

GRADUATE CERTIFICATE IN PHARMACOECONOMICS

By Flexible Learning

INTRODUCTION

The Graduate Certificate in Pharmacoeconomics is designed to provide an understanding of the economics of pharmaceuticals in health care systems. This course provides the skills necessary to apply economic analysis to the broad issues of industry development as well as the specific skills to:

- prepare a cost effectiveness analysis of a drug;
- apply economic modeling to support the inclusion or exclusion of a drug on a national or hospital formulary;
- design a clinical trial to evaluate the efficacy and cost of effectiveness of drugs; and
- apply methods of evaluating health and non-health outcomes of drug use.

The course has been prepared by Monash University academic staff who have considerable experience and expertise in the economic and clinical evaluation of pharmaceuticals in industry and government.

ADMISSION REQUIREMENTS

Admission to the course will be open to applicants who possess an undergraduate degree or equivalent tertiary qualification.

CREDIT AND EXEMPTIONS

Credits and exemptions may be granted to a maximum of 50 percent for units considered to be the equivalent of particular requirements in the course of study. The merit of these applications will be determined on a case-by-case basis.

COURSE STRUCTURE

The Graduate Certificate in Pharmacoeconomics consists of four (4) units and is normally completed in three semesters over the course of a full year – semester 1, semester 2 and the summer semester. Students may commence the course in any semester however a semester 1 or summer semester start is preferred.

Introduction to Health Economics

(ECX9700) *Semester 1*

This unit provides an understanding of the microeconomic approach to resource allocation, both in general and specifically in relation to the health sector. It introduces students to the use of economic tools in the analysis of the 'market' for health care, both in terms of efficiency and equity. It also provides an analytical framework for assessment of the Australian health care system from an economic perspective.

This unit will provide students with the:

- necessary skills to analyse alternative arrangements to finance and deliver health services from an economics perspective;
- ability to understand the distinctive characteristics of health care as a commodity and its implication for prices and output in the health care market; and
- ability to distinguish concepts of efficiency and equity in health care.

Introduction to Microeconomic Theory & Policy

(ECX9120) *Semester 1*

This unit provides students with a rigorous, theoretical and practical grounding in microeconomic principles. It covers the theory of consumer choice and its relationship to demand, production, costs and supply; pricing and output decisions of firms in various market structures, including perfect competition, monopoly, monopolistic competition and oligopoly; and issues of efficiency with respect to externalities, public goods and imperfect information.

Pharmaceutical Economics

(ECX9710) *Semester 2*

The unit provides an economic analysis of the pharmaceutical industry and pharmaceutical products. It considers the structure of the industry and the inter relationship between the nature of the product, the market structure and government regulation.

It considers different regulatory regimes from an economic perspective and the role of economic evaluation in promoting the efficient use of drugs. The regulatory use of clinical trials to evaluate the efficacy of drugs of safety is considered alongside the need to collect economic data to evaluate efficiency. The unit includes issues in the economic analysis of drugs alongside trials including techniques of health outcome measurement.

Introduction to Epidemiology & Biostatistics

(ECX9720) *Summer semester*

This unit provides students with an appreciation of the differences between descriptive and analytical epidemiology, an understanding of the strengths and weaknesses of different epidemiological study designs and the basic design features of an intervention study.

The primary objective of this subject is to present clinical epidemiology and basic statistics as the basis for critical appraisal of biomedical literature that is necessary to perform economic evaluations.

Measurement of efficacy of health interventions including drug treatments, as used in economic evaluations requires the ability to evaluate information. This is dependent on a sound understanding of statistics and epidemiology.

ARTICULATION WITH FURTHER STUDIES

The units undertaken in this course may, on application, be credited as units or electives within other Monash courses, such as:

- Graduate Diploma in Health Economics & Policy
- Master of Public Health
- Graduate Diploma in Pharmacy Management

FEES

The Graduate Certificate in Health Economics is a fee paying course. Fees are set annually, and the fee for domestic students in 2007 is \$2000 per unit (GST exempt). The fee for international students in 2007 is \$2860 per unit. For future years of your course Monash University reserves the right to adjust annual tuition fees. However, Monash University undertakes that any adjustment factor will not exceed 10% per annum.

FLEXIBLE LEARNING

This Graduate Certificate course is designed to provide access to high quality education, delivered by specialist academic lecturers with national and international experience in health economics and flexible learning. We believe that effective communication is the core to successful learning. Students are therefore encouraged to contact members of academic staff involved with the course whenever assistance is required. Teaching is multi-modal involving web based discussion groups, text based reading materials, email communication, and seminars.

Our national, and international, experience with flexible learning has highlighted the challenges faced by students. All course reading materials are text based and carefully designed for effective individual study. The time requirements are, on average, 8-10 hours per week. Each unit of the course consists of a 'Reader', which comprises clear learning objectives, a comprehensive discussion of the topic written by academic staff, copies of key readings and self-assessment exercises. Assessment is based on 2 assignments plus an examination.

MONASH UNIVERSITY

Monash is a global university with eight campuses including one in Malaysia and one in South Africa. It is an energetic and dynamic university committed to leading the way in higher education and research.

The university has ten faculties – Arts, Art and Design, Business and Economics, Education, Engineering, Information Technology, Law, Medicine Nursing & Health Sciences, Pharmacy, and Science.

FACULTY OF BUSINESS AND ECONOMICS

The scale, diversity and record of excellence achieved by departments within the Faculty of Business and Economics ensures that the faculty maintains a central place in business education and research in the Asia-Pacific region.

Business and Economics offers undergraduate and postgraduate degree programs across Monash campuses at Berwick, Clayton, Caulfield, Gippsland, Peninsula, Malaysia and South Africa. The faculty's academic programs are offered by six departments:

- Accounting & Finance
- Business Law and Taxation
- Econometrics & Business Statistics
- Economics
- Management
- Marketing

Higher Degrees by Research

The faculty's strong reputation for world-class research has its foundations in the critical mass of research and scholarship within the faculty in a variety of fields. Many of the faculty's research units and centres are recognised as international centres of research excellence.

Centre for Health Economics

The Centre for Health Economics (CHE) is one of the Faculty's research centres of excellence. It has been at the forefront of health economics teaching and research in Australia for more than 13 years. As one of the two largest concentrations of senior health economists in Australia, it has a strong track record of health economics research, teaching and community service. Its more than 600 publications represent a significant part of the country's total health economics output. The overriding goal of the Centre is to undertake and promote high quality health economics research and teaching activities, with both a national and international focus. This is reflected in its mission statement:

To be recognised as an academic centre of excellence in health economics, respected nationally and internationally for the quality of its research, teaching and training activities, and for the contribution these make to the welfare of the community.

The CHE also offers higher degrees by research.

FOR FURTHER INFORMATION CONTACT

Associate Professor Anthony Harris

Tel: (03) 9905 8380

Fax: (03) 9905 8433

Email: Anthony.Harris@buseco.monash.edu.au

Or visit the CHE website:

<http://www.buseco.monash.edu.au/centres/che/>

While the information provided in this flyer was correct at the time of its publication, August 2006, Monash University reserves the right to alter this information should the need arise. You should always check with the relevant faculty officers when considering a course.

APPLICATION FOR ADMISSION GRADUATE CERTIFICATE IN PHARMACOECONOMICS

1. PERSONAL DETAILS

Title (Mr, Ms, etc): _____ Family Name: _____ Given Names: _____

(If your present name is different from that on the transcript, please attach copies of appropriate legal documentation (e.g. deed poll, marriage certificate).

Street Address: _____

Suburb: _____ State: _____ Postcode: _____

Home Phone: _____ Business Phone: _____ Fax: _____

Sex: M/F Date of Birth: Email Address: _____
Day Month Year

Are you an Australian Citizen or a permanent resident of Australia? YES NO

Will you be residing in Australia for the duration of the program? YES NO

Country of residence during enrolment in program _____

English language proficiency: Please tick (✓)

English is my first language

English was the language of instruction in previous completed studies (documentary evidence must be provided if Institution is located in a non-English speaking country)

Will undertake/have completed the English language proficiency test (TOEFL and TWE, or IELTS)

Test date: _____ **Specify which test was undertaken:** _____ **Result:** _____

(Documentary evidence of the official test result must be provided)

2. PREVIOUS MONASH ENROLMENT

Have you previously been enrolled at Monash on the Caulfield, Clayton, Peninsula or Gippsland Campus?

NO YES Previous Monash ID number (if known): _____

3. TERTIARY EDUCATION RECORD

Complete official statements* of academic record (or certified copies), including failures, if any, MUST accompany this application. Partially completed work, prior degrees or diplomas must be included. APPLICATIONS WILL NOT BE PROCESSED UNTIL COMPLETE OFFICIAL STATEMENTS OF ACADEMIC RECORD HAVE BEEN RECEIVED.

Name of Degree or Other Qualification Held	Name of University/Institution	Year completed	Major area of study	Final Grade

* Official transcripts are issued by University or College Student Records Departments. They are signed by senior officers of the institutions and are provided to students/graduates on request. Official results of individual subjects or copies of degree certificates are not substitutes for transcripts. Each transcript must be accompanied by a key to its interpretation.

4. PROPOSED STUDY PROGRAM				
Subject code	Subject Title	Semester	Year (insert year)	OFFICE USE ONLY
ECX9720	Epidemiology and Biostatistics	Summer		<input type="checkbox"/> Approved for Admission <input type="checkbox"/> Not Approved for Admission Exemptions granted for Authorised by
ECX9120	Introduction to Microeconomics	1		
ECX9700	Introduction to Health Economics	1		
ECX9710	Pharmaceutical Economics	2		

5. EMPLOYMENT DETAILS

Profession: _____

Employer: _____

6. DECLARATION

I DECLARE that to the best of my knowledge the information I have provided here is correct and complete. I acknowledge that the provision of incorrect information or the withholding of relevant information relating to my application, academic transcript or Australian permanent Resident status may result in the withdrawal by Monash University of any place that may be offered at any stage during the course. I also acknowledge that this is an application form only and does not constitute an enrolment for any course in the University or entitle me to be classified as a student of the University.

Signed: _____ Date: / /

This completed application form together with certified copies of supporting documentation should be submitted to:

Sandy Johnson, **Centre for Health Economics**, Building 75, Monash University, Clayton Campus, VIC 3800

Exchange of name and address details:
 Do you consent to your name and address and contact details (telephone, facsimile and email) being provided to other students enrolled in this course? (Formation of study groups can be helpful).

Please circle: Yes No

How did you find out about this course? _____

OFFICE USE ONLY

REF No. / Forwarded to: _____ Date: / /

Department recommendation (tick one) Offer Reject Other

Signed: _____

The information on this form is collected for the primary purpose of determining eligibility for course enrolment, and maintenance of accurate student records. Other purposes of collection include information on the professional background of students undertaking this course. If you choose not to complete all the questions on this form, it may not be possible for Faculty to process your application. Personal information may also be disclosed to other distance education students enrolled in the individual units, but only if you indicate your willingness for this to occur. You have a right to access personal information that Monash University holds about you, subject to any exceptions in relevant legislation. If you wish to seek access to your personal information or inquire about the handling of your personal information, please contact the University Privacy Officer on 9905 6011.

Please submit completed application form together with certified copies of supporting documentation to:
Centre for Health Economics
 Building 75, Monash Clayton
 VIC 3800