Course Coordinator: Low Chan Kee
Course Code: HE1004
Course Title: Introduction to Statistical Theory and Methods
Pre-requisites: Nil
No of AUs: 3
Contact Hours: 39 hours (2 hours Lecture and 1 hour Tutorial per week)

Course Aims
This course provides a firm foundation for statistical methodology. Basic ideas and methodologies in probability and statistics which are useful for economics students are introduced. The emphasis will be on application of statistics rather than the statistical theory. Statistical packages will be used to illustrate analysis of real-world data.

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

1. Determine the functions, appropriateness, and theoretical assumptions of common methods of statistical analysis
2. Use statistical packages to analyse real-world data
3. Interpret business and economic data for informed decision making

Course Content
1. Probability and Prob Dist.
2. Mathematical Expectation
3. Discrete and Continuous Dist.
4. Functions of Random Variables
5. Functions of Random Variables
6. Estimation
7. Hypotheses Testing

Assessment (includes both continuous and summative assessment)
1. Tutorials Participation : 10%
2. Intra-semestral test I : 20%
3. Intra-semestral test II : 20%
4. Final Exam : 50%
   Total : 100%
Reading and References
The recommended text:
Prentice-Hall

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>
</tr>
</thead>
<tbody>
<tr>
<td>1 &amp; 2</td>
<td>Probability and Prob Dist.</td>
<td>1</td>
<td>MM Chap 1 -3</td>
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<tr>
<td>3</td>
<td>Mathematical Expectation</td>
<td>1</td>
<td>MM Chap 4</td>
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<td>4 - 6</td>
<td>Discrete and Continuous Dist.</td>
<td>1 - 3</td>
<td>MM Chap 5 -6</td>
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<td>7</td>
<td>Functions of Random Variables</td>
<td>1 - 3</td>
<td>MM Chap 7</td>
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Recess Week

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<tr>
<th>Week</th>
<th>Topic</th>
<th>Course LO</th>
<th>Readings/Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 &amp; 9</td>
<td>Sampling Distributions</td>
<td>1 - 3</td>
<td>MM Chap 8</td>
</tr>
<tr>
<td>10 &amp; 11</td>
<td>Estimation</td>
<td>1 - 3</td>
<td>MM Chap 10-11</td>
</tr>
<tr>
<td>12-13</td>
<td>Hypothesis Testing</td>
<td>1 - 3</td>
<td>MM Chap 12-13</td>
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