

## ECU33092 — Econometrics B

| Module Information |                                                               |
|--------------------|---------------------------------------------------------------|
| Module Code        | ECU33092                                                      |
| Module Title       | Econometrics B                                                |
| Department         | Economics                                                     |
| Year Group         | Junior Sophister                                              |
| Module Personnel   | Professor Gaia Narciso                                        |
| Academic Year      | 2026-27                                                       |
| Credit Weighting   | 5 credits                                                     |
| Semester           | Semester 2                                                    |
| Contact Hours      | 22 hours of lectures and approximately 6 hours of lab session |

| Module Content       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| Module Description   | This module provides an introduction to the theory and methods of modern econometrics.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Module Learning Aims | <p>This module provides an introduction to the theory and methods of modern econometrics. It begins by reviewing and extending the econometrics material covered in Econometrics A. Following this, students are guided through the fundamental principles of econometrics and work through more advanced topics as the module progresses. The module provides a balance between core theoretical material and an extensive applied component, which aims to develop students' practical skills necessary to conduct independent applied research. Topics discussed include:</p> <ul style="list-style-type: none"> <li>• Linear probability models and Probit.</li> <li>• Instrumental variable analysis.</li> <li>• Experiments and Quasi-experiments.</li> <li>• Introduction to Time-Series Analysis: Stationarity/non-stationarity; unit roots and cointegration; MA, AR and ARMA models.</li> <li>• Misspecification of Disturbance Terms: Autocorrelation.</li> </ul> |

## Module Content

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| <b>Learning Outcomes</b>              | <p>On successful completion of this module, you will be able to:</p> <ul style="list-style-type: none"> <li>• Confidently discuss the problem of identification;</li> <li>• Estimate and test models using instrumental variables and two stage least squares;</li> <li>• Perform basic time series analysis;</li> <li>• Use the techniques developed to test economic models;</li> <li>• Use Stata to estimate econometric models;</li> <li>• Write an empirical paper on an applied research topic.</li> </ul> |
| <b>Indicative Reading / Resources</b> | <p>Stock, J.H. and M.W. Watson. Introduction to Econometrics, Pearson (4e), 2020.</p> <p>Angrist, J.D. and J. Pischke. Mastering Metrics, Princeton University Press, 2015.</p>                                                                                                                                                                                                                                                                                                                                  |

## Assessment

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| <b>Assessment Components</b> | <ul style="list-style-type: none"> <li>• A project worth 30% of the overall grade.</li> <li>• The annual in-person exam worth 70% of the overall grade.</li> </ul> |
| <b>Assessment Details</b>    |                                                                                                                                                                    |

## Additional Information

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| <b>Prerequisites</b>         | ECU33091 Econometrics A |
| <b>Co-requisites</b>         |                         |
| <b>Any other information</b> |                         |