Subject: Engineering Mathematics
Instructor: Cheng-Ying Yang, Ph.D.
Meeting Hours: Thursday 13:10-16:00
Office Hours: Tuesday 10:10-12:00
           Thursday 10:10-12:00
Contents:
1. Ordinary Differential Equations
   - First Order DE; -Linear DE
   - Modeling; -Homogeneous Linear Equations
   - Euler-Cauchy Equation;
   -Higher Order Linear DE
2. Laplace Transform
   - Laplace Transform and Inverse Transform
   - Transforms of Derivatives and Integrals
   - Unit Step Function;
   -Delta Function
   - General Formulas
3. Fourier Analysis
   - Fourier Series; -Even and Odd Functions
   - Half-Range Expansions;
   -Fourier Integrals
   - Fourier Cosine and Sine Transforms
   - Fourier Transform
Grading:
   Midterm (2) (10/27, 12/15) 25%
   Final 30%
   Assignment 20%
Reference:
6. 羅文陽，工程數學精要，高立，2006
7. 許世璧、邱創雄，工程數學，高立，2006
8. 鄧宏基，陳自雄，工程數學 第五版，儒林，1998