

## Module Specification

### Module Summary Information

<b>1</b>	<b>Module Title</b>	Financial Derivatives
<b>2</b>	<b>Module Credits</b>	20
<b>3</b>	<b>Module Level</b>	6
<b>4</b>	<b>Module Code</b>	FIN6028

<b>5</b>	<b>Module Overview</b>
<p>This module will introduce you to the pricing and valuation of financial derivatives and markets for financial derivatives. The module will enable you to apply the No Arbitrage Principle in the pricing and valuation of financial derivatives. You will learn the estimation of price and value of different derivative contracts such as futures, forwards, swaps and options using the underlying theories and mathematical models. You will also learn about the functioning of the different derivative markets, trading mechanisms, settlement procedures etc.</p> <p>A thorough understanding of the pricing and valuation of derivative securities and the derivative markets is a must for decision making on financial risk management as well as basic and advanced investment strategies. Therefore, the module develops analytical and problem-solving skills that are essential for careers in finance, investments and risk management.</p> <p>There will 4 contact hours per week for the delivery of the module. Each week, there will be a 2 hour seminar lecture followed by a 2 hour workshop. Each seminar will introduce and examine new topics and their contents. Seminars will be highly interactive followed by workshops that involve class exercises, mini case study analysis and other learning activities for each topic. You will learn the underlying concepts and theories for each topic and apply them in given scenarios.</p> <p>The module will be assessed by 20% unseen exam and 80% coursework. The exam and coursework covers the module outcomes and measures your achievement of each of the module outcome. These will improve your report writing, analytical skills and develop your abilities in working independently. Feedback will be provided on both coursework and unseen exam elements of the assessment.</p> <p>The module will have its own Moodle site to fully support delivery of the module and will contain all the learning materials for the module as well as other resources and links. Some contents on the site will be interactive and will require you to engage with them on regular basis throughout the term.</p>	

6	Indicative Content
	<ul style="list-style-type: none"> <li>• Introduction to Derivatives</li> <li>• Forward and Future Contracts</li> <li>• Pricing and Valuation of Futures and Forwards</li> <li>• Pricing of Bond Futures, Stock Index Futures and Currency Futures</li> <li>• Option Markets and Trading</li> <li>• Option Pricing Theory</li> <li>• Binomial Option Pricing Model, Black-Scholes Model</li> <li>• Delta &amp; Gamma Hedging</li> <li>• Basic Option Strategies</li> <li>• Interest Rate Derivatives</li> <li>• SWAP Markets and Contracts</li> <li>• Pricing and Valuation of SWAPs</li> </ul>

7	Module Learning Outcomes	
	<b>On successful completion of the module, students will be able to:</b>	
	<b>1</b>	Compare the features of different types of Derivative Contracts including forwards, futures, options and Swaps.
	<b>2</b>	Assess the functioning of the markets for the different types of Derivative Contracts.
	<b>3</b>	Evaluate the price and value of different financial derivatives using the No Arbitrage Principle.
	<b>4</b>	Estimate the Price and Value of different types of Derivative Contracts using financial theory and mathematical models.

8	Module Assessment		
Learning Outcome			
	Coursework	Exam	In-Person
1-4	<b>X</b>	<b>X</b>	

<b>9 Breakdown Learning and Teaching Activities</b>	
<b>Learning Activities</b>	<b>Hours</b>
<b>Scheduled Learning (SL)</b> includes lectures, practical classes and workshops, peer group learning, Graduate+, as specified in timetable	48
<b>Directed Learning (DL)</b> includes placements, work-based learning, external visits, on-line activity, Graduate+, peer learning, as directed on VLE	48
<b>Private Study (PS)</b> includes preparation for exams	104
<b>Total Study Hours:</b>	200