AMA2112: Mathematics II

1. Lecture: Monday 16:30–18:20 (N003)

2. Instructor: Dr. ZHANG Zaikun

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3. Consultation Hours: Wednesday 15:00–18:00 (**THREE** hours, TU824)

   Supplementary Consultation: beyond the above mentioned hours, consultation is possible **by appointments, including weekends.**

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

                Course ID: AMA2112_20171_A

 Please check the course page daily for course materials and announcements.

5. Textbook (BEM): C.K. Chan, C.W. Chan and K.F. Hung, *Basic Engineering Mathematics*, 4th Ed., McGraw-Hill, 2015 (available at the Pao Yue-kong Library)

6. Grading Scheme:

	Midterm	25%
Continuous Assessment	Three quizzes	9%
	Three assignments	6%
Final Exam		60%

Remarks:

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

6.2. The Midterm examination will be held around the 9th week. Precise date to be announced.

6.3. The quizzes will take place during the tutorial sessions around the 4th, 8th, and 12th weeks. Precise dates to be announced.

6.4. Please respect the deadline of the assignments (to be announced). Overdue submissions within 24 hours of the due time will be given **at most** half of the marks, and submissions even later will not be marked. Assignments should be submitted through the Assignment Box of AMA on the 8th Floor of Building T. **DO NOT** submit them to my pigeonhole.

7. Material Covered:

7.1. Integration in Several Variables (7 weeks): Multiple integrals; change of variables; divergence and curl; line, surface and volume integrals; Green's, divergence and Stokes' theorems.

7.2. Series Expansion (2 weeks): Infinite series, Taylor's expansion, Fourier series expansion of a periodic function.

7.3. Partial Differential Equations (3 weeks): Heat, wave and Laplace equations; initial and boundary value problems; separation of variables; homogeneous boundary conditions; Sturm-Liouville theory; eigenfunction expansions.

8. Remarks

8.1. There will be no lecture on 2nd October (the day following the **National Day). Our time is limited.**

8.2. My job is to make you succeed in this course, not to make you fail. We are a team, and we have to work together. **Attend the lectures and do your homework.**