MATH 106 : Calculus 1 (Bio. & Soc. Sci.)

Aurélien Sagnier

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Teacher :

- Aurélien Sagnier, asagnie1@jhu.edu, Mondays 15:00 → 16:00 and Wednesdays 13:45 → 14:45 or by appointment, Krieger 219

Teaching Assistant :

1. Eric Cochran, ecochra5@jhu.edu, Tuesdays 16:30 → 17:30 Krieger 207
2. Sean Owen, sowen6@jhu.edu, Tuesdays 17:00 → 17:00 Krieger 211

Lectures : Mondays and Wednesdays and Fridays 10:00 → 10:50, Mergenthaler 111

Exercise sessions :

1. Tuesdays 13:30 → 14:20, Maryland 201
2. Thursdays 15:00 → 15:50, Croft Hall G02

Warning : Your first job in this course will be to learn the definitions and the statements of the theorems and properties seen in class. It is crucial that you learn those first. Once this is done, you should work on your own or by groups on examples and especially the ones proposed in problem sets or in the textbook since we will spend very few time together in class. Mathematical confidence will come from learning the statements of definitions and theorems and from practising on many examples.


Classroom climate : In classroom, everyone will be treated with respect and dignity. If in class you don’t understand what I said or wrote on the board, feel free to ask me to repeat. If you have a mathematical question in class, take 30-60 seconds to try to answer it by yourself (self-discovery is very important in mathematics) and if you can’t feel free to ask me. I intend to create a friendly and suited for learning climate. If you have constructive criticism or remarks on the lectures feel free to tell me too. If you have mathematical questions on group theory in general or if you seek more resources, feel free to ask me, I will do my best to answer you.

It will be your one of your first course of mathematics at university so you should expect to be challenged intellectually by me, Eric or Sean or your peers and this may sometimes cause a little discomfort but you should never give up and be brave, being pushed to your limits might help you to learn more and develop your mathematical abilities. However this discomfort should never lead to anxiety, stress, depression, ... if so please come to see me or Eric or Sean immediately and we will try our best to help you.

If you ever have concerns about harassment, discrimination, unfair treatment, please share it with me or Eric or Sean. We will take your concerns seriously and try our best to find a solution. Reporting a concern would never impact your grade and your privacy will be preserved as much as possible. You can also, if needed, share your concerns with the Department Chair (David Savitt, savitt@math.jhu.edu), the Director of Undergraduate Studies (Richard Brown, brown@math.jhu.edu), the Assistant of the Dean for Diversity and Inclusion (Darlene Saporu, dsaporu@jhu.edu) or the Office of Institutional Equity (oie@jhu.edu).
Wellbeing:

- Any student with a disability who may need accommodations in class should contact me as early as possible to discuss their needs and must also obtain an accommodation letter from Student Disabilities services (385 Garland, 410-516-4720, web.jhu.edu/disabilities, studentdisabilitiesservices@jhu.edu)
- If you are very sick and contagious, please warn by email and you will be excused from coming to class. The JHU Student Health and Wellness center is located at 1 East 31 Street, 410-516-8270
- If you are struggling with anxiety, stress, depression or mental health related concerns or if a friend of yours is struggling with those, please seek out for help at JHU Counseling Center located at 3003 North Charles Street in Suite S-200, 410-516-8278, studentaffairs.jhu.edu/counselingcenter/

Support:
If you are stuck on a problem of the homework or by a statement or a proof seen in class, first try to take some time to try to solve the problem yourself. Self-discovery, even if you are not able to solve entirely the problem, is a very important part of the learning process. After trying to solve the problem by yourself, I advise you to ask your classmates for help. You will learn a lot from working together and putting the mathematical ideas in your own words. Of course if you need further help you can reach me at my office hours which will be held on time specified at the beginning or by appointment in Krieger 219. Eric’s office hours will be help on ????? in Krieger 207. Sean's office hours will be help on ???? in Krieger 207. If your problem cannot wait, the Math Help Room is open 9 am → 9 pm Monday-Thursday and 9 am → 5 pm on Friday.

Grading:
It will be a numerical grade based on the following formula:

- 1/4 Problem sets
- 1/4 1st Midterm
- 1/4 2nd Midterm
- 1/4 Final exam

Just a point on ethics: in this course you must be honest and truthful. Ethical violations include cheating on exams, plagiarism, reuse of assignments, improper use of internet and resources, unauthorized collaboration (see also section on Problem sets), alteration of graded assignments, forgery and falsification, lying,... In this course the John Hopkins Ethics Guide will apply: http://e-catalog.jhu.edu/undergrad-students/student-life-policies/

Problem sets:
Except for the first week and the weeks of midterms, a problem set will be due (unless exceptional excuse) each week and will have to be handled in class on Fridays. You can collaborate and work on these problem sets together, I encourage it however each student must write down the solutions in their own words and own mathematical style and write the name of their collaborators on the written assignments. Copying directly from someone else or from another resource is strictly prohibited.

Midterm: It will be a written exam held in class 2nd of March and 13th of April.

Final exam: It will be help 11th May from 9am to 12pm

Approximate schedule:

- 27th Jan → 7th Feb: Review of basic properties of functions: chapter 1, sections 2.1, 2.2
- 10th Feb → 21st Feb: Limits and Continuity: 3.1 → 3.5
- 24th Feb → 13th Mar: Derivatives, 4.1 → 4.11
- 23rd Mar → 6th Apr: Applications of Differentiation: 5.1 → 5.5
- 8th Apr → 22nd Apr: Integration: 5.10 → 6.3
- 24th Apr → 1st May: Applications of the Integral: 7.1 → 7.3