

Math 117 - Introductory Calculus

General Course Information

Instructor: Constance Leidy

Time: Mondays, Wednesdays, and Fridays, 11:00-11:50am, Mondays 12:00-12:50pm

Location: Exley Science Center 638

Office: Exley Science Center 641

Office Hours: Thursdays, 3-4pm

E-Mail Address: cleidy@wesleyan.edu

Course Assistant: Alison Santori

Course Description

This course is designed to introduce basic ideas and techniques of differential calculus. Students should enter with sound precalculus skills but with very limited or no prior study of calculus. Topics to be considered include differential calculus of algebraic, exponential, and logarithmic functions.

This course has a non-traditional format involving active learning, group work, and lecturing. Often class will begin with a brief discussion about themes and examples from previously assigned readings. The class will then divide into groups to work together on examples or discussion questions. Much of the learning will take place within these groups.

This course is aimed at students who do not intend to take math courses at the 200 level. Also note that students may not receive credit for both Math 117 and Math 121. This course has proved to work well for Wesleyan students who have not previously studied calculus.

Textbook

We will study chapters 1-4 of *Calculus, Single Variable, 6th edition*, by Deborah Hughes-Hallett, et al. The textbook uses practical examples from the physical and social sciences to anticipate and to illustrate the major concepts of calculus. **You should bring your textbook to every class.**

Since you will be responsible for much of your own learning in this course, **you must read the text.** In fact, you will regularly be assigned reading on material that has not yet been discussed in class. The assigned readings will be short, but you must spend time studying them, both in an initial reading before class and in rereading as you work the assigned problems.

Much of what you will be doing in this course will be learning how to solve problems. To this end, the text stresses conceptual understanding over memorization and creative approaches to the techniques of calculus over drill.

Technology

Technology can be a useful tool when learning mathematics. In this course, you will need a TI-83 or TI-84 graphing calculator. Other graphing calculators may be acceptable; check with your instructor to be sure. **You should bring your graphing calculator to every class.**

Participation

An important part of this course is participating in the active learning environment both during the MWF class time and during the Monday noon session. **Class attendance and participation is mandatory.** You will be given a "participation" grade based on your attendance and your participation.

Homework

Homework is an important part of any math class. It is important that you practice doing the problems. This will help you to understand the material better and will prepare you for the exams. You are encouraged to discuss the homework, and to work together on the problems. However each student is responsible for the final preparation of his or her own individual homework papers.

You may seek help on the individual homework assignments from other students, the TAs, the Math Workshop, and the instructor. There will be help sessions, which you are strongly encouraged to attend.

Individual homework will be assigned for each class and will be due at the beginning of the Monday noon session. **Late homework will not be accepted**, but your lowest homework score will be dropped. Once the homework has been turned in, solutions will be posted on Moodle.

Help Sessions

There will be evening help sessions for Math 117, open to all sections. The sessions will be Sundays, Tuesdays, and Thursdays, 7-9pm in Exley 109. This is a great place to work with other students on the homework, and you are encouraged to make it a regular part of your weekly schedule. The course assistants will be available to answer questions that you may have while working on the homework.

Office Hours

I will hold office hours Thursdays 3-4pm. If you cannot make these, feel free to email me at cleidy@wesleyan.edu to make an appointment for a different time.

The Math Workshop

The Math Workshop is located in the Science Library in the main floor conference room. It is open most afternoons and evenings. There are always two staff members on duty, who may be either experienced undergraduates or math graduate students. This is a drop-in tutoring service, available to all members of the Wesleyan community. Staff members provide a friendly, relaxed atmosphere while answering questions about mathematics. The workshop is a good place to go when you get stuck on your math homework.

Quizzes

There will be a short quiz given at the beginning of most Monday noon sessions. They will be similar to the homework questions and are intended to give you feedback in advance of the exams. The lowest quiz grade will be dropped.

Exams

There will be three 50 minute exams and a final exam.

- Exam 1 - Monday, September 30, 12-12:50pm
- Exam 2 - Monday, November 4, 12-12:50pm
- Exam 3 - Monday, December 2, 12-12:50pm
- Final - Thursday, December 12, 7-10pm

One of the exam grades will be dropped. In other words, the final can replace one of your exam grades.

Skills Test

After we finish Chapter 3, you will be given a “Skills Test” to confirm that you are able to perform routine calculations of derivatives. You may take the Skills Test as many times as you need, but you must have passed it by 5 p.m. on the last day of classes, Friday, December 6. To pass a test you must answer at least 8 of 10 questions correctly. Each time you take the test, you will be given a different (but comparable) version of the test. The first sitting of the Skills Test will be at noon on Monday, November 18.

Course Grade Determination

The course grade will be computed as follows:

- Participation - 10%
- Homework - 15%
- Quizzes - 15%
- Exam 1 - 20%
- Exam 2 - 20%
- Exam 3 - 20%

The final exam can replace one of your exam grades.

In addition, you must pass a Skills Test to pass this course.

Students with Disabilities

It is the policy of Wesleyan University to provide reasonable accommodations to students with documented disabilities. Students, however, are responsible for registering with Disabilities Services, in addition to making requests known to his or her instructor in a timely manner. If you require accommodations in this class, please make an appointment with your instructor during the first two weeks of class, so that appropriate arrangements can be made. All discussions will remain confidential. Students with disabilities should also contact Laura Patey. Please see <http://www.wesleyan.edu/studentaffairs/disabilities/index.html> for more information.