MA1200 Calculus and Basic Linear Algebra I
Semester A 2020/21 Course Information

1. OBTL and course website of MA1200
   (a) MA1200 adopts OBTL practice.
   (b) Please visit the MA1200 Canvas course website regularly for any update (announcements, course materials, etc.).

2. Course content of MA1200
   The course materials of MA1200 are divided into 8 chapters. Each of the chapter 1 to 5 is equivalent to a course of 4 lecture hours (From week 1 to week 6). Each of the chapter 6 to 8 is equivalent roughly to a course of 7 lecture hours (From week 7 to week 12).

   The topics covered in the 8 chapters are:
   1. Coordinate Geometry and Conic Sections
   2. Sets and Functions
   3. Polynomials, Rational Functions and Partial Fractions
   4. Trigonometric Functions, Inverse Trigonometric Functions, Trigonometric Identities and Trigonometric Equations
   5. Exponential Functions, Logarithmic Functions and Hyperbolic Functions
   6. Limits, Continuity and Differentiability
   7. Differentiation
   8. Applications of Derivatives

3. Reference books, lecture notes and assignments
   (a) Reference books

   - Frank Ayres, Jr. and Elliott Mendelson, *Calculus (Schaum's Outlines)*, 6th ed., Mc Graw Hill, 2013
   - Fred Safier, *Precalculus (Schaum's Outlines)*, 3rd ed., Mc Graw Hill, 2013
   - *Basic Calculus and Linear Algebra* (Compiled by Department of Mathematics, City University of Hong Kong), Pearson Custom Publishing, 2007 (Available at CityU Bookstore)
   - Ron Larson and Bruce Edwards, *Calculus I with Precalculus: A One-Year Course*, 3rd ed., Brooks/Cole, 2012
   - C. Henry Edwards and David E. Penney, *Calculus: Early Transcendentals*, 7th ed., Pearson Prentice Hall, 2008
   - Robert A. Adams, *Calculus: A Complete Course*, 6th ed., Pearson Addison Wesley, 2006
   - Glyn James, *Modern Engineering Mathematics*, 4th ed., Pearson Prentice Hall, 2008
   - *Calculus*： *early Transcendentals, An open textbook*, https://lyryx.com/calculus-early-transcendentals/

   (b) Lecture notes
   - Only topics covered in the notes will be assessed.
   - In case notations in notes differ from the corresponding ones in the reference books, we follow the notations in the lecture notes.

   (c) Problem sets
   - For self-practice and demonstration in tutorials. (Although students are *not* required to submit their solutions for grading, they are strongly encouraged to practice at home before attending tutorials, in order to get more hands-on experience before the midterm and final exams).

4. Grading scheme and policy
   (a) Coursework (30%): three take-home assignments (3% each) + one 1.5 hour midterm (21%) Final exam (70%). Midterm exam will be held on week 7 or week 8 in class for materials chap1-5. Three take-home assignments will be given after chap2, chap 5, and chap 7.
   (b) Remedy work for midterm test: those students who scored less than 50 points in the midterm should redo the questions in the test again, and hand in the solutions to their TA within one

week of the release of the test results. If a remedy work is expected but is not received, 10 points will be taken off from the student's *total grade* (keep in mind that the entire midterm test is worth only 21 points in the total grade).

(c) Final exam policy
All students sit for the *same three-hour* final examination; The final exam is 100 points in total.

(d) Minimum Requirement: Coursework × 30% + Final exam × 70% ≥ 40
and Final exam ≥ 30.

5. When and where to get assistance

(a) Tutorials: students are advised to attend tutorials every week to get help from the tutors.

(b) PALSI (Peer Assisted Learning scheme using Supplementary Instruction model): the program aims at enhancing students' understanding in course materials and at improving students' overall learning and reasoning skills. Regularly or weekly scheduled from Week 4 to Week 12, out-of-class and senior peer-facilitated revision sessions are open to all registered students taking PALSI courses MA1200. We recommend every student who needs more help in mathematics to join the program. For more information, please visit:
http://www.cityu.edu.hk/edge/palsi/

(c) Mathematics help center: the center operates from Week 6 to the end of the examination period. It offers assistance to undergraduate students who experience difficulty in studying particular courses offered by the Department of Mathematics. Students are advised to book a session of 15 minutes first before visiting the center, and tutor(s) will be available for consultation. For booking and more information, please visit:
http://www6.cityu.edu.hk/ma/ug/mhc.htm