KECE202 (02) Engineering Mathematics 2

Course Overview

Chang-Su Kim

Course Information

- Pre-requisites: High school mathematics
- Course Homepage: http://mcl.korea.ac.kr
- Questions
  - You are welcome to come to my office (Engineering Bldg, Rm 508) and ask any questions any time
  - Tel: 02-3290-3217
  - Email: cskim@mcl.korea.ac.kr
- Our Tutor: Jaehan Lee
  - Tel: 02-3290-4717
  - Email: jaehanlee@mcl.korea.ac.kr

Course Information

- Assessment Methods
  - Assignment: 20%
    - Solving problems in textbook
  - Attendance: 10% (Quizzes included)
  - 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, Brooks/Cole, 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		**추석, 10월 1일 수업 없음**
6	Laurent Series and Residue Integration	
7	Laurent Series and Residue Integration	
8	Linear Algebra	**Mid-term exam (20 OCT 2015)** **10월 22일 수업 있음**
9	Linear Algebra	
10	Linear Algebra	
11	Linear Algebra	
12	Linear Algebra	
13	Linear Algebra	
14	Linear Algebra	
15		**Final exam (10 DEC 2015)**

What are taught?

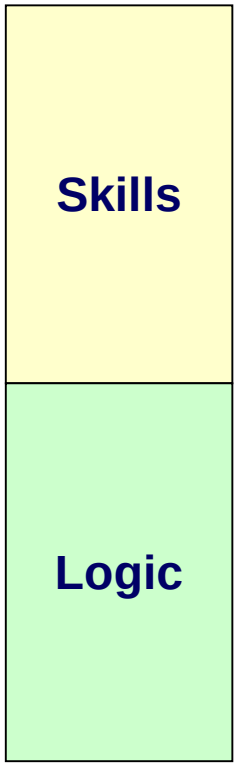
- Complex Analysis
  - Complex numbers
  - Complex functions
    - Limit, continuity, differentiation, integration
- Linear Algebra
  - Vectors, matrices
  - Linear equations
  - Inner product and orthogonality
  - Eigenvalues and eigenvectors

What are taught?

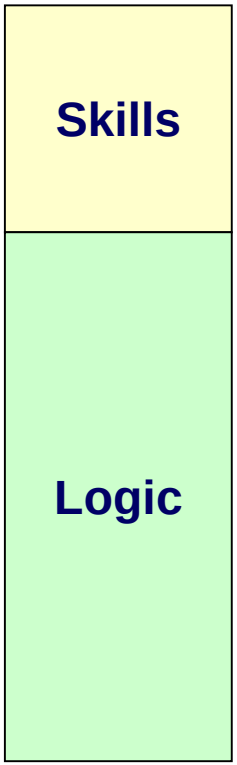
- Skills
  - Apply theorems
- Logics
  - Prove theorems
- Skills are important, but logics are more important.

What are taught?

Complex Analysis



Linear Algebra



Applications

Supplementary Materials

Multiple Random Walkers and Their Applications to Image Cosegmentation

Anonymous CVPR Submission

Paper ID 526

Applications

SOWP: Spatially Ordered and Weighted Patch Descriptor for Visual Tracking

-Supplementary Material-

Anonymous ICCV Submission

Paper ID 103

Applications