Faculty of Science

DEPARTMENT OF MATHEMATICS AND STATISTICS

Course Information Sheet

Course:	MATH 349	Fall 2003
Lecture/Time/Session	L02 M W R 14:00-14:50	ST 147
Instructor/e-mail:	Elena Braverman	maelena@math.ucalgary.ca
Labs		
T 14:00 MS 427	Aviv Fried	afried@ucalgary.ca
T 14:00 ST 055	Yiqiang Zhou	zhou@math.ucalgary.ca
R 12:00 TRB 102	Yiqiang Zhou	zhou@math.ucalgary.ca
Office/Phone/Hours:	MS 444, 220-3956	MWR 3-4pm
e-mail	maelena@math.ucalgary.ca	
Prerequisites:	MATH 253 or 263 or AMAT 219	and MATH 221 or 221
Co-requisites:	None	
Course's homepage:	**www.math.ucalgary.ca/~maelena/349.html**	

1. **The university policy on grading** and related matters is described on pages 41-42 of the 2003-2004 Calendar. In determining the overall grade in the course, the following weights will be used:

Quizzes	[best 4 of 5]	30 %
Mid-term exam	[one]	20 %
Final exam		50 %

   A passing grade on the final exam is necessary to pass the course. There will be a final examination **scheduled by the Registrar's Office**. The use of aids such as open book, etc. is not permitted. **Calculators and tables are NOT allowed on quizzes, the midterm test and the final exam.**

2. **The mid-term** will be in class on **November 14, 2003**. There will be five quizzes of approximately 35 minutes durations which will be held in labs: **September 16 or 18, September 30 or October 2, October 14 or 16, October 28 or 30, November 25 or 27**. The best four marks will be used in the assessment.

3. **Textbook:** Robert A. Adams: Calculus (Several Variables or Complete Course).

4. **Missed Components of Term Work.** The regulations of the Faculty of Science pertaining to this matter are outlined on page 199, of the 2003-2004 Calendar. It is the student's responsibility to familiarize herself/himself with these regulations.

5. **Out-of-class activities:** There will be no out-of-class scheduled activities. Regularly scheduled classes have precedence over any out-of-class-time-activity.

6. It is students' responsibility to ensure that they have the prerequisites for the course and if they do not, they will be withdrawn from the course without notice.

7. **Fee policy:** After the last day to drop/add courses (September 19, Friday), there will be no refund of tuition fees if a student withdraws from a course, courses or the session.

8. **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 2003-2004 University Calendar under the heading "Student Misconduct", pages 53-56.

9. There are no lectures on **October 13, November 10** and no tutorial on **November 11**.

10. The Society for Calgary Undergraduate Mathematics (SCUM) sells exam packages, run final reviews(SCUM's office is in MS337A, e-mail scum@math.ucalgary.ca, phone 220 3938, webpage www.math.ucalgary.ca/˜scum)

MATHEMATICS 349

"CALCULUS III"

Calendar Description: H(3-1T)
Infinite sequences and series. Polar coordinates, parametric equations, arc length. Vector geometry, differentiation of vector-valued functions. Partial differentiation.

Prerequisites: Mathematics 253 or 263 or Applied Mathematics 219; and Mathematics 211 or 221.

Syllabus

Topics	**Sections and problems**	**Dates**
Sequences and positive series	9.1(1-29,36), 9.2(1-9,27-31),	
	9.3(1-25,35)	8.09-15.09
Arbitrary number series	9.4(1-11)	15.09
Power series	9.5(1-7,13-17)	17.09 - 22.09
Taylor series	9.6(1-11,15-23,27,29,33),	
	9.7(1-7,13,15), 9.8(1-5)	22.09-26.09
Analytic geometry in 3 dimensions	10.1(1-5,13-21,33-39)	29.09
Vectors	10.2(1-5,13-15,23,25),	
	10.3(1-13,17,21,27)	1.10-6.10
Planes, lines, quadric surfaces	10.4(1-11,15-21,27,29), 10.5(1-17)	8.10-10.10
Vector functions	11.1(11-19)	15.10-20.10
Parametrizations	11.3(1-15)	22.10
Curvature	11.4(1-5)	24.10
Functions of several variables	12.1(1-9,19-27)	27.10-29.10
Limits	12.2(1-15)	31.10-3.11
Partial derivatives	12.3(1-19,37), 12.4(1-7,17)	5.11-7.11
The chain rule	12.5(1-11,15)	17.11-19.11
Differentials	12.6(1-3,13-15)	21.11-24.11
Gradient	12.7(1-5,11-17)	26.11-28.11
Implicit functions	12.8 (1-9,15,17)	1.12-3.12