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| **PGR Course unit outline 2021/22** |
| **Unit code:**  | **BMAN80931** |
| **Title:** | **Advanced Finance Theory** |
| **Credit value:** | **15 credits** |
| **Semester:** | **Semester 1** |
| **Course Coordinator** **contact details:** | **Prof. Hening Liu, Room 4.080 AMBS West,** **Hening.Liu@manchester.ac.uk****Office hours: by appointment** |
| **Other staff involved contact details:** | **N/A** |
| **Pre-requisites****Co-requisites****Dependent course units****Restrictions** | **Limited to PhD students with a finance major** |
| **Course unit overview** |
| This is a PhD course in asset pricing theory. The course covers various aspects of equilibrium asset prices in dynamic economies. Topics to be covered include: 1) utility preferences, 2) mean-variance theory and the CAPM, 3) stochastic discount factor, 4) the Arrow-Debreu economy and state prices, 5) dynamic programming, 6) consumption-based asset pricing, and 7) production-based asset pricing.  |
| **Aims** |
| The aims of this course are to introduce students to the main asset pricing theories that are fundamental to research development in finance and to provide an understanding of how asset pricing models are formally constructed.  |
| **Objectives (Learning outcomes)** |
| On completion of this unit successful students will be able to have 1) an understanding of key elements in the mainstream asset pricing theories, 2) systematic knowledge in both implications of asset pricing models and empirical implementations.  |
| **Syllabus content** |
| **Prerequisites**Students are required to have working understanding in calculus, probability theory, stochastic processes and matrix algebra. Basic knowledge in stocks, bonds, and derivatives is required. Basic knowledge in stochastic calculus is helpful, but not required. Programming skills are a plus. You may refer to the following useful materials**Topics**1. Utility preferences
2. Mean-variance theory and the CAPM
3. Stochastic discount factor
4. General equilibrium and the Arrow-Debreu economy
5. Dynamic programming
6. Consumption-based asset pricing
7. Production-based asset pricing
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| **Methods of delivery** |
| **Lectures** | 3 hours per week, 10 weeks |
| **Seminar/Tutorial/Workshop/Lab Hours** | N/A |
| **Independent Study** | 120 hours  |
| **Total Study Hours** | 150 hours |
| **Reading List** |
| **Pre Reading:** Chapter 1-2 and Appendices, Munk, Claus, “Financial Asset Pricing Theory”, Oxford University Press 2013.**Core Text:** Munk, Claus, “Financial Asset Pricing Theory”, Oxford University Press 2013.**Supplementary Text:** Back, Kerry, “Asset Pricing and Portfolio Choice Theory”, 2nd edition, Oxford University Press 2017. |
| **Assessment** |

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| **Mode of Assessment** | **Length required** | **Weighting within unit** |
| Problem sets (including both qualitative and quantitative questions; computer programming will be required) | Submission deadline: 31st, January, 2022 | 100% |
| **Resits:** Problem sets (including both qualitative and quantitative questions; computer programming will be required) |  |  |

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| **Feedback methods** |
| Detailed feedback (both formative and summative) on the coursework will be provided via Blackboard.  |