

AMA2112: Mathematics II

1. **Lecture:** Thursday 16:30–18:20 (N003)

2. **Instructor:** Dr. ZHANG Zaikun

Email: zaikun.zhang@polyu.edu.hk Phone: 27664592

3. **Consultation Hours:** Thursday 14:00–16:00 (TU824, no appointment needed)

Supplementary Consultation: Thursday 11:00–12:00 (TU824, **by appointment**)

Beyond the above mentioned hours, consultation by email/phone is very welcome

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

Course ID: AMA2112_20181_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:

Continuous Assessment	Midterm	25%
	Three quizzes	9%
	Two 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 8th week. Precise date to be announced.

6.3. The quizzes will take place **during the tutorial sessions** around the 3th, 6th, and 11th weeks. Precise dates to be announced.

6.4. Please respect the deadline of the assignments (around the 5th and 11th weeks, precise dates 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. I know that It is no easy job to learn all the materials mentioned above in 13 weeks (NOTE: **I am not the one who made the syllabus; I am responsible for the lecturing but not the administrative issues of the course**). **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 hard together. **Attend the lectures and do your homework.**

8.3. I am only in charge of the lecturing of the course but have **absolutely NO power over the administrative issues about the course**. For questions about **registration, dropping, syllabus**, ..., please contact the department secretary Miss Forest Chan (forest.chan@polyu.edu.hk). She will forward your questions to the senior management of the department, who will make decisions.

8.4. Dr. Chor-yin Ho (chor.yin.ho@polyu.edu.hk) and Mr. Andy Cheung (andy.cheung@polyu.edu.hk) are in charge of the tutorials. We cooperate but they are NOT my subordinates. Contact your own tutor for solutions to tutorial questions.