Syllabus for

cmpe220 Discrete Computational Structures

(3+0+0) ECTS 5

2019 Fall

Catalog Definition


Web Site


General Information

Instructor Haluk O. Bingol, bingol@boun.edu.tr
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Course Schedule Section 01: WFF 934 @ A2, A2, A2
Section 02: WWF 785 @ A3, A3, A3
PS Schedule FF 78 @ A2

Grading

Quizzes, Homeworks 10 %
Midterm 1 25 % (30-Oct-2019)
Midterm 2 30 % (27-Nov-2019)
Final 35 %
Presentations as bonus

Exams are not open book any more. You can bring one-page (A4) of your handwritten notes to exams. Do not to forget a copy for yourself since cheatsheets will be submitted with the exam paper.
Text Book

• Discrete and Combinatorial Mathematics, 5e; Grimaldi; *Addison-Wesley*, 2004; [QA39.2 .G7478]

Reference Books

• Introduction to Discrete Structures; Preparata and Yeh; *Addison-Wesley*, 1973, [QA162.P7]
• Applied Abstract Algebra; Lidl and Pils; *Springer-Verlag*, 1984, [QA162.L53]

Weekly Program (Tentative)

<table>
<thead>
<tr>
<th>week</th>
<th>Subject</th>
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<tbody>
<tr>
<td>1</td>
<td>Logic and Proof</td>
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<tr>
<td>2</td>
<td>Sets and Functions</td>
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<tr>
<td>3-4</td>
<td>Binary Relations</td>
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<td>5</td>
<td>Algebraic Structures</td>
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<tr>
<td>6-7</td>
<td>Integers, Division, Primes</td>
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<tr>
<td>8</td>
<td>Induction, Recursion, Recurrence Relations</td>
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<tr>
<td>9-10</td>
<td>Counting</td>
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<tr>
<td>11-13</td>
<td>Graphs and Trees</td>
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</tbody>
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ABET

Course Learning Outcomes (CLO)

• CLO1: Understand formal descriptions
• CLO2: Explain using formal notation
• CLO3: Be able to do proofs

Course Learning Outcome Contribution to Student Outcome

<table>
<thead>
<tr>
<th>Student Outcomes</th>
<th>CLO1</th>
<th>CLO2</th>
<th>CLO3</th>
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<tbody>
<tr>
<td>(g) an ability to communicate effectively</td>
<td>x</td>
<td>x</td>
<td></td>
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<tr>
<td>(o) knowledge of discrete mathematics</td>
<td>x</td>
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