Dear Prospective Participants,

It is a great pleasure for us to introduce the University of Crete Summer Schools, one of the most popular Academic summer programs of the Mediterranean region. The Summer Schools are organized by the University of Crete and take place in both the University campuses of Heraklion and Rethymnon, on the island of Crete.

Investing in academic excellence constitutes a strategic goal of the University of Crete, along with the active promotion of mobility programs. The Faculty members of the University of Crete are very excited to offer talented young students from all over the world the opportunity to broaden their scientific horizons and experiences. The UoC Summer Schools provide the students a unique opportunity to experience excellence in research and teaching and gain a unique insight into university life. You will enjoy an international atmosphere, meeting people from all over the world, learning about different cultures and making friends on a truly international summer program.

The Summer Schools of University of Crete are dynamically growing over the last years. We are proud of a summer program which offers young adults a chance to explore a variety of disciplines: Ancient Greek History, Archaeology, as well as Life Sciences, Arts and Humanities, Education, Chemistry, Medicine, Business and Social Sciences.

Our past summer experience has been absolutely wonderful, with students coming from all over the world and contributing to the Summer Schools in so many ways beyond the academic experience. Thus, we are very proud of the UoC summer schools performance so far, reflected in our students’ excellent assessments. We will certainly take great care to ensure that we continue offering a truly unique and enjoyable experience to all.

The Summer Schools in Crete also offer a unique opportunity for the students, to combine educational courses with inspiring social activities, explore the Minoan and the modern Cretan civilizations, discover the spectacular scenery of Crete, join local cultural events and taste the traditional Cretan cuisine.

We look forward to welcoming you to the Summer Schools of the University of Crete next summer!

Sincerely yours,

www.uoc.gr

Prof. George Souvirinos  
Director of Summer Schools

Prof. Odysseas I. Zoras  
Rector, University of Crete
Summer Schools - University of Crete
2017

Rethymnon

Heraklion

Director: Prof. George Sourvinos
Tel: +30 2810 394 835, e-mail: sourvinos@med.uoc.gr

Secretary: Mrs Evgenia Skountaki
Tel: +30 2810 393 180, e-mail: evgenia.skountaki@uoc.gr

Why choose the Summers Schools of the University of Crete

1. University Enrichment
   Live in a young but well-established European university, experience excellence in research and teaching and gain a unique insight into university life. The University of Crete offers a vibrant social and intellectual environment for research and education.

2. Academic Excellence
   It is a strategic choice of the University of Crete to invest in academic excellence and make an ongoing effort for a continuous improvement in all scientific fields. The International orientation of the University of Crete presents an outstanding track record of collaborations with many of the leading research and educational institutions in Europe and worldwide, as well as active promotion of mobility and exchange programs.

3. International Experience
   At the University of Crete, you can meet people from all over the world, learn about different cultures and make friends on a truly international summer program.

4. Personal Development
   You can learn how to manage your own free time outside of class, choosing among sports, sightseeing, shopping, and food tasting or just hanging out.

5. Exciting Social Life
   You can combine our educational courses with brilliant activities and trips to the most famous places of Crete, explore ancient and modern Mediterranean civilizations, experience the local culture and traditions and discover the unique scenery of Crete.
Course Director: Ms Aspasia Chatzidaki
Professor in E-learning & Lifelong Learning
Department of Primary Education

Scientific Field: Teaching of Greek language as a second language/foreign language
Subject: Courses of Modern Greek

Time and Place: three weeks in July in Rethymnon City, Galilou University Campus

Description: Since 2015 the Department of Primary Education has organized Courses of Modern Greek for Australian students who take online courses of Greek language dispensed by the logos’ Australian Centre for Hellenic Language & Culture, at Flinders University in Adelaide, Australia. Every July since then, 15-20 students come to Rethymnon accompanied by University faculty to attend language courses and to become acquainted with Greek culture and history through a variety of activities (e.g. visits to sites of archaeological and historical interest). The language courses cover an average of 60 hours and are offered at the beginners and advanced level by experienced staff. Students are assessed both by the local staff and their University of Flinders tutors and receive credits required for the completion of their Modern Greek course in Australia.

http://www.ediveca.org/summer-schools.html
http://pide.edu.uoc.gr/
**Summer School Title:**
Advanced Summer School in Economics and Econometrics (ASSEE)

**Course Director:**
Prof. Evangelos Tzouvelekis
Economics Department, University of Crete

**Scientific Field:**
Econometrics of Duration Data with Macroeconomic Applications

**Time and Place:**
July 30 - August 6, 2017
Rethymnon City

**Description:**
Topics covered by ASSEE 2017 include:
- Duration and Survival Analysis
  1. Review of problems leading to models based on censored distributions of durations.
  2. Hazard functions and distributions.
  3. Likelihood functions, bank crisis data, NBER business cycle data, and parametric estimation.
  4. Proportional hazard (semiparametric) models.
  5. Heterogeneity in duration distributions.
- The Counting Process Formulation
  1. Counting processes and martingales.
  2. Parametric and nonparametric estimation.
  3. Semiparametric (Cox-type) estimation.
- Bayesian methods for duration analysis.

**Computing:**
Many packages including R, SAS, STATA, Matlab, etc. provide programs for analysis of survival data. The course will use R. R is available from cran.r-project.org. Many tested and well-documented (but not guaranteed) packages are available on that website. The course will use “survival.” For Bayesian analysis we will also need “mcmc” and “coda.” A useful frontend for R is R-Studio, available at http://www.rstudio.com. Exercises will use NBER business cycle data, downloadable from http://www.nber.org/cycles.html

**References:**
Recommended for an introduction and background is Kiefer (1983).
See also Neumann (1999). A book with more coverage than the articles is Lancaster (1982). These references appeared as duration analysis via hazard modeling was new to economics.
A key reference of duration analysis of business cycles is Diebold and Rudebusch (1999). The article Gomez-Gonzalez and Kiefer (2009) discusses the Colombian bank failure data and application used in these lectures. These references cite many others.
On the counting process approach see Andersen et al. (1985), which is an insightful survey giving also a useful bibliography.
The key, simple article on residual analysis for specification checking in the Cox model is Schoenfeld (1982). The Cox model is so well known that the original reference is rarely given. It is Cox (1972).

http://www.assee.eu/
Summer School Title: Academic English for Chemistry Graduates

Course Director: Mrs Kallia Katsampoxaki-Hodgetts
Department of Chemistry, School of Science and Engineering, University of Crete

Scientific Field: Academic English for Chemists

Time and Place: Summer Course is to take place at the University of Crete, School of Science and Engineering, Voutes Campus, in Heraklion, Crete, Greece from the 28th June 2017 to 28th July 2017.

Description: This course is designed to meet the academic and research needs of International Chemistry graduates who wish to further their academic career with a Masters in a Chemistry related field in English.

Modules mainly focus on:

- Academic writing (i.e. Long Essay, Lab report & Scientific Paper)
- Academic reading (i.e. Summary, Paraphrasing)
- Lecture Note-taking - Discussions - Scientific Presentations
- Chemistry Methods and Data Analysis
- Chemistry Journal Analysis
  (i.e. How to write a scientific paper in a peer reviewed journal)

Assessment:
The course requires 30 hours of contact time plus 20 hours (min.) of self-study and homework every week. It is very intensive with a variety of assessment modes. These are:

1. Academic Essay/Writing (800 words) (35%)
2. Take notes of a lecture and write a summary (15%)
3. Academic Reading Comprehension and Note-taking (15%)
4. Making a 100 Scientific Presentation of a Chemistry Method, Technique, Process or Experiment (15%)
5. Write sample sections of a scientific paper (for publication) and review one of your peers (20%)

https://lspcrete.wordpress.com
Summer School Title:
Care and use of laboratory animals: mice, rats, zebrafish

Course Director: Michalis Pavlidis
Professor of Biology. Physiology of Marine Organisms
University of Crete Department of Biology

Scientific Field: The course through modern pedagogical and didactical approaches will offer to the participants a thorough understanding of the philosophical concepts and scientific principles in animal welfare and practical skills to conduct research with the use of laboratory animals (mice, rats &

Time and Place: Heraklion City of Crete, 2 weeks every year on May-June

Description: Care and use of laboratory animals: mice, rats, zebrafish. A two-week intensive course on the care and use of laboratory animals: mice, rats and zebrafish will be organized at the University of Crete (Department of Biology), Greece in collaboration with the Institute of Molecular Biology and Biotechnology, FORTH, Crete, Greece in June.

The course through modern pedagogical and didactical approaches will offer to the participants a thorough understanding of the philosophical concepts and scientific principles in animal welfare and practical skills to conduct research with the use of laboratory animals (mice, rats & zebrafish).

The main objectives of this course are (i) to provide advanced education, training and expertise in the care and use of vertebrate laboratory animals, (ii) to present the basic philosophical concepts and scientific principles on animal welfare, (iii) to clearly comprehend the vital principles for quality research, and (iv) to provide an international certificate demonstrating competence in working with laboratory animals for research purposes.

The course comprises lectures, practical hands-on training, group assignments, self-study and final examination. The contents of the course are in line with the requirements of the new European Directive 2010/63/EU (covering functions A-carrying out procedures of animals, B-designing procedures and projects, C-taking care of animals, D-killing animals) and the recommendations of the Federation of European Laboratory Animal Science Associations (FELASA) for the accreditation of Educational and Training courses in Laboratory Animal Sciences. Successful participants will be awarded a FELASA accredited certificate, which demonstrates competence in working with laboratory animals for research purposes.

Target Group: Professionals, Researchers, PhD and post-graduate students from all fields of Biomedical & Veterinary Sciences who are responsible for directing and/or carrying out animal experiments. The official language of the course is English

http://labanimalcourse-crete.weekly.com/
**Summer School Title:**
2017 Speech Processing Courses in Crete

**Course Director:**
Prof. Ioannis Stylianou
Computer Science Department

**Scientific Field:**
Towards intelligible and Conversational Speech Synthesis Engines

**Time and Place:**
July 24-28, 2017
Heraklion city, Crete, University of Crete

**Description:**
Towards intelligible and Conversational Speech Synthesis Engines. The Speech Processing Courses in Crete (SPCC) are targeting to teach graduate students and researchers the latest advancements of speech processing covering theory, hands on, and establishing contacts between the academics and industry. The school will provide the chance to students and professionals to meet world leaders in speech technology, exchanging ideas, sharing experiences and vision. At the school will explore modern acoustic modelling approaches like DNN, LSTM and Wavenets, novel approaches for text normalization, linguistic analysis and prosody prediction, advanced vocoding approaches and speech modifications for speech synthesis like voice conversion, while we will talk about the need of context aware speech synthesis engines by presenting issues related to speech intelligibility in noisy conditions and cognitive effort.

The Summer School is organized by the University of Crete, Greece. It is sponsored by Toshiba, IBM, Google and ILSP Athens.

**http://spcc.esd.uoc.gr/index.html**

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**Summer School Title:**
Crete Summer School of Linguistics
Acronym: CreteLing/ CSSL

**Course Director:**
Ms Vina Tsakal

**Scientific Field:**
Theoretical and applied Linguistics

**Time and Place:**
Rethymnon, University Campus Gallas,
10-21 July 2017

**Description:**
The Linguistics Division (Department of Philology) of the University of Crete and two external collaborators (Prof. Sabine Iatridou, Massachusetts Institute of Technology and Prof. Winfried Lechner, National and Kapodistrian University of Athens) are organizing the Crete Summer School of Linguistics (CreteLing/ CSSL), in Rethymnon, Crete, July 10-21.

The field of theoretical linguistics and interdisciplinary domains of research (artificial intelligence, computational linguistics, biological and medical aspects of language) have grown exponentially over the last 50 years. The orientation of the CreteLing summer school is towards human cognition, that is, the study of language as a function of the brain.

The target audiences of CreteLing are students in linguistics and related fields (e.g., computer science, cognitive science, neurolinguistics etc.) and research and faculty members from various universities.

The programme includes introductory courses and advanced seminars in theoretical linguistics (syntax, semantics, morphology and phonology), sign language, animal communication and language and society. Overall, the programme includes 18 different courses to choose from, while the schedule is structured in five consecutive class slots every day, each of which contains three parallel sessions.

In addition, two workshops will take place within CreteLing, titled ‘Connectives: Experimental Work across Languages’ on 12/7/2017 (organized by Uli Sauerland, Leibniz-ZAS Berlin) and ‘Emerging grammars in language contact situations’ (organized by Artemis Alexiadou, Humboldt Universität zu Berlin & Leibniz-ZAS Berlin), in which invited speakers will participate and young scholars can promote their research.

**http://ptde.edc.uoc.gr/**
Summer School Title: Basics of mechanical ventilation

Course Director: Georgopoulos Dimitrios
Professor of Pneumonology/Intensive Medicine

Scientific Field: Medicine · Intensive Medicine

Time and Place: July 7-8, 2017
Heraklion of Crete, School of Medicine, Voutes Campus

Description: The Summer School entitled "BASICS OF THE MECHANICAL" is a two-day post-graduate educational course intended to provide a comprehensive overview of each of the major fields of mechanical ventilation. The course is aimed at both qualified intensivists and trainee in intensive care medicine doctors (the number of participants is limited to fifteen).

Educational program includes both theoretical lectures and hands-on training sessions provided by highly experienced faculty members. Theoretical lectures will be held at Medical School.

Practical training sessions will be held in specially designed and equipped rooms in the area of ICU of University Hospital of Heraklion. Participants will be tutored in groups of 3-5, to allow interactive learning on mechanical lung models (lung simulators). Trainees will be provided with educational material in electronic form. At end of the seminar, the trainees will be invited to take part in a short written test and to complete the seminar evaluation form.

https://med.uoc.gr
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SUMMER SCHOOL

2017