MATH 254: Vector and Complex Analysis for Applied Sciences  
Summer 2007

COURSE INFORMATION

Prerequisite:  
MATH 232 and MATH 251. Students with credit for MATH 322 may not take MATH 254 for further credit.

Course Description:  
The course combines introductions to vector calculus and to function of a complex variable. Vector functions of a single variable, space curves, scalar and vector fields, conservative fields, surface and volume integrals, and theorems of Gauss, Green and Stokes. Functions of a complex variable, differentiability, contour integrals, Cauchy’s theorem. Taylor and Laurent expansion, method of residues, integral transform and conformal mapping.

Textbooks:  

Classes:  
Monday, Wednesday, and Friday 8:30 – 9:20 a.m. in AQ 3159

Instructor: Sam Pimentel  
E-mail: sam_pimentel@sfu.ca

Tutorials:  
Start in week 2, Tuesday, 15th May  
D1.01: Tuesday, 10:30 - 11:20 a.m. in AQ 5006  
D1.02: Tuesday, 11:30 - 12:20 a.m. in AQ 5007

Teaching Assistant: Al Erickson  
E-mail: al_erickson@sfu.ca

WebCT:  
In the WebCT course container for MATH 254 located at [http://webct.sfu.ca](http://webct.sfu.ca) you will find basic information about the course. Announcements as well as homework assignments will be posted there. Homework and exam solutions will also be available after the due date. Under ‘My Grades’, you can check your marks throughout the semester.
Some course material will also be available through http://www.sfu.ca/~spa23

Important Dates:
1st Midterm Exam: Friday, 1st June, 8:30 – 9:20 a.m. in AQ 3159
2nd Midterm Exam: Friday, 6th July, 8:30 – 9:20 a.m. in AQ 3159
Final Exam: Thursday, 9th August, 3:30 – 6:30 p.m. (location TBA)

Last day to drop the course: Monday 11th June

Students are strongly advised NOT to make plans for travel or employment during the examination period since special arrangements will NOT be made for examinations that conflict with such plans.

If you require special exam accommodations which have been documented by the Centre for Students with Disabilities (CSD), please provide CSD documentation within the first two weeks of the semester, or whenever you are evaluated (at least one week prior to an exam).

Homework:
There will be a total of 8 homework assignments for this course. Regular weekly assignments are to be submitted in the drop boxes opposite K 9503 by Friday at 2:30 pm. Late homework will not be accepted. Assignments will be marked out of 10 and returned during tutorials. Your lowest homework score will be discarded in order to account for unexpected absences.

Academic Integrity:
Simon Fraser University values academic integrity. All students must understand the meaning and consequences of cheating, plagiarism, and other academic offenses under the Code of Student Conduct and Disciplinary Procedures. (See http://www.sfu.ca/policies/teaching).

Calculators:
Programmable calculators, calculators with symbolic computation and calculators with graphing capability are NOT allowed in the mid-term or final exams.

Course Grade:
Your final course percentage will be calculated as follows

Homework: 10%
1st Midterm: 20%
2nd Midterm: 20%
Final Exam: 50%