



*SECTION B: Single-variable Optimization*

This topic should include an introduction to optimization, tests for local and global extrema, the 2<sup>nd</sup> derivative test, and inflection points. This section should illustrate these concepts with a plethora of economic applications (e.g. simple profit maximization).

*SECTION C: Functions and derivatives of many variables*

Most of the material covered in Econ 3070 requires a good understanding of multivariate functions and partial derivatives.

1.       $f(x)$  and  $g(x)$