

MATHEMATICS 201-NYB-05
Calculus II - Sciences

FALL SEMESTER 2006

Instructor: Dr. Ming Mei
Office: E -219
Telephone: (450) 672 – 7360 ext. 281
Email: mmei@champlaincollege.qc.ca or mei@mathstat.concordia.ca
Website: <http://www.math.mcgill.ca/~mei>
Office Hours: TBA

Prerequisite: Calculus I (or equivalent)

Textbook: Single variable Calculus: Early Transcendentals, 5th ed. By James Stewart
Brooks/Cole Publishing

General objective: Calculus II builds on Calculus I and introduces students to the methods of Integral Calculus and its applications.

Outline:

The course will cover the following material:

Integrals:	Chapter 5, sections 1 - 6
Applications of Integration:	Chapter 6, sections 1, 2, 3, 5
Techniques of Integration:	Chapter 7, sections 1 - 5, 8
Further Applications:	Chapter 8, section 1 Chapter 9, sections 1, 3, 4 (selected)
Sequences and Series:	Chapter 11, sections 1 – 10

Teaching methods: Class time will be devoted to lectures and problem solving. During problem solving sessions, students are encouraged to work in groups. Problems taken from the book will be suggested after each session. They indicate the level of difficulty of the problems that the students are expected to solve. The book will be followed closely and it is absolutely essential that each student has a copy and brings it to every problem solving session. Additional exercises will be provided by the instructor.

Evaluation

There will be a quiz every week. The lowest mark of all quizzes will not be counted. There will be four term tests. The exact dates will be announced at least one week prior to the tests. The last test will cover all materials learnt in the whole semester. Attendance is required for all term tests and quizzes. No possibility of making up test or quiz exists unless a written medical notice is presented immediately after student's recovery.

Assessment plan:

Quizzes : 15% Tests: 85%
Each term test is worth 20%, and the final test is worth 25%.

Suggested Problems

Chapter 5.

- 5.1 p.378: 3, 5, 17
- 5.2 p.390: 5, 7, 9, 21, 35, 53
- 5.3 p.402: 9, 11, 15, 23, 29, 37
- 5.4 p.411: 1, 11, 19, 27, 35
- 5.5 p.420: 3, 7, 21, 27, 31, 35, 41, 51, 57, 65

Chapter 6

- 6.1 p.442: 3, 9, 11, 21, 25
- 6.2 p.452: 5, 9, 15, 27, 29, 49
- 6.3 p.458: 3, 7, 15, 23, 37, 41
- 6.4 p.463: 1, 3, 13
- 6.5 p.467: 3, 5, 9

Chapter 7

- 7.1 p.480: 5, 13, 21, 31, 33, 45
- 7.2 p.488: 3, 9, 15, 29, 31
- 7.3 p.494: 3, 7, 9, 13, 17, 23
- 7.4 p.504: 5, 15, 17, 21, 25, 29, 35
- 7.8 p.537: 3, 9, 17, 21, 31, 37

Chapter 8

- 8.1 p.552: 1, 7, 15, 31

Chapter 9 (will be specified by the instructor)

Chapter 11

- 11.1 p.710: 3, 17, 21, 33, 57, 59
- 11.2 p.720: 15, 19, 21, 27, 37, 43
- 11.3 p.729: 3, 9, 15, 21, 23
- 11.4 p.734: 3, 7, 9, 15, 19, 21
- 11.5 p.739: 3, 5, 11, 15, 29
- 11.6 p.745: 5, 7, 11, 21
- 11.8 p.753: 7, 9, 15, 23, 25
- 11.9 p.759: 5, 9, 15, 23, 27
- 11.10 p.770: 5, 11, 13, 17, 27, 39, 43