

## ECP77002 — Econometrics II

| Module Information |                                                |
|--------------------|------------------------------------------------|
| Module Code        | ECP77002                                       |
| Module Title       | Econometrics II                                |
| Department         | Economics                                      |
| Module Personnel   | Professor Martyna Marczak (Module Coordinator) |
| Academic Year      | 2026/27                                        |
| Credit Weighting   | 10 credits                                     |
| Semester           | Semester 2                                     |
| Contact Hours      | 20 hours of lectures and 9 hours of tutorials  |

| Module Content       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| Module Description   | <p>This module builds on Econometrics I and introduces students to the theory and application of time series econometrics. Delivery combines lectures dealing primarily with theoretical issues and tutorials focusing on applying these concepts to real data.</p> <p>Indicative syllabus (lectures):</p> <ul style="list-style-type: none"> <li>• Univariate time series analysis: basic regression with time series; properties of stationary AR, MA and ARMA processes; the Box–Jenkins methodology; forecasting with ARMA models; nonstationarity</li> <li>• Multivariate time series analysis: simultaneous equation models; vector autoregressions (VAR): properties, identification of shocks, impulse-response functions, and variance decomposition; structural VAR</li> </ul> <p>Tutorials introduce the use of Stata, practice the application of theoretical concepts, and support students in preparing their term project.</p> |
| Module Learning Aims | <p>The module aims to introduce students to core concepts in time series econometrics and to provide the skills required to undertake independent applied research using modern methods, maintaining a balance between theory and applied research.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Learning Outcomes    | <p>On successful completion of this module, students will be able to:</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

## Module Content

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|                                       | <ul style="list-style-type: none"> <li>• Demonstrate comprehensive theoretical knowledge across the main topics in time series econometrics</li> <li>• Independently estimate models using time series data, applying appropriate modern methods</li> </ul>                                                                                       |
| <b>Indicative Reading / Resources</b> | <ul style="list-style-type: none"> <li>• Enders, W. (2014). <i>Applied Econometric Time Series</i>, 4th edition.</li> <li>• Greene, W. H. (2017). <i>Econometric Analysis</i>, 8th edition.</li> <li>• Hamilton, J. D. (1994). <i>Time Series Analysis</i>.</li> <li>• Verbeek, M. <i>A Guide to Modern Econometrics</i>, 5th edition.</li> </ul> |

## Assessment

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| <b>Assessment Components</b> | Final Exam: 60%; Project: 40%                                                                                                                                                    |
| <b>Assessment Details</b>    | The final examination takes place in person during the end-of-semester assessment period. The project is completed during the teaching term, with support provided in tutorials. |

## Additional Information

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| <b>Prerequisites</b>         | Econometrics I                                                                                                                        |
| <b>Co-requisites</b>         | None                                                                                                                                  |
| <b>Any other information</b> | This is a mandatory module. All module materials will be provided via Blackboard. Please note that this outline is subject to change. |