizzes</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Final Exam</td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
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<td>100</td>
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</tbody>
</table>

Policy
Preparation for class:
The structure of this course makes your individual study and preparation outside the class extremely important. The lecture material will focus on the major points introduced in the text. Reading the assigned chapters and having some familiarity with them before class will greatly assist your understanding of the lecture. After the lecture, you should study your notes and work relevant problems and cases from the end of the chapter and sample exam questions. Throughout the semester we will also have a large number of review sessions. These review sessions will take place during the regularly scheduled class periods.

Tentative Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Date/Day (tentative)</th>
<th>Topics</th>
<th>Textbook/Assignments</th>
</tr>
</thead>
</table>
| 2 | xx.xx.2017 | Feasibility Studies  
|    |            | - Source Code Management  
|    |            | - Feasibility Studies  
|    |            | - Project Management  
|    |            | Presentation  
| 3 | xx.xx.2017 | Legal Aspects of Software Development  
|    |            | - Legal Aspects of Software Engineering  
|    |            | Presentation  
| 4 | xx.xx.2017 | Requirements I  
|    |            | - Requirements I  
|    |            | - Requirements II  
|    |            | Presentation  
| 5 | xx.xx.2017 | Requirements II  
|    |            | - Requirements III  
|    |            | - Requirements IV  
|    |            | Presentation  
| 6 | xx.xx.2017 | Usability  
|    |            | - Usability I  
|    |            | - Usability II  
|    |            | Presentation  
| 7 | xx.xx.2017 | System Architecture  
|    |            | - System Architecture and Design 1  
|    |            | - System Architecture and Design 2  
|    |            | Presentation  
| 8 | xx.xx.2017 | Design I  
|    |            | - Object Oriented Design 1  
|    |            | - Object Oriented Design 2  
|    |            | Presentation  
| 9 | xx.xx.2017 | Design II  
|    |            | - Object Oriented Design 3  
|    |            | - Object Oriented Design 4  
|    |            | Presentation  
| 10| xx.xx.2017| Business Aspects of Software Engineering  
|    |            | - Business Aspects of Software Engineering  
|    |            | - Delivering the System  
|    |            | Presentation  
| 11| xx.xx.2017| Risk  
|    |            | - Risk in Software Development  
|    |            | Presentation  

This syllabus is a guide for the course and any modifications to it will be announced in advance.