

# MAU11201 Calculus – General information

**Lecturer.** Paschalis Karageorgis (or Pete). E-mail: [pete@maths.tcd.ie](mailto:pete@maths.tcd.ie).

**Lectures.** This is a 10-credit module that involves 5 lectures and 1 tutorial per week.

**Tutorials.** Tutorials are problem solving sessions that will start during the second week of lectures. You will be given 10 problems and you will be able to work with the tutor and ask questions, if needed. The solutions will be posted online on Blackboard.

**Module web page.** Assignments, notes and solutions will all be posted on Blackboard.

**Module content.** This module deals with a large number of topics related to the theory of functions. We shall rigourously define and study limits, continuity, derivatives, integrals, sequences, series and various applied problems that one may solve using these concepts.

**Textbook.** We shall not follow any particular textbook, but three typical references are

- *Calculus, Early Transcendentals* by Anton, Bivens and Davis,
- *Calculus* by James Stewart,
- *Calculus* by Michael Spivak.

The first two contain lots of examples, while the third follows a more rigourous approach. I am also planning to post thorough notes for the material that we are going to cover.

**Homework.** There will be 3 homework assignments worth 5% of your overall mark each. These assignments will be due on October 16th, November 6th and November 20th. You will also receive practice problems along with solutions on a regular basis. Solving problems is very important for understanding the main concepts.