COURSE CONTENT

Course Coordinator
Leong Kaiwen

Course Code
HE3025

Course Title
Introduction to Data analytics

Pre-requisites
HE 2005 – Principles of Econometrics or at least a B+ in HE2004 Introductory Econometrics.

No of AUS
3

Contact Hours
39 hours (3 hours seminar per week)

Course Aims
This course aims to equip you with the basic knowledge of economics and statistics in conjunction with computer science so that you are prepared for an econometrics final year project. By exposing you to problems that firms are trying to solve on a daily basis, you will be well-prepared to embark on a career as a data scientist

Intended Learning Outcomes (ILO)
By the end of this course, you (as a student) would be able to:

1. Construct a simple economics survey using a data analysis and statistical software
2. Modify an economics dataset by cleaning it so that it can be used for econometric analysis
3. Construct a simple econometrics program using a data analysis and statistical software
4. Construct economics plots or tables using a data analysis and statistical software
5. Evaluate economics problems using an analytical economics approach

Course Content
1. Students will be taught how to code in Stata
2. Students will be taught how to craft an economics question by understanding what industry and the economics profession considers interesting/important
3. Students will be taught how to design a basic survey form
4. Students will be taught how to produce analytical results using the data they have collected via stata to answer the question they have posed
5. Students will be taught what can be inferred from the results obtained
Assessment (more details will be announced in class)

CA 1 : 20%
CA 2 : 20%
CA 3 : 20%
CA 4 : 20%
CA 5 :
Total : 100%

Reading and References
There is no textbook because I am teaching a class on how to do programming. There are only manuals about how to program in general. There are no textbooks written on how to do research.

Course Instructors

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Office Location</th>
<th>Phone</th>
<th>Email</th>
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<tbody>
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Planned Weekly Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Course LO</th>
<th>Readings/ Activities</th>
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<tbody>
<tr>
<td>1 and 2</td>
<td>Stata: Introduction</td>
<td>1</td>
<td>Extensive lecture notes provided</td>
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<tr>
<td>3 and 4</td>
<td>Stata: data cleaning</td>
<td>2</td>
<td>Extensive lecture notes provided</td>
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<tr>
<td>5 and 6</td>
<td>Stata: writing loops</td>
<td>2</td>
<td>Extensive lecture notes provided</td>
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<tr>
<td>7 and 8</td>
<td>Stata: regressions beyond OLS</td>
<td>3</td>
<td>Extensive lecture notes provided</td>
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<tr>
<td>9 and 10</td>
<td>Stata: Robustness of results</td>
<td>3</td>
<td>Extensive lecture notes provided</td>
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<tr>
<td>11 and 12</td>
<td>Drawing conclusions from the data analysis and writing up your results</td>
<td>4</td>
<td>Extensive lecture notes provided</td>
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<tr>
<td>13</td>
<td>Revision and Extensions</td>
<td>5</td>
<td>Extensive lecture notes provided</td>
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