645AA Postgraduate Diploma in Biostatistics

Year and Campus:	2011 - Parkville
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Level:	Graduate/Postgraduate
Duration & Credit Points:	100 credit points taken over 12 months full time. This course is available as full or part time.
Coordinator:	Professor John Carlin
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Course Overview:	This course is a subset of the Master of Biostatistics (see that heading for further information). On completion of the Postgraduate Diploma in Biostatistics, students will have attained a similar range of skills required for employment as a biostatistician as those completing the Master of Biostatistics, without the workplace project and without the scope to complete elective subjects.
Objectives:	On completion of this course, graduates will: # be able to demonstrate a broad understanding of the mathematical background, theory and application of the principles of epidemiology and biostatistical methods in health and medical research # have acquired skills in complex statistical analyses to handle a variety of practical problems using modern statistical techniques and software # have acquired skills in data collection and data management, including database design, quality control procedures and the ethical handling of data # have developed skills to identify the relevant statistical issues in practical problems in medical/health settings and to propose and implement an appropriate statistical design and/or analysis methodology # have developed skills and demonstrated ability to present statistical results in a format suitable for publication in health-related journals or professional reports # have acquired the technical skills to be able to read methodological papers in the biostatistical literature and apply the methods described therein to practical problems # have developed the practical and technical skills to progress to further postgraduate studies in biostatistics # be aware of professional codes of conduct and ethical standards such as those of the Statistical Society of Australia
Course Structure & Available Subjects:	This course is available on a part-time basis only, and at the maximum rate of 2 subjects per semester requires 2 years to complete (100 credit points). All subjects are taught by distance education, via a consortium of universities known as the Biostatistics Collaboration of Australia (BCA). For further details, see the BCA website: www.bca.edu.au.
Subject Options:	**Core Subjects** Students must complete the following CORE subjects (unless exemptions are granted on the basis of equivalent prior study).

Subject	Study Period Commencement:	Credit Points:
POPH90018 Data Management & Statistical Computing	Semester 1, Semester 2	12.50

POPH90016 Epidemiology	Semester 1, Semester 2	12.50
POPH90015 Mathematics Background for Biostatistics	Semester 1, Semester 2	12.50
POPH90017 Principles of Statistical Inference	Semester 1, Semester 2	12.50
POPH90148 Probability and Distribution Theory	Semester 1, Semester 2	12.50
POPH90121 Categorical Data & GLMs	Semester 2	12.50
POPH90119 Design of Randomised Controlled Trials	Semester 2	12.50
POPH90120 Linear Models	Semester 2	12.50

Elective Subjects

Subject	Study Period Commencement:	Credit Points:
POPH90118 Clinical Biostatistics	Semester 1	12.50
POPH90117 Health Indicators and Health Surveys	Semester 1	12.50
POPH90123 Longitudinal and Correlated Data	Semester 1	12.50
POPH90122 Survival Analysis	Semester 1	12.50
POPH90138 Advanced Clinical Trials	Semester 2	12.50
POPH90139 Bayesian Statistical Methods	Not offered 2011	12.50
POPH90124 Bioinformatics	Semester 2	12.50

Entry Requirements:

An undergraduate degree with at least H2B (70%) average and two years of documented work experience relevant to the use of quantitative methods in health research; OR an undergraduate degree in mathematics, statistics, health or other sciences that includes tertiary-level mathematics, with at least H2B (70%) average.
A demonstrated capacity for advanced mathematical work, indicated for example by a high level of achievement in secondary or tertiary mathematics.
Successful completion of a tertiary-level statistics subject or demonstrated equivalent prior knowledge of statistics.

The Selection Committee may conduct interviews or tests or may call for referee reports or employer references to elucidate any of the matters listed above.

Core Participation Requirements:

For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this course are articulated in the Course Description, Course Objectives and Generic Skills of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website.

Graduate Attributes:

The Melbourne Experience enables our graduates to become: Academically excellent: have a strong sense of intellectual integrity and the ethics of scholarship have in-depth knowledge of their specialist discipline(s) reach a high level of achievement in writing, generic research activities, problem-solving and communication be critical and creative thinkers, with an aptitude for continued self-directed learning be adept at learning in a range of ways, including through information and communication technologies Knowledgeable across disciplines: examine critically, synthesise and evaluate knowledge across a broad range of disciplines expand their analytical and cognitive skills through learning experiences in diverse subjects have the capacity to participate fully in collaborative learning and to confront unfamiliar problems have a set of flexible and transferable skills for different types of employment Leaders in communities: initiate and implement constructive change in their communities, including professions and workplaces have excellent interpersonal and decision-making skills, including an awareness of personal strengths and limitations mentor future generations of learners engage in meaningful public discourse, with a profound awareness of community needs Attuned to cultural diversity: value different cultures be well-informed citizens able to contribute to their communities wherever they choose to live and work have an understanding of the social and cultural diversity in our

	community respect indigenous knowledge, cultures and values Active global citizens: accept social and civic responsibilities be advocates for improving the sustainability of the environment have a broad global understanding, with a high regard for human rights, equity and ethics
Generic Skills:	Please refer to the Course Objectives.
Links to further information:	http://www.sph.unimelb.edu.au
Notes:	All subjects are taught by distance education, via a consortium of universities known as the Biostatistics Collaboration of Australia (BCA). For further details, see the BCA website: www.bca.edu.au. Available to International students by distance only. Mid Year entry is available.