Course Syllabus for DS 775: Prescriptive Analytics

**NOTE:** This syllabus document contains the basic information of this course. The most current syllabus is available in the full course.

**Course Description**

This course covers procedures and techniques for using data to inform the decision-making process. Topics include optimization, decision analysis, game theory, and simulation. Computer implementation and applications will be emphasized.

**Course Objectives** By the end of this course, you will be able to:

- Use data and prescriptive analytics to inform the decision-making process.
- Select and apply appropriate models depending on the nature of the objectives, constraints, data, and the decision to be made.
- Assess model feedback and make adjustments to produce desired outcomes.

**Grading**

Your mastery of course content is assessed using a variety of methods:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Possible Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework (11)</td>
<td>550 points</td>
</tr>
<tr>
<td>Project (3)</td>
<td>150 points</td>
</tr>
<tr>
<td>Total</td>
<td>700 points</td>
</tr>
</tbody>
</table>

Final grades are assigned using the following scale:

- **A** 90-100%
- **B** 80-89%
- **C** 70-79%
D  60-69%

F  At or below 59%