AMA1120: Basic Mathematics II –Calculus and Linear Algebra (Group 201)

1. Time: Thursday 16:30–18:20, TU201

2. Lecturer: Dr. ZHANG Zaikun, AMA

TU824, Yip Kit Chuen Bldg.

Email: zaikun.zhang@polyu.edu.hk Phone: 2766 4592

3. Consultation Hours:

Regular (I will be waiting for you in office): Thursday 14:00–16:00

Supplementary (please **make appointments beforehand**): Thursday 11:00–12:00

You are very welcome to ask questions by emails.

4. Course Website: Blackboard eLearning System at https://learn.polyu.edu.hk/

Course ID: AMA1120_20172_A

Please check the course page every day for course materials and announcements.

5. Textbook: Hung, K.F., Kwan, W. Pong, T.Y. Foundation Mathematics & Statistics, McGraw Hill 2013 (available at the Pao Yue-kong Library)

Reference books:

R. Larson, B. Edwards, Single Variable Calculus, Brooks/Cole 2012

R. Larson, Elementary Linear Algebra, Brooks/Cole 2013

You can also consult the Ebook named "Foundation Mathematics" in the blackboard system. You may try other online Calculus Resources like MIT OpenCourseWare and Calculus.org. As university students, you should have certain ability of self study (I will always be there to help, of course).

6. Grading Scheme:

Continuous Assessment	2 tests	(10%+18%) 28%
	2 quizzes	(3%+3%) 6%
	2 assignments	(3%+3%) 6%
Final Exam		60%

6.1. You must pass (D or above) BOTH the Continuous Assessment and the Final Exam to receive a passing grade for the whole course.

6.2. We will have two tests instead of a midterm. The tests will be held on the

afternoons of Saturday 10 February (Week 4) and Saturday 24 March (Week 9). The dates are tentative. Please check whether you have other class or learning activities scheduled for those time slots. If yes, please send me an email before 23:59 Friday 26 January. Otherwise, I will suppose that everyone is OK with the aforesaid schedule. The tests will be closed book and 45 and 90 minutes long, respectively.

6.3. The quizzes will take place during the tutorial sessions of Weak 8 (12-16 March) and Week 12 (9-13 April). They are open book and 30 minutes long.

6.4. The assignments are due in Week 6 (17:00, 2 March) and Week 11 (17:00, 6 April). **Late submissions will not be marked**. Assignments should be submitted through the Assignment Box of AMA on the 7th floor of Building T. Please make sure to submit your assignment into the correct box (of Group 201). Do NOT submit them to my pigeonhole (they will be lost in that case).

7. Material Covered:

The following table is only a guide. We may adapt our pace according to the progress.

Weeks	Contents	Remarks
1	Mean value theorem	
2	Application of differentiations I	Assignment 1 announced (maybe earlier)
3	Application of differentiations II	
4	Definite and indefinite integrals	Test 1 (10 February)
5	Fundamental theorem of calculus	
6	Techniques for integration I	Assignment 1 due (2 March)
7	Techniques for integration II	Assignment 2 announced (maybe earlier)
8	Techniques for integration III, improper integrals	Quiz 1 (tutorial sessions)
9	Applications of integrals I	Test 2 (24 March)
10	Applications of integrals II	
11	No lecture	Assignment 2 due (6 April)
12	Matrices, linear systems, Gaussian elimination, inverse matrices	Quiz 2 (tutorial sessions)
13	Determinants, Cramer's rule, review	

We do not have lecture on 5 April (Week 11) due to the Ching Ming Festival. So we have only 12 lectures. I will try not to rush, but our time is really limited.

8. In addition to the regular lectures and tutorials, you can also seek help from the Math Learning Support Center (MLSC) of AMA:
http://www.polyu.edu.hk/ama/math_learning_support_centre/

8. Important remarks
1. My job is to make you succeed in this course, not to make you fail. Your failure will be a quite negative thing to me by all means, and hence I have absolutely no interest in it. I will work hard to teach so that you can pass, but no matter how hard I work, there will almost always be someone who fail, because my effort will be useless if you are not willing to learn. I hope you will not fail.
2. We are a team, and we have to work together. I will be very happy to help you by any reasonable means that do not violate the university or department rules, yet **you have to do your part of the job**. **Please make sure to ask me for help whenever you have difficulties.**
3. Attend the lectures/tutorials and do your homework.