Please give a brief description of the course content or a link to the course outline:

This course covers the most important econometric methods beyond the use of the ordinary least squares (OLS) estimator with cross-sectional data. Particular attention is paid to econometric methods for estimating causal impacts. The course begins by reviewing sampling distributions of estimators and a simple regression model. The course then outlines a simple framework (potential outcomes model) for thinking about causality, and the challenge of solving selection bias with non-experimental data. Various methods for tackling selection bias are then presented including multivariate regression, panel data methods, instrumental variables, and regression discontinuity. The course also introduces students to the major data structures encountered in economics beyond cross-sectional data including panel (longitudinal) data and hierarchical/multi-level data. Students will receive regular assignments—and complete a major project— which require use of a statistical software package to apply the methods learned in class to real-world data.

Any necessary knowledge or skills needed:

TA requires experience with Stata.

<table>
<thead>
<tr>
<th>Duty</th>
<th>Estimated Hours for the Term or N/A</th>
<th>Brief description of unusual or especially time-consuming features of the duty, if any</th>
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<tbody>
<tr>
<td>Meetings with Course Instructor</td>
<td>10</td>
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<tr>
<td>Class preparation</td>
<td>80</td>
<td>This is tutorial preparation</td>
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<tr>
<td>Attending lectures</td>
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<tr>
<td>Student consultation; office hours</td>
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<tr>
<td>Lecturing</td>
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<tr>
<td>Conducting tutorials</td>
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<td>Assuming two sections of tutorials</td>
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<tr>
<td>Grading</td>
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<tr>
<td>Proctoring exams</td>
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<tr>
<td>Other duties (describe/explain)</td>
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<tr>
<td><strong>Totals</strong></td>
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