



DEPARTMENT OF BIOSTATISTICS
Biostatistics Resource and Training Centre
Christian Medical College, Vellore - 632 002, India.

Dr. L. JEYASEELAN, M.Sc., Ph.D., F.R.S.S.,
Professor & Head

June 25, 2010

Dear Friends,

Greetings from Vellore. The Biostatistics Resource and Training Centre, Department of Biostatistics at Christian Medical College, Vellore is glad to announce the commencement of Sixteenth Short course in Biostatistics. The course is scheduled from August 16, 2010 to September 3, 2010

The course is mainly designed to train researchers and other staff members of varied profession and statisticians to competently handle health/medical data and be in a better position to function effectively in a research team.

Christian Medical College has conducted series of workshops in collaboration with faculty from McMaster University, Canada and University of North Carolina, Chapel Hill, USA since 1996. The course materials of those workshops are incorporated in this program.

The current Courses are:

Course	Duration
Fundamentals of "Clinical Data Management"	<i>August 16 - 20, 2010</i>
<i>Fundamentals of Biostatistics, Principles of Epidemiology & Statistical Package for Social Science (SPSS)</i>	<i>August 23 – 27, 2010</i>
<i>Sample Size Calculation</i>	<i>August 30 – 31, 2010</i>
<i>Statistical computing using R (Software Training)</i>	<i>September 1 - 3, 2010</i>

The number of participants for each course is limited to 30, and admission will be purely on first come first served basis. The deadline for registration is 10th August 2010. I will be very happy to provide more information, if necessary. The brochure can be downloaded from the web site www.cmc-biostatistics.ac.in

Looking forward to hearing from you.

Sincerely,

Dr. L. Jeyaseelan
Course Coordinator

Format of Application

Name in Capital _____
(For certificate purpose)

Age _____ **Sex** M / F

Occupation _____

Activities _____

Address _____

State _____

Phone & Mobile _____

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Educational Background

Degree _____

Area of Concentration _____

Accommodation: Required / not required

Courses opted for : (Please Encircle)

1. Fundamentals of "Clinical Data Management (CDM)"
2. Fundamentals of Biostatistics, Principles of Epidemiology & SPSS
3. Sample Size Calculation
4. Statistical Computing using R

DD Amount Rs. _____ Date: _____

DD Number: _____ Bank: _____

Note: After Registration if cancelled the course fee will not be refunded

SHORT COURSE IN BIOSTATISTICS

Biostatistics Resource and Training Centre
Department of Biostatistics
Christian Medical College
Vellore 632 002

Invites application to the short course in

Fundamentals of "Clinical Data
Management (CDM)"

August 16- 20, 2010



Last date for receiving application August 10, 2010

biostats@cmcvellore.ac.in

www.cmc-biostatistics.ac.in

Fundamentals of Clinical Data Management (CDM)

This course is intended to introduce principles of Clinical Data Management (CDM) and associated international standards for the conduct of clinical research. The course is targeted towards lead clinical researchers and other members who are involved in clinical research.

After the course the attendees will understand principles of CDM, GCP and other guidelines, Data Management Plan (DMP), SOPs, creating Case Report Forms (CRFs), data management systems, data entry methods, data validation, query management and database lock.

The 'OpenClinica' database system will be used in practical session during the workshop.

Venue: The course will be held at the Biostatistics Resource and Training Center (BRTC), Dept. of Biostatistics, (Adjacent to College Chapel), Christian Medical College, Bagayam, Vellore 632 002.

Course Fee:

1. 'CDM' course	:	Rs.5,000/-
2. Fundamentals of Biostatistics course:		Rs.4,000/-
3. Sample Size Calculation course	:	Rs.2,000/-
4. 'R' course	:	Rs.3,000/-

Accommodation: Participants will have to bear their own expenses for travel, boarding and lodging. The Organizers will give lunch and snacks. However the organizers may arrange accommodation in the college campus on request (CHTC guest house). The accommodation arranged in CHTC is available from evening of August 15, 2010.

Course Fee should be paid in full by August 10, 2010. Payment can be made by **Demand Draft** in favor of "**Christian Medical College Vellore Association Account**", payable at Vellore.

Note: After Registration if cancelled the course fee will not be refunded. The number of participants for each course is limited to 30 and admission will be purely on first come first served basis.

Dr. L. Jeyaseelan,
Professor & Head,
Course Coordinator,
Department of Biostatistics, Christian Medical College,
Bagayam, Vellore 632 002
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Course Content

- Overview of Clinical Trial
- GCP and other regulatory guidelines
- Overview of Clinical Data Management
- Standard Operating Procedures (SOPs)
- Case Report Forms (CRFs) generation and management.
- Elements of Data Management systems
- Computer systems and validation
- Data Entry methods
- Validation Check Specification and Data Validation (QC)
- Query Management
- Audit Trail
- Quality Assurance (QA)
- Data Lock
- Data Extraction for analysis.
- Archival

Clinical Data Management Software

- OpenClinica

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1. Fundamentals of "Clinical Data Management (CDM)"
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SHORT COURSE IN BIOSTATISTICS

Biostatistics Resource and Training Center
Department of Biostatistics
Christian Medical College
Vellore 632 002

Invites Application to the sixteenth short course in

Fundamentals of Biostatistics, principles
of Epidemiology & Statistical Package for
Social Sciences (SPSS)

August 23 - 27, 2010



Last date for receiving application August 10, 2010

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www.cmc-biostatistics.ac.in

Course Content

Fundamentals of Biostatistics, Principles of Epidemiology & SPSS

This course is intended to introduce principles of Biostatistics, in a simpler manner to researchers who are in need of statistical application. This course is also intended to introduce principles, illustrate some of the basic methods of epidemiologic research, to improve the participant's ability to understand and use appropriate statistical procedures.

The course is targeted towards researchers of varied profession such as biostatistics, medicine, public health, life science, social science, nursing, epidemiology etc.

Venue: The course will be held at the Biostatistics Resource and Training Center (BRTC), Dept. of Biostatistics, (Adjacent to College Chapel), Christian Medical College, Bagayam, Vellore 632 002.

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Fundamentals of Biostatistics

- Descriptive statistics
- Probability and Distributions
- Tests of Significance
- Analysis of Variance
- Non-parametric Methods
- Correlation and Regression
- Sampling techniques
- Sample Size

Basic Epidemiology

- Measures of disease frequency
- Cohort study
- Cross-sectional Study
- Case control study
- Qualitative research
- Diagnostic test
- Clinical Trial

Statistical Software:

- SPSS (Analyses)

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SHORT COURSE IN BIOSTATISTICS

Biostatistics Resource and Training Center
Department of Biostatistics
Christian Medical College
Vellore 632 002

Invites Application to the sixteenth short course in

Sample Size Calculation

August 30 - 31, 2010



Last date for receiving application August 10, 2010

biostats@cmcvellore.ac.in

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Sample Size Calculation

This course is intended to train people to Calculate Sample Size required in different research areas, in a simpler manner to researchers who are in need. The idea of this training program is to introduce a number of basic concepts and techniques that should allow the participants to get started with Sample Size.

This course is also planned to introduce the software nmaster1.0 which has been self developed by us. This software has been developed with all necessary formulae. The Sample size Practicals will be carried out using this software. The course is targeted towards researchers of varied profession such as biostatistics, medicine, public health, life science, social science, nursing, epidemiology etc., The participants should have basic knowledge in computers.

Those who wants to buy nMaster can buy with concession fee of Rs 1500/- (Full amount Rs 2500/-)

Venue: The course will be held at the Biostatistics Resource and Training Center (BRTC), Dept. of Biostatistics, (Adjacent to College Chapel), Christian Medical College, Bagayam, Vellore 632 002.

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Course Content

Introduction

Necessity for Sample Size, Basics concepts like alpha error, beta error, Power, Effect size, Confidence Intervals, One sided or two sided test, Equivalence or Non inferiority Margin, Dropouts will be introduced.

Means

Estimating single mean, hypothesis testing of 2 & >2 means (paired and unpaired samples, repeated measurements, ANCOVA)

Proportions

Estimating a single proportion, hypothesis testing of two proportions (equal & unequal) match paired designs

Agreement

Kappa, Intra-class correlation coefficient (ICC)

Diagnostic test

Sensitivity, Specificity, Positive Predictive Value, Positive & Negative likelihood ratios

Regression methods

Simple correlation & regression, simple & multiple logistic regressions

Survival analysis

Log-rank test, Cox regression, Exponential survival curves

Cluster design

Estimation (continuous and binary), comparison of means, proportions and incidence rates (matched & unmatched)

Clinical Trials: Equivalence/Non Inferiority trials

Paired & unpaired tests for means and proportions

Epidemiology methods

Cohort, unmatched and matched case-control studies

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Invites Application to the sixteenth short course in

Statistical Computing using R (Software Training)

September 1 - 3, 2010



Last date for receiving application August 10, 2010

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Statistical Computing using R (Software Training)

This course is intended to introduce R for statistical computing, in a simpler manner to researchers who are in need. The idea of this training program is to introduce a number of basic concepts and techniques that should allow the participants to get started with practical statistics using R.

This course is also planned to furnish some advanced statistical analyses and techniques with real time datasets so as to improve the participant's ability to understand and interpret the findings and produce R graphs. The course is targeted towards researchers of varied profession such as biostatistics, medicine, public health, life science, social science, nursing, epidemiology etc.,

Each statistical topics will have introduction about assumption, when and where to be used. Advanced statistical lecture will be provided before computing. The participants should have basic knowledge in computers.

Venue: The course will be held at the Biostatistics Resource and Training Center (BRTC), Dept. of Biostatistics, (Adjacent to College Chapel), Christian Medical College, Bagayam, Vellore 632 002.

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Course Content

Introduction and Data manipulation using R:

Installation, libraries & packages, online help. Using R : basic arithmetic operations, creating variables, value labeling, functions, vectors, matrices & arrays, factors, data frame, indexing, conditional selection, subset & transform, sorting.

Importing data from difference software, Exporting, data entry in R, looping, merging and reshaping.

Probability and Distribution:

Random sampling, probability calculation, discrete distributions, continuous distributions, build in distributions in R.

Descriptive Statistics:

Calculating Mean, standard deviation, displaying Normal curve, generating tables.

Testing Hypothesis:

Parametric tests: – independent t test, paired t test.

Non – parametric tests: - Mann Whitney U test (independent observations), Wilcoxon signed rank test (paired observations) and calculating the correlation coefficient.

Advanced Statistical Techniques:

Linear Regression:- Simple linear regression, its Interpretation, model building strategies and diagnostics.

Logistic Regression:- Performing logistic regression, Interpretation of the output, model building methods and diagnostics.

Survival Analysis:- Estimating the survival probabilities, comparison of survival curves, obtaining regression estimates using Cox proportional hazards model, Interpretation, model building and diagnostics.

R Graphs:

Histogram, Vertical bar chart, Pie Chart, Box plot, Scatter plot, Combining Charts.