



## Teaching Guide

| Teaching Guide           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |                     |           |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------------------|-----------|
| Identifying Data         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |                     | 2022/23   |
| Subject (*)              | Advanced macroeconomics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Code   |                     | 611532029 |
| Study programme          | Máster Universitario en Economía                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        |                     |           |
| Descriptors              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |                     |           |
| Cycle                    | Period                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Year   | Type                | Credits   |
| Official Master's Degree | 2nd four-month period                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | First  | Optional            | 3         |
| Language                 | Spanish                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                     |           |
| Teaching method          | Face-to-face                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |                     |           |
| Prerequisites            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |                     |           |
| Department               | Economía                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |                     |           |
| Coordinador              | Currais Nunes, Luis Claudio                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | E-mail | luis.currais@udc.es |           |
| Lecturers                | Currais Nunes, Luis Claudio                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | E-mail | luis.currais@udc.es |           |
| Web                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |                     |           |
| General description      | O obxectivo deste curso é estudar algúns dos principais modelos da macroeconomía dinámica moderna. Os obxectivos específicos son ensinar os instrumentos de análise económico para aplicalos a cuestións claves do crecemento económico. As cuestións que se analizarán son (i) causas do crecemento sostido da renda percápita dos países; (ii) determinantes das diferencias en renda percápita mantidas entre países; (iii) efectos das políticas gubernamentais en ditos contextos; (iv) estudo dos principais modelos de crecemento económico en horizonte infinito e finito. |        |                     |           |

## Study programme competences

| Code | Study programme competences                                                                                                                                                                                                   |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A2   | CE2 - Conocimiento riguroso de los modelos micro y macroeconómicos y su aplicación precisa a situaciones concretas.                                                                                                           |
| A5   | CE5 - Capacidad para defender argumentos económicos con claridad y precisión tanto en el entorno habitual de trabajo, como en reuniones científicas nacionales e internacionales.                                             |
| A6   | CE6 - Plantear con suficiente precisión y rigor un proyecto de investigación en economía.                                                                                                                                     |
| A9   | CE9 - Elaborar informes económicos coyunturales y estudios orientados a analizar y predecir el comportamiento de corto plazo de la economía y sus efectos sobre sectores y mercados específicos.                              |
| B6   | CG1 - Aplicar los conocimientos de economía a la identificación, previsión y solución de los problemas económicos en general, y en particular los relativos al nivel de especialización, en entornos nuevos o poco conocidos. |
| B7   | CG2 - Capacidad de concebir, diseñar y poner en práctica un proceso sustancial de investigación en el campo de la economía en general, y en particular en sus áreas de especialización, con rigor académico.                  |
| B8   | CG3 - Capacidad para realizar un análisis crítico, evaluación y síntesis de ideas nuevas y complejas.                                                                                                                         |
| C2   | CT2 - Capacidad para comunicarse por oral e por escrito en lengua gallega.                                                                                                                                                    |
| C6   | CT6 - Capacidad de gestión de la información.                                                                                                                                                                                 |
| C7   | CT7 - Capacidad para comunicarse por oral y por escrito en lengua inglesa.                                                                                                                                                    |
| C8   | CT8 - Capacidad para trabajar en un contexto internacional.                                                                                                                                                                   |
| C9   | CT9 - Destrezas para investigar.                                                                                                                                                                                              |

## Learning outcomes

| Learning outcomes                           | Study programme competences |     |     |
|---------------------------------------------|-----------------------------|-----|-----|
| Know the main dynamic macroeconomic models. | AC2                         | BC6 | CC2 |
|                                             | AC5                         | BC7 | CC6 |
|                                             | AC6                         | BC8 | CC8 |
|                                             | AC9                         |     | CC9 |



|                                                                                                                                                                                                                                                                               |                   |                   |                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|---------------------------------|
| Solve, calibrate and simulate dynamic macroeconomic models.                                                                                                                                                                                                                   | AC2<br>AC6<br>AC9 | BC6<br>BC7<br>BC8 | CC2<br>CC6<br>CC7<br>CC8<br>CC9 |
| Having a proactive attitude, the ability to work in a group, the acquisition of responsibilities, as well as the ability to argue and express oneself coherently both in the elaboration of a written text and in the public presentation of the results of a specific study. | AC5<br>AC6        | BC8               | CC2<br>CC6<br>CC7<br>CC8<br>CC9 |

| Contents                                                |                                                                                                                                                                                                                                     |
|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Topic                                                   | Sub-topic                                                                                                                                                                                                                           |
| 1. The Ramsey-Cass-Koopmans model. Dynamic optimization | <ul style="list-style-type: none"> <li>- The model of producer families</li> <li>- The solution with competitive markets</li> <li>- The dynamics of the economy</li> </ul>                                                          |
| 2. Overlapping generations models                       | <ul style="list-style-type: none"> <li>- Hypothesis of the model</li> <li>- Behavior of households and companies</li> <li>- The dynamics of the economy</li> </ul>                                                                  |
| 3. The AK model                                         | <ul style="list-style-type: none"> <li>- The model of producer families</li> <li>- The utility function and the maximization problem</li> <li>- The dynamics of the transition</li> </ul>                                           |
| 4. The AK model and the fiscal policy                   | <ul style="list-style-type: none"> <li>- The model of producer families</li> <li>- The relationship between the size of the state and the growth rate</li> <li>- The economics of the central planner and optimal growth</li> </ul> |
| 5. The Romer model                                      | <ul style="list-style-type: none"> <li>- The model of producer families</li> <li>- The market economy model</li> <li>- The effects of scale and the increasing returns</li> </ul>                                                   |

| Planning                                                                                                                        |                                     |                      |                               |             |
|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------------------|-------------------------------|-------------|
| Methodologies / tests                                                                                                           | Competencies                        | Ordinary class hours | Student's personal work hours | Total hours |
| Guest lecture / keynote speech                                                                                                  | A2 A5 A6 A9 B1 B5<br>B7 C6 C7 C8 C9 | 10.5                 | 9.5                           | 20          |
| ICT practicals                                                                                                                  | A2 A5 A6 A9 B6 B7<br>B8 C7 C8 C9    | 3                    | 12                            | 15          |
| Supervised projects                                                                                                             | A2 A5 A6 A9 B6 B7<br>C2 C2 C6 C7 C8 | 0                    | 20                            | 20          |
| Introductory activities                                                                                                         | A2 A6 B7 B8 C6                      | 0                    | 1                             | 1           |
| Problem solving                                                                                                                 | A2 A9 B6 B8                         | 7.5                  | 9                             | 16.5        |
| Events academic / information                                                                                                   | A2 A5 A9 B6 B7 C9                   | 1.5                  | 0                             | 1.5         |
| Personalized attention                                                                                                          |                                     | 1                    | 0                             | 1           |
| (*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students. |                                     |                      |                               |             |

| Methodologies                  |                                                                                                                     |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Methodologies                  | Description                                                                                                         |
| Guest lecture / keynote speech | Estará centrada na exposición dos contidos de carácter mais teórico.                                                |
| ICT practicals                 | Consistirán na exposición e realización dos contidos prácticos dos diferentes temas utilizando software específico. |
| Supervised projects            | Cada alumno debe realizar un traballo aplicando as técnicas aprendidas no curso.                                    |



|                               |                                                                              |
|-------------------------------|------------------------------------------------------------------------------|
| Introductory activities       | Presentación da materia e exposición do necesario para cursala.              |
| Problem solving               | Solución de problemas da materia.                                            |
| Events academic / information | Asistencia OBRIGATORIA a conferencias/seminarios programados para a materia. |

| Personalized attention |                                                                                                                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Methodologies          | Description                                                                                                                                                                             |
| Supervised projects    | <p>The student can contact the lecturers via:</p> <ul style="list-style-type: none"> <li>- Email.</li> <li>- Learning platform.</li> <li>- Teams</li> <li>- Videoconference.</li> </ul> |

| Assessment          |                                     |                                                                                    |               |
|---------------------|-------------------------------------|------------------------------------------------------------------------------------|---------------|
| Methodologies       | Competencies                        | Description                                                                        | Qualification |
| Supervised projects | A2 A5 A6 A9 B6 B7<br>C2 C2 C6 C7 C8 | The student has to write a paper on the subject and defend it on a public session. | 100           |

| Assessment comments                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------|
| The 1st and 2nd opportunity and the anticipated opportunity will be evaluated in the same way, as well as the students with partial dedication. |

| Sources of information |                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Basic</b>           | <ul style="list-style-type: none"> <li>- Acemoglu, Daron (2009). Introduction to Modern Economic Growth. MIT Press</li> <li>- Barro, Robert y Sala-i-Marti, Xavier (2004). Economic Growth. MIT Press</li> <li>- Blanchard, Olivier y Stanley Fischer (1989). Lectures on Macroeconomics. MIT Press</li> <li>- Romer, David (2006). Macroeconomía avanzada. McGraw-Hill</li> </ul> |
| <b>Complementary</b>   | <ul style="list-style-type: none"> <li>- Jones, Charles I. (2017). Macroeconomics. W. W. Norton</li> <li>- Jones, Charles I. y Dietrich Vollrath (2013). Introduction to economic growth. W. W. Norton</li> </ul>                                                                                                                                                                  |

| Recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| <b>Subjects that it is recommended to have taken before</b>                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Quantitative Methods/611532004                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Aggregate Economic Analysis and Growth/611532002                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Economic Decisions and Market Analysis/611532001                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Subjects that are recommended to be taken simultaneously</b>                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Subjects that continue the syllabus</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Other comments</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <p>1.- The delivery of the documentary works carried out in this matter:1.1. It will be requested in virtual format and / or computer support1.2. It will be done through Moodle, in digital format without the need to print them2.- Values of respect and equality will be promoted3. The integration of students who for physical, sensorial, psychic or sociocultural reasons, experience difficulties to an ideal, equal and beneficial access to university life will be facilitated.</p> |

(\*)The teaching guide is the document in which the URV publishes the information about all its courses. It is a public document and cannot be modified. Only in exceptional cases can it be revised by the competent agent or duly revised so that it is in line with current legislation.