



DOCTORAL PROGRAMME IN ECONOMICS

2017 // 2018



Universidade do Minho
Escola de Economia e Gestão



FEUC FACULDADE DE ECONOMIA
UNIVERSIDADE DE COIMBRA



A man in a dark suit, white shirt, and red tie stands next to a computer monitor. He is holding a red pen in his right hand. The monitor displays a presentation slide titled "Efficient Portfolios" with a line graph below it. The background is a plain, light-colored wall.

welcome...

...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

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.

Executive Board

Universidade do Minho

Miguel Portela (Head)
Luis Aguiar-Conraria
Natália Monteiro

Universidade de Coimbra

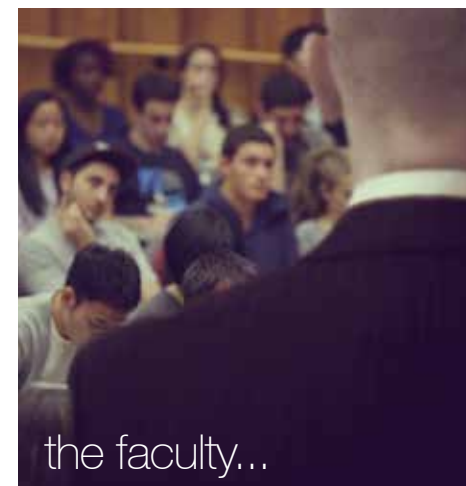
Paulino Teixeira (Head)
Pedro Bação



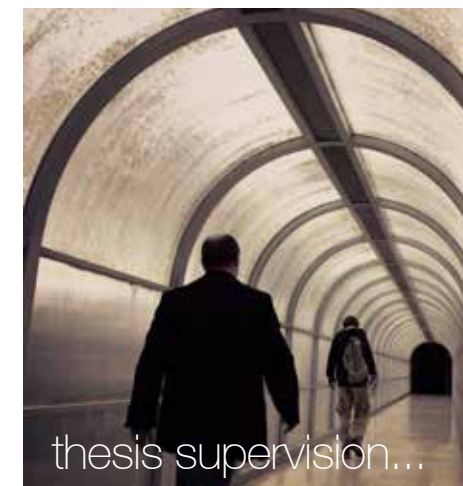
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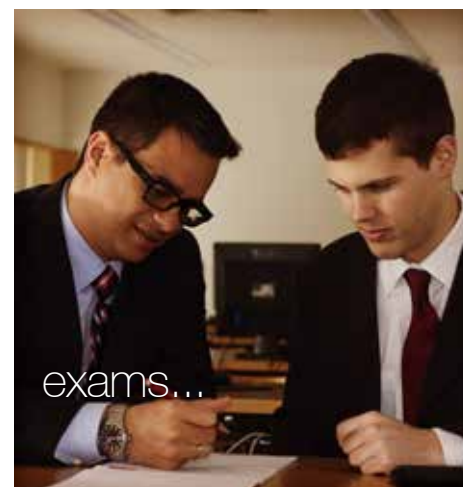
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A photograph of two men in business suits shaking hands. The man on the left is wearing glasses and a striped tie. The man on the right is smiling. The background is a plain, light-colored wall.

a partnership...

...aiming at your success

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 (U Minho), scientific research is developed within the framework of the Economic Policy Research Unit (NIPE - UM), 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 Center for Business and Economics Research (CeBER). Should you require further information, please visit the following websites:

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

CeBER - <http://www.uc.pt/en/uid/ceber>

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

The international training of EEG-UM 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 CeBER.

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:	
	a. Topology in R^n space	b. Multivariable Calculus
	c. Static Optimization	d. Correspondences and Fixed Point Theorems
3.	Differential and Difference Equations and Systems	
4.	Dynamic optimization:	
	a. Calculus of Variations	b. Control Theory
	c. Dynamic Programming	
Learning Outcomes:		
1.	Calculate determinants, determine eigenvalues, evaluate the properties of matrices, and interpret the meaning of the possible results.	
2.	Calculate limits and describe the properties of successions. Describe and evaluate the properties of sets. Apply differential calculus to the study of real functions. Demonstrate particularly important theorems.	
3.	Solve optimization problems. Discriminate and relate several optimizations methods. Integrate concepts of linear algebra in the resolution of optimization problems. Plan and justify the choice of optimization methods for the resolution of concrete problems.	
4.	Examine discrete and continuous dynamic systems, relating them with concepts of linear algebra and real calculus. Analyse the properties of systems selecting the adequate methods of analysis.	
5.	Describe and apply techniques of dynamic programming in the resolution of problems of dynamic optimization. Evaluate their use in the resolution of economic problems.	

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

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

COURSE UNIT: ADVANCED MACROECONOMICS I		
Semester: 1 st	Professors Marta Simões and Pedro Bação(U Coimbra) Professors Francisco José Veiga and Luis Aguiar- -Conraria (UMinho)	Tipology: Compulsory
Syllabus:		
1.	Neoclassical theory of economic growth: the Solow model	
2.	The Ramsey-Cass-Koopmans model	
3.	Diamond overlapping-generations model	
4.	Real business cycle models	
5.	Traditional Keynesian theories of fluctuations	
6.	Microeconomic foundations of nominal rigidity	
7.	Inflation and monetary policy	
8.	Budget deficits and fiscal policy.	
Learning Outcomes:		
1.	Describe Solow's economic growth model and evaluate its capacity to answer central issues of economic growth analysis.	
2.	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.	
3.	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.	
4.	Describe the relation between money supply, inflation and interest rates, and identify the causes and effects of budget deficits.	
5.	Characterize the main monetary policy strategies, evaluating the implications of the rational expectations hypothesis and the conditions under which there may be problems of dynamic inconsistency,	
6.	Compare and criticize the models studied and select those that are best suited to the issues analyzed.	

COURSE UNIT: ADVANCED ECONOMETRICS II		
Semester: 2 nd	Professors Miguel Portela, Cristina Amado and Natália Monteiro (UMinho)	Tipology: Compulsory
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	
Learning Outcomes:		
1.	To master a set of theoretical results related to the models and estimation methods used in Econometrics, and be able to adapt those to the problem in hand.	
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: ADVANCED 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	
3.	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:		
1.	Build and analyse open economy models;	
	a. Analyze and discuss the results of those models concerning the gains of openness;	
	b. Identify the implications of different hypothesis concerning the dimension of the economy under analysis;	
	c. Analyze and discuss the consequences of government interventions in those models;	
	d. Analyze open economy models with financial assets under uncertainty.	
2.	Build and analyse DSGE models of with equilibrium indeterminacy	
3.	Build and analyse bank run models	

COURSE UNIT: ADVANCED 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	
	a. Normal form games	
	b. Nash equilibrium	
	c. Mixed strategies	
2.	Dynamic games with complete information	
	a. Backwards induction	
	b. Subgame perfection	
	c. Repeated games	
3.	Static games of incomplete information	
	a. Bayesian games	
	b. Bayesian Nash equilibrium	
4.	Dynamic games with incomplete information	
	a. Perfect Bayesian equilibrium	
	b. Signaling games	
5.	Topics in contract theory	
	a. The principal-agent model	
	i. Adverse selection	
	ii. Moral hazard	
	b. Incomplete contracts	
Learning Outcomes:		
1.	To interpret and apply in different settings the several definitions and refinements of equilibrium in Game Theory.	
2.	To apply game theory in models of imperfect competition.	
3.	Interpret the recent developments on the theory of the firm, markets and contracts.	

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

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

In this curricular unit, the students will be required to attend and to present seminars throughout the semester, and also to write an essay. The calendars for this unit at each partner institution will announced at the beginning of the academic year.

Thesis Project

The thesis project shall be coordinated by:

Paulino Teixeira (FEUC)
Miguel Portela (EEG-UM).

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 6, 2018.

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 19, 2018, in Coimbra, at the Faculty of Economics. The jury may approve the Thesis Project, suggest changes or reject it, inviting the candidate to reformulate it.



exams...

...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 Programme.

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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.

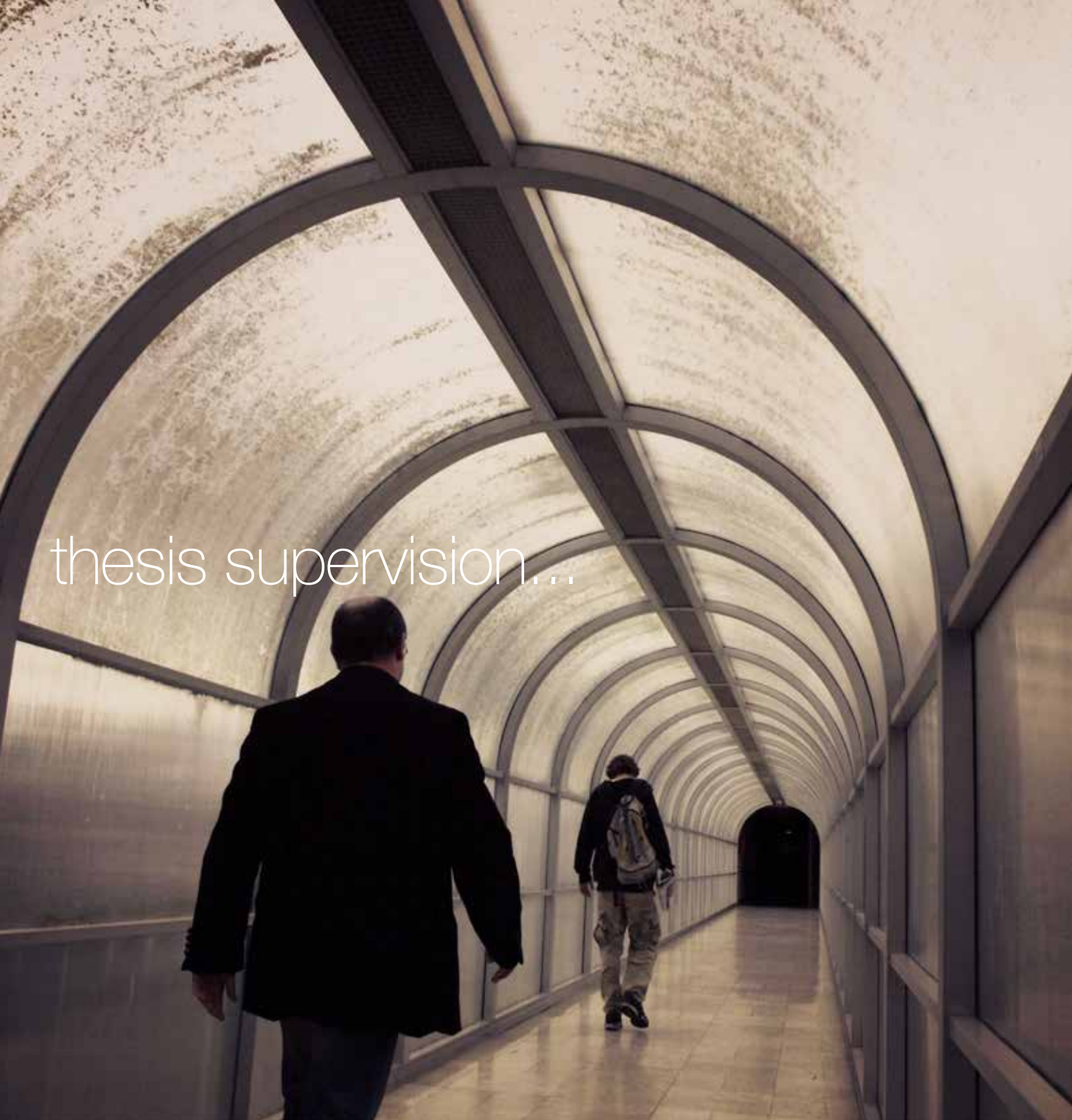
the faculty...

School of Economics and 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 Vrije Universiteit, Holanda	NIPE-UM	Labour Economics Economics of Education
Carlos Costa	University of Orleans, France		Banking Economics
Ermelinda Lopes	University of Minho		Macroeconomics
Francisco Cruz	Oxford University, RU	NIPE-UM	Transport Economics Regional Economics
Francisco 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
João Cerejeira Silva	European University Institute, Italy	NIPE-UM	Regional Economics Labour Economics
José Cadima Ribeiro	University of Minho	NIPE-UM	Regional Economics Tourism Economics
Lígia Pinto	University of South Carolina, USA	NIMA-UM	Environmental Economics
Linda G. Veiga	University of South Carolina, USA	NIPE-UM	Political Economy Public Economics / Public Finance
Luís Aguiar-Conraria	Cornell University, EUA	NIPE-UM	Political Economy Wavelet Analysis Business Cycle Analysis
Manuel C. Cabral	University of Nottingham, UK	NIPE-UM	International Economics
Maria Cristina Moreira	University of Navarra, Spain		History Economics
Maria Helena Guimarães	University of Cincinnati, USA		International Economics
Maria João Thompson	University of Warwick, RU	NIPE-UM	Economic Growth Macroeconomics
Maria Lurdes Martins	University of Minho	NIMA-UM	Information Economics Applied Microeconomics

Marieta Valente	University College of London, UK	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, Spain		Economics of Innovation Social Economics
Paula Veiga Benesch	University of South Carolina, USA	NIMA-UM	Health Economics Applied Microeconomics
Paulo 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 Political 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 Change 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

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

Nuno Silva	FEUNL	CeBER-UC	Financial Markets and Optimal Asset Allocation
Óscar Lourenço	FEUC	CeBER- -UC, CEIS- -UC	Health Economics Applied Microeconometrics
Paulino Teixeira	University of South Carolina, U.S.A.	CeBER- -UC, IZA	Labour Economics
Pedro Bação	Birkbeck College, University of London, U.K.	CeBER-UC	Macroeconomics
Pedro Cerqueira	European University Institute, Italy	CeBER-UC	International Macroecono- mics and Business Cycles
Pedro Godinho	FEUC	CeBER-UC	Real Options Analysis Project Analysis and Evaluation
Pedro Nogueira Ramos	FEUC	CeBer-UC	Regional Economics Input-output Models
Rodrigo Martins	FEUC	CeBER-UC	Business Cycles Political Cycles Electoral Behaviour



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, co-supervision of the thesis may be admitted. 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 deli-

ver 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.



thesis and doctoral degree defense

...almost there.

Ph.D. Student Workshop

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.

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...

...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 2017/18, the first semester will be offered at the University of Minho and the second at the University of Coimbra.

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

Calendar and timetable: First Semester: University of Minho (Braga)

08.09.2017	15.09.2017	22.09.2017	29.09.2017	06.10.2017	13.10.2017	20.10.2017	27.10.2017	03.11.2017
Advanced Microeconomics I								
Lesson 1 11h-12h30 13h30-15h	Lesson 2 11h-12h30 13h30-15h	Lesson 3 11h-12h30 13h30-15h	Lesson 4 11h-12h30 13h30-15h	Lesson 5 11h-12h30 13h30-15h	Lesson 6 11h-12h30 13h30-15h	Lesson 7 11h-12h30 13h30-15h	Lesson 8 11h-12h30	Final Test 14h-17h
Mathematical Economics								
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	

10.11.2017	17.11.2017	24.11.2017	30.11.2017	07.12.2017	15.12.2017	05.01.2018	12.01.2018	19.01.2018
Advanced Econometrics I								
Lesson 1 11h-12h30 13h30-15h	Lesson 2 11h-12h30 13h30-15h	Lesson 3 11h-12h30 13h30-15h	Lesson 4 11h-12h30 13h30-15h	Lesson 5 11h-12h30 13h30-15h	Lesson 6 11h-12h30 13h30-15h	Lesson 7 11h-12h30 13h30-15h	Lesson 8 11h-12h30	Final Test 14h-17h
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	

25.01.2018				26.01.2018			
Exam - Advanced Microeconomics I: 15h-18h				Exam - Advanced Macroeconomics I: 15h-18h			
01.02.2018				02.02.2018			
Exam - Mathematical Economics: 15h-18h				Exam Advanced Econometrics I: 15h-18h			

Second Semester: University of Coimbra

09.02.2018	16.02.2018	23.02.2018	02.03.2018	09.03.2018	16.03.2018	23.03.2018	06.04.2018	13.04.2018
Advanced Microeconomics II								
Lesson 1 11h-12h30 13h30-15h	Lesson 2 11h-12h30 13h30-15h	Lesson 3 11h-12h30 13h30-15h	Lesson 4 11h-12h30 13h30-15h	Lesson 5 11h-12h30 13h30-15h	Lesson 6 11h-12h30 13h30-15h	Lesson 7 11h-12h30 13h30-15h	Lesson 8 11h-12h30	Final Test 14h-17h
Computational Methods								
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	

20.04.2018	27.04.2018	04.05.2018	11.05.2018	18.05.2018	25.05.2018	01.06.2018	08.06.2018	15.06.2017
Advanced Macroeconomics II								
Lesson 1 11h-12h30 13h30-15h	Lesson 2 11h-12h30 13h30-15h	Lesson 3 11h-12h30 13h30-15h	Lesson 4 11h-12h30 13h30-15h	Lesson 5 11h-12h30 13h30-15h	Lesson 6 11h-12h30 13h30-15h	Lesson 7 11h-12h30 13h30-15h	Lesson 8 11h-12h30	Final Test 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	

21.06.2018				22.06.2018			
Exam - Computational Methods: 15h-18h				Exam - Advanced Microeconomics II : 15h-18h			
28.06.2018				29.06.2018			
Exam - Advanced Econometrics II: 15h-18h				Exam - Advanced Macroeconomics II: 15h-18h			

13.07.2018
1st Year Exam 14h-18h - FEUC & EEG-UM

Third semester

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 U Minho, the Research Support Office (GAI) is the umbrella for all the EEG-UM'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 EEG'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 boons 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 CeBER (<http://www.uc.pt/en/uid/ceber>, ceber@uc.pt). Databases are housed in CeBER 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 2.30 (Sala de Doutorandos). Working hours: from 08:00 to 20:00. Please ask for the key to Maria José Martingo or Manuela Pinto.

The EEG-UM has a computer lab headquartered at Room 2.39. Please ask for the key to Maria José Martingo or Manuela Pinto (secretary of GAI).

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

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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 2017/18;
- 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 2018/19, 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 CeBER's projects.

Scholarships and Prizes Awarded by Other Institutions

The FCT opens an annual contest for the award of Ph.D. scholarships. .

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.orientepor109/the-fundacao-orientepor109.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 Association 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 exchange protocols in the area of Economics with about one hun-

dred 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 U Minho 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 U Minho 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 U Minho, 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

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FEUC

FACULDADE DE ECONOMIA
UNIVERSIDADE DE COIMBRA

FOR FUTHER INFORMATION:

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