

Course ID

Doctoral Seminar on Big Data for Economics

1. Course details

Semesters:	1
Credit rating:	1 ECTS
Pre-requisite(s):	The prerequisites for this course are an introductory course in statistics.
Lecturers:	Professor Vania Sena
Administrator:	-
Secretary:	Roswitha Glorieux
Tutors:	
Seminar times and rooms:	See plan of semester
Tutorial times and rooms:	
Communications	It is important that students should regularly read their University e-mails, as important information will normally be communicated this way.
Reading week:	-
Mode of assessment:	Class Participation & Assignment
Additional work:	TBA
Examination Periods:	-
Course WebPage:	Moodle.uni.lu

2. Aims and objectives

Aims

This is a thorough doctoral level class on analytics and economics, covering modern empirical work based on the exploitation of large unstructured datasets. The course is designed to help students understand how to employ these tools and apply to economics research successfully. The course will cover key methodologies like Text Analytics, Sentiment Analysis and Agent Based Modelling; students will also receive a short introduction to Python.

Learning Objectives

Upon successful completion of this course students will be able to:

- Understand Economics papers using state-of-the-art research tools in Analytics.
- Conduct their own work using new methods and tools learned in the class.

3. Plan of semester

Dates	Room	Time	Seminar Lecture	Topic	Deadlines
Nov 29	BSC 00 003	09:00 – 13:00h	Lecture	TBA	-
Nov 29		14:00 – 17:00h	Lecture	TBA	-
Nov 30	BSC 00 003	09:00 – 13:00h	Lecture	TBA	-
Nov 30		14:00 – 17:00h	Lecture	TBA	-

4. Course details (by topics)

See attached syllabus

5. Further information about assessment

Examination(s)	Class project
Weighting:	100%
Date:	See plan of semester
Length:	-

Structure: Class Participation &
Assignment

Pass

BIG DATA FOR ECONOMICS

Professor Vania Sena, FRSA
University of Essex.

BRIEF DESCRIPTION

This is a thorough doctoral level class on Analytics and its uses for Economic research. It covers theoretical and empirical work, with an emphasis on the latter category. The course is designed to help students understand how to employ these tools and apply them to their research successfully. The course will cover key methodologies like Text Analytics, Sentiment Analysis and Agent Based Modelling; students will also receive a short introduction to Python.

TEXT AND MATERIALS

There is no required textbook. Readings will be based on articles which will be provided one week before the start of the module.

GRADING

- Regular class participation: 20% [Every class meeting]
All students are expected to have read prior to class in detail all the papers scheduled for discussion that day. Students need to come to the classroom with their minds on the material being discussed.
- Coursework: 80%

INTENDED AUDIENCE

This course is intended to help prepare students for research in the area of Economics.

LECTURE SCHEDULE

(Note: Tentative and subject to change)

Date	Subject
Nov. 29	Course Introduction
Nov. 29	Text Analytics and Python
Nov. 30	Sentiment Analysis
Nov. 30	Agent Based Modelling

