FINC 3021 FINANCIAL MODELLING AND FINTECH

Credit Points 10

Coordinator Maria Estela Varua (https://directory.westernsydney.edu.au/search/name/Maria Estela Varua/)

Description This subject introduces students to the application of econometric techniques in finance, with a special focus on the transformative role of FinTech in financial data analysis, modelling, and innovation. Students will gain skills in statistical programming (using Excel and Stata), understand core financial econometrics models, and explore how FinTech applications are built upon and disrupt traditional finance.

School Business

Discipline Banking and Finance

Student Contribution Band

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 3 subject

Pre-requisite(s) ECON 1016

Learning Outcomes

After successful completion of this subject, students will be able to:

1. Apply econometric techniques to model and interpret financial data.
2. Use software tools for financial econometric analysis.
3. Apply FinTech to collect and interpret financial data.
4. Work together using teamwork skills to coproduce a report utilising data collection and regression analysis

Subject Content

1. Introduction to financial econometrics and fintech
2. Financial data and returns
3. Basics and applications of linear regression in finance
4. Introduction and application of time series models
5. Volatility modelling: ARCH (Autoregressive Conditional Heteroskedasticity) and GARCH (Generalised Autoregressive Conditional Heteroskedasticity)
6. High Frequency Data
7. Applications to FinTech

Prescribed Texts

- Introductory Econometrics: Asia-Pacific Edition, 2nd Edition. Jeffrey M. Wooldridge, Mokhtarul Wadud, Jenny Lye, Roselyne Joyeux. Cengage, 2021.