

THE UNIVERSITY OF BRITISH COLUMBIA OKANAGAN

**MATH 350 – Complex Variables & Applications
COURSE OUTLINE**

Winter 2013 Term2

Section 001

Classroom Schedule: Tu, Th 11:00 – 12:30

Art 206

Instructor: Dr. Sylvie Desjardins

Office: Sci 388

Office Hours: TBA

E-mail: sylvie.desjardins@ubc.ca

Phone and Voicemail: 807-8767

Website: Assignments, handouts, and important dates will be posted on the course website. Please check it frequently. Log in at <http://people.ok.ubc.ca/sdesjard/>

This course is suitable for science majors with an interest in applied mathematics or physics.

Textbook: *Fundamentals of Complex Analysis for Mathematics, Science, and Engineering*, 3rd Ed., Saff & Snider, Prentice Hall, 2003.

Course Objectives:

- Understand the basics of complex analysis,
- To present methods to solve problems.

Course Requirements:

Prerequisites: MATH 200

Preparation for classes: The student should read the sections of the textbook corresponding to the current lectures and work regularly on assigned practice questions.

Assignments: There will be several assignments given every other week based on problems in the textbook. Some of the assignments will involve the use of Maple. Students are encouraged to work collaboratively, but must hand in their own individual and original work. Written solutions are expected to be clear and concise but also mathematically complete and well organized.

Tests: There will be two tests, written in class. You must see me in advance or have a medical certificate if you miss a test.

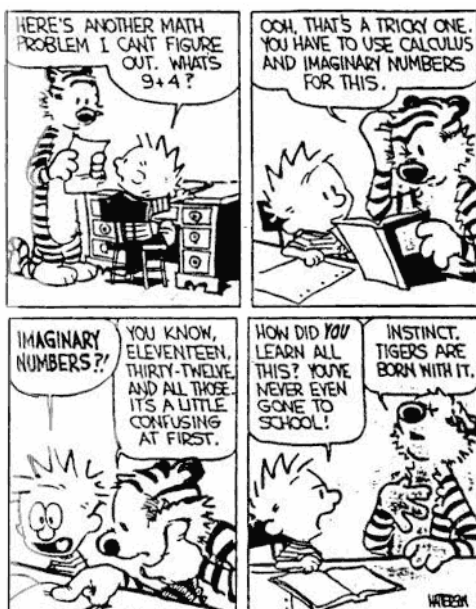
Evaluation: The following weights will be used in determining the overall grade in the course

Assignments	30%
Tests (2)	30%
Final Exam *	40 %

* To pass the course, students must obtain at least 40% on the final exam.

Lecture Topics:

1. Introduction to Complex Numbers
2. Analytic Functions & Cauchy-Riemann Equations
3. Elementary Functions
4. Contour Integrals & Cauchy's Theorem
5. Power & Laurent Series
6. Residue Theory



ACADEMIC INTEGRITY

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the break down of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. **For example, incidences of plagiarism or cheating usually result in a failing grade or mark of zero on the assignment or in the course.** Careful records are kept to monitor and prevent recidivism. A more detailed description of academic integrity, including the policies and procedures, may be found at <http://www.calendar.ubc.ca/okanagan/index.cfm?tree=3,54,111,959>. If you have any questions about how academic integrity applies to this course, consult with the instructor.

DISABILITY ASSISTANCE

If you require disability-related accommodations to meet the course objectives, please contact the Coordinator of Disability Resources located in the Student Development and Advising area of the student services building. For more information about Disability Resources or academic accommodations, please visit the website at <http://www.ubc.ca/okanagan/students/drc/welcome.html>