Introduction to Calculus, Fall 2014

Instructor
Kalina Mincheva
Office: Krieger 411
Email: mincheva@math.jhu.edu
Course website: http://www.math.jhu.edu/~mincheva/fall14.html
Office hours: Monday, 10am-11am or by appointment

Lectures
Monday, Wednesday, Friday at 9:00am in **Krieger 308**

TA Sections (with Jon Beardsley)
Tuesday at 1:30pm in Krieger 308
Office: Krieger 411
Email: beardsle@math.jhu.edu
Office hours: TBA

Blackboard
All information about the course will be posted on blackboard (https://blackboard.jhu.edu) – syllabus, homework assignments, quizzes, grades.

Adding/dropping
Please see http://eng.jhu.edu/wse/asen_undergraduate_handbook/registration-policies

Textbook and i>Clicker2
College Algebra and Trigonometry, by Mark Dugopolski, 5th edition.
ISBN-13: 978-0321644770

The textbook and the iclicker are available from the University Bookstore.

i>Clicker2
In this class we will employ the student response system **"i>clicker 2"** for answering in class questions. Each student should obtain one and register it for the class through Blackboard. (NOT through the iclicker website!) Detailed information on obtaining and registering your clicker can be found here http://www.cer.jhu.edu/clickers.html, (Note: You just need one clicker for all of your courses at JHU.)

Topics we will Cover
Equations, inequalities, functions, graphs, polynomial and rational functions, exponential and logarithmic functions, trigonometric functions, trigonometric identities and conditional equalities, and applications.

Learning objectives
This course should serve as a preparation for Calculus I. By the end of the course a student should be able to

- independently learn math concepts
- understand geometric meaning trigonometric functions
- be able to evaluate trigonometric functions at standard angles
- know how to use the trig identities

- understand how to find the domain and range of the function
- determine whether a function has an inverse, find the inverse if it exists
- know the graphs of common functions – polynomial, exponential, trigonometric functions
- be able to sketch inequalities
- be able to determine when functions are not defined
- find zeroes of polynomials
- know the methods to solve quadratic equations and be able to apply them
- know polynomial long division algorithm.

Homework
Homework assignments will be assigned each Wednesday, and will be due the following Wednesday at the start of class. There will be no homework due the first week. Assignments will be returned to you in section.

Online Quizzes
There will be a short (5-10 minute) quiz every week. It will be made available online (on blackboard) on Friday and you will have time until the start of class on Monday (9am) to complete it. These quizzes should be viewed primarily as a way for you to make sure you are keeping up with the class material. These will be part of your participation grade.

Attendance and Participation
Attendance in lectures and section meetings is mandatory but an occasional absence is not the end of the world. However, keep in mind that during classes you will be answering (clicker) questions as part of your participation grade.

Absences from Exams
If you have a valid excuse to miss an exam, you must provide a letter from the Office of Academic Advising verifying this. In this case, your grade for the exam will be the weighted average of your grades in the other exams. However, an excused **final** will be made up. If you miss an exam without a valid excuse, your grade will be zero.

Test and Exams
Test: Wednesday, September 17
Midterm 1: Wednesday, October 8
Midterm 2: Friday, November 14
Final Exam: Wednesday, December 10, 9 a.m., room TBA

Grading
Your final grade for the class will be determined as follows:

- participation (online quizzes and in class questions): 5%
- homework: 15%
- test: 10%
- first midterm: 20%
- second midterm: 20%
- final exam: 30%

Support
There are many sources of help and support if you are having difficulty with the class, material or anything else. These include:

- My office hours: Monday 10am-11am in Krieger 411, or email me to arrange another time
- Your TA's office hours: He will announce when these are.
- Math Help Room: Krieger 213, Monday - Thursday, 9am - 9pm; Friday 9am - 5pm
- The Learning Den: See www.jhu.edu/academic-assistance for more details.

Please do not feel shy about asking for help, or just checking that you understand something correctly. Seek help before you fall too far behind in the class!

There are no stupid questions, there are no basic questions! If don't understand something you are probably not the only one in the room, so don't be shy and ask away.

Special Aid

Students with disabilities or other special needs who require classroom accommodations or other arrangements must make this known to me **by the end of the second week of classes**, and be registered with the disability coordinator in the Office of Academic Advising. Failing to do so, may result in my inability to accommodate you.

Collaboration

Collaboration on homework is allowed and encouraged. However, each student must write up his/her solutions to the problems individually and in his/her own words - copying from another student's paper is prohibited. Homework is an essential part of learning the course material. Failing to give it proper attention will significantly harm your performance on the exams and your overall grade for the class.

Calculator Policy

You will not need a calculator in this course. Use of calculators is **not** allowed on homework and on exams.

Academic honesty

The strength of the university depends on academic and personal integrity. In this course, you must be honest and truthful. Ethical violations include cheating on exams, plagiarism, reuse of assignments, improper use of the Internet and electronic devices, unauthorized collaboration, alteration of graded assignments, forgery and falsification, lying, facilitating academic dishonest and unfair competition.

Report any violations you witness to the instructor. You may consult the associate dean of student affairs and/or the chair of the Ethics Board beforehand. See the guide on "Academic Ethics for Undergraduates" and the Ethics Board Web site (http://ethics.jhu.edu) for more information.

Tentative course schedule

Week	Dates	Textbook sections
1	29 Aug – 5 Sept	P1-P7
2	8 Sept – 12 Sept	1.1, 1.3, 1.4, 1.6, 1.7
3	15 Sept – 19 Sept	Test, 2.1-2.3
4	22 Sept – 26 Sept	2.4-3.2
5	29 Sept – 3 Oct	3.3-3.6
6	6 Oct – 10 Oct	Midterm1, 4.1-4.3
7	13 Oct – **16** Oct	4.3-4.4, 5.1-5.2
8	20 Oct – 24 Oct	5.3-5.5
9	27 Oct – 31 Oct	6.1-6.4
10	3 Nov – 7 Nov	6.5-7.2
11	10 Nov – 14 Nov	Midterm2, 7.3-7.4
12	17 Nov – 21 Nov	7.4-7.7
13	24 Nov – 28 Nov	Thanksgiving break
14	1 Dec – 5 Dec	8.1, 8.2