



**CYPRUS INTERNATIONAL INSTITUTE
FOR ENVIRONMENTAL AND PUBLIC HEALTH**



**IN ASSOCIATION WITH
HARVARD SCHOOL OF PUBLIC HEALTH**

**MASTER'S OF SCIENCE IN ENVIRONMENTAL HEALTH
MASTER'S OF SCIENCE IN EPIDEMIOLOGY & BIostatISTICS
&
PHD IN ENVIRONMENTAL HEALTH / PUBLIC HEALTH**

**STUDENT HANDBOOK
Academic Year 2011-2012**

&

**PROSPECTUS
Academic Year 2012-13**

CYPRUS UNIVERSITY OF TECHNOLOGY

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WELCOME

It is with great pride that we are about to begin the 2012-2013 academic year. This year we will offer a Master's of Science in Environmental Health a Master's of Science in Epidemiology and Biostatistics and the Ph.D in Environmental and Public Health. These programs, which are jointly taught by distinguished faculty from Harvard University and from the Cyprus University of Technology, reflect our efforts to offer world class education in public health at our Institute.

We hope that this prospectus will serve as a source of useful information for those of you considering applying to graduate school and as a student handbook for those of you who enrol in one of CII's Master's or Doctoral Programs.

*Tasos Christofides, Ph.D.
Acting Director, Cyprus International Institute
Vice Rector, Cyprus University of Technology*

*John S. Evans, Sc.D.
Academic Programme Coordinator, Cyprus International Institute
Co-Director, Harvard Cyprus Program
Senior Lecturer, Harvard School of Public Health*

*Petros Koutrakis, Ph.D.
Director, Harvard Cyprus Program
Professor, Harvard School of Public Health*

1. INTRODUCTION

The Cyprus International Institute

The Cyprus International Institute for Environmental and Public Health (“CII” or “the Institute”) is an international research, education and technology initiative for environmental and public health. It was established, by the Government of Cyprus and Harvard University, to address environmental and public health issues in Cyprus and throughout a broad region including the eastern Mediterranean, northern Africa and the Middle East.

CII provides opportunities for research, education and training in environmental, occupational and public health to students, scholars and professionals. The primary focus of the Institute’s research is on improving understanding of the relationship between exposure to environmental contaminants and human disease. A secondary emphasis is on improving the ways that such information is used in risk and decision analysis to inform public policy. This multidisciplinary research program attracts funding and recognition from Cyprus, the European Union, the USA and other countries. The Institute is also active in continuing professional education and community outreach. Since 2005, it has offered a series of public lectures, continuing professional education workshops, symposiums and other events in Cyprus, and is now beginning to offer these programs regionally.

From 2004 to 2009 the CII operated as an independent Institute in Nicosia. In August of 2009 the Institute moved to Limassol, where it now operates as an element of the Cyprus University of Technology, under its School of Health Sciences, in association with the Harvard School of Public Health.

The Cyprus University of Technology

Cyprus University of Technology was established by law in 2003 and admitted its first students in September 2007. It is a new, public and independent University based in the city centre of Limassol. At the moment, five Faculties with ten academic Departments operate within the University, while the Cyprus International Institute for Environmental and Public Health operates under the Faculty of Health Sciences of the University.

Limassol is the second-largest city in Cyprus, and one of the most important tourism, trade and service-providing centers in the Mediterranean. It is also renowned for its long cultural tradition and therefore attracts a wide range of tourists, mostly during an extended summer season.

The Cyprus University of Technology aspires to develop into a modern, pioneering university able to offer education and high level research in leading branches of science and technology which have high impact on the economic, technical and scientific sectors.

With its orientation towards applied research, CUT aspires to establish for itself a role in support of the state and society in their efforts to confront problems which cover all areas of science and technology.

The Harvard School of Public Health

The Harvard School of Public Health (HSPH) is one of the leading schools of public health in the world. It was established in 1913 by an agreement between Harvard University and the Massachusetts Institute of Technology. HSPH now has 9 departments with over 400 faculty members and approximately 1000 students.

The Departments of Epidemiology and Biostatistics have a long tradition of teaching and research and provide training in these two core disciplines of public health. Faculty members include leaders in the development of statistical and epidemiological methods for clinical trials and observational studies, studies on the environment, and genomics/genetics. The Department of Environmental Health is one of the largest departments in the school and includes three divisions: Exposure, Epidemiology and Risk (EER); Environmental and Occupational Medicine and Epidemiology (EOME); and Molecular and Integrative Physiological Science (MIPS). The Harvard Cyprus Program is administered by the Department of Environmental Health and is able to draw on the rich research and educational capabilities of the Departments of Epidemiology, Biostatistics, Environmental Health, and the school as a whole.

MSc Programs in Environmental Health and in Epidemiology and Biostatistics

CII offers two master's degree programs. The Master's of Science in Environmental Health and the Master's of Science in Epidemiology and Biostatistics. These programs begin each year in September and end in late July.

Both MS programs involve 92 ECTS (57.5 U.S. credits) composed of core and specialized courses that make up 68 ECTS (42.5 credits) and the year-long practicum of 24 ECTS (15 US credits). As previously noted, all courses are taught in English, and all assignments must be completed in English.

While both MS programs are designed to be completed in one academic year, students who would find it difficult to participate in the full-time one-year program may take advantage of the two-year half-time version of either MS program.

The MSc in Environmental Health involves coursework in environmental sciences (air and water pollution, exposure assessment), biological sciences (physiology, toxicology and genetics), quantitative sciences (biostatistics, epidemiology and risk assessment) and environmental law and policy (regulatory law, sustainability and trade, climate change) and culminates with a practicum.

The MS in Epidemiology and Biostatistics includes courses in epidemiologic and biostatistical methods, the epidemiology of chronic and infectious diseases, genetic epidemiology, and environmental epidemiology. The program also involves coursework in design of descriptive and analytic studies, data collection and management, and statistical programming for data analysis.

PhD Program in Environmental Health and Public Health

Recently CII has been authorized to offer a program leading to the Doctor of Philosophy (PhD). Admission to this new program will be highly selective and competitive. We expect to accept our first doctoral student(s) in September of 2012. Information about this program and instructions about application procedures will be posted on our website, www.hsph.harvard.edu/Cyprus in mid-to-late January of 2012.

Program Overview – Environmental Health

Environmental Health is a fascinating, interdisciplinary field which seeks to understand the effects of human exposure to contaminants in the community, home and workplace and to use this knowledge to improve public health.

Environmental health specialists need to understand the sources of pollution; the physical and chemical processes which govern their fate and transport; the biological processes which dictate their intake, uptake, metabolism, elimination and toxicity; and the approaches for sampling, analysis, measurement and modelling of ambient concentrations, human exposures and biologically-relevant doses. These professionals must also be familiar with the principles of biostatistics, epidemiology, toxicology, and risk assessment in order to quantify risks and to characterize the state of knowledge and uncertainty underlying these estimates. Finally, they must understand the central concepts of economics, decision analysis, and administrative law in order to value health impacts, to assess the consequences of various strategies for reducing human exposures, and to design effective policies and regulations.

The MSc in Environmental Health relies upon an integrated, interdisciplinary curriculum taught by distinguished faculty from Harvard University, Cyprus University of Technology and other leading schools of public health / environmental science. It involves coursework in the biological sciences, in exposure assessment and environmental science, in the quantitative sciences, and in policy, law and regulation.

The MSc experience at CII culminates in a practicum – in which each student integrates and applies knowledge from these courses to analyze a problem in environmental decision making or regulation. The practicum not only provides experience in quantitative analysis, but also gives our graduates experience in writing scientific manuscripts and in preparing and presenting scientific talks.

Our students come from Cyprus and the entire region – e.g., Lebanon, Egypt, Israel, Iran, Turkey, Ethiopia, Nigeria, Liberia, Ghana, France, England, Germany, Italy, India, and Bangladesh – and from the US and other countries in North and South America. They come with quite varied academic backgrounds – physicians, chemists, engineers, public health specialists, economists.

After earning the MSc degree, many return to their countries to serve in government ministries and agencies, or as academics, consultants, or environmental health specialists in industry. About one third of our graduates decide to go on to doctoral research programs or seek other advanced degrees at the best universities in the world – such as Harvard, Cambridge, Stanford and King's College.

Program Structure

The curriculum of the MSc in Environmental Health is presented below, organized by discipline:

QUANTITATIVE SCIENCES

EHS 511	INTRODUCTION TO BIOSTATISTICS (5.0 credits / 8 ECTS)
EHS 515	INTRODUCTION TO EPIDEMIOLOGY (2.5 credits / 4 ECTS)
EHS 519	RISK ASSESSMENT (2.5 credits / 4 ECTS)
EHS 524	ENVIRONMENTAL EPIDEMIOLOGY (2.5 credits / 4 ECTS)

BIOLOGICAL SCIENCES

EHS 512	PHYSIOLOGY (5.0 credits / 8 ECTS)
EHS 513	REGULATORY TOXICOLOGY (2.5 credits / 4 ECTS)
EHS 516	GENETICS, ENVIRONMENT AND HUMAN DISEASE (2.5 credits / 4 ECTS)
EHS 523	OCCUPATIONAL HEALTH (2.5 credits / 4 ECTS)

EXPOSURE ASSESSMENT

EHS 518	WATER POLLUTION (5.0 credits / 8 ECTS)
EHS 520	AIR POLLUTION (5.0 credits / 8 ECTS)
EHS 522	EXPOSURE ASSESSMENT (2.5 credits / 4 ECTS)

POLICY AND LAW

EHS 514	EUR & INT'L ENV LAW & POLICY (1.25 credits / 2 ECTS)
EHS 521	SUSTAINABILITY, TRADE AND ENVIRONMENT (2.5 credits / 4 ECTS)
EHS 525	GLOBAL CLIMATE CHANGE (2.5 credits / 4 ECTS)
EHS 580	PRACTICUM in EH (15.0 credits / 24 ECTS)

Program Overview – Epidemiology and Biostatistics

Biostatistics involves the theory and application of statistical science to the analysis of public health problems and biomedical research (clinical trials and observational studies, for example). Epidemiology is the study of the frequency, distribution, and determinants of human diseases. Both disciplines involve collecting, classifying, summarizing, organizing, analyzing, and interpreting numerical information relevant to biological, medical, and public health problems. Epidemiologists/biostatisticians play a central role in biomedical research; they are involved in all stages of a study – from design, to data collection, data analysis, inference, and interpretation of the results, testing hypotheses and developing statistical models as needed in the process. Biostatisticians and epidemiologists model relationships between individual and environmental factors and health outcomes; identify risk factors for diseases; design, monitor, analyze, interpret, and report results of biomedical studies; and develop statistical methodologies to address questions arising from medical and public health data.

The program in Epidemiology and Biostatistics is similar in structure to the MS in Environmental Health. It shares a core curriculum with that program and includes additional courses focusing on key concepts and competencies in Epidemiology and Biostatistics. The MS in Epidemiology and Biostatistics encompasses both theoretical and applied epidemiological and statistical techniques. The program has a regional focus and is taught entirely in English.

Students may pursue the MS in Epidemiology and Biostatistics as their terminal degree and pursue a career in either academia or industry, or they may use this program as preparation for further studies towards a doctoral degree in either biostatistics or epidemiology. The class size is small (twenty to twenty-five students), and the program is highly selective. The small class size facilitates individualized teaching and mentoring of students.

Upon completion of the program, students will:

- be proficient in basic epidemiological and biostatistical techniques;
- understand the theories behind epidemiologic and biostatistical methods in common use in biomedical research;
- be able to perform statistical analysis of biomedical data; and
- be capable as part of a team of providing advice on the design, conduct, and analysis of epidemiological studies.

Applicants should hold a bachelor's degree or its international equivalent and have a strong background in the health sciences, biomedical sciences, social sciences, or mathematics.

Program Structure

The curriculum of the MSc in Epidemiology and Biostatistics is presented below, organized by discipline:

METHODS

EHS 511	INTRODUCTION TO BIOSTATISTICS (5.0 credits / 8 ECTS)
EHS 515	INTRODUCTION TO EPIDEMIOLOGY (2.5 credits / 4 ECTS)
EPB 532	ADVANCED EPIDEMIOLOGIC METHODS: PART I (2.5 credits / 4 ECTS)
EPB 533	ADVANCED EPIDEMIOLOGIC METHODS: PART II (2.5 credits/ 4 ECTS)
EPB 541	REGRESSION ANALYSIS (5.0 credits / 8 ECTS)
EPB 542	BASICS OF STATISTICAL INFERENCE (5 credits / 8 ECTS)
EPB 543	INTRODUCTION TO SAS & R FOR PUBLIC HEALTH (2.5 credits / 4 ECTS)

APPLICATIONS

EHS 519	RISK ASSESSMENT (2.5 credits / 4 ECTS)
EHS 516	GENETICS, ENVIRONMENT and HUMAN DISEASE (2.5 credits / 4 ECTS)
EHS 524	ENVIRONMENTAL EPIDEMIOLOGY (2.5 credits / 4 ECTS)
EPB 530	EPIDEMIOLOGY OF CHRONIC DISEASE (2.5 credits / 4 ECTS)
EPB 531	EPIDEMIOLOGY OF INFECTIOUS DISEASE (2.5 credits / 4 ECTS)
[EPB 540]	[PRINCIPLES OF GOOD PRACTICE IN BIOMED RES – not offered 2012-13]

STUDY DESIGN

EPB 534	ANALYTIC STUDY DESIGN IN EPI RESEARCH (2.5 credits / 4 ECTS)
EPB 535	DESCRIPTIVE STUDY DESIGN IN EPI RESEARCH (2.5 credits / 4 ECTS)

PRACTICUM

EPB 580	PRACTICUM IN EPIDEMIOLOGY & BIOSTATISTICS (15.0 credits/ 24 ECTS)
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Academic Year 2012 - 2013

Fall Semester (3 September to 14 December)

Winter Session (Thursday 3 January to Friday 25 January) – TENTATIVE

Spring Semester (28 January to 17 May)

Summer Session (20 May to 12 July) with 25 July Commencement

Contacting the Institute

Prospective students who have questions about admission requirements, or who require assistance with the application process, are welcome to visit the Institute or may contact Dr. John Evans, the Academic Program Coordinator of CII, or Mrs. Christina Vassiliou, the Postgraduate Studies Officer at the Service for Academic Affairs and Student Welfare.

Online application information and forms are available on the Graduate and Postgraduate Education page of the Institute's web site at <http://www.hsph.harvard.edu/cyprus/grad.shtml>

Main Contacts at the Institute

NAME	TITLE	E-MAIL ADDRESS	TELEPHONE
Prof. Tasos Christofides	Acting Director, CII	tasos.christofides@cut.ac.cy	+357-25-00 2436
Dr. John S. Evans	Academic Program Coordinator, CII & Co-Director, HCP	jevans@hsph.harvard.edu	+357-25-00 2201
Ms. Lenia Josephides	Administrator, CII	lenia.josephides@cut.ac.cy	+357-25-00 2391

Main Contacts at the Service for Academic Affairs & Student Welfare

Mrs. Christina Vassiliou	Postgraduate Studies Officer	christina.vassiliou@cut.ac.cy	+357-25-00 2412
Mr. Yiannis Vakis	International Students Officer	yiannis.vakis@cut.ac.cy	+357-25-00 2399
Mr. Charalambos Papayiannis	Housing Officer	c.papayiannis@cut.ac.cy	+357-25-00 2414

General inquiries to CII may be addressed to:

Address: Cyprus International Institute
95 Eirinis Street
3041 Limassol, Cyprus

Mailing Address: CII / PO Box 50329, 3603 Limassol, Cyprus

Phone: +357-25-00 2391 Fax: +357-25-00 2644
Email: ciieph@cut.ac.cy

2. APPLYING FOR ADMISSION

Applications will be accepted beginning on January 16, 2012. CII has two application deadlines – March 30, 2012 (early admissions) and May 18, 2012 (late admissions). Complete applications which are received by the March 30 deadline will be given first priority for scholarships.

Applicants are encouraged to apply online, but they must also submit a paper application, with all supporting materials, to the Postgraduate Studies Office at the Service for Academic Affairs and Student Welfare at 16 Saripolou Street, 2nd Floor, 3063 Limassol, Cyprus by these same deadlines.

Online application forms are available at the following website:

<http://www.hsph.harvard.edu/cyprus/grad.shtml>

The set of paper documents to be submitted in support of the application includes:

- **Signed and fully completed Application Form.**
- Complete **curriculum vitae**.
- A **500-word essay** written by the applicant.
 - The essay should describe the applicant's academic and professional history, reasons for wanting to enroll in the degree program, and professional or academic career plans upon completion of the program.
- Copy of **diplomas** for bachelor's and any higher degrees.
- Copy of **official grade transcripts** from all colleges, graduate and/or professional schools attended.
 - Applicants are expected to have a distinguished undergraduate record, as well as excellent performance in any graduate work undertaken.
 - Applicants with transcripts from universities where English is not the language of instruction should provide official English translations of their diplomas and grade transcripts.
- **Letters of recommendation** from at least three people who are well acquainted with the applicant's academic work and/or professional experience.
- Copy of **national identification card (EU citizens) or passport (all other applicants)**
- Scores from the **Graduate Record Examination (GRE)** – required for Ph.D applicants, recommended, but not required for MS applicants.
 - Applicants who take the GRE should have their official scores submitted directly to CII. Scores not more than six years old may be submitted.
- For all applicants from countries where English is not the language of instruction, scores from either the **TOEFL** (Test of English as a Foreign Language) or the **IELTS** (International English Language Testing System).
 - The official scores should be submitted directly to CII.
 - Applicants with TOEFL scores of 83 or better or with IELTS scores of 7 or higher will be considered for admission to CII. All others will be automatically disqualified.
 - **Applicants will not be considered for scholarship support until CII receives acceptable IELTS or TOEFL scores.**

- For candidates of financial aid, a statement of financial need.

An application is considered complete only when it contains all of the documents listed as required above; the application form has been signed; and the complete package has been received by the Postgraduate Studies Office of the Cyprus University of Technology by either 30 March 2012 (for early admissions) or 18 May 2012 (for late admissions).

Note: Applicants who wish to be considered for scholarships are strongly encouraged to apply by the 30 March “early admissions” deadline. Applicants for scholarships should arrange for IELTS/TOEFL scores to be submitted by this date. Those who wish to be considered for funding based on financial need must also submit their statement of financial need (and all supporting documents by 30 March.

Review Process

All complete applications are evaluated by the Committee for Admissions and Degrees (CAD) at the Institute and independently by a similar committee at the Harvard School of Public Health. Each committee reviews and ranks the applicants. Factors considered in the evaluation and ranking of applicants include: strength of undergraduate grades (especially in science and mathematics); nature, duration and relevance of work experience; strength and consistency of letters of reference; coherence, relevance, and sense of purpose reflected in the applicant’s statement; and, where appropriate, ability to read, write, speak and understand English. Final admissions decisions are made by the Senate of the Cyprus University of Technology and communicated to applicants by the Director of CII or the Director of Service for Academic Affairs and Student Welfare.

Scholarships

Scholarships are granted to a limited number of the most highly qualified candidates. The exact number of scholarships available varies somewhat from year to year. The sources of these funds are many and include direct tuition grants made by the Cyprus University of Technology, full scholarships (covering tuition, housing and a small monthly allowance) offered by charitable foundations, and partial support from various external donors. The primary basis for selection is merit, but some scholarships may include additional criteria such as financial need. Any applicant who wishes to be considered for a scholarship based on financial need should submit a statement of financial need, including evidence of both personal and family income, with their application to the master’s program. ***As noted above, students from countries where English is not the language of instruction will be considered for scholarship support only after CII receives evidence of acceptable TOEFL or IELTS scores.***

3. ACADEMIC AFFAIRS AND STUDENT WELFARE

The Service for Academic Affairs and Student Welfare (SAASW) provides a wide variety of services and information for our students. They address housing and meals; health care, insurance, counseling and psychological support, assistance for students with special needs; visas and other matters of special interest to international students; sports, clubs and other extracurricular activities; career counseling and temporary employment; course scheduling and evaluation, student ID cards, registration for and withdrawal from courses, grades and transcripts.

Postgraduate Studies Office

The Postgraduate Studies Office handles registration for (and withdrawal from) courses; maintains grades and transcripts; and can provide official records related to these matters – such as Transcripts of Grades, Certificates of Registration/Study, and Certificates of Expected Graduation. The Office handles any withdrawals or dismissals from the postgraduate programs and issues student ID cards to all new students. The Office is also responsible for preparing the timetable schedule of courses as well as the examination schedule of courses.

Students and perspective students are encouraged to contact the Postgraduate Studies Office for general information about postgraduate studies at CUT. Copies of the official Rules and Regulations governing students and academic affairs of Cyprus University of Technology are available at the Postgraduate Studies Office, whereas all postgraduate students and all perspective postgraduate students of Cyprus University of Technology can reach the Office for any other relating service they may need. .

Course Evaluations

Course evaluations represent students' ratings of courses taught. Although instructors may use a variety of methods to obtain informal feedback on their teaching, the formal student course evaluation process is administered by the Postgraduate Studies Office. The questionnaires are anonymous and are not returned to the instructor until grades for the course have been submitted to the Postgraduate Students Officer. The Office of the Director of SAASW compiles, tabulates and analyzes the results, and provides summary results to the Academic Programme Coordinator of CII, to faculty members and to all CII students.

International Students Office

The International Students Office (ISO) advises international students on immigration visa matters, social and cultural differences, financial matters, and traveling as well as other personal concerns. The Office provides programs designed to help new students adjust quickly to life in Cyprus and seeks to minimize difficulties that students may encounter during their stay. Services provided by the ISO include orientation programs, referrals to English language classes, cultural events, and various seminars on student well-being.

All newly admitted international students must visit the International Students Office before registering for classes. They should bring their passports, entry permits or other evidence of their immigration status. Chapter 7 – “International Students” – of this prospectus thoroughly explains the procedures for obtaining visas and the health insurance requirements for international students.

Housing Office

Accommodation

The Cyprus University of Technology operates a number of rental apartments for the students. The majority of them are allocated with subsidized rents and for this reason the selection of students is based on socio-economic criteria. A number of apartments are available especially for postgraduate students of the Cyprus International Institute.

For the convenience of our students, the Housing Office prepares a list of residences/apartments available for rent. The list is distributed during the months of July-September and can be found on the web page www.cut.ac.cy/studies.

As a rough guide, the monthly rent for a studio/one bedroom apartment is around €350-450, for an apartment of two bedrooms around €500-600, while the rent for an apartment of three bedrooms is around €600-700.

The Housing Office advises students to carefully consider issues such as hygiene and safety of buildings before they sign any rental agreement. Any CII student may seek guidance from the Housing Office about these matters.

Meals

The University owns restaurants, cafes and refreshment rooms that offer subsidized prices. Moreover, around the University there are many private restaurants and cafes, with which the University seeks to ensure discount prices for its students. Students can have a full meal at the university's restaurant within €6.

Sports Office

The University offers a complete program of athletic activities that includes among others:

- Internal Championships
- Athletics
- Recreational Sports
- Sports and Community Service
- Events

Based on the student's program of study, the various activities are adapted in such a way that the students have the opportunity to participate in their free time.

Student Life Office

Student Union

According to the law governing the Cyprus University of Technology, students are represented in all the bodies of administration. Consequently, they take part in the decision-making procedure and participate actively in the management, operation, and development of the University. The Student Union of the Cyprus University of Technology (SU CUT) functions according to statutes approved by the students.

Upon registration, each student pays a €15 subscription fee to the Student Union. The operation of the Student Union is financially supported from the annual budget of the University. Additionally, sponsoring of various events can be granted by organized institutions and state services, such as the Youth Board of Cyprus and the Cultural Services of the Ministry of Education and Culture.

Student Clubs

Student clubs cover cultural, artistic and recreational activities, such as music, dance, journalism, theatre etc. Essential prerequisites for the establishment of student clubs are the presentation of statutes to the SAASW and the approval of aims and activities of the clubs from the University authorities. The approved clubs have access to post office boxes, announcement boards and electronic mail (e-mail). Each approved club is sponsored with a subsidy for Sponsoring Student Activities. Students that participate actively in clubs receive a Certificate of Attendance. These certificates contribute to strengthening the students' image on the job market and/or for applications for postgraduate studies.

Counseling Office

Health Care

Under EU regulations, health care can be provided in Cyprus for people from other EU Member States. Health care is provided on the same basis as is provided to a Cypriot national and is available at any of the Government Medical Institutions in Cyprus.

To obtain health care in Cyprus, a student must initially be in possession of an appropriate E - Form or of a European Health Insurance Card (EHIC) from his/her own Member State. A student is entitled to health care in Cyprus if he/she falls into one of the categories listed in the 'Health Care Entitlement in Cyprus under EU Regulations' info sheet. The particular E-form needed is listed in the table in the information sheet.

International students (non-EU) are not entitled to free health care to the Republic of Cyprus. It is advisable that all students purchase a health insurance plan that would cover possible medical expenses in Cyprus. After entrance to the Republic of Cyprus, International Students must also present to the Police Aliens Department a Medical Insurance Certificate for In-Hospital and Out-patient Treatment.

First Aid and Emergency hospital services are free of charge for all. A First Aid Centre operates in the central teaching facility in Limassol.

Advisory and Psychological Support

The advisory and psychological support provided by the University aims at supporting and encouraging individuals that wish to have Advisory and Psychotherapeutic support and guidance. Some of the difficulties that students often face include low self-esteem, problems in their interpersonal relations, stress about grades, suicidal behavior, confusion concerning important decisions, and others, that unavoidably influence their academic performance.

The first and foremost objective of the advisory services is to guide the students towards the development of self-confidence and the qualities needed in order to overcome difficulties and to reinforce them as individuals, so that they can succeed in their studies. Support is provided on personal and psychological issues that influence the student's educational performance and personal development.

Support of Students with Special Needs

Students with special needs have the same rights, participate equally in student activities, and they have to follow same rules as all other students. The Counseling Office (which includes a Disability Center) provides all possible help to students with special needs, so that equal access to University academic facilities is ensured. Every possible effort is made, so that practical solutions to student problems are given always in collaboration with other Services, Associations and Organizations. Great effort is also made to improve access to the University premises and to provide support in resolving any academic problems that students with special needs may face.

Careers Office

Career Counseling

The Careers Office provides students with information on possible professional prospects, and helps students to form a clear picture concerning their professional orientation. Furthermore, it advises students on how to succeed in a personal interview, it provides information on composing a Curriculum Vitae and an application for employment, and moreover, it contributes to a more effective presence of graduates on the Job market.

Student Employment Opportunities

Students are informed about any temporary vacancies in the different services of the University (for which the University holds the responsibility of the selection procedure), as well as about opportunities for part-time employment outside the University. Information is also gathered with regard to the needs of enterprises and organizations regarding employment opportunities.

Student Services and Information Centre

The Student Services and Information Centre (SSIC) offers information on studies, student life, rules, and services that are provided to the students. It provides the students with various informative publications, application forms for financial support and general printed material for their studies at the CUT. The Centre operates with administrative personnel and students that are employed during their studies, and it is situated on the ground floor of the building at 16 Saripolou Street in Limassol.

Hours of service: Daily from 8:00 a.m. - 2:00 p.m. and on Wednesday afternoon from 2:30 p.m. - 5:30 p.m.

MORE INFORMATION

For more information regarding Student Services, apply to the Service for Academic Affairs and Student Welfare (SAASW).

Student Services and Information Centre (SSIC).

Andreas Themistocleous Building, Athinon Street, 3603 Limassol

Tel: 25 002710/11, Fax 25 002760

E-mail: studies@cut.ac.cy

<http://www.cut.ac.cy/studies>

The Ombuds Office

The Office of the Director of CII serves as Ombuds Office for the Institute and is an independent resource for students who may experience any of the following:

- Believe they may have been a victim of discrimination, harassment, or unfair treatment based on their race, color, religion, creed, ethnic/national origin, gender, ability, sexual orientation, or veteran's status.
- Have a problem they do not want others to know about because of fear of retaliation or negative evaluation.
- Are facing an ethical dilemma.
- Are experiencing a personality conflict.
- Question school policies or procedures.
- Feel they have been treated unfairly, erroneously, or inequitably.
- Need to “vent” high-level emotion.
- Feel they have nowhere to turn.

The Office operates independently and objectively and it can be reached at +357-25-00 2436. The Office is located on the 1st floor of the Senate House, Archbishop Kyprianos Street, 3046 Limassol, Cyprus.

Students may email Professor Christofides, tasos.christophides@cut.ac.cy, to schedule an appointment.

Academic Advisors

An academic advisor is appointed for each student during registration. The advisor provides the student with academic guidance, information, and general assistance. The advisor and advisee meet formally twice during the academic year – once at the start of the Fall semester and again at the beginning of the Spring semester -- to discuss the student's course of study.

If the student's advisor is expected to be away from the Institute (or unavailable) for a prolonged time, a secondary advisor will be assigned to serve as a surrogate advisor during this period.

4. PROGRAM REGISTRATION

Tuition Fees

The tuition for the Master's Program is €6,000 for citizens of the European Union and €10,000 for all other students.

Tuition Deposit

All applicants who are offered admission are required to submit a tuition deposit of €500 at the time that they confirm their intent to enrol at CIL. For students from Cyprus and the EU this must be received no later than June 30, 2012. **For students from other countries, the deposit must be received by May 31, 2012 to allow sufficient time to obtain the necessary student visas.** This deposit ensures their place in the class of 2012-2013 and will be credited toward their tuition and fees when they register for the master's program in September.

This deposit will be waived for students who qualify for consideration for need-based scholarships.

Applicants who confirm their intent to enrol, but subsequently request deferral of their admission, may request that the deposit be credited to their account for the following academic year.

Applicants who confirm their intent to enrol, but who fail to do so, forfeit their deposit.

Registration Procedures

Every student must register *in person* during the registration period, which for 2012-2013 will be 31 August 2012.

To complete the course registration process the following procedures must be followed:

1. Complete and sign a **Registration Form**.
2. Pay in full the balance of tuition fees to the Accounts Office and obtain a **Financial Clearance Receipt**.
3. Submit the completed, signed Registration Form and the Financial Clearance Receipt to the Postgraduate Studies Office on 31 August and obtain a **Certificate of Registration Form Submission**.

Students failing to register on 31 August 2012 will be charged a **€75 Late Registration Fee**.

Tuition Refunds

Students who enroll, register, and subsequently withdraw from the program **before the end of the 4th week of classes in the first semester (i.e., 28 September 2012)** will receive a tuition refund. The tuition deposit of 500 Euro will not be refunded.

All payments to CII/CUT should be made to the following bank account:

Bank Name : Bank of Cyprus Public Company Ltd
Acct Name : CYPRUS UNIVERSITY OF TECHNOLOGY
Account No. : 0335-05-046698-00
IBAN No. : CY14 0020 0335 0000 0005 0466 9800
Swift Code : BCYPCY2N
Reference Field: Applicant's Name (*LAST NAME, FIRST NAME*)

5. DEGREE REQUIREMENTS

The MS in Environmental Health (EH) involves courses in biological sciences (physiology, genetics, and regulatory toxicology), quantitative analysis (biostatistics, epidemiology, environmental epidemiology and risk assessment), exposure assessment and environmental science (exposure assessment, air pollution, water pollution and occupational health), and in policy, regulation and law (environmental law and policy, sustainability, and climate change). The program culminates with a practicum, designed to allow students to apply and integrate what they have learned. The complete list of courses is shown in tabular form on page 19.

The MS in Epidemiology and Biostatistics (EPB) includes courses in epidemiologic and biostatistical methods, the epidemiology of chronic and infectious diseases, genetic epidemiology, and environmental epidemiology. The program also involves coursework on design of descriptive and analytic studies, data collection and management, and statistical programming for data analysis. The program includes a year-long practicum, designed to allow students to apply and integrate what they have learned. The complete list of courses is shown in tabular form on page 20.

The distribution of course credits by academic term is summarized below.

Semester	Credit Load	
	MS in EH	MS in EPB
Fall Semester	32 ECTS (20 credits)	32 ECTS (20 credits)
Winter Session	8 ECTS (5 credits)	8 ECTS (5 credits)
Spring Semester	36 ECTS (22.5 credits)	36 ECTS (22.5 credits)
Summer Session	16 ECTS (10 credits)	16 ECTS (10 credits)
TOTAL	92 ECTS (57.5 credits)	92 ECTS (57.5 credits)

The language of instruction at CII is English. All courses are taught in English and all assignments must be completed in English.

To earn the MS degree and receive his or her diploma, a student must:

- **Successfully complete all courses and the practicum** – i.e., 92 ECTS (57.5 credits)
 - The program is designed to be completed in one academic year and must be completed in no more than two academic years to earn the degree.
- **Maintain good academic standing** – i.e., a GPA of B- (6.0 on the EU system or 2.7 on the US system).
- **Pay all tuition and fees** and obtain a financial clearance certificate indicating this.

Course Credit System

Credits are assigned using a dual system:

- Each course credit in the Program corresponds to 12 contact hours of in-class activities. Each contact hour refers to 60 minutes of actual time devoted to in-class activities. In-class examinations are counted as class contact-hours. Therefore, a 5-credit course offered through the Program must have a minimum of 60 contact-hours (i.e. sixty 60-minute sessions). Similarly, a 2.5-credit course must have a minimum of 30 contact-hours.
- Credits based on the EU system, in which one ECTS corresponds to 30 hours of effort. The primary difference between the HSPH credit system and the ECTS system is that HSPH credits are based on classroom contact hours whereas ECTS credits are based on the total effort involved, both in and outside of the classroom. Typically HSPH assumes that students spend 2-3 hours outside of the classroom for each hour of contact time in class. On this basis, a course which is assigned 2.5 HSPH credits should involve 30 hours of contact time in class and 60-90 hours of time outside of the classroom for a total of 90-120 hours of effort. This then would correspond to between 3 and 4 ECTS.

Course Requirements for the Master's of Science in Environmental Health

Fall Semester 32 ECTS (20 credits)	Winter Session 8 ECTS (5.0 credits)	Spring Semester 36 ECTS (22.5 credits)	Summer Session 16 ECTS (10.0 credits)
Introduction to Biostatistics – EHS 511* 8 ECTS (5 credits)	Genetics, Environment & Health – EHS 516* 4 ECTS (2.5 credits)	Water Pollution – EHS 518* 8 ECTS (5 credits)	Global Climate Change – EHS 525* 4 ECTS (2.5 credits)
Physiology – EHS 512** 8 ECTS (5 credits)		Air Pollution – EHS 520* 8 ECTS (5 credits)	Occupational Health – EHS 523* 4 ECTS (2.5 credits)
Introduction to Epidemiology – EHS 515* 4 ECTS (2.5 credits)		Sustainability, Trade & Env – EHS 521** 4 ECTS (2.5 credits)	Exposure Assessment – EHS 522** 4 ECTS (2.5 credits)
Risk Assessment – EHS 519* 4 ECTS (2.5 credits)		Environmental Epidemiology – EHS 524* 4 ECTS (2.5 credits)	
Regulatory Toxicology – EHS 513** 4 ECTS (2.5 credits)			
EH PRACTICUM – EHS 580** 4 ECTS (2.5 credits)	EH PRACTICUM – EHS 580** 4 ECTS (2.5 credits)	EH PRACTICUM – EHS 580** 12 ECTS (7.5 credits)	EH PRACTICUM – EHS 580** 4 ECTS (2.5 credits)
<ul style="list-style-type: none"> Note that courses marked with one * are taken in the first year of the two-year half-time program. Courses marked with ** are taken in the second year. 			

Course Requirements for the Master's of Science in Epidemiology and Biostatistics

Fall Semester 32 ECTS (20 credits)	Winter Session 8 ECTS (5 credits)	Spring Semester 36 ECTS (22.5 credits)	Summer Session 16 ECTS (10 credits)
Introduction to Biostatistics – EHS 511* 8 ECTS (5 credits)	Genetics, Environment & Health – EHS 516* 4 ECTS (2.5 credits)	Regression Analysis – EPB 541* 8 ECTS (5 credits)	Basics of Statistical Inference – EPB 542** 8 ECTS (5 credits)
Introduction to Epidemiology – EHS 515* 4 ECTS (2.5 credits)		Adv Epi Methods: Part II – EPB 533** 4 ECTS (2.5 credits)	Descriptive Study Design in Epidemiologic Research – EPB 535* 4 ECTS (2.5 credits)
Epi of Chronic Diseases in the EU & Eastern Med – EPB 530** 4 ECTS (2.5 credits)		Epi of Infectious Diseases in the EU & Eastern Med – EPB 531* 4 ECTS (2.5 credits)	
Adv Epi Methods: Part I – EPB 532** 4 ECTS (2.5 credits)		Analytic Study Design in Epidemiologic Research – EPB 534** 4 ECTS (2.5 credits)	
Introduction to SAS & R for PH – EPB 543* 4 ECTS (2.5 credits)		Environmental Epidemiology – EHS 524* 4 ECTS (2.5 credits)	
Risk Assessment – EHS 519** 4 ECTS (2.5 credits)			
EPB PRACTICUM – EPB 580** 4 ECTS (2.5 credits)	EPB PRACTICUM – EPB 580** 4 ECTS (2.5 credits)	EPB PRACTICUM – EPB 580** 12 ECTS (7.5 credits)	EPB PRACTICUM – EPB 580** 4 ECTS (2.5 credits)

• **Note that courses marked with one * are taken in the first year of the two-year half-time program. Courses marked with ** are taken in the second year.**

Course Attendance Policy

Graduate students at CII are expected to attend all lectures, computer workshops and other activities (e.g., seminars, special lectures) offered as part of the program.

We expect students to fully participate in all courses and, as a matter of professional courtesy, to inform professors if they expect to miss a class meeting. If health issues, or other unexpected events, require a period of prolonged absence this should be discussed with your faculty advisor.

Course Grading System and Academic Standing

The program maintains a dual grading system.

Primary grades are assigned using a letter grade system. In this system – (i) grades range from A to F; (ii) any grade of C (5/10 or 2) or above is considered a passing grade; but, (iii) ***in order to be considered in good academic standing, or to graduate from the program, a student must maintain a grade point average of B- (6 /10 on the EU system (~ 2.7 on the US system)) or above.***

Students who fail to maintain good academic standing may jeopardize their continued participation in the MS program, and may no longer qualify for scholarship support.

The table below shows the correspondence between the primary letter grades and the EU and USA numerical values.

Letter Grade	Numerical Value	
	EU	USA
A	10	4
A -	9	3.7
B +	8	3.3
B	7	3
B -	6	2.7
C	5	2
F	0	0

Degree candidates are required to take all courses for an ordinal (letter) grade. CUT students from other departments may enroll in courses at the Institute on a pass/fail basis, if this is allowed by the rules of their home department or degree program.

Withdrawal (W); Incomplete (I); and Failure (F)

- **Grade of Withdrawal: W**

Students who petition for, and obtain, approval to withdraw from a course at the Institute will receive a grade of "W". The withdrawal will be a part of their permanent academic record.

- **Grade of Incomplete: I**

The grade of "incomplete" is normally assigned when a student has been unable to complete all of the work assigned in class. The incomplete appears on the student's transcript until all coursework is completed, at which point a letter grade is assigned and the transcript is updated to show the final letter grade.

Instructors may grant an extension to students who fail to submit an assignment on time. Typically the penalty for missing a deadline is a lowering of the student's grade by one letter (e.g., from A- to B-). Individual course leaders may set more lenient or strict penalties, but they must do so in a written policy provided to students at the beginning of the course.

If a faculty course director notices that a student has missed several deadlines, he/she may recommend that the student take an "incomplete." If the student elects this option, he/she must work with the course director to negotiate a written agreement specifying the work to be performed, the deadline for completion of the work (normally no more than a few weeks after the course ends, and in no case more than one term later), and the penalty (1/2 grade, full grade) for late completion of the work. This agreement, signed by both the student and the course director, must be submitted to the CAD by the instructor. Forms hand delivered by the student will not be accepted.

If the completed work is submitted by the deadline, the instructor (or surrogate) will evaluate it, and the grade given will replace the incomplete ("I") on the student's record. If the incomplete work is not made up by the deadline date, a grade of "F" will be given for the work not completed. If this work accounts for the whole grade, the final grade given will be an "F."

- **Grade of Failure: F**

Students failing any course at the Institute will receive a grade of "F." The failure will be part of their permanent academic record.

Since the grading option for the failed course is ordinal, "0" will be calculated into the cumulative grade point average. Students who fail a course have one opportunity to repeat the course for a new grade during the subsequent academic year. A new grade will be given for the repeated course, however, the "F" previously received will remain on the student's record. A student who fails a required course twice will not be awarded the degree for which he/she is candidate.

Failure of Examinations

Students who fail an examination may not retake the exam without permission from the Academic Program Coordinator of the Institute and the instructor of the course. Failing an exam in a course in which that exam is the only means of evaluation results in failure of the course.

Grade Changes

Final authority for the designation of grades rests with the grading instructor of each course. **Only instructors may initiate a change in grade.** Once a grade has been submitted to the Postgraduate Studies Officer, the following procedures must be followed in order to make any changes:

- To change an "Incomplete" to an "I/ordinal" grade: The grading instructor must complete the final portion of the **Incomplete Agreement** for the student and deliver the form directly to Postgraduate Studies Officer.
- To correct a clerical error in reporting the original grade: The grading instructor must submit a *Change of Grade Form* to the Academic Program Coordinator for review and decision.
- To change a grade in light of new and relevant information regarding the student's performance the grading instructor must submit a *Change of Grade Form* to the Academic Program Coordinator for review and decision.

For grade changes other than those made to resolve an incomplete, the grading instructor is expected to indicate that he/she has reviewed the work of **all** other students in the course in order to determine that no similar errors have been made and gone uncorrected.

Change of Grade Forms will not be accepted from a student; the instructor must submit the completed form. Please note that grades cannot be changed after a degree has been voted, nor will a grade change be considered more than one semester following the initial due date of the grade.

6. ACADEMIC INTEGRITY

The academic programs of the Institute involve a rich variety of courses, instructional methods, and approaches for evaluating the teaching and learning process. Our students routinely are asked to submit homework assignments, to write essays and research papers, to develop computer models, to analyze data, and to make presentations. This is done to encourage intellectual interaction between students and faculty and to allow our faculty to evaluate and record the progress of each student, of the class and of the program.

Our academic programs are designed to encourage discussion and interaction – among students, between faculty and students, and of our entire intellectual community with the outside world. We rely on collaborative computer workshops, class discussion of readings, and group projects involving assessment and evaluation of real world data.

At the same time, an explicit goal of the programs at the Institute is to promote academic integrity.

Our students are taught procedures for researching and writing scientific manuscripts and are given instruction on preparing and delivering scientific presentations. A key element of this is instruction in the principles and practice of attribution and citation of underlying sources of data, concepts and ideas. Our students learn that full and proper attribution of sources is a hallmark of good scientific writing/speaking and that it is expected in all academic work (i.e., papers, talks, computer programs) at CII.

Similarly, all work submitted to meet course requirements is expected to be the student's own work. Students should take great care to distinguish their own ideas and knowledge from information derived from other sources. The term "sources" includes not only published primary and secondary material, but also information and opinions gained directly from other people. Whenever ideas or facts are derived from a student's reading and research the sources must be indicated. Quotations must be placed within quotation marks and the source must be credited. All paraphrased material must also be acknowledged.

This same principle applies to computer programs or mathematical models. Like a paper, a mathematical model or computer program submitted to meet course requirements is expected to be the original work of the student submitting it. Copying (or substantially deriving) a computer program or mathematical model from another student or from any other source is a form of academic dishonesty.

Finally, unless otherwise specified, take-home examinations are given with the understanding that students may consult notes and references, but not other students.

The amount of collaboration with others that is permitted in the completion of assignments varies from course to course and is set forth in the syllabus for each course. *Students must assume that, unless explicitly specified by the instructor, collaboration in the completion of assignments is prohibited.*

Students who submit work which either is not their own or in which they do not fully and properly attribute sources may be subject to disciplinary action, including the possibility of being dismissed from the Institute.

7. INTERNATIONAL STUDENTS

Students from countries other than Cyprus must have either **residence cards or student visas** and must have **evidence of medical insurance** and **evidence of financial ability** to support their education. The specific requirements differ substantially depending upon whether the student is a citizen of the EU (or EEA countries) or is a citizen from a country outside of the EU.

Entry Visa to Cyprus

All students who receive a letter of acceptance from the University should contact the International Student Office to inquire about visa requirements. The procedures for both EU and non-EU students are explained below:

- **Citizens of the EU (or EEA countries)**

Residence Permit for Cyprus

Citizens of EU or EEA countries (Iceland, Norway, and Lichtenstein) do not need an entry Visa. However, they must apply for a residence permit within 4 months of entry into Cyprus. Application forms are available from the International Student Office. The Residence Permit issued to a student is valid only during the period of their educational studies. To obtain a residence permit, each student must submit:

- A certified copy of your **European Health Insurance Card** (or other proof of health insurance)
- A copy of **your letter of acceptance**,
- A **valid identification card** (e.g., passport) and
- A **certificate of financial support**.

Health Insurance

EU citizens must bring their European Health Insurance Card. This document is an evidence of health insurance and will guarantee their medical treatment on the same conditions as Cypriot citizens. Students should contact their regional social insurance office for European Health Insurance Card or other document that proves their insurance.

- **Students from Non-EU Countries**

Prior to their arrival in Cyprus, students from non-EU countries must submit the documents listed below to the Cyprus Embassy or Consulate in their country of residence for obtaining a student visa for Cyprus.

- An **original / attested police clearance certificate**. This must have been issued no more than six (6) months before the date that fall term classes are scheduled to begin.
- An **original letter from a bank** confirming that the student, or his/her parents, have sufficient funds to finance his/her studies and living expenses in Cyprus.
- Original and attested copy of academic qualifications and transcripts.
- The **acceptance letter** from CII/CUT.
- **Valid passport**. (The passport must be valid for at least one year from the date that classes are scheduled to begin.)
- **Original Medical Examination Certificates** for HIV/AIDS Virus, Syphilis, Hepatitis B, Hepatitis C, Tuberculosis (Chest X-Rays). The health certificates should be valid for no more than three (3) months. The Medical Examination Certificates must have been attested by the Ministry of Health and Ministry of Foreign Affairs of the student's country of origin and then by the Cyprus Embassy/Consulate.
- A **tuition payment receipt** from CII/CUT indicating that tuition fees have been paid in full.

If there is not an embassy or consulate in the student's country of origin, CUT will apply on behalf of the student to the Migration Office in Cyprus. In this case, all of the documents listed above must be sent to the International Student Office and received by this office no later than 20th June.

Student Visas issued by the Migration Authorities are good for a period of one year. If the program lasts more than one year, your visa must be renewed each year.

Student Visa Process - Arriving in Cyprus

Students who successfully obtain a Visa (from the Cyprus Embassy or Consulate in their country of residence) must bring all of the documents listed above to Cyprus. Each required document must bear the official stamp of the Embassy or Consulate. At the point of entry (i.e., the airport or port) each foreign student must present evidence that all tuition fees have been paid. This must be a receipt of remittance (either via a bank cheque, international money transfer, or bank draft) indicating full payment of tuition fees. In addition, each student must present (in cash, travellers' cheques or banker's draft) the amount they are expected to need for their living expenses for the first 3 months in Cyprus (Euros 1300).

Health Insurance

Students from outside of the EU are required to carry medical insurance covering them for the duration of their studies. The insurance must cover accidents, sicknesses, medical care, and hospital treatment. The annual cost of such medical insurance is approximately 150 Euros.

Please note that most health insurance schemes do not cover expenses for eye doctors or dentists. In view of this, it is advisable to have an eye test and dental examination before coming to Cyprus.

If a student has an international health plan that covers his/her stay in Cyprus he/she will need to bring all necessary documentation with him/her as it will have to be submitted to the immigration office when he/she will apply for a temporary residence visa.

Finally, it is advisable to all students to take out a travel insurance policy to cover the journey to Cyprus and for about a week after arrival. This should cover any loss or damage of personal property as well as any medical costs.

Housing

The university rents a number of apartments/rooms. These are offered to students at a reduced rental price. International students have priority for university housing. Upon acceptance to the university, international students who are interested in staying on Campus must submit a Housing Application Form.

Orientation Day

All new international students are encouraged to attend the Orientation day as it gives them an opportunity to meet fellow students, make friends and find out more about what CUT has to offer. During Orientation students will be assisted by some of the current international and local students who know how it feels to arrive in Cyprus for the first time.

The aim of the International Students' Office is to assist international students and guide them during their stay in Cyprus.

Pre-Orientation Day

Students who wish to have a personal or group orientation session before **arriving in Cyprus through the technology of SKYPE – “internationalstudentofficecut”** -- can do so. Students may also share the University's voice thread blog on which they can address all their concerns with most of the fellow students. For a Skype session please contact the International Students' Office.

For further information contact:

International Students' Office

Saripolou 16 Str., Achilleos Building, 2nd Floor, 3603, Limassol, Cyprus

Contact Person

Yiannis Vakis

International Students' Office

Academic Affairs and Student Welfare Service

Tel. +357-25002399, Fax. +357-25002687

yiannis.vakis@cut.ac.cy

www.cut.ac.cy

www.cut.ac.cy/studies/international/

SKYPE: internationalstudentofficecut

8. ACADEMIC CALENDAR

The academic year is divided into the Fall Semester, the Winter Session, the Spring Semester, and the Summer Session. Important dates for the 2012-2013 academic year are presented below:

ACADEMIC CALENDAR 2012–13	
Application, Registration & Withdrawal	
January 18 – May 18	Period to submit applications for Academic Year 2012-13
June 30	Last day for applicants to confirm acceptance offer - Tuition deposit of €500 due
August 31	Last day for full payment of balance of tuition fees – Registration – Orientation
September 28	Last day for withdrawal from the program with tuition refund
Fall Semester	
September 3	Fall Session Classes Begin
October 1 – Monday	<i>Public Holiday – “Cyprus Independence Day”</i>
October 28 -- Sunday	<i>Public Holiday – “Greek National Day”</i>
December 14	Fall Semester Ends
December 15-January 6	<i>Christmas & New Year's Holidays</i>
Winter Session	
January 6 -- Sunday	<i>Public Holiday – “Epiphany”</i>
January 3	Winter Session Classes Begin
January 25	Winter Session Ends
Spring Semester	
January 28	Spring Session Classes Begin
March 18	<i>Public Holiday – “Green Monday”</i>
March 25	<i>Public Holiday – “Greek Independence Day”</i>
April 1 – Monday	<i>Public Holiday – “Cypriot National Day”</i>
May 1 -- Wednesday	<i>Public Holiday – “Labour Day”</i>
April 29 (Monday) through May 7 (Tuesday)	<i>Public Holidays – “Greek Orthodox Easter Week”</i>
May 17	Spring Semester Ends
Summer Session	
May 20	Summer Session Classes Begin
June 24	<i>Public Holiday – “Whitsun Monday”</i>
July 12	Summer Session Ends
July 25	Graduation Ceremony

Religious Holidays

Any student who is unable, because of his or her religious beliefs, to attend classes or to participate in any examination, study, or class assignment on a particular day shall be excused from any such examination or requirement which he or she may have missed because of such absence, provided that notification is given to his or her instructor(s) in advance. No adverse or prejudicial effect shall result to any student for availing himself or herself of these provisions.

9. FACULTY -- CII



John S. Evans

Director, CII
Co-Director, Harvard Cyprus Program
Senior Lecturer on Environmental Science
Harvard School of Public Health

Research

Dr. Evans' research focuses on risk assessment, uncertainty analysis, and decision making in environmental health.

His early work concentrated on improving the models used to estimate the health impacts of accidental releases of radionuclides from nuclear power plants and on understanding the evidence from cross-sectional and time-series studies of the mortality impacts of airborne particulate matter.

Working with a series of talented and dedicated doctoral students and postdoctoral fellows, including Adam Finkel, Neil Hawkins, Alison Cullen, Kim Thompson, Andy Smith, Katy Walker, Scott Wolff, Kevin Brand, George Gray, Sandra Baird, TJ Carrothers and Jouni Tuomisto, Dr. Evans developed approaches for characterizing uncertainty in estimates of environmental health risks and for using such estimates to inform decisions about emissions controls and research prioritization.

In the mid-to-late 1990's Dr. Evans became interested in developing simple and transparent approaches for estimating population exposure to air pollutants. Working with Andy Wilson, Kanchanasak Phonboon and Ying Zhou, he pioneered the development and application of the concept of intake fraction to meet this need.

From 2002 until 2008 Dr. Evans directed a program of study to assess the public health impacts of Iraq's 1990 invasion and occupation of Kuwait. The study used epidemiology and risk assessment to characterize the health impacts of mine and ordnance accidents, smoke from the oil well fires, polycyclic aromatic hydrocarbons from the marine and terrestrial oil spills, and depleted uranium from spent munitions.

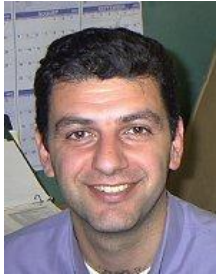
Education

Sc.D.	1980	Harvard University	Environmental Health Sciences
S.M.	1977	Harvard University	Environmental Health Sciences
M.S.	1971	University of Michigan	Water Resources Management

Contact Information

jevans@hsph.harvard.edu

Phone: +357 25-00 2201



Costas Christophi

Assistant Professor of Epidemiology and Biostatistics
Cyprus University of Technology
Cyprus International Institute

Research

Dr. Christophi's research experience over the years combines both methodological and collaborative applied investigations. His research focuses in the area of obesity and diabetes as well as tobacco control and health. On a more theoretical level his work involves probabilistic analysis of algorithms and categorical data analysis.

Dr. Christophi has experience with the US Environmental Protection Agency and the Biometry Research Group at the National Cancer Institute. He is intimately acquainted with the conduct of large trials through his role as a Co-Investigator on the Diabetes Prevention Program (DPP), a longitudinal multi-center clinical trial supported by the National Institutes of Health primarily for the prevention of diabetes and further development of diabetes complications. Dr. Christophi is also involved with the Prevention of Events with Angiotensin Converting Enzyme Inhibition (PEACE) study which is funded by the National Heart, Lung, and Blood Institute.

He has been the principal investigator (or co-PI / coordinator) of several other studies funded by the Cyprus Research Promotion Foundation, the European Public Health Executive Agency and other sponsors in the EU, the USA and Canada. These include: a project with the goal of better understanding the complex relation between appetite and energy intake, metabolism and energy expenditure, genetics, and the environment, through a cohort of 18-year old male Cypriots which will also serve as the basis for the investigation of the development of several outcomes such as diabetes and metabolic syndrome; a project developing a set of guidelines for the prevention of obesity at the workplace; several tobacco control projects; projects related to fire-fighters and cancer. He has over 20 peer-reviewed research papers in high impact journals including the *New England Journal of Medicine* and the *Lancet*.

Education

Ph.D.	2004	George Washington University
M.S.	1999	George Washington University
B.S.	1994	Boston University

Contact Information

costas.christophi@cut.ac.cy

Phone: +357 25-00 2393



Konstantinos C. Makris

Assistant Professor of Environmental Health
Cyprus University of Technology
Cyprus International Institute

Research

Dr. Makris' research interests focus on water and human health issues, such as, drinking-water quality, exposure assessment for metal/metalloid-impacted populations, fate and bioavailability of metalloids and xenobiotics in water and in the human gastrointestinal tract, and development of sustainable intervention measures for carcinogenic water contaminants.

Dr. Makris utilizes methodology and techniques towards the improved understanding of orally-ingested contaminants on the etiology and mitigation of carcinogenic or non-carcinogenic effects. Towards this goal, Dr. Makris collaborates with Harvard faculty specializing in environmental epidemiology, risk assessment, and microbiology to address Water & Health issues. The ultimate goal of the *Water & Health* research program of Dr. Makris is to minimize the human health risk associated with chronic human ingestion of water contaminants.

During the past 6 years, Dr. Makris has published 40 peer-reviewed journal articles and book chapters dealing with the environment, chemistry, health and mitigation technology development for a number of toxic contaminants. Dr. Makris and his colleagues have utilized advanced instrumentation and methodologies such as, HPLC-ICP-MS, HPLC-ESI-MS/MS, and XANES/EXAFS for solution and particle surface speciation of toxic contaminants. A patent on the removal of chromium from urban storm water is under way with colleagues from the Univ. of Texas at San Antonio, while a proof-of-concept has been confirmed for a novel arsenic field test.

Education

Ph.D. 2004 University of Florida
M.S. 2000 University of Kentucky
B.S. 1998 Aristotle University, Greece

Contact Information

konstantinos.makris@cut.ac.cy

Phone: +357 25-00 2398



Andrie Panayiotou

Lecturer on Public Health
Cyprus University of Technology
Cyprus International Institute

Research

Dr. Panayiotou's research focuses on the epidemiology of cardiovascular disease and particularly risk factors and biomarkers relating to obesity, diabetes, inflammation, thrombosis and renal dysfunction of preclinical atherosclerosis with the ultimate goal of improving existing risk prediction tools for better categorization of individuals. Genetic epidemiology and gene-environment interactions, especially with diet, are also of interest. Preclinical atherosclerosis is assessed and measured with the use of high-resolution ultrasound of both common carotid and common femoral arteries.

Dr. Panayiotou has collaborated in a number of research projects funded by the Cyprus Ministry of Health and the Cyprus Research Promotion Foundation as well as by sponsors in Cyprus and the U.K. These include projects capturing and analyzing gene expression data, using microarrays, from different types of atherosclerotic plaques; Gene variants modifying electrocardiogram QT-interval in Cyprus using whole genome arrays; Heritability estimates for ultrasonic markers of preclinical atherosclerosis, including intima-media thickness and atherosclerotic plaques and blood leukocyte telomere length in Cyprus as a marker of biological ageing.

Dr. Panayiotou has won several awards from both national and international societies for presentation of original research and has published 6 peer-reviewed journal articles, including one in *Circulation*, as well as book chapters. She is a national representative for European COST action on adipose tissue and metabolic disease.

Education

M.Sc.	2010	London School of Hygiene and Tropical Medicine.
Ph.D.	2008	University of Cyprus
B.Sc.	2003	University of Patras

Contact Information

andrie.panayiotou@cut.ac.cy

Phone: +357 25-00 2131



Panayiotis Yiallourous

Visiting Lecturer on Public Health
Cyprus University of Technology
Cyprus International Institute

Research

Dr. Yiallourous' research focuses on the associations of respiratory diseases with environmental and modern lifestyle changes. In collaboration with colleagues from CII and HSPH has studied the effects of particulate matter and other air pollutants on respiratory diseases through assessment of the time trends of hospital admissions and mortality, proximity of children's residence to main roads and power plants. The trends in childhood asthma and allergic sensitization in Cyprus have also been a central focus of his activities, with an emphasis on understanding their relationship with indoor levels of endotoxin and aero-allergens.

Dr. Yiallourous has been conducting large scale population studies of the relationships between obesity and asthma and systemic and airway inflammation looking how body fat and associated factors such as diet, adipokines, micronutrients, vitamin D are related to severity of asthma, lung function and levels of systemic and airway inflammation. He is also interested in studies of cilia motility and ultra-structure and the epidemiology of primary ciliary dyskinesia in Cyprus. He is an active member of the European Respiratory Society Task Force for the study of this disease in Europe.

Dr. Yiallourous directs the Respiratory Diseases & the Environment Unit at CII. He is also the head of the Pediatric Pulmonology Clinic at the tertiary Children's Hospital in Cyprus (Hospital Archbishop Makarios III) and Assistant Director of the Division of Pediatrics.

Education

- Ph.D. 1995 Athens Medical School, Greece
- Pediatric Pulmonology Training – 1994 -- St.Thomas' and Great Ormond Street Hospitals, London, UK
 - General Pediatrics Training – 1990 – A. Kyriakou Children's Hospital, Athens Greece
- MD 1985 Athens Medical School, Greece

Contact Information

p.yiallourous@cut.ac.cy

Phone: +357 25-00 2398

9.1 FACULTY – HCP



Petros Koutrakis

Director, Harvard Cyprus Program

Professor of Environmental Science
Harvard School of Public Health

Research

Dr. Koutrakis' research activities focus on the development of human exposure measurement techniques and the investigation of sources, transport, and the fate of air pollutants. In collaboration with his colleagues in the Environmental Chemistry Laboratory, he has developed ambient particle concentrators and high volume samplers that can be used to conduct human and animal inhalation studies. He has also developed a personal ozone monitor, a continuous fine particle measurement technique and several other sampling methods for a variety of gaseous and particulate air pollutants. These novel techniques have been used extensively by air pollution scientists and human exposure assessors in United States and worldwide.

Dr. Koutrakis has conducted a number of comprehensive air pollution studies in the United States, Canada, Spain, Chile, Kuwait, Cyprus and Greece that investigate the extent of human exposures to gaseous and particulate air pollutants. Other research interests include the assessment of particulate matter exposures and their effects on the cardiac and pulmonary health.

Dr. Koutrakis is the Head of the Exposure, Epidemiology and Risk Program and the Director of the EPA/Harvard University Center for Ambient Particle Health Effects.

Dr. Koutrakis is a member in national and international committees and the past Technical Editor-in-Chief of the Journal of the Air & Waste Management Association. He has published over 170 peer reviewed papers in the areas of air quality, exposure and health effects assessment and instrumentation.

Education

Ph.D.	1984	University of Paris
MS	1981	University of Paris
BS	1980	University of Patras

Contact Information

petros@hsph.harvard.edu

Phone: +1 617 384-8888



James H. Ware

Director, CII MS in Epidemiology and Biostatistics Program

Frederick Mosteller Professor of Biostatistics
Associate Dean for Clinical and Translational Sciences
Harvard School of Public Health

Research

Professor Ware's current research interests focus on methods for the analysis of longitudinal data, and on the application of biostatistics to clinical/translational research. During the 1980s, Dr. Ware developed statistical methods for the design and analysis of longitudinal studies, with application to studies of the health effects of air pollutants. That research led to new methodology for the analysis of longitudinal data and to many publications on the health effects of air pollutants, including particulate air pollution, nitrogen dioxide, and sidestream cigarette smoke. This work also stimulated research on errors of measurement and their effects on the design and analysis of studies. With colleagues Nan Laird and Garrett Fitzmaurice, Dr. Ware recently completed a book on methods for analysis of longitudinal data. He directed the statistical center for the Brain Injury Trial, a randomized trial comparing two strategies for protecting the brain during surgery to repair transposition of the great arteries in infants, and the Data Coordinating Center for the Treatment of Lead Exposed Children Trial. This trial, sponsored by the National Institute of Environmental Health Sciences, investigated the benefits of chelation to lower blood lead levels in children with high blood lead levels resulting from environmental exposures.

Dr. Ware is a statistical consultant to the *New England Journal of Medicine*; teaches courses on longitudinal analysis, clinical trials, and analysis of categorical data at HSPH; and writes occasional papers on statistical issues in clinical research. In 2008, Harvard received an award from the National Institutes of Health to support a Clinical and Translational Science Center (CTSC), since named Harvard Catalyst (www.catalyst.harvard.edu) to focus on research that accelerates the application of new science to patient care and public health. Dr. Ware is the director of the Biostatistical Science Program and associate director of the Postgraduate Education Program for Harvard Catalyst. In addition, Dr. Ware is leading a collaboration with King Abdulaziz University in Jeddah, Saudi Arabia, to foster learning and research opportunities for Saudi public health and medical scientists and health professionals.

Education

Ph.D.	1969	Stanford University	Statistics
B.A.	1963	Yale University	Statistics

Contact Information

ware@hsph.harvard.edu

Phone: +1 617 432 4901



Nicholas A. Ashford

Professor of Technology and Policy
Massachusetts Institute of Technology

Research

Dr. Ashford's research interests include regulatory law and economics; the design of government policies for encouraging both technological innovation, and improvements in health, safety and environmental quality; pollution prevention and cleaner/inherently safer production; the effects of liability in improving product and process safety; the consequences of low-level exposure to chemicals; sustainability, trade and environment; labor's participation in technological change; and environmental justice. He has developed methodologies for decision-making in the regulation of chemicals and has extensively investigated the effects of regulation on technological innovation in the chemical, pharmaceutical, and automobile industries. Dr. Ashford's research activities include work for the United Nations Environment Programme, the OECD, and the European Union, as well as for U.S. regulatory agencies and the U.S. Office of Technology Assessment. <http://web.mit.edu/ctpid/www/tl/>

With Charles Caldart, Dr. Ashford is the co-author of textbook/reader on Environmental Law, Policy and Economics (2008, MIT Press). He also authored a major policy work for the Ford Foundation, Crisis in the Workplace: Occupational Disease and Injury, (1976, MIT Press). He co-authored four additional books: Public Participation in Contaminated Communities, (2001, <http://web.mit.edu/ctpid/www/tl/>); Chemical Exposures: Low Levels and High Stakes (second edition 1998, John Wiley Press); Technology, Law and the Working Environment (second edition 1996, Island Press) and Monitoring the Worker for Exposure and Disease (1990, John Hopkins University Press). His new textbook/reader on Technology, Globalization, and Sustainability has just been published. Dr. Ashford has contributed several hundred articles to peer-reviewed journals and law reviews.

Education

J.D.	1972	University of Chicago	Law and Economics
Ph.D.	1965	University of Chicago	Physical Chemistry

Contact Information

nashford@mit.edu

Phone: +1 617 253-1664



Julie E. Buring

Associate Director, CII MS in Epidemiology and Biostatistics

Professor of Epidemiology
Harvard School of Public Health

Professor of Medicine
Harvard Medical School, Brigham and Women's Hospital

Research

The primary focus of Dr. Buring's research is on the epidemiology of chronic diseases, particularly cardiovascular disease and cancer. She has been involved in the design, conduct, analysis, and interpretation of a number of large-scale cohort studies and randomized clinical trials. She serves as principal investigator of the Women's Health Study, which was designed as a primary prevention trial evaluating the balance of benefits and risks of low-dose aspirin and vitamin E on cardiovascular disease and cancer among 40,000 female health professionals, and in which the participants continue to be followed observationally. She also serves as co-investigator of Physicians' Health Study II, which evaluated among 15,000 male physicians the preventive roles of vitamin E, vitamin C, and beta-carotene on cardiovascular disease, cancer, vision, and cognitive function, and is continuing to evaluate the role of multivitamins. She is co-investigator of a newly funded trial of vitamin E and fish oil on the primary prevention of cardiovascular disease and cancer (VITAL), which will be initiated among 20,000 men and women this year.

Dr. Buring is actively involved in the teaching and training of students and fellows in epidemiology, both nationally and internationally. She is co-director of a National Institutes of Health T32 training grant in the epidemiology of cardiovascular disease. She also serves as the chair of the Institutional Research Board (IRB) of Harvard Medical School.

Education

Sc.D.	1983	Harvard School of Public Health	Epidemiology
M.S.	1975	University of Washington, Seattle	Biostatistics
B.A.	1971	Pomona College	Mathematics

Contact Information

jburing@rics.bwh.harvard.edu

Phone: +1 617 278-0863



Douglas W. Dockery

Professor of Environmental Epidemiology
Chair, Department of Environmental Health
Harvard School of Public Health

Research

Dr. Dockery and his colleagues have studied the health effects of air pollution exposures in populations who have been followed for up to twenty-five years. That research has increasingly pointed to combustion-related particles as being causally linked to increased morbidity and mortality even at the relatively low concentrations observed in developed countries today. Dr. Dockery and his colleagues have reported that episodes of particulate air pollution are consistently associated with increased daily mortality, increased hospital admissions and emergency room visits, exacerbation of asthma, increased respiratory symptoms and lower lung function. Long-term follow-up studies have shown particulate air pollution is associated with shortened life expectancy in adults and increased chronic respiratory illness and lower lung function in children. This research has led to the current debate on the role of particulate air pollution in producing adverse effect effects and to the re-evaluation of air quality standards both nationally and internationally.

Dr. Dockery's current research is attempting to more specifically identify the chemical and physical characteristics of those particles responsible for the observed adverse health effects. Current studies also are attempting to understand the pathways of acute cardiovascular events associated with air pollution exposure and to link these epidemiologic finding with toxicologic studies of particle effects. He also is assessing the health benefits of air pollution controls. In addition, the methods developed to assess air pollution health effects epidemiologically are being applied to other environmental hazards including contamination of water supplies.

Education

Sc.D.	1979	Harvard School of Public Health	Environmental Health
M.S.	1974	Harvard School of Public Health	Environmental Health
M.S.	1972	Massachusetts Institute of Technology	Meteorology
B.S.	1969	University of Maryland	Physics

Contact Information

ddockery@hsph.harvard.edu

Phone: +1 617 432-0729



Adrienne S. Ettinger

Assistant Professor of Epidemiology
Yale School of Public Health

Adjunct Assistant Professor of Environmental Health
Harvard School of Public Health

Research

Dr. Ettinger's research focuses on the effects of environmental exposures on reproductive, perinatal, and children's health. A major objective of her work is to understand how common genetic variants, epigenetic events, and dietary nutrients may modify susceptibility to environmental exposures in the maternal-fetal unit and, ultimately, impact toxicant-induced pregnancy and developmental outcomes. Her research involves the epidemiologic analysis of environmental exposure to metals (arsenic, cadmium, lead, manganese, mercury, zinc) and the associated human health effects in several new and on-going longitudinal birth cohort studies. These studies are currently being carried out in: Mexico, in collaboration with researchers at the National Institute for Public Health; Canada, in collaboration with Health Canada; and in the U.S. (Oklahoma), at the Tar Creek Superfund site. In addition, Dr. Ettinger is working with colleagues in Uruguay and India to develop similar types of research studies. This research may provide new insights to better understand how environmental risks within and between populations vary with respect to exposure, underlying susceptibility and developmental stage.

Dr. Ettinger's background includes significant experience with community-based epidemiologic research and public health program implementation. This experience includes working in the federal government with state and local public health departments, conducting academic research in both urban and rural settings, and working with diverse populations both in the U.S. and internationally. As a result of this work, she has been a member of several health policy working groups at the U.S. Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO).

Education

Sc.D.	2003	Harvard School of Public Health
Sc.M.	2000	Harvard School of Public Health
MPH	1991	Boston University School of Public Health

Contact Information

aettinger@hsph.harvard.edu
adrienne.ettinger@yale.edu

Phone: +1 617 384 8834
Phone: +1 203 764 9727



Claire Franklin

President, The LifeLine Group

Research

Dr Franklin's research focuses on the advancement of software tools and sciences underlying for better technical assessments. She has extensive experience in international activities related to the regulation of chemicals and consumer products and has experience in conceiving and managing innovative regulatory programs and research projects. The Pest Management Regulatory Agency was established by the federal government in 1995, and Dr. Franklin was its first Executive Director where she was also intimately involved in the development of a new Pest Control Products Act in 2002 which: requires special protection for infants and children; takes into account pesticide exposure from all sources, including food and water; considers cumulative effects of pesticides; and supports pesticide risk reduction by ensuring that only pesticides that make a useful contribution to pest management are registered and encouraging the registration of lower-risk products. Dr. Franklin was instrumental in harmonizing pesticide regulatory processes internationally. Through her leadership of the North American Free Trade Agreement (NAFTA) Technical Working Group on Pesticides, a North American market for pesticides has been developed; this harmonized approach has also been adopted by the EU through the OECD.

Dr. Franklin has contributed to the fields of toxicology, risk assessment and worker and bystander exposure to environmental chemicals. She has been involved in international research programs including one with Harvard University to conduct a 24 city study to assess the effects of acid rain on the health of children. In another, she studied the mobilization of lead from the maternal skeleton to the fetus during pregnancy in non-human primates. Her current research activities have focused on the development of software tools for conducting aggregate and cumulative exposure and risk assessment, and she has been actively involved in developing the Tribal LifeLine software for the US EPA, to conduct exposure and risk assessments to contaminants and nutrients for communities in Alaska, and developing dietary data for Inuit populations in the US and Canadian north. The LifeLine Group is also studying aggregate and cumulative exposures of perfluorinated compounds consistent with biomarkers of the compounds.

Education

Ph.D.	1967	University of Ottawa	Physiology
B.Sc.	1963	Carleton University	Biology

Contact Information

cafranklin@thelifelinegroup.org

Phone: +613 225-0032



Konstantinos Fokianos

Associate Professor
Department of Mathematics & Statistics
University of Cyprus

Research

His main research interests are in the area of time series analysis, semi parametric estimation and applications of statistics to various scientific fields.

He has developed methods for modeling and inference for count and categorical time series. This type of data is observed in different contexts, like medicine, finance and meteorology. Although several competing models have been suggested over the last years for count time series modelling, techniques relying on the generalized linear models theory have prevailed. The main advantage of the generalized linear models methodology is that it extends the usual linear model theory in a natural way while keeping the structure of models simple. Several results of this quite general methodology are given in his book (jointly authored with B. Kedem) Regression Models for Time Series Analysis, Wiley, 2002.

He has also worked on semi parametric estimation. He, together with colleagues, has developed theory and methods for semi parametric analysis of variance. This methodology lays between parametric and non-parametric methods usually employed when data analysts look for possible difference between groups of observed data. In addition, he has contributed on spectral domain methods for time series analysis, developing techniques for identification of hidden periodicities in gene expression data and clustering of massive time series data sets.

Dr. Fokianos has given several invited talks in several conferences and institutions about his research. In addition he has taught seminar classes (graduate level) on the topic of modelling integer valued time series. He has supervised several graduate students in Cyprus and abroad. He also held visiting appointments at the Ohio State University, Ludwig Maximilians University, National Institutes of Health, EPFL, University Cergy-Pontoise and University of Bergen.

He is an elected member of the International Statistical Institute since 2005 and an Associate Editor of Journal of Environmental Statistics, Statistics and Probability Letters and Computational Statistics and Data Analysis.

Education

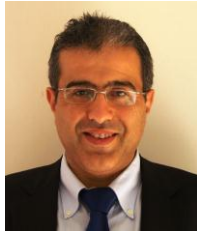
Ph.D.	1996	University of Maryland at College Park	Statistics
M.A.	1993	University of Maryland at College Park	Statistics
B.Sc.	1991	University of Ioannina	Mathematics

Contact Information

fokianos@ucy.ac.cy

Phone: +357 22 89 2613

Diofantos Hadjimitsis



Associate Professor and Department Chair

Department of Civil Engineering and Geomatics
Cyprus University of Technology

Research

Dr. Hadjimitsis' research activities focus on the use of satellite remote sensing intended for environmental surveillance studies and systematic monitoring of the environment. His research activities include the use of remote sensing in the following areas: air pollution monitoring, particulates monitoring, studying of the urban heat island effects, coastal and inland water quality, estimating evapotranspiration in irrigated crops, studying flood risk at catchment scales, studying atmospheric optical properties, land-cover and land use mapping, water leakages detection, archaeological crops detection etc. Dr Hadjimitsis has an expertise in the development of atmospheric correction algorithms of satellite remotely sensed data as well in the integrated use of remote sensing, LIDAR and sun-photometers for air pollution monitoring.

His research group consisted of more than 20 researchers and is the biggest research group at the Cyprus University of Technology (www.cyprusremotesensing.com). Since his appointment at CUT (2007), he participated in 25 research projects with funding sources from the Cyprus Research Promotion Foundation, FP6, FP7, Eureka, LIFE+, EC regional funds, national funds. Dr Hadjimitsis has been a coordinator of more than 10 research projects. Dr Hadjimitsis collaborates with Harvard University and CII team in the following project 'AIRSPACE'-Air pollution monitoring from space in Cyprus funded from the Cyprus Research Promotion Foundation. He is the coordinator of the EUREKA funded project named as "WEBAIR-2" (Web and 3G mobile phone based air quality management: particulates, public health, co-benefits). Diofantos is participated as a partner in a LIFE+ programme applied for the Cyprus area 'PM3: Particulates Monitoring, Modelling, and Management.

He has more than 210 publications in journals and conference proceedings in the field of satellite remote sensing and GIS for environmental surveillance and environmental monitoring (45 in peer-reviewed journal articles and book chapters; and 165 conference papers). He is a reviewer in several journals such as: International Journal of Remote Sensing, Remote Sensing of Environment, Atmospheric Chemistry and Physics, ISPRS Journal of Photogrammetry and Remote Sensing, Remote Sensing, Applied Earth Observation and Geoinformation.

Education

Ph.D.	1999	University of Surrey
MPhil	1997	University of Surrey
BEng	1996	University of Surrey
Dipl. Eng.	1992	HTI, Cyprus
MSc	2007	University of Salford

Contact Information

d.hadjimitsis@cut.ac.cy

Phone:+357 2500 2548



Stefanos Kales

Associate Professor, Harvard Medical School &
Harvard School of Public Health

Director, Occupational Medicine Residency, HSPH
Division Chief OEM, Cambridge Health Alliance

Research

Dr. Kales is an Associate Professor of Medicine at Harvard Medical School, and Associate Professor & Director of the Occupational Medicine Residency at the Harvard School of Public Health. Dr. Kales is also the Chief of Occupational & Environmental Medicine and Medical Director of Employee Health & Industrial Medicine at the Cambridge Health Alliance, a Harvard-affiliated system of three hospitals. He is Board Certified in Internal Medicine and Occupational Medicine, and he has been elected as a Fellow of the American College of Physicians and the American College of Occupational and Environmental Medicine. Dr. Kales is on the editorial boards of *Environmental Health Perspectives* and the *Archives of Environmental and Occupational Health*. He has participated in a wide range of research, advisory and teaching activities on four continents resulting in numerous scientific publications.

Dr. Kales' group has provided seminal contributions in the clinical epidemiology of cardiovascular events in fire-fighters; including the first definitive statistical association of strenuous job tasks and on-duty cardiovascular deaths, which was subsequently confirmed in a later *New England Journal of Medicine* publication. Given his focus on obesity and other cardiovascular risk factors, he is collaborating with others to examine various interfaces between environmental and workplace exposures and metabolic and cardiovascular health effects. As part of these efforts, he also participates as a faculty member in Harvard's new Cardiovascular Epidemiology Program and Harvard Medical School's Division of Sleep Medicine.

Education

MPH	1992	HSPH	Occupational Health
MD	1989	Harvard Medical School	Medicine
BS	1985	Bucknell University	Biology

Contact Information

stefokali@aol.com



Stalo Karageorgi

Junior Scientist
Dasman Diabetes Institute

Special Scientist
Cyprus University of Technology

Research

Dr. Karageorgi's research focuses on investigating the environmental, reproductive and genetic determinants of hormonal cancers, particularly endometrial and ovarian cancer. Her research investigates the relationship between perineal use of talcum powder and endometrial or ovarian cancer risk in large population based studies. Her work also examines the role of age at main reproductive events (age at menarche, pregnancy and menopause) and the use of post-menopausal hormones in reproductive cancer development. Her research further investigates the association between different types of genetic variation (single nucleotide polymorphisms, copy number variation) and cancer risk. The above hypotheses are examined in large epidemiologic studies (Nurses' Health Study, Women's Health Study) and consortia (Epidemiology of Endometrial Cancer Consortium, Ovarian Cancer Association Consortium).

Dr. Karageorgi's recent research interests include studies on the link between obesity/diabetes and cancer, and research on the design of national repositories of biological samples for research use (biobanks) in the Middle East. Biobanks constitute a centralized source of high quality biological samples connected to health data, readily available to scientists to help accelerate research on the causes, prevention and treatment of diseases.

Education

Sc.D.	2010	Harvard University	Environmental Health
M.Sc.	2005	Imperial College	Molecular Medicine
B.Sc.	2004	University of Texas at Austin	Biochemistry

Contact Information

stalo.karageorgi@dasmaninstitute.org



Pedro Oyola

Visiting Professor
Faculty of Public Health
São Paulo University

Research

Dr. Oyola's research activities focus on mega cities air quality and health effects, i.e. Santiago de Chile, where he was conducting an Atmospheric Prevention and Decontamination Plan under the National Environmental Commission. He is active involved in the project Global and Urban Research in Meteorology and Environment under WMO supervision, where Santiago, Mexico City, São Paulo, Beijing, Moscow and other mega polis are participating.

As Director of the Atmospheric Research Division at the Swedish Environmental Protection Agency and later at the Institute of Applied Environmental Research, Stockholm University, Sweden, he was involved in the development and creation of a national network oriented to problem related with long range transport of pollutants associated to acid rain and photochemical smog formation in Europe. As a result of this work, his laboratory became a reference laboratory for Ozone Nitrogen Oxides and VOC for Europe, USA and Canada.

Dr. Oyola has conducted a number of comprehensive outdoor and indoor air pollution studies in Sweden, Chile, Greece, Brazil, Russia, Lithuania, Venezuela that investigate the effects of pollutants in health, crops and visibility. Other research interests include greenhouse gases and climate change.

Dr. Oyola is a member of national and international committees such as CONICYT in Chile and the Scientific Advisory Committee at the EPA-Harvard Particle Health Effects Center. He has published a number of peer reviewed papers and technical reports in the areas of global, regional and urban air quality, modelling, exposure and health effects assessment and instrumentation.

He is Director of Academics and International Relation, Center Mario Molina for Strategic Studies in Environment and Energy, Santiago, Chile; PI at the Air Quality Laboratory, Chemistry Department, Technical University Federico Santa María, Valparaíso, Chile and Vice-president of The Brazilian Environmental Society for Indoor Air Quality (BRASINDOOR).

Education

Ph.D. 1998 Moscow State
M.S. 1970 Russian University, Moscow
B.S. 1965 State Technical University, Santiago, Chile

Contact Information

poyola@usp.br

Phone: 55-11-3066 7777



Georgios K. Nikolopoulos

Epidemiologist, Office for HIV and Sexually Transmitted Diseases,
Hellenic Centre for Diseases Control and Prevention

Special Scientist
Cyprus University of Technology

Research

Dr. Nikolopoulos' research activities focus primarily on the epidemiology of infectious diseases, on the application of statistical methods to public health data and on the quantitative synthesis of scientific evidence. He has extensively investigated the dynamic characteristics of human immunodeficiency virus (HIV) transmission in Greece, including the molecular parameters of the epidemic, and studied, in the context of a large-scale retrospective cohort study, the long-term impact of hepatitis B virus (HBV) co-existence on severe immunosuppression (AIDS) and mortality. His work on the effects of co-infection allowed the comparison of various statistical methods recommended for the analysis of recurrent events and was accompanied by a literature-based meta-analysis that revealed the increased death rates among patients with concomitant HIV/HBV infection. Dr. Nikolopoulos assessed the impact of the recent pandemic trying to explain the differential effects of A (H1N1) influenza virus on mortality across European countries. The findings of his study pointed to the association of per capita governmental spending on health with influenza-related mortality.

Serving on a public health agency for almost one decade, Dr. Nikolopoulos has significant public health experience, with special emphasis on the field of infectious diseases. He has been actively involved in the surveillance and prevention of HIV infection, has closely collaborated with European and international health organizations and participated in the rapid response of Greek health authorities to emerging threats including the influenza A (H1N1) 2009 pandemic.

Dr. Nikolopoulos has also high-level expertise in the conduct of systematic reviews and meta-analyses with useful contribution to the evolving domain of genetic epidemiology. Moreover, he has developed new statistical tools for performing meta-analyses and has prepared user-friendly software routines to facilitate the use of these tools in practice. Dr. Nikolopoulos teaches courses on epidemiology, biostatistics and public health. His current research is attempting to provide new insights to better understand the patterns of the recent HIV-1 outbreak among injecting drug users in Greece.

Education

Ph.D.	2008	University of Athens, School of Medicine	Epidemiology
M.Sc.	2002	University of Athens, School of Medicine	Biostatistics
D.M.D.	1998	University of Athens, School of Dentistry	Dentistry

Contact Information

nikolopoulos@keelpno.gr

Phone: +30 210 521 2124



Joel Schwartz

Professor of Environmental Epidemiology
Departments of Environmental Health & Epidemiology
Harvard School of Public Health

Research

I am interested in looking at the health consequences of exposure to pollutants, including air pollution, heavy metals, and water pollution. My lead studies have examined cardiovascular effects of lead exposure in adults, cognitive effects in children, auditory effects in children, and effects of lead on children's growth. I have worked on sources of lead exposure, including establishing gasoline lead as the major source of lead exposure in the United States, and provided the analyses and lead the rulemaking resulting in the banning of lead additives in gasoline in the U.S. My more recent work has focused on cognitive effects of lead in adults and children, and genetic factors that modify these impacts.

My air pollution work has examined both acute and chronic effects of air pollution exposure. My research helped established that exposure to fine combustion particles and ozone in the air at concentrations well below current standards are associated with a range of adverse health effects, including early death, and that there is no threshold for this association. This work has led to a tightening of the U.S. air quality standards. My recent work has been focused on the cardiovascular effects of air pollution, and on genetic and psychosocial factors which modify the response to air pollution. I am also examining the cognitive effects of air pollution, and doing research examining the possibility that environmental exposures work via epigenetic pathways.

I am also interested in methodological questions regarding the modeling of continuous covariates in epidemiologic studies. This has involved regression spline models, nonparametric smoothing, and generalized additive models. I have been using mixed and hierarchical models to combine this information across studies. Case-crossover techniques have also been introduced for these purposes. I have also been interested in issues involving time series studies, where the outcomes measures are not independent. This has involved generalized least squares and generalized estimating equation approaches. A final area of interest is in the use of cost benefit analysis to make environmental decisions. I have developed benefit methodologies for assessing the benefits of lead control, and applied those methodologies to the decision to remove lead from gasoline, and recently, in collaboration with colleagues at the Centers for Disease Control, to a decision to revise their screening recommendations for children. The same methodology has recently been used to evaluate mercury.

Education

Ph.D.	1980	Brandeis University	Theoretical Physics
BA	1969	Brandeis University	Mathematics and Physics

Contact Information

jschwartz@hsph.harvard.edu

Phone: +1 617 384 8752



James Shine

Senior Lecturer on Aquatic Chemistry
Harvard School of Public Health

Research

Dr. Shine's interest is the transport, fate, and effects of contaminants in aquatic ecosystems. From a public health perspective, this is important in that we must first understand the transport of contaminants released to the environment in order to understand how and why we are exposed to those contaminants. Distinct biological, chemical, and geological processes in natural environments can drastically alter the bioavailability and toxicity of contaminants. In addition, these same biogeochemical processes can concentrate contaminants in certain micro-environments, such as sediments, to levels causing adverse ecological and human health outcomes. Unless we adequately understand the transport and fate of contaminants in the environment, our ability to craft adequate control strategies or regulatory criteria protective of both human and ecological health will be compromised.

Dr. Shine's current research is focusing on the partitioning and bioavailability of organic and heavy metal contaminants in aquatic sediments as well as developing tools to measure contaminant speciation in the environment.

For more information visit Dr. Shine's Research Group Web page: [Aquatic Biogeochemistry Research Group Web Page](#).

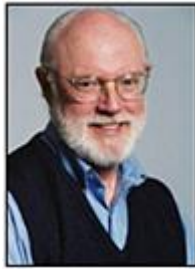
Education

Ph.D. 1993 University of Massachusetts
B.S. 1985 Saint Lawrence University

Contact Information

jshine@hsph.harvard.edu

Phone: +1 617 384 8806



Thomas Smith

Professor of Industrial Hygiene
Harvard School of Public Health

Research

Prof. Smith's primary research interests are the characterization of environmental exposures for studies of health effects, and investigation of the quantitative relationship between environmental exposure and internal dose. He has developed a toxicokinetic modeling approach for designing exposure evaluations for epidemiological studies in collaboration with Dr. David Kriebel, UMass/Lowell. The models can be used to design studies to explore the implications of mechanistic hypotheses about how toxic materials cause health effects.

Dr. Smith is currently using this approach to conduct the exposure assessment for a large cohort study of the US trucking industry with Dr. Eric Garshick of the VA Hospital System and Harvard Medical School. This study is investigating lung cancer mortality among workers who are exposed to diesel and other vehicle exhaust. It is intended to determine whether there is a distinct risk from diesel engine emissions, as opposed to general combustion emissions from all sources. Carbon nano and ultrafine particles with adsorbed polycyclic aromatic hydrocarbons (PAH) are one of the suspected set of agents. New approaches are being used to estimate current and historical exposures to these agents, using economic data to model past air pollution levels.

Dr. Smith also has been conducting laboratory exposure study of human metabolism of 1,3-butadiene (BD), which is enzymatically activated to epoxides. BD is a very common urban air toxic pollutant which causes cancers in rats and mice, and is a probable human carcinogen.

Dr. Smith hopes to assess BD's toxicokinetic behavior and ultimately to project human risk. The research apparatus and techniques developed for BD will also be applicable to study other toxic materials, which is a goal for future studies. He is leading a small group of faculty, students, and post-doctoral fellows who wish to explore the use of models to investigate adverse human effects from environmental and occupational toxic exposures.

Education

Ph.D. 1970 University of Minnesota
MPH 1967 University of Minnesota

Contact Information

tsmith@hohp.harvard.edu

Phone: +1 617 384 8804



John D. Spengler

Akira Yamaguchi Professor
of Environmental Health and Human Habitation
Harvard School of Public Health

Research

Professor Spengler has conducted research in the areas of personal monitoring, air pollution health effects and indoor air pollution. Several investigations have focused on housing design and its effects on ventilation rates, building materials' selection, energy consumption, and total environmental quality in homes. He is co-editor of three books: *Indoor Air Quality Handbook* (2000); *Particles in Our Air: Concentrations and Health Effects* (1996); and *Indoor Air Pollution: A Health Perspective* (1991). He serves on the National Academies' Institute of Medicine Roundtable for Environmental Health, and recently chaired a National Resource Council Committee on Green Schools. In 2003, Prof. Spengler was recipient of the Heinz Award for the Environment; and in 2008, he was honoured by the International Society of Indoor Air Quality and Climate's Academy of Fellows with the Max von Pettenkofer award for distinguished contributions to the field of indoor air science.

His recent work has investigated ways to promote improved air quality through sustainable development strategies. Projects assessing the total performance of conventional and manufactured housing in the U.S. and Japan are underway, along with others studying individual (family) and community decisions about home and community energy conservation measures. Our objective is to construct the framework for linking zoning, purchases and practices, construction and appliance specifications, and pricing and tax strategies to energy and pollution consequences.

Education

M.S.	1973	Harvard School of Public Health	Environmental Health Sciences
Ph.D.	1971	State University of New York, Albany	Atmospheric Science
B.S.	1966	University of Notre Dame	Physics

Contact Information

spengler@hsph.harvard.edu

Phone: +1 617 384 8810



Tim Weiskel

Harvard University Extension School

Research Director

Cambridge Climate Research Associates

Research

Dr. Weiskel's research concentrates upon belief systems within cultures and how core cultural beliefs can either facilitate change or block change over time. In particular, he has examined how dominant belief systems serve to impede or enable different cultures to perceive the changing environmental challenges that confront us all as a human family. To pursue this work he co-founded *The Climate Talks Project* in 2001 along with Professor William Moomaw of the Fletcher School at Tufts University. This group has worked with scholars, business leaders, NGO activists, journalists, public health officials and concerned citizens to discuss effective means of mobilizing civil society to respond to the evolving global climate crisis.

In addition, Dr. Weiskel helped to found the *Cambridge Climate Research Associates (CCRA)* and *Food-Matters.TV*. These organizations consult with institutions to create on site and online training programs for schools, universities, corporations, municipalities, and national governments. The goal is to assist these organizations in analyzing the climate impact of global carbon consumption and help them envision the necessary transformations we must all now undertake to enable the human community to move to a post carbon-fueled world.

Currently, Dr. Weiskel teaches on site and Internet-accessible online courses on global climate change, environmental ethics and environmental justice in the Sustainability and Environmental Management (SEM) program through Harvard's Extension School. These courses focus upon the ideological and conceptual barriers to transforming our current industrial culture based upon metaphors of continuous consumption and perpetual growth into new cultural forms based instead upon metaphors of stability, justice and global sustainability.

Education

M.L.S.	1987	S. Connecticut State University
D.Phil	1977	Oxford (Oxon)
Dipl. Soc. Anthropol.	1970	Oxford (Oxon)
B.A.	1969	Yale

Contact Information

TWeiskel@FAS.Harvard.Edu

Phone: +1 617 661 5651

Tim@EcoEthics.Net



Pierre Zalloua

Professor
Assistant Dean for Research
Lebanese American University
Adjunct Associate Professor of Environmental Health
Harvard School of Public Health

Research

Dr. Pierre Zalloua is Professor and Assistant Dean for Research of the Lebanese American University School of Medicine. He joined LAU in 2007.

He was appointed Adjunct Associate Professor of Environmental Health at the Harvard School of Public Health in 2007.

An accomplished geneticist, writer and lecturer, Dr. Zalloua is a leading authority on the genetics of complex diseases in and among Middle Eastern populations with more than 50 peer reviewed publications.

Dr. Zalloua graduated from the American University of Beirut in 1987 with a B.S. in Biology. He earned his M.A. in Biological Sciences from San Jose State University in 1990, and his Ph.D. in Genetics from the University of California, Davis in 1996.

He completed research fellowships in genetics at the University of California, Davis and in population genetics (1998–2001) at the Harvard School of Public Health.

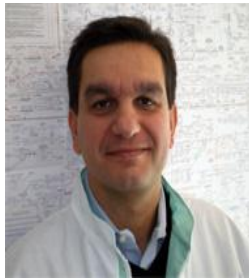
Education

Ph.D.	2001	University of California	Genetics
M.A.	1990	San Hose State University	Biological Science
B.Sc.	1987	American University of Beirut	Biology

Contact Information

pierre.zalloua@lau.edu.lb

Phone : +961 1 786456.



Athanasios Zavras

Associate Professor
Head, Division of Oral Epidemiology and Biostatistics
Columbia University

Adjunct Associate Professor of Epidemiology
Harvard University

Research

Dr. Athanasios (Thanos) Zavras is Head of the Division of Oral Epidemiology and Biostatistics at Columbia University. His research involves:

- the application of molecular, epidemiologic and genetic technologies in the evaluation of biologic pathways that lead to disease, especially cancer,
- the identification or evaluation of individualized preventive and therapeutic strategies, and
- the development of health policies to allow wide use of safe effective genomic technologies by the population.

Dr. Zavras is principal investigator in two NIDCR-funded grants to study the Genetic Epidemiology of Oral Pre-malignancies and Cancer in Health Professionals (2005-2008) and the Pharmacogenetics of Osteonecrosis of the Jaw (2007-2009). He holds a research award from the Fanconi Anemia Research Fund to evaluate various cancer detection methods. He has been an active contributor to teaching and research at CII, where he has directed a program of which intended to identify risk factors for cancer development in the Mediterranean region, to implement risk assessment and preventive programs and to design efficient national cancer surveillance systems.

He has significant public policy experience at the international level. He has represented the European Commission at WHO during the FCTC inter-governmental negotiations, and has served in multiple international public health committees (EC, WHO). In 2004 he represented the Hellenic Ministry of Health to the World Health Assembly. Dr. Zavras is ex-President of the International Society for the Prevention of Tobacco Induced Diseases and current Chair of the Oral Cancer Partnership.

Education

D.Med. Sc.	1999	Harvard Medical School	Biology/Epidemiology
M.Sc.	1994	HSPH	Epidemiology
D.M.D.	1991	University of Athens	

Contact Information

zavras@hms.harvard.edu

Phone: +1 617 432 1455

10. COURSE CATALOGUE

QUANTITATIVE SCIENCES

EHS 511 INTRODUCTION TO BIOSTATISTICS

Dr. Costas Christophi

Fall Semester

8 ECTS (5.0 credits)

Course covers basic biostatistical techniques for analyzing data arising from epidemiology, environmental health, biomedical and public health research. Statistical reasoning is emphasized through problem solving and applications. A wide range of statistical techniques is covered including descriptive statistics, elements of probability, introduction to estimation and hypothesis testing, linear regression analysis, logistic regression, analysis of variance, categorical data analysis, non-parametric statistics, and survival analysis. Background in algebra and calculus is strongly recommended.

EHS 515 INTRODUCTION TO EPIDEMIOLOGY

Drs. Andrie Panayiotou & Athanasios Zavras

Fall Semester

4 ECTS (2.5 credits)

This course will provide an orientation to epidemiology as a basic science for public health and clinical medicine. It will address the principles of the quantitative approach to clinical and public health problems. There will be discussion of measures of frequency and association, an introduction to the design and validity of epidemiologic research, and an overview of data analysis. This course will provide an introduction to the skills needed by public health professionals to interpret critically the epidemiologic literature and will provide students with the principles and practical experience needed to initiate the development of these skills. Lectures are complemented by in-class practical exercises and critiques of current examples of epidemiologic studies.

EHS 519 RISK ASSESSMENT

Dr. John Evans

Fall Semester

4 ECTS (2.5 credits)

This course provides an introduction to risk assessment. It describes the major elements of risk assessment – i.e., hazard identification, exposure assessment, dose-response analysis, and risk characterization – and considers the nature, strengths and weaknesses of the scientific evidence underlying current estimates of human health risks from exposure to pollutants in the environment.

Topics covered include – the normal, lognormal and binomial; the central limit theorem; the one-hit and multistage models of cancer; tolerance distributions; the NOAEL, BMD, UFs and RfD; direct and indirect methods of exposure assessment; interspecies scaling – allometry and PBPK models; the Gaussian air pollution model; compartmental models; uncertainty and variability, parameter uncertainty and model uncertainty; expert judgment, decision analysis & value of information.

Case studies are used to illustrate various issues in risk assessment and decision making.

Lectures, Discussion – Homework; Computer Workshops & In-Class Final Exam

EHS 524 ENVIRONMENTAL EPIDEMIOLOGY

Dr. Douglas Dockery

Spring Semester

4 ECTS (2.5 credits)

This course examines application of epidemiologic methods to environmental and occupational health problems. Objectives are to review methods used in evaluating the health effects of physical and chemical agents in the environment, to review available evidence on the health effects of such exposures, and to consider policy questions raised by the scientific evidence. Topics include lectures on methodology, seminars on the review and criticism of current literature, and presentations by outside experts on specific environmental and occupational health issues of current interest.

Lectures, Case Studies – In-Class Exam

BIOLOGICAL SCIENCES

EHS 512 PHYSIOLOGY

Dr. Panayiotis Yiallourous

Fall Semester

8 ECTS (5.0 credits)

The objective of this course is to present aspects of human physiology in a manner geared towards non-medical students. The first part of the course starts with a study of the basic cell functions including a review of chemical composition of the body, cell structure, protein activity and cellular metabolism, genetic information and protein synthesis and movements of molecules across cell membranes. The second and largest part of the course begins with biological control systems and a review of homeostatic mechanisms and cellular communication. Emphasis is then placed on understanding the various systems of the body including the nervous system and neural control mechanisms, endocrine system, cardiovascular system, respiratory system, gastrointestinal system, and reproductive system, defence mechanisms, regulation of metabolism and energy balance will also be examined.

Lectures, Discussion – Two In-Class Exams & Paper

EHS 513 REGULATORY TOXICOLOGY

Dr. Claire Franklin

Fall Semester

4 ECTS (2.5 credits)

This course will provide an overview of the role of toxicology in risk assessment, describe the general principles of toxicology and outline the effects of toxic agents on physiological systems in humans. Emphasis will be placed on describing the types of in vivo and in vitro tests that are done and how the results of these tests are used in regulatory decision making for chemicals. From this, the student will learn to critically evaluate toxicology data and be able to explain the role of toxicity testing in risk assessment.

Lectures, Discussion – Homework, Mid-Course Exam and Final Exam

EHS 516 GENETICS, ENVIRONMENT and HUMAN DISEASE

Drs. Pierre Zalloua and Adrienne Ettinger

Winter Session

4 ECTS (2.5 credits)

The interaction between genes and environmental and /or occupational exposures plays a major role in disease development. This course will focus on the underlying science of gene-exposure interactions and will use examples of such interactions and their medical consequences. The course will meet for one two-hour session per week, and will be conducted in an advanced seminar-style format. The course will cover topics in inherited predisposition or genetic susceptibility, the concept of heritability, the role of genetic polymorphisms in environmental health, the relation between genes, environment and common diseases, aspects of behavioural genetics, and topics in pharmacogenetics and ecogenetics. Students will be expected to write an original review paper on a subject related to the topics listed below and give a half hour presentation on the selected topic. Student evaluations will be based on written reports, class participation and class presentation.

Lectures, Discussion – Homework; Project with Presentation and Paper

EHS 523 OCCUPATIONAL HEALTH

Dr. Stefanos Kales

Summer Session

4 ECTS (2.5 credits)

This course includes an overview of occupational health and safety including the effects of specific workplace chemical, biological and physical hazards such as asbestos, silica, metals, organic compounds, microbial exposures, noise and vibration. It also considers the relationship between working conditions and health, with special emphasis on the recognition, measurement, and control of occupational hazards. The course focuses on the assessment of workplace hazards, the physiology and biomechanical aspects of work, and a practical problem-solving approach to health problems in various work settings.

Lectures, Discussion – In-Class Exam

EXPOSURE ASSESSMENT

EHS 518 WATER POLLUTION

Drs. Konstantinos Makris & Jim Shine

Spring Semester

8 ECTS (5.0 credits)

This course is designed to teach basic and applied principles of water pollution issues related to human health on nano, micro, local, regional and global scales. This graduate-level course will also examine the relationship between orally-ingested contaminants and specific adverse health effects, either carcinogenic or non-carcinogenic. The course will begin with a discussion of the basic chemical, physical and biological properties of water and water contaminants, including hydrologic considerations. Subsequent lectures will cover specific chemical and biological contaminants in potable, ground, surface, brackish, and marine waters; sources, fate, transport, and transformation of contaminants; monitoring techniques; cases around the globe on the specific health effects arising from the deteriorated drinking water quality; drinking-water and wastewater treatment; transmission of waterborne diseases; toxicological concerns of chemicals in water, including endocrine disruptors, pharmaceuticals, and disinfection by-products; wetland ecology; and water contaminant mitigation/remediation approaches, including interactions with the air and soil systems.

Lectures, Discussion – Two In-Class Exams; Homework; Project/Presentation

EHS 520 AIR POLLUTION

Dr. Petros Koutrakis

Spring Semester

8 ECTS (5.0 credits)

The objective of part of this course is to develop an understanding of natural and anthropogenic energy systems. Sources of air pollution technology of emission control and an examination of regulatory institutions will be presented. Another portion of the course focuses on atmospheric processes with an emphasis on modelling techniques that relate air quality to emissions. Some lectures cover current research results. The course also provides an introduction to indoor air quality (IAQ) assessment and control. It begins with a description of the indoor contaminants of greatest significance, their sources, and health effects. Subsequent lectures deal with how buildings operate including an introduction to heating, ventilating, and air-conditioning systems and contaminate transport mechanisms. Other topics that are presented include prevention and mitigation of IAQ problems, IAQ and comfort guidelines, moisture problems, and IAQ modelling.

Lectures, Discussion – Homework; In-Class Final Exam

EHS 522 EXPOSURE ASSESSMENT

Drs. Tom Smith & Konstantinos Makris
Summer Session
4 ECTS (2.5 credits)

This course is designed to provide the tools and foundation necessary to design and execute studies designed to measure environmental exposures to chemicals and biological contaminants. The course will be lecture-based, and will address topics such as: gas and particle properties and behaviour; study design issues; air, water, sediment, and soil sampling; and laboratory analytical techniques for chemical and biological constituents. .

Lectures, Discussion – Homework & Two In-Class Exams

POLICY AND LAW

[EHS 514 EUROPEAN AND INTERNATIONAL ENVIRONMENTAL LAW AND POLICY]
Δ⊕ not offered for credit 2011-12

Dr. Nicholas Ashford
Spring Semester
2 ECTS (1.25 credits)

National governments in both developed and industrializing countries have evolving legal systems in the regulation of environmental hazards in air, water, waste, the workplace, consumer products, and food. Some are more effective than others. In the 1970s the US was the leading model for these systems, but the European Community has now surpassed the US in its development of initiatives and legal instruments. At the same time, there is increasing international recognition of the need to harmonize environmental legal approaches and to coordinate national efforts, especially with the advent of globalized trade. This course will examine the basic features of regulatory systems for controlling and preventing pollution and contamination in air, water, waste, the workplace, consumer products, and food. The focus will be on European and International Environmental Law. Both mandated standards and economic incentives will be explored, and different national systems will be compared. This course draws upon European, U.S. and international literature published in English. It is intended to stimulate discussion and critical thinking of the assigned reading materials, as well as provide familiarity with legal concepts and skills.

Lectures, Discussion – Three Take-Home Essays

EHS 521 SUSTAINABILITY, TRADE, AND ENVIRONMENT

Dr. Nicholas Ashford
Spring Semester
4 ECTS (2.5 credits)

In addition to technological innovation, the globalization of trade is increasingly seen as the driving force of industrial economies. The establishment of the World Trade Organization, the Association of Southeast Asian Nations (ASEAN) Trade Agreement, the North American Free Trade Agreement (NAFTA), and other trading regimes raises serious questions concerning their effects on sustainability, which must be viewed broadly to include not only a healthy economic base, but also a sound environment, stable employment, adequate purchasing power, distributional equity, national self-reliance, and maintenance of cultural integrity. This course explores the many dimensions of sustainability and the use of national, multinational and international political and legal mechanisms to further sustainable development. The inter-relationship of global economic changes, employment, worker health & safety, and environment in the context of theories of development, trade, and employment, and the importance of networks and organizational learning will be examined. Mechanisms for resolving the apparent conflicts between development, environment, and employment will be explored.

Lectures, Discussion – Two Take-Home Essays

EHS 525 GLOBAL CLIMATE CHANGE

Dr. Tim Weiskel
Summer Session
4 ECTS (2.5 credits)

This introductory course will give students an integrated overview of the science of climate change and an analysis of the implications of this change for patterns of daily life in their own circumstance and around the world. Humankind is facing an unprecedented environmental crisis of global proportions. This course has three principal objectives. First, it will introduce students to the science of climate change, drawing attention to the latest research and evolving pattern of scientific data that has emerged on climate in recent years. Second, emphasis will be given to analyzing the social changes and adaptations that human communities have already made and those they will most likely to have to make as the Earth's climate continues to change in the coming years. Finally, specific attention will be given to the diplomatic efforts that have been launched since the creation of the Framework Convention on Climate Change (FCCC) during the first world-wide Earth Summit on the environment in Rio de Janeiro in June of 1992.

Lectures, Discussion – Project & Paper

**EPB 530 EPIDEMIOLOGY OF CHRONIC DISEASES
IN THE EU AND EASTERN MEDITERRANEAN CONTEXT**

Dr. Stalo Karageorgi
Fall Semester
4 ECTS (2.5 credits)

This course aims to provide students with an understanding of the current major chronic diseases and major chronic disease risk factors and their importance globally and regionally with a focus on the European and Eastern Mediterranean regions. The course will review recent measurements of public health indicators and the leading disease and risk factor causes of death and disability in the world by region, income group or country. The top killer non-communicable diseases and risk factors will be discussed comprehensively by examining prevalence and incidence rates, time trends, definitions and assessments | epidemiologic studies, causes and health consequences, biological and physiological processes and interventions for control and prevention.

**EPB 531 EPIDEMIOLOGY OF INFECTIOUS DISEASES
IN THE EU AND EASTERN MEDITERRANEAN CONTEXT**

Dr. Georgios Nikolopoulos
Spring Semester
4 ECTS (2.5 credits)

This course continues the study of fundamental concepts and methods involved in the epidemiology of infectious diseases, including emerging risk factors and current controversies, as well as the descriptive epidemiology of the current patterns of these diseases, worldwide and for the EU and Eastern Mediterranean in particular.

EPB 532 ADVANCED EPIDEMIOLOGIC METHODS: PART I

Drs. Fran Cook, Julie Buring and James Ware
Fall Semester
4 ECTS (2.5 credits)

This course will develop in more depth the principles and methods introduced in the *Introduction to Epidemiology*. The course discusses the conceptual and practical issues encountered in the design and analysis of epidemiologic studies for description and causal inference. At the conclusion of the course, students will have gained a solid understanding of how to apply basic epidemiologic methods to evaluate public health programs, and a strong ability to critically analyze the epidemiologic, clinical, and public health literature.

EPB 533 ADVANCED EPIDEMIOLOGIC METHODS: PART II

Dr. Murray Mittleman
Spring Semester
4 ECTS (2.5 credits)

This course continues methods training introduced in *Advanced Epidemiologic Methods: Part I*. The course introduces elements of study design, data analysis, and inference in epidemiologic research. Principles and methods are illustrated with examples, and reviewed through homework and in-class exercises.

EPB 534 ANALYTIC STUDY DESIGN IN EPIDEMIOLOGIC RESEARCH

Dr. Julie Buring
Spring Semester
4 ECTS (2.5 credits)

Beginning with the randomized clinical trial as a paradigm, this course examines common problems in the design, analysis, and interpretation of observational studies. Cohort and case-control studies are the focus of the discussion, but not to the exclusion of other designs. Problems of exposure and disease definitions, time-dependent effects, confounding, and misclassification are considered in the light of data sources typically available. Relevant statistical methods are introduced but not developed in detail.

EPB 535 DESCRIPTIVE STUDY DESIGN IN EPIDEMIOLOGIC RESEARCH

Dr. Andrie Panayiotou
Summer Session
4 ECTS (2.5 credits)

The aim of this course is to discuss the types of studies designed to describe the basic “who, what, when, and where” of disease occurrence, in order to raise the hypotheses of “why”, which will be tested in the analytic study designs. Measures of the occurrence of disease will also be included.

[EPB 540 PRINCIPLES OF GOOD PRACTICE IN BIOMEDICAL RESEARCH]

$\Delta \oplus$ *Not offered 2011-12 or 2012-13*

4 ECTS (2.5 credits)

This course will cover ethical, scientific, and operational aspects of good research practice in the biomedical setting. Topics will include the ethics of human investigation, regulatory policies pertaining to human research, standards for good clinical and research practice, and regulatory and government policies relevant to clinical and public health research. In addition, the course will cover topics such as questionnaire and database development, database integrity, and software packages for database management and data analysis.

EPB 541 REGRESSION ANALYSIS

Drs. James Ware and Costas Christophi

Spring Semester

8 ECTS (5.0 credits)

This course will introduce students to the practical application of multiple regression analysis in the context of biomedical and public health research. Linear regression, logistic regression and proportional hazards survival models will be covered, as well as general concepts in model selection, goodness-of-fit, and testing procedures. Each lecture will be accompanied by a data analysis and a classroom discussion of the results. The course will introduce, but will not attempt to develop, the underlying likelihood theory.

EPB 542 BASICS OF STATISTICAL INFERENCE

Dr., Charalambos Charalambides

Summer Session

8 ECTS (5.0 credits)

This course will provide a basic, yet thorough, introduction to the concepts of probability theory and mathematical statistics that underlie analytical methods that are commonly used in public health research. Topics to be covered include probability distributions (normal, binomial, Poisson), means, variances and expected values, finite sampling distributions, parameter estimation (method of moments, maximum likelihood), confidence intervals, and hypothesis testing (likelihood ratio, Wald and score tests). All theoretical material will be grounded in problems from epidemiology, biostatistics, environmental health, and other public health areas.

PRACTICUM

EHS 580 PRACTICUM in ENVIRONMENTAL HEALTH

Dr. John Evans







Throughout Academic Year

24 ECTS (15.0 credits)

The EH Practicum is intended to provide MS candidates in environmental health with the opportunity to apply and integrate the principles and methods from their coursework to analyse an environmental policy question. A secondary goal of the EH Practicum is to improve our students ability to synthesize and present their ideas – both orally and in writing. The practicum is intended to be the culminating experience in the MS program, and is not dissimilar from a master's thesis.

In the practicum, each student is asked to select an environmental policy question of interest to them; to conduct a literature review; to identify and “recruit as their practicum advisor” a CII/HCP faculty member with expertise and experience relevant to the core scientific questions; to devise a plan for conducting a full quantitative analysis of the issue; and then to conduct the analysis and present the results orally and in writing.

While all projects must address questions of environmental health policy, projects may be “framed” in various ways. This year six practicum advisors are available. Each brings a somewhat different perspective to the field. Advisors for 2011-12 are:

-  John Evans – risk assessment, decision science, uncertainty analysis.
-  Konstantinos Makris – environmental chemistry, exposure assessment
-  Nick Ashford – environmental law, policy and sustainability
-  Greg Norris – life cycle assessment
-  Tim Weiskel – global climate change
-  Jouni Tuomisto – risk assessment, public participation in policy analysis

The written presentation will take the form of a scientific manuscript suitable for submission to an appropriate scientific journal (and formatted in the style, with attention to the length restrictions, of the journal). The oral presentation will be in the form of a 15 minute talk with 5 minutes of questions – appropriate for delivery at a scientific conference.

The EH Practicum will be throughout the entire academic year – with problem identification and literature review in the fall term; analysis planning in the winter session; complete analysis and oral presentation in the spring term; and final write-up in the summer. The course grade will be based on an evaluation of the final paper and presentation.

The one or two best papers each year may be selected for submission to appropriate scientific conferences (ISEA, ISEE, SRA) and/or journals.

Lectures, Discussion – Paper, Presentation

EPB 580 PRACTICUM in EPIDEMIOLOGY and BIOSTATISTICS

Dr. Andrie Panayiotou
Throughout Academic Year
24 ECTS (15.0 credits)

The Epidemiology/Biostatistics Practicum provides an opportunity for MS candidates in epidemiology and biostatistics to apply the principles and methods from their coursework to the analysis and interpretation of an epidemiologic or biostatistical question. A secondary goal of the Epidemiology/Biostatistics Practicum is to improve our students' ability to synthesize and present their ideas – both orally and in writing. The practicum is the culminating experience in the MS program, and is not dissimilar from a master's thesis.

In the practicum, each student selects one of the two local faculty members (Costas Christophi or Andrie Panayiotou) to act as their primary practicum advisor in addition to selecting an epidemiologic or biostatistical study question of interest to them. Following their selection, they conduct a literature review; identify and recruit as their practicum content adviser a CII/HCP faculty member with expertise and experience relevant to the core scientific questions; devise a plan for conducting a quantitative analysis of the issue; and then conduct the analysis and present the results both orally and in writing.

While each project must address a significant epidemiologic or biostatistical question, projects may be “framed” in various ways. For example, students might study the epidemiology of a chronic or infectious disease important in the eastern Mediterranean region or conduct an in depth study of the literature on a biostatistical or epidemiologic method. This year, six practicum advisors are available. Each brings a somewhat different perspective to the field. Advisors for 2011-12 are:

- ✚ Julie Buring – design of epidemiologic studies
- ✚ Costas Christophi – cohort studies, statistical methods, chronic diseases
- ✚ Georgios Nikolopoulos – epidemiology of infectious diseases
- ✚ Andrie Panayiotou – genetics and epidemiology of cardiovascular disease
- ✚ Stalo Karageorgi – epidemiology of chronic disease, environmental epidemiology
- ✚ James Ware – cohort studies, statistical methods, longitudinal analysis

The written presentation will take the form of a scientific manuscript suitable for submission to an appropriate scientific journal (and formatted in the style, with attention to the length restrictions, of the journal). The oral presentation will be in the form of a fifteen-minute talk, with five minutes of questions, appropriate for delivery at a scientific conference.

The Epidemiology/Biostatistics Practicum will continue throughout the entire academic year – with problem identification and literature review in the fall term; analysis planning in the winter session; complete analysis in the spring term; and final write-up and oral presentation in the summer. The course grade will be based on an evaluation of the final paper and presentation.

