

DOCTORAL PROGRAMME IN ECONOMICS 2016 // 2017



Universidade do Minho Escola de Economia e Gestão



FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA





welcome...

Efficient Portfolios

Families Scottings Furtherne

...to your future

The PhD Programme in Economics aims to endow doctoral students with advanced and thorough scientific education in Economics, enabling them to conduct high-level research and perform professional work involving reliable and demanding economic analysis.

Since the academic year of 2009/2010, the programme has been jointly offered by the Department of Economics, School of Economics and Management at the University of Minho (EEG-UM) and the Faculty of Economics at the University of Coimbra (FEUC).

The PhD programme relies on the use of the best human resources available in the two universities, in the fields of research and advanced education. Its quality rests upon a highly educated faculty holding doctoral degree awarded by prestigious European and American universities and whose research excellence is documented by a large

Executive Board Universidade do Minho

Linda Veiga (Head) Luís Aguiar-Conraria Miguel Portela number of publications in international scientific journals. The academic calendar has been designed in order to facilitate and encourage mobility of students between the two partner institutions. Many complementary activities are offered to students, including advanced training courses in specialized topics, conferences and seminars, hence contributing to the enhancement and refinement of their general and specific skills. Students are also offered the opportunity to participate in other research and training activities organized by both universities.

The programme aims at offering students a high quality educational experience, whilst effectively preparing them for an active life in an increasingly globalised world. If you are looking for an education embodying such characteristics, we are sure that the Ph.D. in Economics is an excellent choice.

Universidade de Coimbra Paulino Teixeira (Head) Pedro Bação



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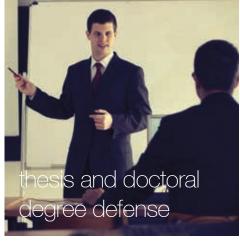
exams..



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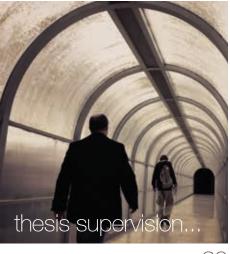




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a partnership...

...aiming at your sucess

The School of Economics and Management of the University of Minho (EEG-UM) and the Faculty of Economics of the University of Coimbra (FEUC) together have more than 60 researchers holding a PhD, who work in a large spectrum of areas of Economics.

At the University of Minho, scientific research is developed within the framework of the Economic Policy Research Unit (NIPE), which was awarded a grade of Very Good in the last evaluation of R&D units by the Foundation for Science and Technology (FCT) and the Applied Microeconomics Research Unit (NIMA). In Coimbra, most faculty members undertake their research activities in the Group for Monetary and Financial Studies (GEMF). Should you require further information, please visit the following websites:

NIPE - http://www.nipe.eeg.uminho.pt/

GEMF - http://gemf.fe.uc.pt/

NIMA - http://nima.eeg.uminho.pt/

The international training of EEG and FEUC faculty is reflected in a large number of joint projects with foreign scholars, in publications in international journals with peer review, in seminars with the participation of both national and international scholars and in the success of the Spring/Summer schools that have been attracting researchers and doctoral students from other institutions.

Both institutions have excellent research facilities and conditions, including laboratories for PhD students, and provide access to a wide range of databases and software. For detailed information, we suggest that you search the web of the Research Support Office of EEG-UM and of the data laboratory of GEMF.

The PhD Programme in Economics is organized in three types of course units:

1. A group of mandatory course units offered in the first year, which corresponds to the foundations of Economic Science. Each one of these course units has a workload of 22,5 hours, corresponding to 7,5 ECTS.

2. In the first semester of the second year, there are two optional course units, a cycle of seminars and a Thesis Project, which will enable students to specialise and to progress to the thesis. Each one of these course units accounts for 7.5 ECTS.

3. From the fourth semester onwards the student performs the thesis, which corresponds to 150 ECTS.

more than a plan...

...your study plan

| Course Unit | | ECTS |
|--|----------------------|------|
| 1 st Year | | 60 |
| Advanced Econometrics I | 1 st Sem. | 7,5 |
| Advanced Macroeconomics I | 1 st Sem. | 7,5 |
| Advanced Microeconomics I | 1 st Sem. | 7,5 |
| Mathematical Economics | 1 st Sem. | 7,5 |
| Advanced Econometrics II | 2 nd Sem. | 7,5 |
| Advanced Macroeconomics II | 2 nd Sem. | 7,5 |
| Advanced Microeconomics II | 2 nd Sem. | 7,5 |
| Computational Methods Applied to Economics | 2 nd Sem. | 7,5 |
| 2 nd Year | | 60 |
| Economics Seminar | 1 st Sem. | 7,5 |
| Option I | 1 st Sem. | 7,5 |
| Option II | 1 st Sem. | 7,5 |
| Thesis Project | 1 st Sem. | 7,5 |
| Thesis | 2 nd Sem. | 30 |
| 3 rd Year | | 60 |
| Thesis | | 60 |
| 4 th Year | | 60 |
| Thesis | | 60 |

| COURSE UNIT: | MATHEMATICAL ECONOMICS | |
|---------------------------|--|--|
| Semester: 1 st | Professor Pedro Cerqueira (U Coimbra) Professor Cristina Amado (UMinho) | Tipology: Compulsory |
| Syllabus: | | |
| 1. | Topics in linear algebra | |
| 2. | The R ⁿ Space and Multivariable Calculus | |
| З. | Differential and Difference Equations and Syster | ns |
| 4. | Dynamic optimization | |
| Learning Outcome | 9S. | |
| 1. | Calculate determinants, determine eigenvalues, | evaluate the properties of matrices, and inter- |
| | pret the meaning of the possible results. | |
| 2. | Calculate limits and describe the properties of s | uccessions. Describe and evaluate the proper- |
| | ties of sets. Apply differential calculus to the st | udy of real functions. Demonstrate particularly |
| | important theorems. | |
| З. | Solve optimization problems. Discriminate and | relate several optimizations methods. Integrate |
| | concepts of linear algebra in the resolution of op | timization problems. Plan and justify the choice |
| | of optimization methods for the resolution of con | crete problems. |
| 4. | Examine discrete and continuous dynamic syst | tems, relating them with concepts of linear al- |
| | gebra and real calculus. Analyse the properties | of systems selecting the adequate methods of |
| | analysis. | |
| 5. | Describe and apply techniques of dynamic prog | ramming in the resolution of problems of dyna- |
| | mic optimization. Evaluate their use in the resolut | tion of economic problems. |
| | | |

| COURSE UNIT: AD | OVANCED MICROECONOMICS I | |
|---------------------------|--|---|
| Semester: 1 st | Professor Paulino Teixeira (U Coimbra) | Tipology: Compulsory |
| | Professor Odd Rune Straume (UMinho) | |
| | | |
| Syllabus: | | |
| 1. | Consumer theory: preferences, indirect utility | and expenditure functions; Marshallian and Hick- |
| | sian demand functions; duality; revealed prefe | erences |
| 2. | Producer theory: technology; production and | cost functions; duality |
| З. | Partial equilibrium | |
| 4. | General equilibrium. Walras' Law | |
| 5. | Welfare theorems. Pareto efficiency. Edgewor | th diagrams. Social welfare functions |
| 6. | Externalities and public goods. The Coase the | eorem. Pigouvian taxes |
| 7. | Choice under uncertainty | |
| 8. | Economics of information: adverse selection a | and moral hazard |
| Learning Outcomes: | | |
| 1. | Understand the modern microeconomic litera | ture. |
| 2. | Perform either empirical or theoretical analysis | in either a professional or academic environment. |

| COURSE UNIT: A | DVANCED ECONOMETRICS I | |
|---------------------------|---|-----------------------------------|
| Semester: 1 st | Professor António Alberto Santos (U Coimbra) Tipo | blogy: Compulsory |
| | Professor Miguel Portela (UMinho) | |
| Syllabus: | | |
| 1. | Ordinary Least Squares (OLS): | |
| | a. Numerical properties | |
| k | b. Statistical Properties. | |
| C | c. Heteroskedasticity and Autocorrelation. | |
| C | d. Hypothesis testing | |
| e | e. Asymptotic results | |
| 2. | Endogeneity, instrumental variables and generalized method c | of moments |
| З. | Maximum likelihood estimation | |
| 4. | Panel data models | |
| Learning Outcomes: |).). | |
| 1. | To name the main assumptions of each estimation method. T | o describe the main properties of |
| | each method. | |
| 2. | To prove the main properties and theorems. | |
| З. | To identify the correct econometric approach to the different e | empirical economic analyses. |
| 4. | To develop strategies that can adjust the theoretical models to | o real data applications. |
| 5. | To apply econometric methods to economic data. | |

COURSE UNIT: ADVANCED MACROECONOMICS I

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Semester: 1st Professors Adelaide Duarte and Marta Simões (U Coimbra) Professors Francisco José Veiga and Luis Aguiar-Conraria (UMinho)

and effects of budget deficits.

Syllabus: Neoclassical theory of economic growth: the Solow model The Ramsey-Cass-Koopmans model Diamond overlapping-generations model Real business cycle models Traditional Keynesian theories of fluctuations Microeconomic foundations of nominal rigidity Inflation and monetary policy Budget deficits and fiscal policy. Learning Outcomes: Describe Solow's economic growth model and evaluate its capacity to answer central issues of economic growth analysis. Evaluate the implications of endogenizing savings decisions, namely the effects of changes in the savings rate, to economic policy in Ramsey-Cass-Koopmans' and Diamond's models. Identify and describe the main forms of nominal and real rigidity which are the source of gradual price and wage adjustment, and their role in the explanation of economic fluctuations and stabilization policies. Describe the relation between money supply, inflation and interest rates, and identify the causes

- Characterize the main monetary policy strategies, evaluating the implications of the rational ex-5. pectations hypothesis and the conditions under which there may be problems of dynamic inconsistency,
- Compare and criticize the models studied and select those that are best suited to the issues 6. analyzed.

Tipology: Compulsory

| Semester: 2 nd | Professors Miguel Portela, Cristina Amado Tipology: Compulsory | |
|---------------------------|---|----------|
| | Professors Miguel Portela, Cristina Amado Tipology: Compulsory and Natália Monteiro (UMínho) Professor António Alberto Ferreira Santos (U Coimbra) | |
| Syllabus: | | |
| 1. | Non-linear regression model | |
| | a. The method of moments (MM) | |
| | b. MM versus non-linear least squares (NLS) | |
| | c. The Gauss-Newton-Regression (GNR) | |
| | d. Inference | |
| 2. | Maximum likelihood estimation | |
| | a. Basic concepts | |
| | b. Estimators properties | |
| | c. Asymptotic distributions | |
| | d. Testing | |
| 3. | Discrete and limited dependent variables | |
| | a. Binary choice models | |
| | b. Models for count data | |
| | c. Models for censored and truncated data | |
| | d. Estimation and inference | |
| 4. | Methods for time-series data | |
| | a. Stationary versus non-stationary time series | |
| | b. Unit root tests | |
| | c. Cointegration | |
| | d. Cointegration tests | |
| 5. | Bayesian Econometrics | |
| | a. Bayesian estimation methods | |
| | b. State-space models | |
| | c. Simulation methods | |
| _earning Outcom | es: | |
| 1. | To master a set of theoretical results related to the models and estimation methods used in E nometrics, and be able to adapt those to the problem in hand. | : :CC |
| 2. | To identify, interpret and discuss the main characteristics of Time Series Analysis. | |
| 3. | To identify, interpret and discuss the main characteristics of Dynamic Panel Data modelling. | |

| COURSE UNIT: A | DVANCED MACROECONOMICS II | |
|---------------------------|---|--|
| Semester: 2 nd | Professors Fernando Alexandre and Luís Aguiar-Conraria (UMinho) Professor Pedro Bação (U Coimbra) | Tipology: Compulsory |
| Syllabus: | | |
| 1. | Savings and the current account | |
| 2. | Small open economy models | |
| З. | The life-cycle model, taxes and the current | account |
| 4. | DSGE models of money | |
| 5. | DSGE models of equilibrium indeterminacy | , |
| 6. | Bank runs models | |
| Learning Outcomes | S: | |
| 1. | Build and analyse open economy models; | |
| | a. Analyze and discuss the results of those m | odels concerning the gains of openness; |
| | Identify the implications of different hypothe analysis; | esis concerning the dimension of the economy under |
| | c. Analyze and discuss the consequences of | government interventions in those models; |
| (| d. Analyze open economy models with financ | ial assets under uncertainty. |
| 2. | Build and analyse DSGE models of with ec | uilibrium indeterminacy |
| З. | Build and analyse bank run models | |

| COURSE UNIT: AD | DVANCED MICROECONOMICS II | |
|---------------------------|--|--|
| Semester: 2 nd | Professor Odd Straume (UMInho) Professor Nuno Miguel Barateiro Gonçalves Silva (U Coimbra) | Tipology: Compulsory |
| Syllabus: | | |
| 1. | Static games of complete information | |
| e | a. Normal form games | |
| b | b. Nash equilibrium | |
| C | c. Mixed strategies | |
| 2. | Dynamic games with complete information | |
| E | a. Backwards induction | |
| b | o. Subgame perfection | |
| C | c. Repeated games | |
| З. | Static games of incomplete information | |
| Ê | a. Bayesian games | |
| b | o. Bayesian Nash equilibrium | |
| 4. | Dynamic games with incomplete information | |
| e | a. Perfect Bayesian equilibrium | |
| b | o. Signaling games | |
| 5. | Topics in contract theory | |
| 6 | a. The principal-agent model | |
| | i. Adverse selection | |
| | i. Moral hazard | |
| | o. Incomplete contracts | |
| Learning Outcomes: | | |
| 1. | | several definitions and refinements of equilibrium |
| | in Game Theory. | |
| 2. | To apply game theory in models of imperfect co | |
| 3. | Interpret the recent developments on the theory | / of the firm, markets and contracts. |

| COURSE UNIT: C | OMPUTATIONAL METHODS APPLIED TO | ECONOMICS |
|---------------------------|---|---|
| Semester: 2 nd | Professor Ricardo Sousa (UMinho) Professor Carlos Manuel Gonçalves Carreira (U Coimbra) | Tipology: Compulsory |
| Syllabus: | | |
| 1. | Quantitative macroeconomics | |
| 6 | a. Real Business Cycles (RBC) models. | |
| k | b. Rational expectations. | |
| (| e. Analysis of Dynamic Stochastic General E | quilibrium (DSGE) models. |
| 2. | Microeconomic dynamic models. | |
| 6 | a. Models of industrial dynamics. | |
| k | . Agent Computational Economics (ACE) m | odels. |
| (| c. Nelson-Winter model. | |
| Learning Outcomes | : | |
| 1. | Identify economic problems whose resolu | tion involves the use of numerical methods. |
| 2. | Computationally implement economic mod | dels. |
| З. | Apply some classical numerical methods. | |
| 4. | Simulate and evaluate results. | |

Course Units – 2nd Year

Optional Course Units

In the third semester, doctoral students should attend two Advanced Economics course units, which they may choose from a range of course units offered by the Department of Economics of the EEG-UM and the Faculty of Economics of UC or from doctoral programmes of national and international institutions of recognised merit, with which the UM and the UC have established protocols.

The range of course units is set annually according to the availability of human resources for teaching. In previous editions of the programme the partner institutions offered the following course units:

- Advanced Topics on Industrial Economics (University of Minho)
- Economic Growth (University of Minho)
- Financial Econometrics (University of Coimbra)
- Financial Economics (University of Minho)
- Labour Economics (University of Minho or University of Coimbra)
- Microeconometrics (University of Coimbra)
- Political Economy (University of Minho)
- Time-Frequency Analysis of Time Series (University of Minho)

Economics Seminars

20

The course unit will take place at both partner institutions and it consists of a series of seminars where various topics and methodologies of research are presented.

The final evaluation of the course unit will result from the simple average of the grades obtained in the activities provided for in each one of the Universities.

Functioning and evaluation regime at the EEG-UM (modular scheme)

- 1. From 08 till 22 September a cycle of seminars is offered at the EEG-UM, whose schedule will be announced in due course. Attendance of the seminar is mandatory.
- 2. The evaluation will be based an essay to be written by the student on a topic presented in a seminar, at the choice of the student. The essay can be written in Portuguese or in English and it should not exceed 15 pages.
- 3. Until 30 September, each student should indicate to the coordinator of the Doctoral Programme at EEG-UM which topic she/he chooses to write about the essay. The deadline to deliver the essay is November 15th.
- 4. The final grade of the course will be based on the seminars' attendance (20%) and the grade obtained in the essay (80%).

Functioning and evaluation regime at the FEUC (modular scheme)

1. Until 30 September, each student should submit a proposal to the coordinator of the PhD program at FEUC, consisting of two selected papers relating to their research areas of interest and/or planned PhD dissertation.

- 2. Each student must perform two presentations, one for each chosen paper. The first will take place in the beginning of November and the other in the beginning of January. Professors working in relevant areas will participate in the sessions.
- 3. One week after the last presentation, each student should deliver an essay based on the seminar presentations (5-10 pages).
- 4. The students should attend at least two seminars at GEMF (http://gemf.fe.uc.pt/).
- 5. The final evaluation is based on the presentation and the submitted essay.

Thesis Project

The thesis project shall be coordinated by:

Paulino Teixeira (FEUC)

Linda Veiga (EEG UMinho).

At the end of the third semester, students are expected to establish in their thesis proposal the research guidelines they will pursue in their doctoral dissertation.

The proposal may be written in Portuguese or English and it must have a maximum length of 15 pages, including references.

As an indication, the proposal should include the following elements:

- Title,
- Summary of 250 words,
- Introduction and motivation (3 pages),
- Literature review (3 pages),
- Proposal development (5 pages),
- Expected results (1 page),
- References (3 pages).

The deadline to deliver the proposal is April 7, 2017.

The oral presentation of the proposal must not exceed 20 minutes. The presentation is followed by a 10-minute-length discussion, maximum. Students must also deliver the supervisors' statement, stating that they are co-responsible for the development of the research work.

The presentation/discussion of the proposal will take place on April 20, 2017, in Braga, at the School of Economics and Management. The jury may approve the Thesis Project, suggest changes or reject it, inviting the candidate to reformulate it.



...testing well built knowledge

First Year Exam

At the end of the first year, students will take an exam for ensuring their admission to the second year of the PhD 23 Programme.

The exam will focus on the subjects taught in the courses of Advanced Macroeconomics I and II and Advanced Microeconomics I and II. Only students who have passed Advanced Macroeconomics I and II and Advanced Microeconomics I and II will be admitted to the exam.

Students will be ranked as Approved/Not Approved.

the faculty...

| | Management – University of Minho | | |
|------------------------|--------------------------------------|-------------|--------------------------------------|
| Professor | PhD | Affiliation | Area of specialization |
| Ana Paula Faria | University of Nottingham, UK | NIPE-UM | Economics of Innovation |
| Carla Sá | Tinbergen Institute | NIPE-UM | Labour Economics |
| | Vrije Universiteit, Holanda | | Economics of Education |
| Carlos Costa | University of Orleans, France | | Banking Economics |
| rmelinda Lopes | University of Minho | | Macroeconomics |
| rancisco Cruz | Oxford University, RU | NIPE-UM | Transport Economics |
| | | | Regional Economics |
| rancisco Veiga | University of South Carolina, USA | NIPE-UM | International Monetary Economics |
| | | | Economic Growth |
| | | | Political Economy |
| Isabel Correia Dias | University of Minho | | Industrial Economics |
| | | | Health Economics |
| oão Cerejeira Silva | European University Institute, Italy | NIPE-UM | Regional Economics |
| | | | Labour Economics |
| osé Cadima Ribeiro | University of Minho | NIPE-UM | Regional Economics |
| | | | Tourism Economics |
| ígia Pinto | University of South Carolina, USA | NIMA-UM | Environmental Economics |
| inda G. Veiga | University of South Carolina, USA | NIPE-UM | Political Economy |
| | | | Public Economics / Public Finance |
| uís Aguiar-Conraria | Cornell University, EUA | NIPE-UM | Political Economy |
| | | | Wavelet Analysis |
| | | | Business Cycle Analysis |
| lanuel Cabral | University of Nottingham, UK | NIPE-UM | International Economics |
| Iaria Cristina Moreira | University of Navarra, Spain | | History Economics |
| 1aria Helena Guimarães | University of Cincinatti, USA | | International Economics |
| 1aria João Thompson | University of Warwick, RU | NIPE-UM | Economic Growth |
| | | | Macroeconomics |
| laria Lurdes Martins | University of Minho | NIMA-UM | Information Economics |
| | | | Applied Microeconomics |

| Marieta Valente | eta Valente University College of London, UK NIMA-UM | NIMA-UM | Experimental Economics |
|--------------------------|---|---------|--|
| | | | Environmental Economics |
| Miguel Portela | Tinbergen Institute, Netherlands | NIPE-UM | Labour Economics |
| | | | Econometrics |
| Natália Barbosa | University of Manchester, RU | NIPE-UM | Industrial Economics |
| | | | Economics of the Firm |
| Natália Monteiro | University of Warwick, RU | NIPE-UM | Labour Economics |
| Odd Straume | University of Bergen, Norway | NIPE-UM | Industrial Economics |
| Orlando Petiz | University of Santiago de Compostela, | | Economics of Innovation |
| | Spain | | Social Economics |
| Paula Veiga Benesch | University of South Carolina, USA | NIMA-UM | Health Economics |
| | | | Applied Microeconomics |
| ^D aulo Mourão | University of Minho | NIPE-UM | Sports Economics |
| | | | Social Economics |
| Priscila Ferreira | University of Essex, UK | NIMA-UM | Labour Economics |
| | | | Microeconometrics |
| | | | Applied Microeconomics |
| Ricardo Sousa | London School of Economics and Politi- cal Science, UK | NIPE-UM | Monetary and Financial Economics |
| | | | Empirical Finance and Asset Pricing |
| | | | Monetary and Fiscal Policy |
| | | | Political Economy |
| Rita Sousa | New University of Lisbon, Portugal | NIPE-UM | Energy and Climate Chan ge Economics |
| Rosa Branca Esteves | Oxford University, UK | NIPE-UM | Industrial Economics |
| | | | Competition Policy and Game Theory |
| Silvia Sousa | European University Institute, Italy | NIPE-UM | Labour Economics |
| | | | |

| Professor | PhD | A | |
|-------------------------|--------------------------------|--|---|
| | | Affiliation | Area of specialisation |
| Adelino Fortunato | FEUC | GEMF-UC | Industrial Economics Regulation |
| Ana Margarida Monteiro | FEUC | GEMF-UC | Mathematical Finance |
| António Alberto Santos | University of Warwick, U.K. | GEMF-UC | Dynamic Bayesian Analysis Applied to Financial Theory |
| António Portugal Duarte | FEUC | GEMF-UC | International Macroeconomics |
| Carlos Carreira | FEUC | GEMF-UC | Industrial Dynamics Productivity |
| Conceição Pereira | University of Manchester, U.K. | GEMF-UC | Economic Development Economics of Happiness |
| Daniel Murta | FEUC | GEMF-UC | Industrial Economics Transport Economics |
| Eduardo Barata | Keele University, U.K. | GEMF-UC | Ecological Economics Input-output Analysis |
| Elias Soukiazis | University of Kent, U.K. | GEMF-UC | Applied Econometrics International Economics Regional Economics |
| Hélder Sebastião | Lancaster University, U.K. | GEMF-UC | Financial Futures and options |
| João Sousa Andrade | Université de Poitiers, France | GEMF-UC | Monetary and Fiscal Policy |
| John Addison | London School of Economics | U of South Carolina, Durham U, and GEMF- -UC | Labour Economics |
| José Murteira | FEUC | GEMF-UC, CEMAPRE- -UTL | Econometrics |
| José Soares da Fonseca | Université d'Orléans, France | GEMF-UC | Financial Markets Term Structure of Interest Rates |
| Luís Cruz | Keele University, U.K. | GEMF-UC | Ecological Economics Input-Output analysis |
| Maria Adelaide Duarte | FEUC | GEMF-UC | Economic Growth Human Capital |

| Maria Rita Martins | FEUC | GEMF-UC | Industrial Economics Regulation |
|----------------------|---|---------------------|---|
| Marta Simões | FEUC | GEMF-UC | Economic Growth Human capital |
| Nuno Silva | FEUNL | GEMF-UC | Financial Markets and Optimal Asset Allocation |
| Óscar Lourenço | FEUC | GEMF-UC, CEIS-UC | Health Economics Applied Microeconometrics |
| Paulino Teixeira | University of South Carolina, U.S.A. | GEMF-UC, IZA | Labour Economics |
| Pedro Bação | Birkbeck College, University of London, U.K. | GEMF-UC | Macroeconomics |
| Pedro Cerqueira | European University Institute, Italy | GEMF-UC | International Macroecono- mics and Business Cycles |
| Pedro Godinho | FEUC | GEMF-UC | Real Options Analysis Project Analysis and Evaluation |
| Pedro Nogueira Ramos | FEUC | GEMF-UC | Regional Economics Input-output Models |
| Rodrigo Martins | FEUC | GEMF-UC | Business Cycles Political Cycles Electoral Behaviour |
| Vítor Castro | University of Warwick, U.K. | GEMF-UC, NIPE-UM | Applied Econometrics |

thesis supervision...

...helping you steer in the right direction

The doctoral thesis is to be supervised by a professor at FEUC or at the Department of Economics, EEG-UM.

In duly justified cases, it may be admitted the thesis co-supervision. However one of the co-supervisors should be a teacher or researcher (holder of a PhD degree) at FEUC or at the Department of Economics, EEG-UM.

Within 30 days after obtaining approval in all course units of the first three semesters, the applicant must request the Scientific Council approval of her/his thesis project and approval of the supervisor. The application must also deliver a statement issued by the Programme Executive Board approving the thesis proposal and a statement of the supervisor confirming that he/she accepts to supervise the thesis.

Once the supervisor has been appointed, the applicant should proceed to the registration of the subject of the thesis, as well as of the thesis provisional plan.

Students will then be evaluated annually by the Executive Board of the programme, on the basis of their supervisor, or co-supervisors, evaluation.

hesis and doctoral begree defense





...almost there.

The thesis can be written in Portuguese or in English.

The doctoral thesis must be presented in accordance with the legislation and regulations in force in each one of the participating institutions.

The jury of the doctorate final examination is proposed by the Executive Board of the Programme to the Rector, in accordance with the regulations and laws in force.

Candidates who complete the Doctoral Programme, will be awarded a Doctoral Degree Diploma.

Ph.D. Student Workshop

Every year, a Ph.D. students workshop is organized. The workshop is open to students from Portuguese and foreign universities, and consists of presentations of papers by Ph.D. students followed by a discussion, also by Ph.D. students. The language of work is English and sessions take place at the School of Economics and Management of the University of Minho.

Participating in the workshop is important for receiving comments and suggestions to the research being implemented, improving students' presentation and reviewing skills, and for networking. Each year, students are also invited to participate in the event's organizing committee.

functioning

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...set your calendar.

Venues

During the first year of the programme, a school semester takes place at the University of Minho and the other one at the University of Coimbra. In 2016/17, the first semester will be offered at the University of Coimbra and the second at the University of Minho.

The third semester is offered in an articulated regime at the two universities.

Calendar and timetable: First Semester: University of Coimbra

| 09.09.2016 | 16.09.2016 | 23.09.2016 | 30.09.2016 | 07.10.2016 | 14.10.2016 | 21.10.2016 | 28.10.2016 | 04.11.2016 |
|---------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------|------------|
| Advanced Microeconomics I | | | | | | | | |
| Lesson 1 | Lesson 2 | Lesson 3 | Lesson 4 | Lesson 5 | Lesson 6 | Lesson 7 | Lesson 8 | Final Test |
| 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 | 14h-17h |
| Mathematical Economics | | | | | | | | |
| Lesson 1 | Lesson 2 | Lesson 3 | Lesson 4 | Lesson 5 | Lesson 6 | Lesson 7 | Final Test | |
| 15h-18h15 | 15h-18h15 | 15h-18h15 | 15h-18h15 | 15h-18h15 | 15h-18h15 | 15h-18h | 15h-18h | |

| 11.11.2016 | 18.11.2016 | 25.11.2016 | 02.12.2016 | 09.12.2016 | 16.12.2016 | 06.01.2017 | 13.01.2017 | 20.01.2017 |
|------------------------|---------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-----------------------|------------|
| Advanced Ec | Advanced Econometrics I | | | | | | | |
| Lesson 1 | Lesson 2 | Lesson 3 | Lesson 4 | Lesson 5 | Lesson 6 | Lesson 7 | Lesson 8 | Final Test |
| 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 | 14h-17h |
| Advanced Ma | Advanced Macroeconomics I | | | | | | | |
| Lesson 1 15h-18h15 | Lesson 2 15h-18h15 | Lesson 3 15h-18h15 | Lesson 4 15h-18h15 | Lesson 5 15h-18h15 | Lesson 6 15h-18h15 | Lesson 7 15h-18h | Final Test 15h-18h | |

| 26.01.2017 | 27.01.2017 |
|---|---|
| Exam - Advanced Microeconomics I: 15h-18h | Exam - Advanced Macroeconomics I: 15h-18h |
| 02-02-2017 | 03-02-2017 |
| Exam - Mathematical Economics: 15h-18h | Exam Advanced Econometrics I: 15h-18h |

Second Semester: University of Minho (Braga)

| 10.02.2017 | 17.02.2017 | 24.02.2017 | 03.03.2017 | 10.03.2017 | 17.03.2017 | 24.03.2017 | 31.03.2017 | 07.04.2017 |
|----------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------|------------|
| Advanced Microeconomics II | | | | | | | | |
| Lesson 1 | Lesson 2 | Lesson 3 | Lesson 4 | Lesson 5 | Lesson 6 | Lesson 7 | Lesson 8 | Final Test |
| 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 | 14h-17h |
| Computational Methods | | | | | | | | |
| Lesson 1 | Lesson 2 | Lesson 3 | Lesson 4 | Lesson 5 | Lesson 6 | Lesson 7 | Final Test | |
| 15h-18h15 | 15h-18h15 | 15h-18h15 | 15h-18h15 | 15h-18h15 | 15h-18h15 | 15h-18h | 14h-17h | |

| 21.04.2017 | 28.04.2017 | 05.05.2016 | 12.05.2017 | 19.05.2017 | 26.05.2017 | 02.06.2017 | 09.06.2017 | 16.06.2017 |
|--------------------------|----------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-----------------------|------------|
| Advanced Ma | Advanced Macroeconomics II | | | | | | | |
| Lesson 1 | Lesson 2 | Lesson 3 | Lesson 4 | Lesson 5 | Lesson 6 | Lesson 7 | Lesson 8 | Final Test |
| 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 13h30-15h | 11h-12h30 | 14h-17h |
| Advanced Econometrics II | | | | | | | | |
| Lesson 1 15h-18h15 | Lesson 2 15h-18h15 | Lesson 3 15h-18h15 | Lesson 4 15h-18h15 | Lesson 5 15h-18h15 | Lesson 6 15h-18h15 | Lesson 7 15h-18h | Final Test 14h-17h | |

| 22-02-2017 | 23-06-2017 |
|--|---|
| Exam - Computational Methods: 15h-18h | Exam - Advanced Microeconomics II : 15h-18h |
| 29-06-2017 | 30-06-2017 |
| Exam - Advanced Econometrics II: 15h-18h | Exam - Advanced Macroeconomics II: 15h-18h |

14.07.2017 1st Year Exam 14h-18h - FEUC & EEG-UM

Third semester

Coursework during the third semester will be held on Fridays from 11:00 to 18:30. The first part of the semester will be taught at the EEG-UM and the second at FEUC. The calendar will be announced in due course on the basis of the course units chosen by students.

Language of Instruction

Portuguese and English.

Unless all students are fluent in Portuguese, the language of instruction will be English. Students whose mother tongue is Portuguese can do exams in Portuguese. All faculty members are fluent in Portuguese and in English.

E-learning Platforms

Information circulates through the e-learning platforms of both Universities. Regardless of where the student enrolls, they will have access to platforms headquartered in both institutions.

At the University of Minho, the access is made through the site (https://elearning.uminho.pt/ webapps/login/), using the student number. The Executive Board of the PhD holds a domain in the platform where it offers all the information relating to the functioning of the programme.

At the University of Coimbra, the access is made through the site https://inforestudante.uc.pt/nonio/security/init.do).

Libraries, Databases and Software

Students will have access to the libraries, software and databases subscribed by both universities.

At UM, the Research Support Office (GAI) is the umbrella for all the EEG's Research Units. Hence, it seeks to ensure the following activities:

- The coordination of research activities in order to foster interdisciplinary research initiatives and to apply for external funding of infrastructure or large interdisciplinary programs;
- The institutional representation of the School's Research Units;
- Databases management;

In the GAI's website students may find all the scientific publications produced by the school's researchers as well as have access to all the databases available: http://www.eeg.uminho.pt/

The University Library provides excellent access to bibliographic databases and data, as well as to books adopted as bibliography for the different course units. The library provides for individual and group study rooms.

Students can access to much of the Library digital resources consulting the catalog and making books' reservations at http://www.sdum.uminho.pt/.

At the Faculty of Economics of the University of Coimbra, students will receive administrative support from the School of Advanced Studies (Escola de Estudos Avançados, http://www.uc.pt/feuc/eea, eea@fe.uc.pt) and from GEMF (http://www.uc.pt/feuc/gemf/, gemf@fe.uc.pt). Databases are housed in GEMF and in FEUC's library (http://www. uc.pt/feuc/biblioteca). Through the University of Coimbra's network, students can access a wide range of digital resources (http://www.uc.pt/sibuc).

Study Rooms and Computer Labs

PhD Students have a room at the EEG-UM – Room 2.41 (Sala de Doutorandos). Working hours: from 08:00 to 22:00. Please ask for the key to Maria José Martingo.

The Economics Department of the EEG-UM has a computer lab headquartered at Room 2.30. Please ask for the key to Mafalda Silva (secretary of the Department of Economics).

The UM has two major computer labs, one in the Pedagogical Complex I (Complexo Pedagógico I) whose working hours are from 08:00 to 22:00 and another in the Pedagogical Complex II (Complexo Pedagógico II) from 08:00 to 23:30.

In Coimbra, PhD students have exclusive access to a dedicated room located on level 4 of the Research Building. This large room has two divisions, one equipped with computers, the other providing desk space for students wishing to read, write or use their laptops.

Administrative Services Contacts

UNIVERSIDADE DO MINHO

Maria José Lage (mjlage@eeg.uminho.pt) E-mail: doutoramentos@eeg.uminho.pt Escola de Economia e Gestão Conselho Pedagógico Campus de Gualtar 4710-057 Braga // Portugal Phone.: 253 604 516 // Fax: 253 601 380

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Alexandra Sousa E-mail: eea@fe.uc.pt

Escola de Estudos Avançados Faculdade de Economia Av. Dias da Silva, 165 3004-512 COIMBRA // Portugal Phone.: 239 790 501 // Fax: 239 790514

Merit Awards and Opportunities for collaboration in the EEG-UM and FEUC

In the context of the activities developed in the Economics Department at the EEG-UM and its research units (NIPE e NIMA) there are opportunities for collaboration for PhD students. Students invited for teaching activities may benefit from a significant reduction of the tuition fees.

An award of merit (equivalent to 50% of the tuition fees of the school-year) will be offered to the student that fulfills all the following requirements:

- a. Obtained approval in all course units of the 1st year of
- the program, during the academic year of 2016/17;
- b. Obtained approval in the final exams of the 1st year;
- c. Was the best student in the 1st year and obtained an average grade above 14;
- d. Is enrolled, in the academic year of 2017/18, in the 2nd year of the program.

The scholarship is equivalent to 50% of the tuition for the academic year.

The Directing Committee of the PhD programme will maintain this initiative in the following academic years, as long as financial resources are available.

Should there be available financial funds, the Executive

Board of the Doctoral Programme will support the participation of students who are working on their thesis, in prestigious international conferences and in advanced courses of short duration.

Additionally, in Coimbra, several students in recent years have been offered scholarships integrated in GEMF's projects.

Scholarships and Prizes Awarded by Other Institutions

TThe FCT opens an annual contest for the award of Ph.D. scholarships. The deadline for submitting applications is usually in May/June.

Further information can be found at http://www.fct.mctes.pt.

The Fundação Oriente grants scholarships for doctoral theses and research papers on issues related to the far East and Portugal in the areas of social sciences and Humanities.

Further information can be found at http://www.foriente. pt/109/the-fundacao-oriente.htm.

The Ordem dos Economistas (Portuguese professional association of economists) awards, annually, a prize for the best Ph.D. thesis (Prize António Simões Lopes).

The Prize Mendes Pinto is awarded annually by the As-

sociation of Portuguese Speaking Universities (AULP). It distinguishes a master or doctoral thesis that contributes to the approximation of Portuguese speaking communities.

CRUP's Integrated Actions are joint programs for enhancing scientific cooperation, through the exchange of faculty and researchers, between Portugal and other countries.

Additional information is available at the Ph.D.'s e-learning platform.

Internationalisation

Students are strongly encouraged to study at least one academic semester in a foreign University.

The EEG-UM holds a wide range of student exchange agreements with foreign institutions. The International Relations Office (www.gri.uminho.pt) of the University of Minho concentrates and provides all the necessary information to students who wish to study abroad. You can also look for information in the Office for International Mobility Programmes (PMI) headquartered at the EEG-UM and contact Estela Vieira estelav@eeg.uminho.pt | Office EEG 0.15 | Telephone: 253 601 904.

In the Department of Economics of the University of Minho, the Erasmus Departmental Coordinator is Dr. Paulo Mourão (paulom@eeg.uminho.pt | Office EEG 2.11 | Telephone: 253 601 934).

For its part, the University of Coimbra has student exchan-

ge protocols in the area of Economics with about one hundred universities around the world (Europe, America, Africa and Asia). There are, in particular, very close links within the Coimbra Group, a long-established network of highly ranked European Universities, and also within the "Grupo de Coimbra de Universidades Brasileiras", a partnership between the University of Coimbra and the most prestigious Brazilian public universities. The latter has enabled FEUC to receive foreign doctoral students for a period of typically one year (or one semester). There are also foreign students enrolled in the PhD program who have scholarships funded through ERASMUS mundus consortiums, mostly from Argentina and Chile. The Administrative Head Office of the Internationalisation Mobility and Exchange Programmes is Margarida Isabel Santos (intfeuc@fe.uc.pt; phone: 351 239 790 506/516; http://www.uc.pt/feuc/internacionalizacao/).

Campus Map - University of Minho



Campus Map - University of Coimbra - FEUC's location details may be found here at:

http://www.uc.pt/feuc/apresentacao/como_chegar

Access to the Parking Lot at UM

The UM requires an access card to its Campi. Each year it disseminates information on how to access.

The students enrolled at FEUC will also have access to the campus of Gualtar, as the list of students attending the course units will be sent to the competent services.

Accommodation

Students enrolled at UMinho can apply for accommodation at the Halls of Residence. They should contact the Social Services (alojamento@sas.uminho.pt) directly. In Braga, the Halls of Residence offer single and double rooms. Apart from university housing, Braga has an extensive private accommodation offer. Upon arrival at UMinho, a list of rooms/ apartments available can be obtained at the Students' Support Office (Gabinete de Apoio ao Aluno).

Students enrolled at FEUC can apply for accommodation at the Welfare Services of the University of Coimbra (SA-SUC) directly (gabadmin@sas.uc.pt). UC provide accommodation in university residences located in the three university campuses, nearby the Faculties, Research Centres and other study facilities. The residences are furnished and equipped; there is weekly laundry service of bed clothing and bathroom towels, offering students great comfort and safety. Learn more at https://apps.uc.pt/accommodation?locale=en.

Tuition Fees

The attendance of the Doctoral Programme is subject to the payment of tuition fees and the amount shall be equal in both institutions and established by mutual agreement.

During the course work of the Doctoral Programme, students may enroll in any of the universities (University of Coimbra or University of Minho).

After the approval of the thesis project, each student will register in the respective Advisor's University.

Other Information

Should you require more information, please do resort to the websites www.eeg.uminho.pt and http://www.uc.pt/ feuc/ or contact us by email (PhD-econ@eeg.uminho.pt and eea@fe.uc.pt).



Universidade do Minho Escola de Economia e Gestão



FEUC FACULDADE DE ECONOMIA UNIVERSIDADE DE COIMBRA

FOR FUTHER INFORMATION:

UNIVERSIDADE DO MINHO

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