

**MATH CS 120 SPECIAL TOPICS
(COMPLEX ANALYSIS) FALL 2009**

INSTRUCTOR : Gustavo Ponce (off: SH 6505) (phone : 893-8365)

SCHEDULE : M 2 – 5 p.m.

ROOM : 494 160B

OFFICE HOURS : T W 2-3³⁰

TEXTBOOK : “Fundamentals of Complex Analysis” by E. B. Saff-A. D. Snider
(third edition)

REFERENCE BOOK : “Complex Analysis” by E. M. Stein and R. Shakarch

PROGRAM : In the first quarter we shall try to cover the first 4 chapters in the textbook as well as the topics in the first four chapters in the reference book.

We will have a list of exercises in both the textbook and the reference, some of them will be discuss in class, others (marked * = homework) should be written and will be collected and graded. You are encouraged to work in the homework in groups. You may turn in one assignment per group as long as everyone name is on it .

ONLY THE PROBLEMS-EXERCISES WITH * WILL BE COLLECTED.

HOMEWORK 1

HOMEWORK 2 From the reference book : Ch. 1 Exercises : 4*, 7*, 9*, 10*.

From the textbook Problems

section 2.1 prob. 4, 10, 13*//section 2.3 prob. 4*, 11, 12.

section 2.4 prob. 5, 6*, 10, 13*//section 2.5 prob. 2, 3, 7*, 8, 15*.

HOMEWORK 3 due Monday Oct. 26 in class. From the textbook.

section 3.1 prob. 1, 2*, 3, 5, 11, 13, 15*

section 3.2 prob. 1, 2, 5, 10*, 12*, 13, 15, 17, 19, 20*.

HOMEWORK 4 due Monday Nov. 2 in class. From the textbook.

Section 3.3 problems 1 (a), 3, 9, 12, 13* (a), (b), (c).

Section 3.5 problems 1 (a), 3, 4, 7, 11*, 15*.

Section 4.1 problems 1 (a), (c), 2, 3, 10 (a)*, 13.

Section 4.2 problems 5, 6* (a), (b), 7, 14* (a), (c), (d).

HOMEWORK 5 due Monday Nov. 9 in class. From the textbook.

Section 4.3 problems 1 (e), 2*.

Section 4.4 problems 10, 15*.

Section 4.5 problems 6, 7, 8*.

Section 4.6 problems 5*, 6, 7*, 11*.

HOMEWORK 6 due Monday Nov. 16 in class. From the textbook.

Section 6.2 problems 2*, 4*.

Section 6.3 problems 3*, 6*.

Section 6.4 problems 3*.