

Computational Methods for Economists

First year module

Lecturer: [Colin Rowat \(/staff/profiles/business/rowat-colin.aspx\)](/staff/profiles/business/rowat-colin.aspx)

Computational techniques are widely used in economics and elsewhere to solve problems not amenable to traditional solution techniques. This module introduces students to numerical computation and analysis. The topics covered are iterations and simple linear and nonlinear recurrences; interpolation; numerical approximation of integrals; numerical approximation of differential equations; introduction to matrices; error analysis; algorithm complexity. The package used is Matlab. Listed as MSM1Ca in the Mathematics School.

Learning outcomes

By the end of the module the student should

- (i) understand basic principles of computational techniques; and
- (ii) be able to write simple programs for Matlab.

Assessment

Assessment based on computer tests (10%), class tests (10%), exam (80%).