Institute of Hygiene
Università Cattolica del Sacro Cuore
Faculty of Medicine "A. Gemelli"
Rome

E. E. HATCH
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K.J. ROTHMAN

IN ROME
for International Courses in

MODERN METHODS IN EPIDEMIOLOGY AND BIOSTATISTICS

Oct-Nov 2009
3rd Edition

Scientific Director
Prof. Walter Ricciardi
Didactic Coordinators
Prof. Stefania Boccia
Prof. Giuseppe La Torre

26-30 October
Regression Analysis.
Prof. Stanley Lemeshow
Professor of Biostatistics at the Ohio State University, Columbus, OH, USA.

2-6 November
Survival Analysis.
Prof. David W. Hosmer
Professor of Biostatistics at the University of Massachusetts, Stowe, VT, USA.

9-13 November
Epidemiologic Principles & Methods.
Prof. Kenneth J. Rothman
Vice President for Epidemiology Research, RTI Health Solutions, Research Triangle Park, NC, USA
Prof. Elizabeth E. Hatch
Associate Professor of Epidemiology at the Boston University School of Public Health, Boston, MA, USA

Timetable for the Courses
Morning lecture: 9.00-12.15; afternoon exercises: 13.30-16.45.

Who can attend
Italian and non-Italian graduates from schools of medicine, biology, dentistry, statistics, mathematics, social and health sciences are eligible.
The courses might be open to participants of other parallel courses.

Prerequisites
A very basic knowledge of epidemiology and statistics is assumed (measures of central distribution, confidence intervals and main statistical tests).
A good command of both written and spoken English is required.
Participants are required to bring their own laptop for all of the courses. Statistical software (STATA 9.0) will be installed on all of the PCs during the first morning of each course.

Official Language
English. No translation in Italian will be provided.

Courses Fee
1 week participation: € 1.350
2 weeks participation: € 2.500
3 weeks participation: € 3.800
Tuition fees include course materials (no books), lunch, course attendance and the use of an internet connection.
It does not include: board and lodgings, travel and other living costs.
Fifty percent reduced fee is reserved for **ten** applicants of each course having at least one of the following fulfilment:
- age <30 years at the moment of course application
- PhD students or doctors attending a post-graduate school
- East-Europeans, Asians (except Japan) and Africans.
  Priority will be given according to the date of the application (priority will be given for prior requests).

Terms and Condition
Attendance is required.
If the number of participant requests exceeds 40, then participants will be accepted on the basis of:
- the date of their application (priority will be given for prior requests)
- the number of courses to be attended by each participant (priority will be given to individuals following more courses)
- a review of the participant's Curriculum Vitae based on field pertinence and scientific publications

Application
You can register on line on the web-site of the Course (www.epi-biostatcourses.it) or download the application admission form and send it with your Curriculum Vitae to Elsevier Srl by fax (+39-02-93661587).
Start of acceptance of admission requests: 21st April 2009. Course registration closes on 10th October 2009.
Admission or non-admission will be communicated by email or fax within the 10th October 2009 and registration with payment will be required within the 10th October 2009. For those completing 3-weeks of courses, the payment will be splitted into two (one to be paid at the registration and the other at the beginning of the first course). If the payment is not booked in our account within the mentioned timetable, the reservation for participation in the chosen courses cannot be guaranteed.
All cancellations must be in writing and faxed/emailed to the organization staff. If you are unable to attend, a substitute delegate is welcome at no extra charge. Please be sure that he/she can present identification and a letter from the registered participant Before the 28th September, 2009: full refund excluding an administrative fee of € 100; within 9th October, 2009: refund 40% of registration fee; after 9st October 2009 no requests of refunds will be accepted. Refunds will be handled 4 to 6 weeks after the closing of the Course.

Account details for payment:
Elsevier srl
Modern Methods in Epidemiology and Biostatistics

Bank:	INTESA SAN PAOLO	
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The Scientific Direction reserves the right to cancel the course if the minimum number of participants (17 applicants for each course) has not been reached.

Venue
Faculty of Medicine "A. Gemelli"
Università Cattolica del Sacro Cuore
Largo F. Vito, 1 - 00168 Rome

Accommodation
You can contact and book your room at the University Campus "La Residenza Protetta" Tel. 06-3050901. Less expensive rooms may be available within walking distance or within 5-10 minutes travel on the underground (email the organization staff for further information)

Further Information
Didactic Coordination
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Organization staff
Registration, Information, Accommodation
Elsevier Srl
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E-mail: f.begotti@elsevier.com

CME CREDITS
Accreditation for CME will be requested to the EU Office and to the Italian Health Ministry

MODERN METHODS IN EPIDEMIOLOGY AND BIOSTATISTICS

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Rationale and Goals

Medical research increasingly depends on quantitative approaches, while physicians' decision making is becoming strictly based on the evidence of quantified data.
The courses aim to provide participants with insight into the principles and techniques used to produce and interpret data, by providing introductory and advanced courses in epidemiology (study design, data analysis and clinical epidemiology) and biostatistics (regression and survival analysis).
At the end of these courses, participants will be able to apply the main epidemiological concepts to their practice and research; to verify the reliability of published results; as well as to manipulate simple and complex datasets and interpret the results. Furthermore participants will learn how to use basic and more sophisticated data analysis software.
Courses are a useful refresher also for those already trained in epidemiology or public health.
Participants may choose freely from the courses offered (the courses are independent one from each other).

Faculty

Regression Analysis.
Stanley Lemeshow was appointed Dean of the Ohio State University School of Public Health in 2003. He has been with the University since 1999 as a biostatistics professor in the School of Public Health and the Department of Statistics, director of the biostatistics core of the Comprehensive Cancer Center and director of the University's Center for Biostatistics. His biostatistics research includes statistical modeling of medical data, sampling, health disparities and cancer prevention. Dean Lemeshow is internationally known for his expertise in biostatistics and epidemiology. He has published extensively in the applied and methodological literature and has co-authored three textbooks for John Wiley & Sons Wiley series, a leading publisher for the scientific, technical and medical communities worldwide. He is co-author (with David Hosmer) of the textbook Applied Logistic Regression (2nd Edition), (with David Hosmer and Susanne May) of Applied Survival Analysis: Regression Modeling of Time to Event (2nd edition) and (with Paul Levy) of Sampling of Populations: Methods & Applications (4th edition). In 2003, Dean Lemeshow was awarded the Wiley Lifetime Award. In 2003 Dr. Lemeshow was elected Fellow of the American Association for the Advancement of Science (AAAS), and was selected Distinguished Graduate Alumnus (Biostatistics) by the University of North Carolina Graduate School Centennial. In 1995, Dr. Lemeshow was elected Fellow of the American Statistical Association and was awarded the Statistics Section Award of the American Public Health Association. Since 2001, he has served as associate editor of The Stata Journal, and in 2005 was appointed to the editorial board of Preventive Medicine.

Survival Analysis
David W. Hosmer is Professor (Emeritus) of Biostatistics in the Department of Public Health at the University of Massachusetts and an Adjunct Professor of Statistics in the Department of Mathematics and Statistics at the University of Vermont. He is coauthor with Stanley Lemeshow of two texts: Applied Logistic Regression:Second Edition and Applied Survival Analysis: Regression Modeling of Time to Event Data, both published by John Wiley & Sons Inc. He is a fellow of the American Statistical Association. His research has focused on assessing fit of logistic regression and survival time models as well as applications to epidemiology, medicine and public health.

Epidemiologic Principles and Methods.
Ken Rothman has focused his career on the development and teaching of the concepts and methods of epidemiologic research. He has authored or co-authored more than 250 scholarly publications, most of which are original epidemiologic research studies. His research has spanned a wide range of health problems, including cancer, cardiovascular disease, neurologic disease, birth defects, injuries, environmental exposures, and adverse effects of pharmaceutical agents. In an editorial capacity, he has served as assistant editor of the American Journal of Public Health, editor of the American Journal of Epidemiology, editorial board member of the New England Journal of Medicine and the international advisory board of the Lancet, as well as the founding editor of Epidemiology. He is a past president of the Society for Epidemiologic Research, an honorary fellow of the American College of Epidemiology, and a fellow of the International Society for Pharmacoepidemiology. He has authored two widely read epidemiologic textbooks: Modern Epidemiology and Epidemiology, An Introduction.
Elizabeth Hatch has concentrated on prenatal and childhood exposures in relation to long-term health outcomes, especially hormonally-related cancers, reproductive outcomes, and obesity. She has conducted research on several cancer sites including brain cancer, childhood leukemia, and breast and cervical cancer. She led a large cohort study on the health risks of exposure to the synthetic hormone, diethylstilbestrol (DES) among women exposed during pregnancy and their offspring exposed in utero, and is now evaluating the possible link between endocrine disrupting chemicals and obesity. She is also principal investigator of a study of time to pregnancy that uses the internet to recruit study subjects.

Courses Content

26-30 October 2009, Prof. Stanley Lemeshow.
Regression Analysis
This intermediate level course aims to provide theoretical and practical training for statistical modelling with particular emphasis on linear, multiple and logistic regression. Topics included are: review of straight line regression and correlation, ANOVA for straight line regression, appropriateness of straight line modelling, polynomial regression, multiple regression analysis, partial F-test, dummy variables, statistical interaction, comparing straight line regressions, analysis of covariance, the logistic regression model and estimation and interpretation of its coefficients, goodness-of-fit, multivariate modelling and statistical adjustment, interaction and confounding, stratified analysis via logistic regression.
Reference texts: Applied Logistic Regression, by Hosmer and Lemeshow. Applied Regression Analysis and Other Multivariate Methods, by Kleinbaum, Kupper and Nizam.

2-6 November 2009, Prof. David W. Hosmer.
Survival Analysis
This course focuses on applications of the analysis of time to event data. The first part of the course deals with methods for estimation, interpretation and comparison of survival functions. The second part of the course considers regression methods within the context of the semi-parametric proportional hazards model (Cox model). Topics covered in this section include: variable selection, scaling of continuous covariates, inclusion of interactions, assessment of model fit and diagnostics for the proportional hazards assumption and individual subject influence on the fitted model. Special emphasis is placed on the interpretation and presentation of the results. Examples are drawn primarily from epidemiological and medical studies.
Reference texts: Applied Logistic Regression, by Hosmer and Lemeshow. Applied Regression Analysis and Other Multivariate Methods, by Kleinbaum, Kupper and Nizam.

9-13 November 2009, Prof. Kenneth J. Rothman
Prof. Elizabeth E. Hatch
Epidemiologic principles & Methods
This course will present the conceptual foundations of epidemiologic research, and the methodologic approaches that stem from these conceptual foundations. The course objective is to unify the approach to epidemiologic research around a coherent set of concepts. Specific topics will include a discussion of a general model of causation, causal inference, measurement of disease frequency and exposure effects, the principles of epidemiologic study design, cohort studies, case-control studies, the principles of epidemiologic data analysis, the assessment and control of confounding factors, stratified analysis, multivariable analysis, the evaluation of interaction, and the evaluation of dose-response trends. The course will include group discussions of published epidemiologic studies and computer laboratory exercises.
Reference text: Epidemiology: An Introduction, by KJ Rothman.