KECE232 (02) Engineering Mathematics 2

Course Overview

Chang-Su Kim

Course Information

- Pre-requisites: High school mathematics
- Course Homepage: http://mcl.korea.ac.kr
- Questions
  - Ask questions anytime, but preferably during lectures
  - Tel: 02-3290-3217
  - Email: changsukim@korea.ac.kr
- Tutor: 전진영
  - Tel: 02-3290-3806
  - Email: jyjun@mcl.korea.ac.kr
  - New Engineering Building, Rm 405

Course Information

- Assessment Methods
  - Assignment: 15%
    - Solving problems in textbook
  - Attendance & Quizzes: 15%
  - Mid-term Exam: 30%
  - Final Exam: 40%

- Textbooks
  - E. Kreyszig, Advanced Engineering Mathematics, 10th edition, Wiley, 2011
  - G. Strang, Linear Algebra and Its Applications, 4th edition, 2006

- References
  - R. V. Churchill and J. W. Brown, Complex Variables and Applications, McGraw-Hill, 1990.

Course Outline

- Tentative schedule

Week	Topics	Events
1	Complex Numbers	
2	Complex Numbers and Integration	
3	Complex Integration	
4	Power Series and Taylor Series	
5	Power Series and Taylor Series	Autumn Festival
6	Laurent Series and Residue Integration	
7	Laurent Series and Residue Integration	
8		**20 OCT 2020** Mid exam 22 OCT 2020 No class
9	Linear Algebra	
10	Linear Algebra	
11	Linear Algebra	
12	Linear Algebra	
13	Linear Algebra	
14	Linear Algebra	
15		10 DEC 2020 (Probably) Mid Exam

What are taught?

- Complex Analysis
  - Complex numbers
  - Complex functions
    - Limit, continuity, differentiation, integration
- Linear Algebra
  - Vectors, matrices
  - Linear equations
  - Inner product and orthogonality
  - Eigenvalues and eigenvectors

What are taught?

- Skills
  - Apply theorems
- Logics
  - Understand, prove, and conjecture theorems
- Skills are less important than logics