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Course Catalog description: This course is an introduction to modern quantitative methods used in decision making. It is intended to expose you to the basic modeling techniques used in today’s business environment and provide you the opportunity to apply those models in simulated situations. Specific topics include linear programming, simplex methods, network and scheduling models, inventory models, decision theory, and transportation method.

Course Objectives:  
Students successfully completing this course should be able to:  
* conceptually define the area of management science;  
* describe the theoretical constructs included in the area of management science;  
* apply the theoretical constructs of management science to simulated business situations;  
* formulate decision models, identifying objectives and constraints;  
* work effectively using excel to solve decision problems in a variety of settings.


Course Format:  
This course uses a problem-based, as opposed to lecture-based, approach to learning. We will start each class period with a brief lecture on the topic covering basic concepts, hints and tips. This should take no more than one hour. Next, a series of problems will be assigned. Students will work as individuals completing these problems. Hint or tip sheets and answers will be available to help students complete the problems. This should take two hours.

Course Requirements:  
Problems Sets  
A set of problems (from the text) will be assigned. These are to be completed and emailed to the instructor. Because the work is cumulative, late assignments will be docked 2% for each day they are late. SEE ATTACHED SCHEDULE FOR DUE DATES AND ASSIGNMENTS.

Practices concerning Americans with Disabilities, Student Code of conduct and Academic Integrity will follow those outlined in the Doane catalog and student handbook.
Doane College Academic Integrity Policy:
The Doane College Academic Integrity Policy will be adhered to in this class. All projects and tests will represent your own work. Any use of others’ ideas and words without proper citation of sources is plagiarism and will result in penalties to be determined by the instructor and/or the dean of undergraduate studies.

Course Administration:
*Class formally meets four times. There will be times that we do not use the entire period of time allotted for this class. Time is reserved for students to complete their homework in class and to ask questions.
*Attendance for formal class meetings is mandatory. You are expected to be in class on time and prepared to contribute to the learning experience every formal class period.
*Alternative class dates are optional. They are for students who wish to use Doane computers to do their homework or who need extra help.

Note: The contents of this syllabus are subject to change as conditions dictate.

Grading Scale:
Problems Sets 400 total points
372-400 total points    A
332-371.9 total points  B
292-331.9 total points  C
240-291.9 total points  D
Below 240               F

BUS 339 – Quantitative Methods
Anticipated Course Schedule
<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Chapter(s)</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Linear Programming</td>
<td>1,2</td>
<td>1.3 and 1.6</td>
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<tr>
<td>2</td>
<td>Linear Programming</td>
<td>2</td>
<td>2.2a, 2.4, 2.5a, 2.6d, 2.7b-e, 2.8b-f, 2.9d,i,j, 2.10a, 2.11c, 2.12c, 2.15b, 2.16, 2.18, 2.19c, 2.20b, 2.21, 2.23a</td>
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<tr>
<td>4</td>
<td>Linear Programming</td>
<td>3</td>
<td>3.1a, 3.3a-c, 3.4a, 3.5a, 3.6d, 3.7a-d, 3.10a-c, 3.12a-d, 3.13a-d, 3.16b, 3.17b, 3.18b, 3.19c, 3.20b, 3.21a, 3.22a, 3.23a, 3.25b, 3.27, 3.28, 3.29, 3.30, 3.33, 3.36b, 3.37a</td>
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<tr>
<td>6</td>
<td>Transportation/Assignment Modeling/Network Optimization and Decision Analysis/Forecasting</td>
<td>5,12,13</td>
<td>5.8, 12.9, 13.6</td>
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<tr>
<td></td>
<td>All CH. 3 PROBLEMS DUE!</td>
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<tr>
<td>8</td>
<td>No class</td>
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<tr>
<td></td>
<td>All WORK DUE!</td>
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Optional Work Days on the Thursdays that we do not have class