

## MATH8010 - Multivariable Calculus

**Module CRN:** 24255

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**Module descriptor** available [here](#).

This module intends to answer the following questions.

- What are the functions of multiple variables geometrically?
- What physical entities do these functions represent?
- What is the mathematics of operations on these entities and how is it applied in engineering?
- Second order partial differential equations: where they arise and how we solve them analytically.
- What is the use of all this in engineering? Plenty of interesting and useful engineering applications will be discussed along the way!

This is an advanced mathematics module. Students should have prior learning of the following topics: basic differentiation and integration; basic partial differentiation; ordinary differential equations.

