

# Enquire Teaching Timetable

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## Course Outcome

### ECON 1101 - Mathematical Methods in Economics I

#### Learning Outcome

1. Understand and apply basic relevant mathematical concepts, tools, and techniques to analyze simple economic issues.
  2. Learn the basic principles and skills which will be needed for optimization analysis in ECON1111 and other upper level courses in Economics.
1. 理解及運用基本的相關數學概念、工具和技術，分析簡單的經濟問題。
  2. 學習適用於優化分析之基本原理和技能，為ECON1111和其他較高級的經濟學課程作準備。

#### Course Syllabus

1. Functions and Equilibrium Analysis
  2. Set Theory
  3. Linear Models and Matrix Algebra –Determinant and Inverse
  4. Limit and Single- variable Differentiation
  5. Unconstrained Optimization – First-order condition and Second-order condition
  6. Exponential and Logarithmic Functions
1. 函數與均衡分析
  2. 集合理論
  3. 線性代數模型和矩陣 – 行列式和逆矩陣
  4. 極限和單變量微分學
  5. 無約束條件的最優化方法 – 一階條件與二階條件
  6. 指數與對數函數

#### Assessment Type

#### Feedback for Evaluation

Course and Teaching Evaluation at end of course  
 Informal feedback channels throughout the course (face-to-face, email, WebCT)  
 Departmental Retreat  
 Programme Review

課程終結前的課程及教學評鑑  
 課程內非正式表達渠道（面談，電子郵件，WebCT）  
 學系週年會議  
 課程檢討復審

#### Required Readings

Chiang, Alpha C., Kevin Wainwright (2005), Fundamental Methods of Mathematical Economics, 4th ed., McGraw-Hill.

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**Recommended Readings**

Frank Werner and Yuri N. Sotskov (2006), *Mathematics of Economics and Business*, London: Routledge.

Sydsæter, Knut and Peter Hammond (2006), *Essential Mathematics for Economic Analysis*, Harlow, England; New York: Prentice Hall Financial Times.