## GENERAL INFORMATION

<table>
<thead>
<tr>
<th>Course Code</th>
<th>BUS.214</th>
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<tbody>
<tr>
<td>Course Title</td>
<td>OPERATIONS RESEARCH II</td>
</tr>
<tr>
<td>Program</td>
<td>Business</td>
</tr>
<tr>
<td>Year/Semester</td>
<td>Year 2 / Spring</td>
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<tr>
<td>Course Status</td>
<td>Compulsory</td>
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<tr>
<td>Prerequisite</td>
<td>-</td>
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<tr>
<td>Course Language</td>
<td>English</td>
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<tr>
<td>Course Credit</td>
<td>3 (3 hours/week)</td>
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<tr>
<td>ECTS</td>
<td>5</td>
</tr>
<tr>
<td>Instructor</td>
<td>Assist. Prof. Dr. Ahmet HASKOSE</td>
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## COURSE DESCRIPTION

### Objectives

The objective is to provide the students with further mathematical models and thus to increase the number of tools they can use for decision making. It is expected that this course will help the students develop their capacity to approach the decision problems systematically.

### Content

This course is the continuation of Operations Research I in the sense that further decision making models will be covered, the bulk of them being the extensions of linear programming. Most of the weeks will be devoted to network models, integer programming and goal programming all of which rest on linear programming. Deterministic dynamic programming and simulation are the additional decision making tools that the students will learn about.

### Methodology

The class will be conducted primarily in lecture format. Regardless, students will be encouraged to raise question and to make comments whenever they wish. Participation of the students in the class discussions is expected to play a predominant role. Bulk of the lessons will be conducted in the computer laboratory. The package programs that will be employed are LINDO, LINGO and QSB.

### Requirements

This is a course with no prerequisite. Attendance is mandatory at every class. A midterm and a final exam will be made. Homework most of which involve the use of package programs will be assigned throughout the course. Participation in the discussions during the class and properly done homework will be valued in favor of the student.

### Assessment

40% of the midterm exam and 60% of the final exam constitute the raw grade of the course. Raw grade is then converted into letter grade through the curve system. The outcomes are e-mailed to the students.
### Materials

**Major Texts:**


### Additional Information

No office hours. The students are welcomed by the instructor at any time anywhere in the school building.

### Course Outline

<table>
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<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
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<tr>
<td>2</td>
<td>Integer Programming Model</td>
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<td>3</td>
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<td>4</td>
<td></td>
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<td>5</td>
<td>Goal Programming Model</td>
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<td>6</td>
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<td>7</td>
<td></td>
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<tr>
<td>8</td>
<td>Mid-term Exams</td>
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<tr>
<td>9</td>
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<tr>
<td>10</td>
<td>Network Models</td>
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<td>11</td>
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<tr>
<td>12</td>
<td>Deterministic Dynamic Programming</td>
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<tr>
<td>13</td>
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<tr>
<td>14</td>
<td>Simulation, Examples of Applications on the Real World Decision Problems</td>
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