

담당교수 (INSTRUCTOR)	년도 (YEAR)	학기 (SEMESTER)	교과목번호 (COURSE NUMBER)	교과목명 (COURSE NAME)	분반 (SECTION)
조홍래 (Cho, Hong Rae)	2011	2	MA22335	복소해석학특강 (TOPICS IN COMPLEX ANALYSIS)	030
담당교수메일 / 연락처					
상담가능한 시간					

1.교수목표 및 강의개요 (Course Objectives & Description)

1) 교수목표

We understand properties of analytic functions, harmonic functions, the Cauchy integral formula, and the Cauchy theorem. We induce the Cauchy integral formula by using Green's identity for harmonic functions.

2) 강의개요

This lecture is for the students who learned the advanced calculus and the complex number system. We will rapidly introduce main topics in the analysis so that apply them to understand properties of analytic functions, the Cauchy integral formula, and the Cauchy theorem.

2.주교재 (Required TextBook)

George Cain, Complex Analysis, lecture note 1999.

3.평가방법 (Requirements & Grading)

Mid-term Exam 30%, Final-term Exam 40%, Attendance 10%, Homeworks 20%

4.주별 강의계획 (Schedule)

주 별	강의 및 실험실기내용	과제 및 기타 참고사항
제1주	[표절 등 학술적 부정행위 예방교육실시] Complex Numbers	
제2주	[표절 등 학술적 부정행위 예방교육실시] Complex Functions	Exercises
제3주	Elementary Functions	
제4주	Complex Integration	Exercises
제5주	Cauchy's Theorem	
제6주	Cauchy's Integral Formula	Exercises
제7주	Liouville's Theorem	Mis-term Exam
제8주	Maximum Modulus Theorem	Exercises
제9주	Harmonic Functions	
제10주	Poisson Integral Formula	Exercises
제11주	Power Series	
제12주	Taylor Series	Exercises
제13주	Laurent Series	
제14주	Singularities	Exercises

제15주	Argument Principle	Final Exam
제16주		

5.참고문헌 (References)

1. J. B. Conway, Functions of one complex variables, 2-nd ed., Springer-Verlag.
2. L. V. Ahlfors, Complex analysis, McGraw-Hill, Inc.
3. R. Narasimhan, Complex analysis in one variable, Birkhauser Boston, Inc.