Course Information

Course Code: 5670542  
Course Section: 1  
Course Title: COMPUTER NETWORKS  
Course Credit: 3  
Course ECTS: 8.0  
Course Catalog Description: The layered architecture, Local Area Networks, data link protocols, error correction with FEC and ARQ, routing, flow control, transport protocols, application layer protocols, recent subjects in networking.

Prerequisites: No prerequisites

Schedule: Wednesday, 09:40 - 12:30, EA307

Instructor Information

Name/Title: Prof. Dr. ŞENAN ECE SCHMIDT  
Office Address: A-402  
Email: eguran@metu.edu.tr  
Personal Website: http://users.metu.edu.tr/eguran/  
Office Phone: 210 4405  
Office Hours: None

Course Objectives

Upon completion of this course the student will have the understanding of the legacy layered TCP/IP computer network architecture and recent and near future network architectures.

Course Learning Outcomes

The students will understand the operation of the TCP/IP layered architecture.

The students will learn network performance measurement methods.

The students will understand the motivation behind the contemporary computer network architectures.

The students will understand the operation of and interplay between the contemporary network architectures.

Tentative Weekly Outline

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Relevant Reading</th>
<th>Assignments</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
<td></td>
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<tr>
<td>2</td>
<td>Layered TCP/IP computer network architecture review</td>
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<tr>
<td>3</td>
<td>Multimedia delivery over computer networks</td>
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<td>4</td>
<td>Network Virtualization</td>
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<td>5</td>
<td>Software Defined Networks (SDN)</td>
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<tr>
<td>6</td>
<td>Networks for Data Centers and Cloud Computing</td>
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<tr>
<td>7</td>
<td>Network Function Virtualization</td>
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Course Syllabus

Week | Topic | Relevant Reading | Assignments
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8 | Resource Management | | |

Course Textbook(s)

- Selected journal and conference papers

Course Grading

<table>
<thead>
<tr>
<th>Deliverable</th>
<th>Grade Points</th>
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<tbody>
<tr>
<td>3 Midterms</td>
<td>45</td>
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<tr>
<td>Final</td>
<td>35</td>
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<tr>
<td>Class Project and Paper Reviews</td>
<td>20</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
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Information for Students with Disabilities

To obtain disability related academic adjustments and/or auxiliary aids, students with disabilities must contact the course instructor and the ODTÜ Disability Support Office as soon as possible. If you need any accommodation for this course because of your disabling condition, please contact me. For detailed information, please visit the website of Disability Support Office: [http://engelsiz.metu.edu.tr/](http://engelsiz.metu.edu.tr/)

Academic Honesty

The METU Honour Code is as follows: "Every member of METU community adopts the following honour code as one of the core principles of academic life and strives to develop an academic environment where continuous adherence to this code is promoted. The members of the METU community are reliable, responsible and honourable people who embrace only the success and recognition they deserve, and act with integrity in their use, evaluation and presentation of facts, data and documents."