**Fall 2016 University at Buffalo**

**MTH121B Survey of Calculus and Its Applications I**

**Office:** 136 Math Building  
**Office Hours:** Mon, Wed 11:00AM - 12:00PM  
**Instructor:** Yin Su  
**Email:** yinsu@buffalo.edu

**Lectures:** MON, WED, FRI 9:00-9:50AM Norton 218  
**Recitations (Labs):**  
B1: MON 8:00 AM - 8:50 AM Bell 138  
B2: WED 8:00 AM - 8:50 AM Bell 138  
**TA:** TBD

- **Description:** This is the first part of a 2-semester sequence in Calculus for students in social, biological, and management sciences. The course will cover introduction to important functions, limits and derivative of simple functions, import rules and methods for differentiation, application of differentiation, and some introduction to integration.

- **Textbook:** No mandatory textbook needed. Taking lecture notes is enough. If you need a textbook, you can simply get any standard calculus textbook. The official one for our course is *L. Goldstein, D. Schneider, D. Lay, and N. Asmar, Calculus and Its Applications, 4th custom UB edition.* (Chapters 1-6)

- **Course website:** UBLearns page: ublearns.buffalo.edu. All course announcements, homework assignments, quiz information, practice exams and your grades will be posted on UBLearns.

- **Homework:** Homework will be assigned on UBLearns once or twice a week. Each homework set contains about 10 problems, and a few problems will be collected and graded. Final answer of all homework will be provided. Please turn in your homework in the recitation session.

- **Recitations (labs):** Recitation will begin in the second week in your recitation classroom. In recitations, our TA will answer your questions related to homework and discuss important course topics. There will be 6 short quizzes and 3 long quizzes given in the recitation sessions. You will need a formal excuse to make up a quiz.
  - Six short quizzes: 20 points per quiz. Each short quiz will test you the material you learned in the recent one or weeks. The lowest short quiz grade will be dropped.

  - **Short quizzes**  
    | Section B1 | 09/12, 09/19, 10/10, 10/24, 11/14, 11/28 |  
    | Section B2 | 09/14, 09/21, 10/12, 10/26, 11/16, 11/30 |

  - Three long quizzes: 30 points per quiz. Long quiz will test you topics after the previous exam. It is a supplement to the exam.

  - **Long quizzes**  
    | Section B1 | 09/26, 10/31, 12/05 |  
    | Section B2 | 09/28, 11/02, 12/07 |

- **Exams:** There will be three in-class exams. Each takes 50 minutes in the lecture room. There is no final exam. Exam dates are:  
  - Exam 1: 09/30  
  - Exam 2: 11/04  
  - Exam 3: 12/09

  Please note that make-up exams will only be given in special circumstances. In particular, I must be notified beforehand if you require a make-up exam. Students may be asked to provide official documentation justifying the reason for missing an exam.
Grade components:

Total: 450 points.

- 3 Exams: 180 points (60 points per exam.)
- 3 Long Quizzes: 90 points (30 points per quiz.)
- 6 Short Quizzes: 100 points (20 points per quiz. The lowest one will be dropped.)
- 10 Homeworks: 80 points (10 points per assignment. Lowest two will be dropped.)

Grade Scale:

- A: 405 points or up, with exam total higher than 160 and long quiz total higher than 80.
- A - : 390 points or up, with exam total higher than 150 and long quiz total higher than 85.
- B+: 375 points or up. B: 360 points or up. B - : 345 points or up.
- C+: 330 points or up. C: 310 points or up. C - : 290 points or up.
- D: 250 points or up.
- F: lower than 250

Ways to get bonus:

- Presentation of topics: You are very welcome to give a 10-15 minute talk in the lecture, about any topic related to calculus, or even just related to math. The talk may focus on any application of calculus, history of calculus, interesting math discovery or unsolved problems. You can ask the instructor for a suitable topic or choose your own. As a reward, a bonus of up to 15 points will be added in the 450-point pool.
- Class participation: In lecture and recitation, you will have opportunities to present problem solutions.
- Bonus problems: Each exam will contain bonus problem. During the semester and bonus homework problems, projects may also be assigned.
- TA comments: During the semester the TA will report me any recommendation and comments on students, especially the ones who don’t have solid math background but make great progress. So go to the recitation and join the discussion, and go to the TA’s office hour if you need help. You may be rewarded with up to 15 bonus points in the 450-point pool.

Use of Calculator: You are allowed to use any non-graphing scientific calculator in homework, quizzes and exams.

Math help center: There is a math help center in math building. Graduate student tutors available will assist you with math questions for free. The math help center starts on 09/12. The hours and location are Monday-Friday from 9am to 4pm at Math Building room 107 and room 110.

Academic integrity: Students are expected to behave in accordance with the university policy on academic integrity. The guiding principle is that a student’s submitted work must be the student’s own. Any kind of cheating will result in formal charges.

Additional information: If you have a diagnosed disability, please advise me during the first week of class so that we may review possible arrangements for reasonable accommodations.

Important dates:

- 09/05 No class (Labor day)
- 09/06 Last day to add/drop
- 11/11 Last day to resign
- 11/23-11/25 No class (Thanksgiving)