

POPH90015 Mathematics B'Ground for Biostatistics

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	This subject is not offered in 2010. Distance only
Time Commitment:	Contact Hours: None Total Time Commitment: 8-12 hours total study time per week
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	None
Contact:	Semester 1: Dr Keith Dear, Australian National University Semester 2: Dr Maurizio Manuguerra, Macquarie University Biostatistics Collaboration of Australia OR Academic Programs Office Melbourne School of Population Health Tel: +61 3 8344 9339 Fax: +61 3 8344 0824 Email: sph-gradinfo@unimelb.edu.au
Subject Overview:	Basic algebra and analysis; exponential functions; calculus; series, limits, approximations and expansions; matrices and numerical methods.
Objectives:	On completion of this unit students will be able to follow the mathematical demonstrations and proofs used in biostatistics at Masters degree level, and to understand the mathematics behind statistical methods introduced at that level. The intention is to allow students to concentrate on statistical concepts in subsequent units, and not be distracted by the mathematics employed.
Assessment:	Three written assignments to be submitted during Semester: Two worth 40% each covering calculus, and matrices and numerical methods (approx 12 hrs work each). One worth 20% covering functions (approx 8 hrs work)
Prescribed Texts:	Anton H, Bivens I, Davis S. Calculus: early transcendentals version, 8th edition. Wiley, 2005. (ISBN 0471472441) Resources Provided to Students: Printed course notes and assignment material by mail, email, and WebCT Discussion groups. Special Computer Requirements: Microsoft Excel or Stata statistical software.
Recommended Texts:	Healy, M.J.R. Matrices for Statistics, 2nd edition. Oxford University Press, 2000. (ISBN 978-0-19-850702-4)
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	Independent problem solving, facility with abstract reasoning, clarity of technical expression
Links to further information:	http://www.sph.unimelb.edu.au
Notes:	This subject is not available in the Master of Public Health.

Related Course(s):	Master of Biostatistics Postgraduate Certificate in Biostatistics Postgraduate Diploma in Biostatistics