

## Subject Description Form

<b>Subject Code</b>	AMA264
<b>Subject Title</b>	Survey Sampling
<b>Credit Value</b>	3
<b>Level</b>	2
<b>Pre-requisite/ Co-requisite/ Exclusion</b>	Nil
<b>Objectives</b>	This subject is to introduce the students the basic concepts and methods of survey sampling including methods of data collection, questionnaire design, methods of sample selection, estimation, sampling and non-sampling errors in surveys. Ample practical examples will be used to illustrate the principles and methods with special reference to investment science.
<b>Intended Learning Outcomes</b>	<p>Upon satisfactory completion of the subject, students should be able to:</p> <ol style="list-style-type: none"> <li>1. design sample surveys for investment science;</li> <li>2. master knowledge and techniques in sampling methods;</li> <li>3. formulate sampling plans with special reference to survey goals, sampling frames availability, and resource constraints;</li> <li>4. assess critically the appropriateness of competing sampling plans;</li> <li>5. estimate population parameters;</li> <li>6. conduct sample surveys within the context of socially acceptable professional and ethical practices;</li> <li>7. communicate effectively in a well-structured manner and build up an open-minded attitude;</li> <li>8. recognize the ethical and social responsibility of a sample survey professional.</li> </ol>
<b>Subject Synopsis/ Indicative Syllabus</b>	<p><i>Basic Concepts of survey sampling (3 hours)</i> Population and sample, need for sample survey, methods of data collection, questionnaire design, sampling and non-sampling errors.</p> <p><i>Sample Design, Methods and Theory (21 hours)</i> Simple random sampling, stratified random sampling, double sampling, systematic random sampling, sampling with probability proportional to size, cluster sampling with equal cluster size, systematic sampling, ratio and regression estimation, cluster sampling with unequal cluster size, two-stage and multi-stage sampling.</p> <p><i>Types of Errors and Biases (6 hours)</i> Non-sampling errors, response and non-response errors, measurement and control of errors.</p> <p><i>Current practices (6 hours)</i> General Household Survey, Census, By-census, Household Expenditure Survey.</p> <p><i>Ethics (6 hours)</i> Professionalism, responsibilities, obligations, roles.</p>

<b>Teaching/Learning Methodology</b>	The subject will be delivered mainly through lectures and tutorials. The lectures will be conducted to introduce the survey sampling concepts in the syllabus, which are then reinforced by learning activities involving demonstration, tutorial exercise and assignments.																																																																															
<b>Assessment Methods in Alignment with Intended Learning Outcomes</b>	<table border="1" data-bbox="448 369 1444 846"> <thead> <tr> <th rowspan="2">Specific assessment methods</th> <th rowspan="2">% weighting</th> <th colspan="8">Intended subject learning outcomes to be assessed (Please tick as appropriate)</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> </tr> </thead> <tbody> <tr> <td>a. Assignments/ Mini-project</td> <td>20%</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td>✓</td> <td></td> </tr> <tr> <td>b. Tests</td> <td>20%</td> <td></td> <td>✓</td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> </tr> <tr> <td>c. Examination</td> <td>60%</td> <td>✓</td> <td>✓</td> <td></td> <td>✓</td> <td>✓</td> <td></td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Total</td> <td>100 %</td> <td colspan="8"></td> </tr> </tbody> </table> <p data-bbox="448 869 1444 936">Continuous Assessment comprises of assignments and/or mini-project, and tests. A written examination is held at the end of the semester.</p> <p data-bbox="448 969 1444 1070">To pass this subject, students are required to obtain Grade D or above in <b>both</b> the Continuous Assessment and the Examination components in order to satisfy all the intended learning outcomes.</p>										Specific assessment methods	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)								1	2	3	4	5	6	7	8	a. Assignments/ Mini-project	20%	✓	✓	✓	✓	✓		✓		b. Tests	20%		✓		✓	✓	✓	✓		c. Examination	60%	✓	✓		✓	✓		✓	✓	Total	100 %																				
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	Levy, P.S. & Lemeshow, S.	Sampling of Populations: Methods and Applications 4 <sup>th</sup> edition	Wiley 2008
	Kish, L.	Survey Sampling 1st edition	Wiley-Interscience 1995
	Hansen, M.H., Hurwitz, W.N. & Madow, W.G.	Sample Survey Methods and Theory Vol. I & II	Wiley-Interscience 1993
	International Statistical Institute	Declaration of Professional Ethics	ISI 1985
	Babbie, E.R.	The Basics of Social Research 5 <sup>th</sup> edition	Wadsworth 2010