

## Subject Description Form

Please read the notes at the end of the table carefully before completing the form.

<b>Subject Code</b>	AF4615
<b>Subject Title</b>	Financial Economics
<b>Credit Value</b>	3
<b>Level</b>	4
<b>Pre-requisite / Co-requisite/ Exclusion</b>	1. AF1B02 Introduction to Economics <i>OR</i> AF1605 Introduction to Economics <i>OR</i> AF3625 Engineering Economics <i>OR</i> equivalent
<b>Objectives</b>	<p>There are two major emphases in this course. The first part of the course focuses on economic theories that form the fundamentals in financial economics. The second part of the course deals with theoretical applications to behavioral finance and market microstructure.</p> <p>This subject contributes to the achievement of the outcomes by enabling students to adopt an entrepreneurial perspective, identifying and evaluating business opportunities as they arise; apply basic financial theories, analyze financial reports and understand the operation of financial markets; and identify and analyse the means by which value is created in goods and services and delivered to users. Furthermore, students will be able to apply conceptual frameworks drawn from economics and quantitative method to the analysis of investment and corporate finance issues.</p>
<b>Intended Learning Outcomes</b> <i>(Note 1)</i>	<p>Upon completion of the subject, students will be able to:</p> <p>a. Develop ability to apply economic theories that underlie the foundations of modern financial economics. Apply critical thinking in different business contexts and demonstrate creative thinking in idea expression and presentation (learning outcome 3.a, 3.b)</p> <p>b. Analyze and solve real world financial economic issues related to risk and asset pricing. Apply basic financial theories and understand the operations of financial markets (learning outcome 7.b)</p> <p>c. Identify innovative solutions to problems in management accounting (learning outcome 5.c)</p>
<b>Subject Synopsis/ Indicative Syllabus</b> <i>(Note 2)</i>	<p><b>Mathematical and Economic Foundations</b> Financial markets and social welfare; general equilibrium; Pareto optimal allocation; competitive equilibrium; discounting; equilibrium versus arbitrage</p> <p><b>Decision under Uncertainty</b> Measure of financial risk; choice under certainty; preference theory; choice under uncertainty; expected utility; von Neumann-Morgenstern utility</p> <p><b>Risk Aversion and Investment Decisions</b> Absolute and relative risk aversion; risk premium and certainty equivalence; stochastic dominance; mean preserving spread; risk aversion and risky portfolio composition; risk aversion and savings behavior; separating risk and time preferences</p>

	<p><b>Consumption CAPM</b> Arrow-Debreu Economy; risk sharing; constrained optimization; rational expectations economy; Lucas Tree Model; CCAPM and the equity premium puzzle;</p> <p><b>Trading Mechanism and Introduction to Market Microstructure</b> Security trading; auction and dealer markets; limit order book; market structure and regulations; Spread-based measures; order imbalance and price impact; Roll's measure; price dynamics in frictionless markets; Glosten-Milgrom model</p> <p><b>Behavioral Finance</b> Introduction to behavioral finance; Bubbles; Anomalies; Limits to Arbitrage; Prospect Theory; Ambiguity Aversion; Equity Premium Puzzle</p>																																																						
<p><b>Teaching/Learning Methodology</b> <i>(Note 3)</i></p>	<p>Lectures will be given in the first part of the teaching session, to give structure to the development of the subject, and to explain central concepts and ideas. The rest of the class time will be allocated to students' presentations and problem solving.</p>																																																						
<p><b>Assessment Methods in Alignment with Intended Learning Outcomes</b> <i>(Note 4)</i></p>	<table border="1" data-bbox="533 936 1481 1512"> <thead> <tr> <th rowspan="2">Specific assessment methods/tasks</th> <th rowspan="2">% weighting</th> <th colspan="6">Intended subject learning outcomes to be assessed (Please tick as appropriate)</th> </tr> <tr> <th>a</th> <th>b</th> <th>c</th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>1. Problem Sets and Presentation</td> <td>25%</td> <td>√</td> <td>√</td> <td>√</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2. Class Participation</td> <td>5%</td> <td>√</td> <td>√</td> <td>√</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3. Mid-term test</td> <td>20%</td> <td>√</td> <td>√</td> <td>√</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4. Final Examination</td> <td>50%</td> <td>√</td> <td>√</td> <td>√</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total</td> <td>100 %</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <p>Problem set questions are used to test students' ability in achieving the intended learning outcomes through a more in-depth investigation of different topics. Students are expected to present solutions to problem sets or their personal work related to the topics covered in class.</p> <p>Class participation – Students should read assigned readings before the class to prepare for better learning and possible Q&amp;A sessions in class.</p> <p>Mid-term test and final examination are used to test students' overall ability in achieving the intended learning outcomes.</p>	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)						a	b	c				1. Problem Sets and Presentation	25%	√	√	√				2. Class Participation	5%	√	√	√				3. Mid-term test	20%	√	√	√				4. Final Examination	50%	√	√	√				Total	100 %						
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	<ul style="list-style-type: none"> <li>▪ Preparation for Classes</li> </ul>	25 Hrs.
	<ul style="list-style-type: none"> <li>▪ Self study and homework preparation</li> </ul>	70 Hrs.
	Total student study effort	134 Hrs.
<b>Reading List and References</b>	<p><b><i>Recommended</i></b></p> <p>Danthine, J.-P., and J. B. Donaldson, <i>Intermediate Financial Theory</i>, 2<sup>nd</sup> ed., 2005, Elsevier Academic Press.</p> <p>Foucault, T., <i>Market Liquidity: Theory, Evidence, and Policy</i>, 1<sup>st</sup> ed., 2013, Oxford University Press.</p> <p>Barberis, and Thaler, A Survey of Behavioral Finance (Chapter 18 of Handbook of the Economics of Finance), Elsevier, 2003</p> <p><b><i>Other References</i></b></p> <p>Fama, E. F., <i>Foundations of Finance</i>, 1st ed., 1976, Basic Books, Inc., Publishers, New York. (available at Fama’s website)</p> <p>Fama, E. F., M. H. Miller, <i>The Theory of Finance</i>, 1<sup>st</sup> ed., 1972, Dryden Press, Illinois. (available at Fama’s website)</p> <p>O’Hara, M., <i>Market Microstructure Theory</i>, 1<sup>st</sup> ed., 1995, Blackwell Publishing.</p> <p>Cochrane, J. H., <i>Asset Pricing</i>, 1<sup>st</sup> ed., 2005, Princeton University Press.</p> <p>Shiller, R. J., <i>Irrational Exuberance</i>, 3<sup>rd</sup> ed., 2015, Princeton University Press.</p> <p>O’Hara, M., 2015, High Frequency Market Microstructure, <i>Journal of Financial Economics</i> 116, 257—270.</p> <p>Lewis, M., <i>Flash Boys</i>, W. W. Norton &amp; Company, 2014.</p> <p>Constantinides, G. M. and A. G. Malliaris, 1995, <i>Portfolio Theory</i></p> <p>Bodie, Kane, and Marcus, <i>Investments</i>, McGraw-Hill Irwin, 10th Edition, 2013</p>	

Note 1: Intended Learning Outcomes

Intended learning outcomes should state what students should be able to do or attain upon completion of the subject. Subject outcomes are expected to contribute to the attainment of the overall programme outcomes.

Note 2: Subject Synopsis/ Indicative Syllabus

The syllabus should adequately address the intended learning outcomes. At the same time over-crowding of the syllabus should be avoided.

Note 3: Teaching/Learning Methodology

This section should include a brief description of the teaching and learning methods to be employed to facilitate learning, and a justification of how the methods are aligned with the intended learning outcomes of the subject.

Note 4: Assessment Method

This section should include the assessment method(s) to be used and its relative weighting, and indicate which of the subject intended learning outcomes that each method purports to assess. It should also provide a brief explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes.