

COURSE INFORMATION SHEET

WINTER 2007

- Course:** PURE MATHEMATICS 521 – Complex Analysis
Lecture/Time: L01 T 12:30-13:45 R 16:00-17:15 MS 522
Instructor: C. Rios
Office/Phone/Email: MS 546 220-3221 crios@math.ucalgary.ca
Website: www.math.ucalgary.ca/lcrios/PMAT521.html
- Prerequisites:** PMAT 435 or consent of the Division
NOTE: The Faculty of Science policy on pre- and co-requisite checking is outlined in the current University Calendar (see www.ucalgary.ca/pubs/calendar) *Faculty of Science, section 5C*. **It is the students' responsibility to ensure that they have the pre- and co-requisites for the course, and if they do not they will be withdrawn from the course without notice.**
- Fee policy:** After the last day to drop/add courses, there will be no refund of tuition fees if a student withdraws from a course, courses or the session.
- Academic Accommodations:** It is the student's responsibility to request academic accommodations. A student with a documented disability who may require academic accommodation must register with the Disability Resource Centre to be eligible for formal academic accommodation. DRC registered students are required to discuss their needs with the instructor no later than fourteen (14) days after the start of this course.
- The University policy on grading and related matters** is described in the current University Calendar, *Academic Standings*. In determining the overall grade in the course, the following weights will be used:

<i>Projects</i>	[4]	20%
<i>Quizzes</i>	[3]	45%
<i>Final Exam</i>		35%

A passing grade on any particular component of the course is essential to passing the course as a whole. There will be a final examination scheduled by the Registrar's Office.
- Missed Components of Term Work.** The regulations of the Faculty of Science pertaining to this matter are outlined in the current University Calendar, *Faculty of Science, section 6A*. It is the student's responsibility to familiarize herself/himself with these regulations.
- Academic misconduct** (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the current University Calendar. See: <http://www.ucalgary.ca/honesty/>
- Dates and times of class exercises held outside of class hours (evening tests, Saturday laboratory examinations, weekend field trips, etc.):**
**** THERE WILL BE NO OUT-OF-CLASS-TIME ACTIVITY.****

REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME ACTIVITY. If you have a conflict with this out of class time activity, please inform your instructor at least one week in advance of the activity so that other arrangements may be made for you.

Cristian Rios

MS 546 220-3221

crios@math.ucalgary.ca<http://www.math.ucalgary.ca/~crios/PMAT521.html>

T 12:30-1:45 MS 522

R 4:00-5:15 MS 522

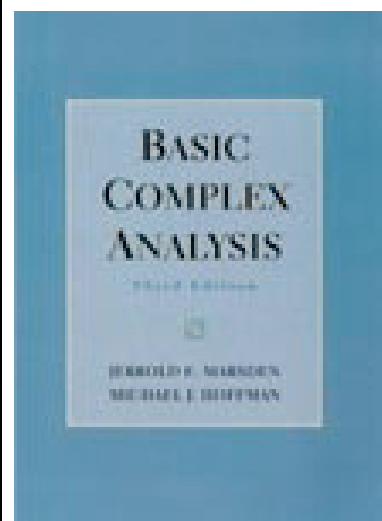
Date	Sections	Content	Due
1/8/03	1.1, 1.2	Introduction to Complex Numbers, Properties of Complex Numbers	
1/10/03	1.2, 1.3	Some Elementary Functions	
1/15/03	1.4, 1.5	Continuous Functions, Analytic Functions	
1/17/03	1.5, 1.6	Differentiation of the Elementary Functions	
1/22/03	1.6, 2.1	Contour Integrals	
1/24/03	2.1, 2.2	Cauchy's Theorem via Green's Theorem	Project 1 Quiz 1
1/29/03	2.3, 2.4	Cauchy's Theorem: Goursat's Proof	
1/31/03	2.4	Cauchy's Integral Formula	
2/5/03	2.5	Maximum Modulus Theorem and Harmonic Functions	
2/7/03	3.1	Convergent Series of Analytic Functions	Project 2
2/12/03	3.2	Power Series and Taylor's Theorem	
2/14/03	3.3	Laurent's Series and Classification of Singularities	Quiz 2
2/19/03		Reading week	
2/21/03		Reading week	
2/26/03	4.1	Calculation of Residues	
2/28/03	4.1, 4.2	The Residue Theorem	
3/5/03	4.2	The Residue Theorem	
3/7/03	4.3	Evaluation of Definite Integrals	Project 3
3/12/03	4.3, 4.4	Evaluation of Infinite Series and Partial-Fraction Expansions	
3/14/03	5.1	Basic Theory of Conformal Mappings	Quiz 3
3/19/03	5.1, 5.2	Fractional Linear and Schwarz-Christoffel Transformations	
3/21/03	5.2	Fractional Linear and Schwarz-Christoffel Transformations	
3/26/03	5.3	Applications of Conformal Mapping	
3/28/03	5.3, 6.1	Analytic Continuation and Elementary Riemann Surfaces	Project 4
4/2/03	6.1	Analytic Continuation and Elementary Riemann Surfaces	
4/4/03	6.2	Rouché's Theorem and the Principle of the Argument	
4/9/03	6.3	Mapping Properties of Analytic Functions	
4/11/03	7.1	Infinite Products and the Gamma Function	

Textbook**Basic Complex Analysis**

Third Edition

Jerrold E. Marsden

Michael J. Hoffman

<http://www.whfreeman.com/>

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Projects (4)	20%
FINAL	35%