MTAT.03.306

Requirements Engineering

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University of Tartu
On successful completion of this course, students will be able to:

- Explain the concepts, theories, and best practices associated with requirements engineering
- Elicit, negotiate and document software requirements
- Develop major requirements artefacts and use them during the software development projects
- Apply requirements validation techniques
- Manage software requirements, priorities, and trace them
About the Course

• Course Website

https://courses.cs.ut.ee/2021/RE/

- Lectures
  • Presented during lectures - uploaded to before the lecture

- Readings
  • Self-study material
  • Selected books and articles

- Submit
  • Place where you will be able to upload solutions (in case of the need)

- Exam
  • Exam tasks will be uploaded after the exam
Course Key Topics

- RE framework
- RE activities
  - Requirements elicitation, Requirements specification and Requirements negotiation
- Non-functional requirements
- Specification quality
- Requirements management
  - Requirements prioritisation, requirements traceability, requirements change control
- Requirements validation
- Requirements artefacts
  - Goals, Scenarios, Solution-oriented requirements

Changes are possible!
# Course Schedule

<table>
<thead>
<tr>
<th>Week No.</th>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6 Sept</td>
<td>Introduction. RE framework</td>
</tr>
<tr>
<td>2</td>
<td>13 Sept</td>
<td>Requirements activities 1 (elicitations, specification)</td>
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<tr>
<td>3</td>
<td>20 Sept</td>
<td>Requirements activities 2 (negotiation)</td>
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<tr>
<td>4</td>
<td>27 Sept</td>
<td>Test 1</td>
</tr>
<tr>
<td>5</td>
<td>4 Oct</td>
<td>NFR. Specification quality</td>
</tr>
<tr>
<td>6</td>
<td>11 Oct</td>
<td>Reqs management (prioritization, traceability, change control)</td>
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<tr>
<td>7</td>
<td>18 Oct</td>
<td>Requirements validation 1</td>
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<tr>
<td>8</td>
<td>25 Oct</td>
<td>Test 2</td>
</tr>
<tr>
<td>9</td>
<td>1 Nov</td>
<td>Requirements artefacts 1 (goals)</td>
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<tr>
<td>10</td>
<td>8 Nov</td>
<td>Requirements artefacts 2 (scenarios)</td>
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<tr>
<td>11</td>
<td>15 Nov</td>
<td>Test 3</td>
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<tr>
<td>12</td>
<td>22 Nov</td>
<td>Requirements artefacts 3 (solution-oriented requirements)</td>
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<tr>
<td>13</td>
<td>29 Nov</td>
<td>Requirements validation 2</td>
</tr>
<tr>
<td>14</td>
<td>6 Dec</td>
<td>Test 4</td>
</tr>
<tr>
<td>15</td>
<td>13 Dec</td>
<td>Course summary. Exam preparation. Q&amp;A</td>
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Workload

6 ECTS = 156 hours of study
(1 ECTS = 26 hours of study)

- Theory lectures: $2 \times 15 = 30$ hours
- Practical sessions: $2 \times 15 = 30$ hours
- Independent work: $156 - 30 - 30 = 96$ hours
  - Self-study
  - Completion of the practical assignments
  - Preparation for tests
  - Preparation for exam
Modalities and Assessment

- Four tests: 4 x 10 points
- Extra *(small)* assignments – 10 points in total
- Examination – 55 points

To be admitted to the exam, at least **30** points of the course grade from the practical assignments need to be collected during the semester

**Exam times:**

(1) **03.January, 2022**, 14:00-18:00, room 1020  
(2) **10.January, 2022**, 14:00-18:00, room 1020  
   **Resit** – **17.January, 2022**, 14:00-18:00
Modalities and Assessment

- Four tests: 4 x 10 points
- Extra *(small)* assignments – 10 points in total
- Examination – 55 points

<table>
<thead>
<tr>
<th>Points Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>91-100</td>
<td>A</td>
</tr>
<tr>
<td>81-90</td>
<td>B</td>
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<tr>
<td>71-80</td>
<td>C</td>
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<tr>
<td>61-70</td>
<td>D</td>
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<tr>
<td>51-60</td>
<td>E</td>
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<tr>
<td>6-50</td>
<td>F</td>
</tr>
<tr>
<td>0-5</td>
<td>Not attended</td>
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If you passed the course:
- There will be no extra assignments
- You will not be allowed to retake the exam
Any questions