

**Subject : Calculus**

**Instructor : Cheng-Ying Yang, Ph.D.**

**Schedule : Tuesday 3:10PM to 6:00PM**

**Textbook :**

Ron Larson and Bruce Edwards, *Essential Calculus: Early Transcendental Functions*, Metric Version, 5<sup>th</sup> ed., Cengage, 2024

**Contents :**

1. Function, Graphs and Limits
2. Differentiation, Derivatives and Application
3. Exponential Function and Logarithmic Function
4. Integration and Application
5. Integration Techniques
6. Multivariable Calculus

**Grading :**

Midterm (2) 10/22	50%
Final	30%
Assignment	10%
Participation	10%

**參考書籍 :**

1. Murray R. Spiegel, Seymour Lipschutz and John Liu, *Schaum's Outline of Mathematical Handbook of Formulas and Tables*, 4th ed., McGraw Hill, 2013
2. 廖秋雄、鍾炎東、王清德、蕭家孟、劉柏宏、趙有光、林碧川、李念晨、陳東賢、洪國智著，初等微積分，滄海書局，2019
3. James Stewart, Daniel Clegg and Saleem Watson, *Essential Calculus*, Metric Version, 2<sup>nd</sup> ed., Cengage, 2022
4. Laurence D. Hoffmann, Gerald L. Bradley, Dave Sobecki and Michael Price, *Calculus for Business, Economics and the Social and Life Sciences*, 11<sup>th</sup> ed., McGraw Hill, 2024
5. Deborah Hughes-Hallett, Andrew M. Gleason, Patti Frazer Lock, Daniel E. Flath, *Applied Calculus*, 7<sup>th</sup> ed., 2022
6. Ron Larson, *Calculus: An Applied Approach*, 10<sup>th</sup> ed., Brooks Cole, 2016
7. MIT 開放課程  
<https://ocw.mit.edu/courses/18-013a-calculus-with-applications-spring-2005/>
8. 哈佛大學線上課程 <https://pll.harvard.edu/course/calculus-applied>