

MA 122 CALCULUS II (SPRING 2015)

Time and Place.

Section A: M,T,Th,F 9:30-10:30 a.m., E187
Section B: M,T,Th,F 11 a.m.-12 p.m., E187

Instructor. Dr. Gabriela Sanchis, 384 G Esbenshade Hall, Office Phone: 361-1339

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Office Hours. M, T, Th: 1–2:30 p.m. W: 9:30-11:00; and by appointment.

Textbook. *Calculus Early Transcendentals* (7th Edition) by James Stewart

Prerequisites. Ma 121 (Calculus 1) or equivalent

Course Content. We will cover the following chapters (see the attached schedule for a tentative day-by-day timetable).

- Chapter 7: Techniques of Integration
- Chapters 6 and 8: Applications of Integration
- Chapter 9: Differential Equations
- Chapter 11: Infinite Sequences and Series
- Chapter 10: Parametric Equations and Polar Coordinates

Learning Outcomes. Successful students will

- compute integrals of complicated functions.
- use calculus techniques to compute areas between curves, volumes and surfaces of revolution, work, and arc lengths.
- apply concepts of convergence of infinite sequences and series.
- generate power series representations of functions.
- use calculus techniques to analyze curves described by parametric equations or polar coordinates.

Attendance. You are expected to attend all classes. Excessive amounts of absenteeism may result in a lower grade. If you do miss a class, it is your responsibility to obtain from a classmate any notes, assignments, handouts, or anything else you may have missed.

Calculator. Occasionally, a graphing calculator will be helpful to have in class. No electronic devices of any kind (including calculators) will be allowed on exams or quizzes.

Fundamental Elements. In order to receive a grade of C- or better in this class, you must demonstrate mastery of basic integration techniques by scoring at least 80% on the Fundamental Elements test. This Fundamental Elements test covers the integration skills you learned in Ma 121 Calculus I (including basic u substitutions). Some details:

- You must pass a test on those skills by Sunday, January 25.
- No calculators, cell phones, or other electronic devices are allowed. No books or notes are allowed. No internet resources (such as Wolfram Alpha) are allowed.
- You may take the test multiple times until either you score at least 80% (16 out of 20) or the deadline passes.
- See the WebWorK problem set FE_1_Practice, for example problems to study.
- You must take the test with a student proctor in E368. The Fundamental Elements Exam will not be given in class.

Homework. We will be using the online homework delivery system WebWorK. You can access WebWorK from the Blackboard web site (or point your browser to <https://courses1.webwork.maa.org/webwork2/ElizabethtownC-MA122/>). To log in, use your network user id for your username, and your student id number for your password. WebWorK will give you instant feedback on each problem, and if you get a problem wrong you can try again. This will allow you to find out what you did wrong and hopefully to understand the topic of the question better. Homework will be discussed at the beginning of each class. If all your questions are not addressed during this time, do not hesitate to seek additional help. The following help options are available:

- Office hours - These are listed at the beginning of the syllabus.
- Student tutors are available in Esbenshade 370 Monday through Thursday 4-11 p.m. and Sundays 5:00-11:00p.m. No appointment necessary, just walk in.
- Learning Services with a private tutor.

In addition to the WebWorK problems, a list of suggested problems from the book are posted on Blackboard, together with solutions.

Quizzes. There will be eight quizzes which will consist of questions taken directly from the homework. The table below gives dates and sections covered:

	Sections Covered	Date Quiz Becomes Available	Date Quiz is Due
Quiz 1	Integration Review, 7.1	Tuesday January 20	Monday January 26
Quiz 2	7.2, 7.3, 7.4	Tuesday January 27	Monday February 2
Quiz 3	7.8,6.1	Tuesday February 10	Monday February 16
Quiz 4	6.2, 6.3, 6.4	Tuesday February 17	Monday February 23
Quiz 5	11.1, 11.2, 11.3	Tuesday March 17	Monday March 30
Quiz 6	11.4, 11.5, 11.6	Tuesday March 24	Monday March 31
Quiz 7	11.10, 11.11, 10.1	Tuesday April 14	Monday April 20
Quiz 8	10.2, 10.3	Monday April 20	Sunday April 26

You will take quizzes using WebWorK, outside of class, proctored by a student tutor in Esbenshade 368, and timed (90 minutes). The rules are as follows:

- (1) No calculators, cell phones, or other electronic devices are allowed. No books or notes are allowed. No internet resources (such as Wolfram Alpha) are allowed. You may take out some (blank) scratch paper.
- (2) Do your work neatly on paper before typing your answers into WebWorK. Once you have typed your answers, and before you submit, use the Preview button to preview your answers and compare them to your written answers. This will help you catch mistakes. Also, WebWorK will highlight any syntax errors (such as mismatched parentheses or misspellings) so you can make corrections before submitting your answers.
- (3) You will get two submissions, so once you submit your answers the first time, you have one chance to make corrections to any questions marked wrong and then resubmit.
- (4) You may take each quiz twice, and I will record the higher of the two grades for each quiz.

Your lowest quiz score will be dropped.

Proctoring Hours. Proctoring hours, in Esbenshade 368, are as follows:

- Sunday through Thursday evenings, 7 to 9.
- Monday and Wednesday afternoons, 3 to 5.

The FE test and the quizzes must be taken in Esbenshade 368 during proctoring hours. You are encouraged to print out your test/quiz after submission and go over it with a tutor in Esbenshade 370 during tutoring hours (which are listed in the homework section of this syllabus).

Exams. There will be four examinations prior to the final exam. These are scheduled for Tuesday February 3, Friday February 27, Thursday April 2, and Monday April 27. The comprehensive final examination is scheduled for Monday May 4, 2:30 - 5:30 p.m. (Section B) or Friday May 8, 7:30 a.m. - 10:30 a.m. (Section A).

Makeup Exams. Exams may not be made up except for absolutely unavoidable reasons. If you miss an exam for an acceptable unavoidable reason, then a make-up may be given. It is the student's responsibility to make arrangements for allowable make-ups with the instructor prior to the evening of the originally scheduled exam. If a student misses an exam without talking to the instructor ahead of time or shortly afterwards, he/she will receive a grade of 0 for that exam. Make-ups will cover the same material but will be different from the originally given exam.

Academic Integrity. All work must be one's own and must comply with the Standards of Academic Integrity defined in the Elizabethtown College Catalog (see <http://catalog.etown.edu/> and then click on **Academic Policies** in the menu on the left, and then on **Academic Judicial System**). More specifically, you may (and are encouraged to) help each other on the WebWork homework assignments, but you must type and submit your own work. No collaboration on exams, quizzes, or the FE test is allowed.

Grading. 94-100 A; 90-93 A-; 87-89 B+; 83-86 B; 80-82 B-; 77-79 C+; 73-76 C; 70-72 C-; 67-69 D+; 63-66 D; 60-62 D-; below 60 F

Course grades will be calculated according to the following weighting:

WebWorK Homework:	10%
WebWorK Quizzes:	14%
In-Class Exams:	51% (9% for the lowest of the four exams, 14% each of the other three)
Final Exam:	25%

Note: *A grade of C- or better in Ma 122 is a prerequisite for Ma 222 (Calculus 3). If you do not achieve at least 80% on the Fundamental Elements Exam, the highest grade you can earn is D+.*

Disability. Elizabethtown College welcomes otherwise qualified students with disabilities to participate in all of its courses, programs, services, and activities. If you have a documented disability and would like to request accommodations in order to fully participate in course activities and/or meet course requirements, please contact the Director of Disability Services, Lynne Davies, by phone (361-1227) or e-mail daviesl@etown.edu. If your documentation meets the college's documentation guidelines, you will be given a letter from Disability Services for each of your professors. Students experiencing certain documented temporary conditions, such as post-concussive symptoms, may also qualify for temporary academic accommodations and adjustments. As early as possible in the semester, set up an appointment to meet with me, the instructor, to discuss the academic adjustments specified in your accommodations letter as they pertain to my class.

TENTATIVE SCHEDULE FOR MA 122 (SPRING 2015)

Monday	Tuesday	Wednesday	Thursday	Friday
12-Jan I.R.	13-Jan 7.1	14-Jan	15-Jan 7.1	16-Jan 7.2
19-Jan MLK Day No classes	20-Jan 7.2, 7.3 Quiz 1 (IR,7.1)	21-Jan	22-Jan 7.3	23-Jan 7.4
26-Jan 7.4	27-Jan 7.5 Quiz 2 (7.2,7.3, 7.4)	28-Jan	29-Jan 7.6	30-Jan 7.7
2-Feb Review	3-Feb EXAM 1	4-Feb	5-Feb 7.8	6-Feb 7.8
9-Feb 6.1	10-Feb 6.2 Quiz 3 (7.8,6.1)	11-Feb	12-Feb 6.2, 6.3	13-Feb 6.3
16-Feb 6,4	17-Feb 6.4 Quiz 4 (6.2,6.3,6.4)	18-Feb	19-Feb 6.5	20-Feb 8.1, 8.2
23-Feb 9.1, 9.2	24-Feb 9.3	25-Feb	26-Feb Review	27-Feb EXAM 2
2-Mar	3-Mar	4-Mar Spring Break	5-Mar	6-Mar
9-Mar 11.1	10-Mar 11.2	11-Mar	12-Mar 11.2	13-Mar 11.3
16-Mar 11.3	17-Mar 11.4 Quiz 5 (11.1,11.2,11.3)	18-Mar	19-Mar 11.4	20-Mar 11.5
23-Mar 11.6	24-Mar 11.7 Quiz 6 (11.4,11.5,11.6)	25-Mar	26-Mar 11.8	27-Mar 11.8, 11.9
30-Mar 11.9	31-Mar Review	1-Apr	2-Apr EXAM 3	3-Apr Easter Break
6-Apr Easter Break	7-Apr 11.10	8-Apr	9-Apr 11.11	10-Apr 10.1
13-Apr 10.2	14-Apr 10.2 Quiz 7 (11.10,11.11,10.1)	15-Apr	16-Apr 10.3	17-Apr 10.3
20-Apr 10.4 Quiz 8 (10.2,10.3)	21-Apr SCAD	22-Apr	23-Apr 10.4	24-Apr Review
27-Apr EXAM 4	28-Apr 10.5	29-Apr	30-Apr 10.5	1-May Classes end Review
4-May FINAL EXAM (B)	5-May	6-May	7-May	8-May FINAL EXAM (A)