The background of the cover is a photograph of a large, light-colored building with many windows, partially obscured by the branches and purple blossoms of a large tree in the foreground. The sun is shining through the leaves on the left side.

Clinical Epidemiology Prospective student guide 2016

Sydney Medical School



THE UNIVERSITY OF
SYDNEY



Clinical epidemiology is the science of locating, evaluating and generating the best research evidence in order to apply it to patient care, thereby improving the health care of individual patients.

CLINICAL EPIDEMIOLOGY TEAM:
(BACK ROW) JONATHAN CRAIG, ANGELA WEBSTER, PHIL CLAYTON, SUZANNE MAHADY, BRENDA HARTLEY, (FRONT ROW) SHARON REID, REEMA HARRISON, KAROLINA KULCZYNSKA-LE BRETON, FIONA STANAWAY, CLEMENT LOY.

Contents

01 IMPORTANT DATES FOR 2016	09 FEES AND SCHOLARSHIPS	16 PLANNING YOUR STUDY
02 CLINICAL EPIDEMIOLOGY	09 Full-fee places & FEE-HELP	16 Elective Units
02 Why is Clinical Epidemiology important?	09 Commonwealth Supported Places (CSP's) & HECS-HELP	17 UNITS OF STUDY
02 Who is our Program for?	09 Student Services and Amenities Fee (SSA) Fee & SA-HELP	19 EXAMPLES OF HOW TO STRUCTURE YOUR STUDY
03 What do students learn?	11 SCHOOL OF PUBLIC HEALTH CLINICAL EPIDEMIOLOGY SCHOLARSHIPS	25 UNIT OF STUDY OUTLINES
04 WHY STUDY AT THE UNIVERSITY OF SYDNEY'S SCHOOL OF PUBLIC HEALTH?	12 MASTER OF MEDICINE (CLINICAL EPIDEMIOLOGY) IN CONJUNCTION WITH SYDNEY MEDICAL PROGRAM	36 CHANGING YOUR ENROLMENT
04 Clinical Epidemiology in the School		36 Unit of Study Variations
04 Flexibility		36 Candidature Variations
05 Relevance		36 Suspending Your Candidature
05 Excellence		37 Withdrawing From Your Degree Program
06 COURSE STRUCTURE & TIME COMMITMENTS	13 SHORT COURSE	37 Transferring Your Candidature to Another Degree
06 Course Structure	13 Introduction to Clinical Epidemiology Short Course	38 USEFUL RESOURCES DURING YOUR CADIDATURE
06 Time Commitment	14 APPLICATIONS	40 General Information and Support Services
07 INTERNATIONAL STUDENTS	14 Admission Requirements	41 FURTHER INFORMATION
08 STARTING IN SEMESTER TWO	14 How to Apply	41 Clinical Epidemiology Program Contacts
08 DISTANCE LEARNING	15 Accepting Your Offer & Enrolment	
	15 New Students	
	15 Continuing Students	

Important dates for 2016

SEMESTER ONE	SEMESTER TWO	PUBLIC HOLIDAYS
5 JANUARY UNIVERSITY INFO DAY	27 AUGUST UNIVERSITY OPEN DAY	26 JANUARY AUSTRALIA DAY
29 FEBRUARY LECTURES BEGIN	25 JULY LECTURES BEGIN	25 MARCH GOOD FRIDAY
31 MARCH HECS CENSUS DATE	31 AUGUST HECS CENSUS DATE	28 MARCH EASTER MONDAY
25 MARCH - 28 MARCH EASTER BREAK	26 SEPTEMBER - 30 SEPTEMBER AVCC COMMON WEEK / NON-TEACHING PERIOD	25 APRIL ANZAC DAY
25 MARCH - 1 APRIL AVCC COMMON WEEK / NON-TEACHING PERIOD	31 OCTOBER - 4 NOVEMBER STUDY VACATION	13 JUNE QUEEN'S BIRTHDAY
6 JUNE - 10 JUNE STUDY VACATION	7 - 19 NOVEMBER EXAMINATION PERIOD	3 OCTOBER LABOUR DAY
13 JUNE - 25 JUNE EXAMINATION PERIOD	19 NOVEMBER SEMESTER ENDS	25 DECEMBER CHRISTMAS DAY
25 JUNE SEMESTER ENDS		26 DECEMBER BOXING DAY

Clinical epidemiology



My Clinical Epidemiology degree provided the ideal foundation for my career. I developed the knowledge base and skills required to design, conduct, report and appraise clinical research studies. Many wonderful opportunities have arisen thanks to my decision to study Clinical Epidemiology at the University of Sydney.

PHILIP
MASTER OF MEDICINE
(CLINICAL EPIDEMIOLOGY)

Why is clinical epidemiology important?

In day-to-day clinical practice, patients and clinicians need health care solutions that are founded on the highest-quality research evidence. In order to generate the best research evidence, clinical researchers require the skills to undertake and disseminate high-quality clinical research. Subsequently, to apply these findings, health practitioners need the skills to locate, evaluate and apply best research evidence to patient care.

The Clinical Epidemiology program is designed to develop both clinical researchers and practitioners by teaching the skills needed to generate high-quality clinical research, as well as the skills to locate, appraise, interpret and apply the best research evidence to patient care.

Who is our program for?

Our courses are designed to meet the needs of both the 'users' of clinical epidemiology (those who want their clinical decision making to be based on the best available evidence), and the 'doers' of clinical epidemiology (those who want to learn the skills required to do high quality clinical research). People generally apply for our courses because their prior vocational clinical training and/or tertiary education have not fully equipped them for what they want to do.

Some of our students want to be able to tell potential employers or specialty training programs that they have clinical research skills as well as core competencies. Others want to improve their interpretation of research and to

perform clinical research of a higher calibre. Our alumni surveys consistently show that we provide these skills, thereby equipping our graduates with the abilities needed to succeed at the top of their chosen fields.

The program is designed for people with clinical experience. Our students come from various clinical research and health professions including doctors, nurses, physiotherapists and pharmacists.



What do students learn?

In the Clinical Epidemiology program clinicians and researchers will learn the principles of clinical epidemiology – the science of finding and applying best evidence in clinical practice.

Our program explains theory through patient-based examples to ensure that clinical epidemiology skills can be readily integrated into the day-to-day work of students.

Students have the opportunity to develop expertise across a variety of clinical research methods including studies of interventions, diagnostic tests, patient outcomes, health economic evaluations, genetic epidemiology and systematic reviews. This includes learning analysis methods and biostatistics.

Why study at the University of Sydney's School of Public Health?

The School of Public Health is renowned for excellence in a number of areas including epidemiology, biostatistics, health economics, evidence-based health care, health promotion and health advocacy, as well as for its first-class research program and publication record.

Currently the largest and longest running school of its type in Australia, the School of Public Health was established in 1930 as the Commonwealth School of Public Health and Tropical Medicine, and in 1987 was incorporated into the Sydney Medicine School. Today, the School is a vibrant, multidisciplinary network of individuals and centres that provides a range of exceptional and internationally recognised educational opportunities, and fosters a dynamic and collaborative study environment.

Clinical epidemiology in the school

The University of Sydney has offered courses in Clinical Epidemiology since 1994, with enrolments growing steadily each year.

The program is taught by practicing clinicians who are renowned as leaders in their fields, ensuring that the coursework remains firmly grounded in the current clinical reality.

Alongside their work with the program, staff are also sought out to develop and run professional development short courses tailored to particular groups that include

medical colleges, medical journal editors and non-governmental organisations involved in healthcare evaluation and improvement.

Our Clinical Epidemiology program is characterised by three core features: flexibility of delivery, relevance to clinicians and clinical researchers, and standards of excellence.

Flexibility

Recognising that work and family commitments affect our students in different ways, the Sydney School of Public Health has developed a range of courses in Clinical Epidemiology to suit all student needs. Our Graduate Certificate, Graduate Diploma, and Masters courses offer students an internationally recognised qualification in clinical epidemiology within an engaging and stimulating program.

For those seeking a short-term introduction to clinical epidemiological concepts and skills, we offer a stand-alone Clinical Epidemiology Fundamentals short course.

For those wanting to upgrade their skills in a specific area it is also possible to undertake certain units of study as non-award professional development courses. If a student later decides to undertake a graduate certificate, graduate diploma or masters degree, units undertaken as non-award can then be credited towards the new qualification.



With a wide range of units of study to choose from, full-time and part-time modes of study, and online, project based, and face-to-face unit delivery formats, our degrees and short courses are designed to allow you to tailor the pace and mode in which you study to your particular needs as a busy practitioner or researcher.

Relevance

With academic staff that includes both practising clinicians and clinical researchers, our program is focused on teaching clinical epidemiological skills and concepts in a manner that is both relevant and applicable to students' day-to-day employment.

Our units of study have been developed based upon their relevance to the clinical and clinical research environments – examples include Quality and Safety in Health Care, Introduction to Systematic Reviews, and Screening and Diagnostic Test Evaluation. Our units of study are constantly revised and updated with new methodology and clinical content, to ensure what you learn is relevant and current.

We explain theoretical concepts through clinical examples, and achieve further relevance within our units by encouraging students to apply clinical epidemiological principles to examples from their own practice.

Excellence

Our degrees are designed to produce graduates who have the skills to locate and critically appraise evidence in order to deliver the highest-quality patient health-care, as well as graduates who possess the skills to conduct clinical research that attains a standard of excellence. As such we encourage our students to think and learn independently, and to consider their own clinical experiences in their understanding of theory and examples.

At a teaching level we annually improve and renew our units to ensure that our program remains at the forefront of clinical epidemiology teaching around the world.

Career prospects

A Clinical Epidemiology degree from the Sydney School of Public Health will not only improve your clinical practice, but also teach you the skills to conduct high-quality clinical research, giving you an edge in any future clinical and research endeavours.

Previous students have gone on to undertake PhDs in epidemiology, teach epidemiology to undergraduates and postgraduates, become members of the Cochrane Collaboration, be awarded NHMRC grants, and take on clinical leadership roles in their fields.

Course structure and time commitments

Course structure

COURSE	STRUCTURE	TOTAL CPS	CANDIDATURE LENGTH
Graduate Certificate in Clinical Epidemiology	3 core units (14 credit points) Electives (10 credit points)	24	0.5 year full time* 1-3 years part time
Graduate Diploma in Clinical Epidemiology	3 core units (14 credit points) Electives (22 credit points)	36	1-2 years full time 1-3 years part time
Master of Medicine (Clinical Epidemiology)	3 core units** (18 credit points) Electives (30 credit points)	48	1-3 years full time 2-4 years part time
Master of Science in Medicine (Clinical Epidemiology)	3 core units** (18 credit points) Electives (30 credit points)	48	1-3 years full time 2-4 years part time

*Available Semester One only

** Masters students are also required to complete an additional minimum of 4 credit points from project units

The Master of Medicine (Clinical Epidemiology) and the Master of Science in Medicine (Clinical Epidemiology) are the same degree but are awarded depending on a student's prior qualifications. The Master of Medicine is for those with medicine degrees, and the Master of Science is for all other graduates.

Students who are enrolled in the graduate certificate, graduate diploma or masters course must undertake the following three core units of study which account for 14 credit points:

- CEPI5100 - Introduction to Clinical Epidemiology
- PUBH5018 - Introductory Biostatistics
- CEPI5102 - Literature Searching

In addition to the core units, students are required to undertake elective units of study from within the Clinical Epidemiology recommended units list to make up the additional credit points needed to satisfy degree requirements. For a full list of recommended electives see page 17. For examples of how units of study can be combined depending on your requirements see page 19. In some cases, students may also undertake elective units from outside of the recommended units list.

Time commitment

As a rough guide, each credit point of study equates to 1 ½ - 2 hours of student effort per week for the duration of the 12 week semester. This time comprises of face-to-face teaching, online activity, reading, preparation for tutorials and/or completion of assessments.

For example, for a unit of study worth 4 credit points, students should therefore expect to spend six to eight hours of study time per week, for each week of the semester. If the 4 credit point unit of study runs for only half of a semester then students should expect to spend twelve to sixteen hours of study time per week for six to seven weeks. If students have a particularly busy clinical workload they might consider extending the duration of their study program. Please note that 18 credit points or more per semester is regarded as full-time study for local students. For international students, 24 credit points per semester is the required full-time load.

Students are also responsible for withdrawing from units of study before the census date in order to prevent incurring fees and receiving a fail grade on the transcript. Census dates for all sessions in 2015 can be found via this link: <http://sydney.edu.au/study/study-dates.html>

International students



The Master of Medicine (Clinical Epidemiology), the Master of Science in Medicine (Clinical Epidemiology), the Graduate Diploma in Clinical Epidemiology and the Graduate Certificate in Clinical Epidemiology are available on a full-time basis for international students who hold an Australian student visa

The majority of units for full-time study are offered on Tuesday, Wednesday and Thursday evenings, but students will also be required to attend some daytime classes to avoid timetable clashes and to meet credit-point requirements.

The Australian academic calendar is made up of two semesters. Semester One begins in late February/early March and concludes in June. Semester Two commences in late July and concludes in November.

All international students are strongly recommended to start in semester one given that Introductory Biostatistics is only offered in semester one and this unit is a pre-requisite for all the statistical analysis units available in Semester Two. For more information about starting in semester two please see page 8 and contact a clinical epidemiology academic prior to application.

International students are responsible for making sure that they fulfil their visa requirements for full time study and face-to-face attendance. International students studying full-time on a student visa can study up to 25 per cent of their course by online and/or distance learning. If you have any questions about your visa requirements, please speak to a member of the international office compliance team (see sydney.edu.au/internationaloffice/about.shtml)

For more information about Australian Student Visas please see the Department of Immigration and Citizenship at www.immi.gov.au/students, and the University of Sydney's International Office website - sydney.edu.au/future_students/international_postgraduate_coursework/admissions/offers/student_visas.

People who are not Australian or Australian permanent residents, but who are in Australia working full time on a non-student visa, are also classified as international students, but may be able to study part-time for the duration of their non-student visa. An example of this situation might be a person working in healthcare in Australia, who may be able to study in the evenings concurrent with their clinical role. If this situation applies to you, you are advised to seek advice from the international office (sydney.edu.au/internationaloffice) and discuss your plans with a clinical epidemiology academic

International students may also chose to study "off-shore" outside of Australia, in their home country by distance learning. See page 8 for more details about this option.

The School of Public Health welcomes postgraduate students funded by the Australian Government's Australia Awards Scholarships programme. The Australia Awards Unit at the University of Sydney looks after around 230 Australia Awards scholarship holders from more than 30 countries. To check if you qualify for an Australia Awards Scholarship, please contact the Australia Awards Unit: australiaawards@sydney.edu.au

Starting in semester two

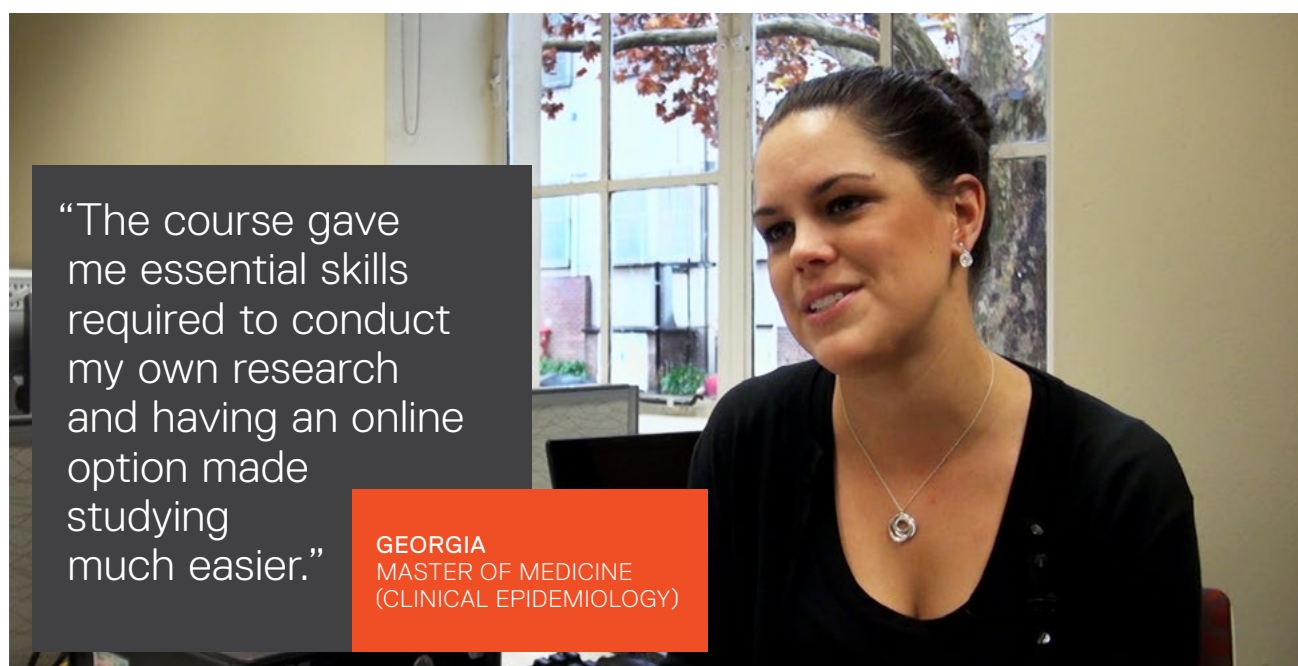
Commencing a course in semester two can be challenging as the unit Introductory Biostatistics is only offered in semester one. This core unit is a prerequisite for all of the statistical analysis units available in semester two, resulting in a limited unit choice of elective units if commencing in semester two, particularly if a student is undertaking the degree full-time. To ensure an appropriate study program, all students who plan to start in the second semester should contact a clinical epidemiology academic prior to enrolling in order to discuss their study plan.

Distance learning

In order to ensure maximum flexibility for our students, it is possible to complete every clinical epidemiology degree by distance through our range of online and project-based units of study.

In addition to clinical epidemiology units, other degree programs within the School of Public Health also offer units of study in online and/or weekend workshop formats that may be of interest to clinical epidemiology students. Please note however, that clinical epidemiology students who wish to undertake non-prescribed units of study as electives must first obtain permission and consider the credit point limits that apply for non-prescribed electives.

Please see sydney.edu.au/medicine/public-health/current/coursework/resources/distancestudy.php for more information on studying by distance. Also, see “planning your study” on page 16 and “example of course structures” for suggestions about how to combine units for distance study.



Fees and scholarships

The Clinical Epidemiology graduate certificate, graduate diploma and masters courses are all full-fee paying and incur standard Sydney Medical School postgraduate course fees. Fees are payable in advance in semester instalments and differ between local and international students. A local student is a student who is a citizen or permanent resident of Australia or New Zealand. For local students these may be payable through FEE-HELP and fees may be tax deductible.

A list of current fees can be found at sydney.edu.au/medicine/public-health/future-student/plan-your-studies/tuition-fees.

Full-Fee places and FEE-HELP

Full-fee places are unsubsidised and as such the student bears the full cost of the degree. FEE-HELP is a loan scheme whereby the Australian Government pays all or part of a student's tuition fees upfront, and the student pays the loan back later through either the taxation system or voluntary contributions. Local students may be eligible to defer their fees to FEE-HELP at the time of commencement.

For more information about FEE-HELP please see the Australian Government Study Assist website - studyassist.gov.au/sites/studyassist/helppayingmyfees/fee-help/pages/fee-help.

Commonwealth supported places (CSPs) and HECS-HELP

Commonwealth Supported Places (CSPs) are those places that are subsidised by the Australian Commonwealth Government. Please note that CSPs are not available to Clinical Epidemiology Students.

For more information about Commonwealth Supported Places and HECS-HELP please see the Australian Government Study Assist website - studyassist.gov.au/sites/studyassist/helppayingmyfees/pages/help-paying-my-fees.

Student Services and amenities fee (SSA) and SA-HELP

In addition to the postgraduate tuition fees, all students at the University of Sydney will be charged the SSA fee. Students will be required to pay this fee upfront each semester or obtain a SA-HELP loan, if eligible, prior to the SSA fee payable date. SA-HELP is a loan scheme whereby the payment of the SSA fee is deferred whilst studying and repaid later through either the taxation system or voluntary contributions.

For more information on the SSA and SA-HELP please see the following websites:

- University of Sydney - sydney.edu.au/current_students/student_administration/ssa_fee
- Australian Government Study Assist - studyassist.gov.au/sites/studyassist/helppayingmyfees/sa-help/pages/sa-help

Austudy

Some students may be eligible for government financial help in the form of Austudy during their studies. To be eligible you must be at least 25 years of age, be enrolled full-time, be an Australian resident, and meet income and assets test requirements.



Accreditation

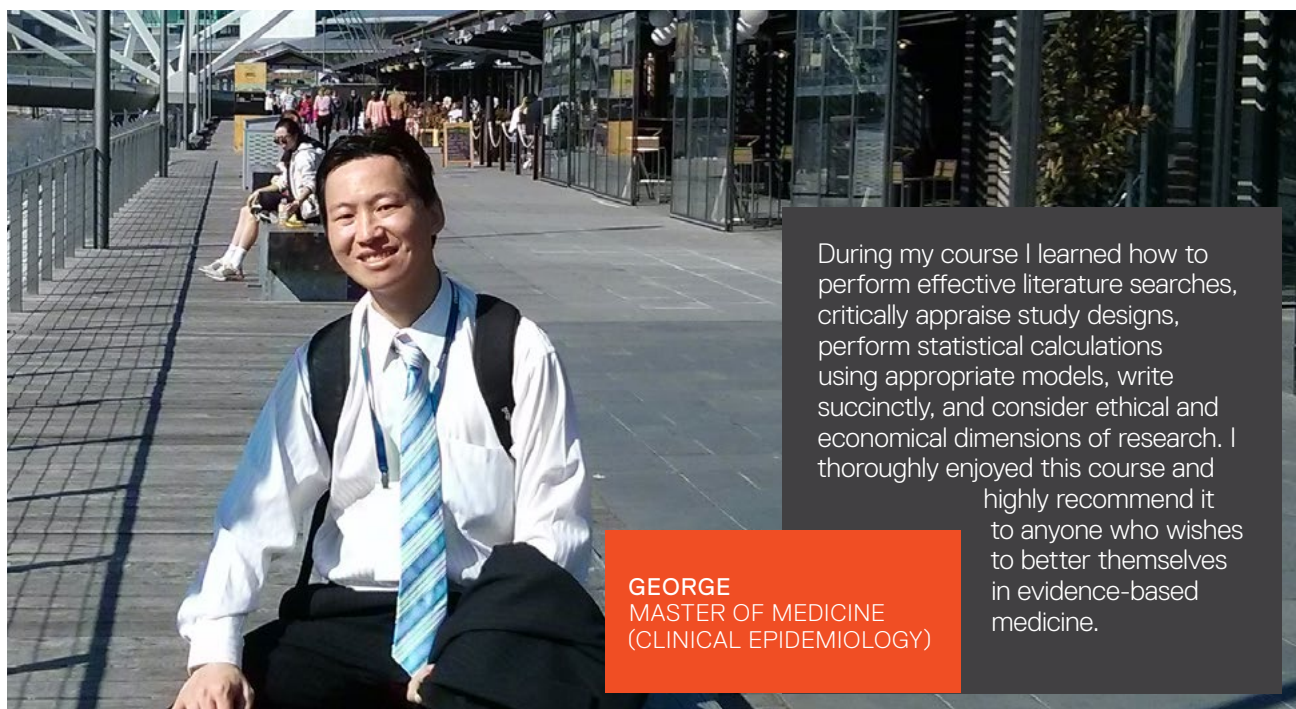
Clinical Epidemiology alumni may apply for CPD/CME accreditation with the following colleges:

- Surgeons
- Physicians
- General Practitioners
- Radiology
- Pathology
- Obstetricians
- Emergency Medicine

In 2014, the Clinical Epidemiology program received official accreditation from the Royal Australasian College of Surgeons. The following Specialty Training Boards provided additional accreditation:

- Paediatric Surgery – Clinical Epidemiology will be granted points for Surgical Education & Training applications
- Urology - applicants who complete a Graduate Diploma in Clinical Epidemiology, Master of Medicine (Clinical Epidemiology) or Master of Science in Medicine (Clinical Epidemiology) may attain points in the Qualifications section of their CV. No points can be awarded for qualifications commenced in the year of application. All SET Urology trainees are required to undertake the Critical Literature Evaluation and Research (CLEAR) course which is provided by the RACS. SET Urology trainees could apply for exemption from the CLEAR course if they have completed the Graduate Diploma in Clinical Epidemiology, the Master of Medicine (Clinical Epidemiology) or the Master of Science in Medicine (Clinical Epidemiology)
- Vascular Surgery - applicants can be awarded points for attending Clinical Epidemiology courses.
- Plastic and Reconstructive Surgery - applicants for selection into the Plastic and Reconstructive Surgical Education and Training Program (SET) are given one point for completing a course which has been accredited by RACS.

CEPI5100 Introduction to Clinical Epidemiology has been approved by the Australasian College for Emergency Medicine for the Trainee Research Requirement.



GEORGE
MASTER OF MEDICINE
(CLINICAL EPIDEMIOLOGY)

During my course I learned how to perform effective literature searches, critically appraise study designs, perform statistical calculations using appropriate models, write succinctly, and consider ethical and economical dimensions of research. I thoroughly enjoyed this course and highly recommend it to anyone who wishes to better themselves in evidence-based medicine.

School of Public Health clinical epidemiology scholarship

For 2016 entry, the Sydney School of Public Health will be offering scholarships for Masters Degree students in Clinical Epidemiology studying either full-time or part-time. These scholarships are only available to Australian citizens and permanent residents, and are not available for those wishing to study a graduate certificate or graduate diploma. The scholarships are awarded competitively on the basis of academic merit and achievement relative to opportunity, are to a value of \$10,000 per student over the duration of the Masters degree, and are paid on a pro rata basis depending on a student's credit point load. If you meet these criteria, and you wish to be considered for a scholarship, please contact the clinical epidemiology team via sph.cepi@sydney.edu.au. You can find more information about the Clinical Epidemiology scholarships on our website <http://sydney.edu.au/medicine/>

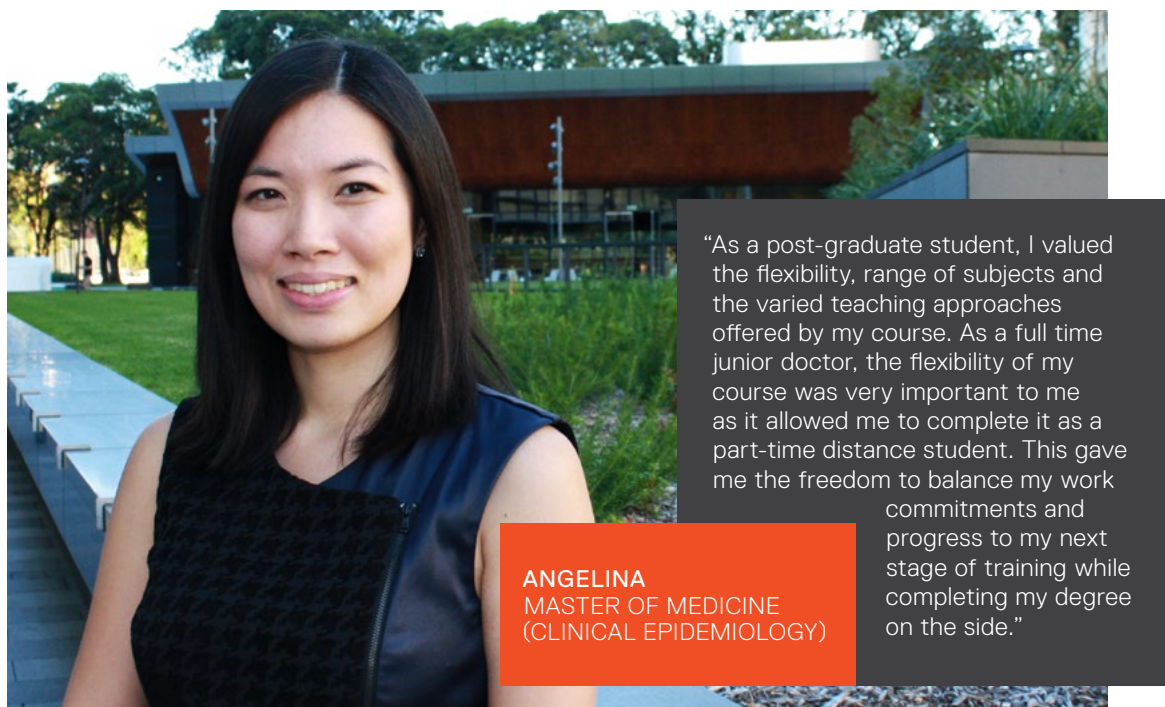
[public-health/future-student/study-program/coursework-degrees/clinical-epidemiology.php](http://sydney.edu.au/public-health/future-student/study-program/coursework-degrees/clinical-epidemiology.php)

As a prospective student you may also want to explore other avenues of funding for your degree. Information on Scholarships administered by the University can be found on the Scholarships Office website - sydney.edu.au/scholarships/prospective/.

In the past, some students have secured external funding through their employers or other external organisations.

More information on scholarships can be found at the Australian Government Study Assist website - studyassist.gov.au/sites/StudyAssist/ScholarshipsAndAwards.

Master of Medicine (Clinical Epidemiology) in conjunction with Sydney Medical Program



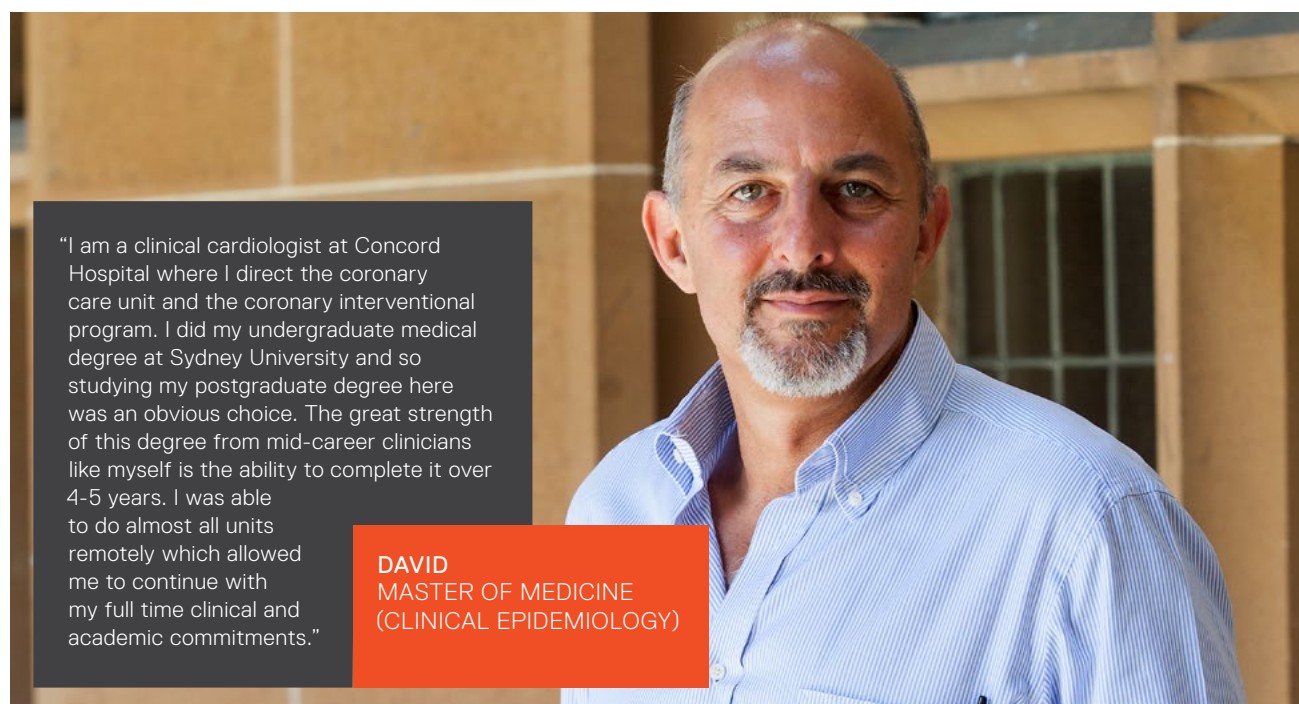
ANGELINA
MASTER OF MEDICINE
(CLINICAL EPIDEMIOLOGY)

"As a post-graduate student, I valued the flexibility, range of subjects and the varied teaching approaches offered by my course. As a full time junior doctor, the flexibility of my course was very important to me as it allowed me to complete it as a part-time distance student. This gave me the freedom to balance my work commitments and progress to my next stage of training while completing my degree on the side."

From 2012 Sydney Medical School has offered Medical Program students the opportunity to complete a Master of Medicine (Clinical Epidemiology) in conjunction with the Sydney Medical Program (SMP). These programs are designed for SMP students who have a good academic track record and a special interest in Clinical Epidemiology. The MMed (Clin Epi) can be undertaken on a part-time basis and can be completed within two years, with the intention that students graduate with two degrees (MBBS/MD and MMed) in the period taken to complete the SMP.

Current Sydney Medical School students who are interested in applying for the Master of Medicine (Clinical Epidemiology) should first discuss their intention with Professor Rebekah Jenkin in the Sydney Medical Program. Professor Jenkin will also be able to provide advice about any available scholarship support from the Faculty of Medicine.

Short courses



CEPI 0000 **Clinical Epidemiology** **Fundamentals**

UNIT COORDINATOR:
Dr Fiona Stanaway

OFFERED:
Semester one and two

FORMAT:
Six online learning modules

For applicants who are looking for a short-term introductory course in Clinical Epidemiology, the School of Public Health offers CEPI 0000 – Clinical Epidemiology Fundamentals. The aim of this short course is to provide an introduction to important skills and concepts in clinical epidemiology and increase the influence of evidence-based medicine in students' clinical decisions. Students will be shown how to formulate a concise clinical question, find and appraise the evidence and apply the information to patient care. The course is offered in both semester one and semester two and comprises of six online learning modules. Please note that this is a stand-alone short course and cannot be used as credit towards any of the clinical epidemiology degrees.

All of our individual units of study can also be taken as stand-alone subjects, as part of general professional development. For further information about CEPI 0000 Clinical Epidemiology Fundamentals and other short courses please see sydney.edu.au/medicine/public-health/future-student/study-program/professional-development/index.php or email sph.cepi@sydney.edu.au

Applications

Admission requirements

Applicants are required to meet the following:

- A Medical degree (MD/MBBS)
- A Bachelor's degree in a health discipline with first or second class honours.

Applicants who do not meet these requirements may be admitted on the basis of having completed equivalent work or by or having substantial relevant work experience in a related field.

All students entering the program are expected to have some clinical experience. Please contact us for advice if you are interested in the program but do not have clinical experience, on sph.cepi@sydney.edu.au.

How to apply

All applications to the Clinical Epidemiology program must be submitted to the University through the online Sydney Student portal. For details about how to apply, including documentation requirements and English language requirements, please see the appropriate link:

Domestic Applicants: sydney.edu.au/medicine/future-students/postgraduate/apply-enrol/local.php

International Applicants: sydney.edu.au/medicine/future-students/postgraduate/apply-enrol/international.php

Please Note: Prospective students are required to submit a **'Letter of Intent'** and a full **Curriculum Vitae** with their application. These should be uploaded in the 'Supporting Documents' section of the online application form. Email medicine.pgapply@sydney.edu.au if you have any problems submitting these documents.

Accepting your offer and enrolment

Once you have been accepted into the School of Public Health's Clinical Epidemiology program, you will want to plan your study. You have joined an elite cohort of Clinical Epidemiology students who, since the degree began in 1994, have learned from our Faculty of internationally recognised researchers and teachers. All of our students value the knowledge and skills gained from our program and our reputation for excellence continues to be reflected in our steady rise in enrolments since inception.

We hope that you will always appreciate and reflect positively on your time in our Clinical Epidemiology Program.

APPLICATION CLOSING DATES

Semester One

Local: 31 January
International: 31 January

Semester Two

Local: 30 June
International: 30 June

Please Note:

Late applications may be considered, however priority will be given to applications that are received on time.



New students

For new students, once you have been given an offer of admission, you will be required to enrol in your course prior to commencement. Detailed enrolment instructions will be sent to you by the Faculty Student Services Office in advance of the enrolment day. To complete enrolment, you will need to choose the units of study that you will be undertaking during the year. To enrol you will need to provide unit of study codes, names and sessions. For questions about enrolment please see sydney.edu.au/medicine/current-students/enrolment-variations/postgraduate/enrolment.php#continuing or contact the postgraduate student administration unit: medicine.pgassist@sydney.edu.au In choosing your units of study you should take account of the pre- and co-requisites, and timetabling. The following tables show a list of all core and elective units available, and also show some examples of how different units can be combined in different ways depending on how you wish to study.

Continuing students

For continuing students, you must re-enrol every year that you remain a candidate for a degree. Before commencement of each semester you will be sent an email reminding you about the enrolment task and providing you with instructions about how to complete it. You will be able to enrol via the Sydney Student system, accessible through MyUni portal. Following successful enrolment you will be able to see your Financial Statements in Sydney Student.

Students returning from suspension

Students returning from suspension will be contacted by the Faculty Student Services with information regarding their enrolment. Following this, they will be required to follow the enrolment process outlined above.

Planning your study

COURSE STRUCTURE

COURSE	STRUCTURE	TOTAL CPS	CANDIDATURE LENGTH
Graduate Certificate in Clinical Epidemiology	3 core units (14 credit points) Electives (10 credit points)	24	0.5 year full time* 1-3 years part time
Graduate Diploma in Clinical Epidemiology	3 core units (14 credit points) Electives (22 credit points)	36	1-2 years full time 1-3 years part time
Master of Medicine (Clinical Epidemiology)	3 core units** (18 credit points) Electives (30 credit points)	48	1-3 years full time 2-4 years part time
Master of Science in Medicine (Clinical Epidemiology)	3 core units** (18 credit points) Electives (30 credit points)	48	1-3 years full time 2-4 years part time

*Available Semester One only

** Masters students are also required to complete an additional minimum of 4 credit points from project units

Elective units

Table 1 on page 17 provides the list of Clinical Epidemiology electives; that is, recommended units of study that are affiliated with the Clinical Epidemiology program. In addition to this list, students may also undertake non-clinical epidemiology electives; that is, units of study offered by the School of Public Health other than those listed in Table 1.

To undertake non-clinical epidemiology electives a student must:


1. Not exceed the maximum number of credit points allowed from non-clinical epidemiology electives limits; that is, six credit points for the masters, four credit points for the graduate diploma, and two credit points for the graduate certificate;
2. Obtain written permission from the CEPI Course Coordinator: email the Course Coordinator via sph.cepi@sydney.edu.au explaining why the unit is relevant to your clinical epidemiology studies and retain his/her response email;
3. A student is required to submit a special permission request addressed to the unit coordinator via Sydney Student in order to obtain permission to enrol in the chosen non-clinical epidemiology elective. Attach the course coordinator's permission email to the application.

Please note: some units of study may be subject to quotas or other limitations of enrolment, or have pre- or co-requisite units. In these circumstances students should contact the unit coordinator for advice about enrolling in the unit.

Units of study

Table 1: Core units and approved elective units of study for the Clinical Epidemiology Program

UNIT CODE	UNIT NAME	CREDIT POINTS	DELIVERY MODE*
CORE UNITS			
Offered in semester one only			
PUBH 5018	Introductory Biostatistics	6	F, O
Offered in semester one and two			
CEPI 5100	Introduction to Clinical Epidemiology	6	F, O
CEPI 5102	Literature Searching	2	O
PROJECT UNITS			
Masters students need to do minimum of 4 credit points from the list of project units			
CEPI 5205	Doing a Systematic Review	6	P
CEPI 5206#	Introduction - Teaching Clinical Epidemiology	2	P
CEPI 5207#	Advanced - Teaching Clinical Epidemiology	6	P
CEPI 5214	Writing and Reviewing Medical Papers	4	O
CEPI 5300#	Health and Medical Research Grants: Theory and Practice	6	F, O
CEPI 5505#	Clinical Epidemiology Project 1	2	P
CEPI 5506	Clinical Epidemiology Project 2	4	P
ELECTIVE UNITS			
Offered in semester one only			
CEPI 5200	Quality and Safety in Health Care	6	O
CEPI 5305	Translating Research Into Practice	2	BM
CEPI 5308	Patient Reported Outcomes Measurement	2	O
CEPI 5310	Advanced Statistical Modelling	4	F, O
PUBH 5020	Chronic Disease Prevention and Control	6	O
PUBH 5500	Advanced Qualitative Health Research	6	BM
BETH 5201^	Ethics & Biotechnology	6	F, O
BETH 5204^	Clinical Ethics	6	BM, O
QUAL 5002	Qualitative Methodologies & Study Design	6	BM
Offered in semester two only			
CEPI 5203	Introduction to Systematic Reviews	2	O
CEPI 5204	Advanced Systematic Reviews	2	F
CEPI 5211	Introduction to Genetic Epidemiology	2	F
CEPI 5303	Diagnostic and Screening Test (Part 1)	2	F, O
CEPI 5304	Diagnostic and Screening Tests (Parts 1 & 2)	6	F, O
CEPI 5306	Clinical Practice Guidelines	2	O
PUBH 5019	Cancer Prevention & Control	6	O
PUBH 5032	Making Decisions in Public Health	2	BM, O
PUBH 5205	Decision Analysis	2	F
PUBH 5206	Controlled Trials	2	BM, O
PUBH 5211	Multiple Regression and Statistical Computing	4	F, O
PUBH 5212	Categorical Data Analysis	2	F, O
PUBH 5213	Survival Analysis	2	F, O
PUBH 5224	Advanced Epidemiology	6	F
PUBH 5302	Health Economic Evaluation	4	BM
PUBH 5307	Advanced Health Economic Evaluation	2	BM
PUBH 5309	Translational Health	2	BM
PUBH 5417	Injury Epidemiology Prevention & Control	4	O
PUBH 5422	Health and Risk Communication	6	BM
BETH 5202^	Human and Animal Research Ethics	6	BM, O
BETH 5203^	Ethics and Public Health	6	BM, O



“This course will benefit me in my future career in the research area as I’ve gained analytical skills, learned how to conduct a systematic review and am now able to properly read and understand clinical reports. I’m hoping I can use what I’ve learnt in this course to work in the public health sector in Hong Kong, and to improve the awareness of public health in the society.”

OLIVIA
MASTER OF SCIENCE
IN MEDICINE (CLINICAL
EPIDEMIOLOGY)

Table 1 cont.

UNIT CODE	UNIT NAME	CREDIT POINTS	DELIVERY MODE*
BETH 5208 [^]	Introduction to Human Research Ethics	2	BM, O
INFO9003	Information Technology for Health Professionals (NEW)	6	BM
Offered in semester one and two			
PUBH 5215	Introductory Analysis of Linked Data	6	BM

* Unit Delivery Modes

B: Blended – a combination of online & face-to-face delivery

BM: Block Mode – involves weekend & occasionally weekday workshops

F: Face-to-face – face-to-face only

O: Online – online only

P: Project – involves face-to-face/telephone/Skype meetings with a supervisor + individual student project work

[^] Choose only one of BETH 5201, BETH 5202, BETH 5203, BETH 5204 or BETH 5208

Choose CEPI 5300 or CEPI 5505 not both;

Choose CEPI 5206 or CEPI 5207 not both

Table 2: Suggested non-crosslisted elective units. Students can take maximum of 6 credit points (Masters), 4 credit points (Graduate Diploma) and 2 credit points (Graduate Certificate). Please note that other units can also be selected. See university website for full units of study descriptions.

UNIT CODE	UNIT NAME	CREDIT POINTS	DELIVERY MODE*
BETH 5209	Medicines Policy, Economics and Ethics	6	O
PMED 5051	Leadership in Medicine	6	B
MEDF5002	Best Practice in Health Care Education	6	B

Examples of course structures

The following tables are examples of how units can be combined in particular circumstances, such as for distance learning starting full-time in semester 2 and for particular learning preferences. Please note, before enrolling, students should check each individual unit of study co- and pre-requisites to be sure they meet enrolment criteria, and unit of study timetables to ensure there are no scheduling clashes. Please refer to the relevant semester timetable available on the SPH website: <http://sydney.edu.au/medicine/public-health/future-student/plan-your-studies/index.php>

Table 3 Clinical Epidemiology units available in distance learning format

SEMESTER ONE		CREDIT PTS
CEPI 5200	Quality and Safety in Health Care	6
CEPI 5308	Patient Reported Outcomes Measurement	2
CEPI 5310	Advanced Statistical Modelling	4
PUBH 5018	Introductory Biostatistics	6
PUBH 5020	Chronic Disease Prevention and Control	6
BETH 5201	Ethics & Biotechnology	6
BETH 5204	Clinical Ethics	6

SEMESTER TWO		
CEPI 5203	Introduction to Systematic Reviews	2
CEPI 5303	Diagnostic and Screening Tests (Parts 1)	2
CEPI 5304	Diagnostic and Screening Tests (Parts 1 & 2)	6
CEPI 5306	Clinical Practice Guidelines	2
PUBH 5019	Cancer Prevention & Control	6
PUBH 5032	Making Decisions in Public Health	2
PUBH 5206	Controlled Trials	2
PUBH 5211	Multiple Regression and Statistical Computing	4
PUBH 5212	Categorical Data Analysis	2
PUBH 5213	Survival Analysis	2
PUBH 5417	Injury Epidemiology Prevention & Control	4
BETH 5202	Human and Animal Research Ethics	6
BETH 5203	Ethics and Public Health	6
BETH 5208	Introduction to Human Research Ethics	2
SEMESTER ONE OR TWO		
CEPI 5100	Introduction to Clinical Epidemiology	6
CEPI 5102	Literature Searching	2
CEPI 5214	Writing and Reviewing Medical Papers	4
UNITS AVAILABLE IN BLOCK MODE AS WEEKEND/WEEKDAY WORKSHOPS		
CEPI 5300	Health and Medical Research Grants: Theory and Practice	6
CEPI 5305	Translating Research into Practice	2
PUBH 5032	Making Decisions in Public Health	2
PUBH 5206	Controlled Trials	2
PUBH 5215	Introductory Analysis of Linked Data	6
PUBH 5302	Health Economic Evaluation	4
PUBH 5307	Advanced Health Economic Evaluation	2
PUBH 5309	Translational Health	2
PUBH 5422	Health and Risk Communication	6
PUBH 5500	Advanced Qualitative Health Research	6
BETH 5202	Human and Animal Research Ethics	6
BETH 5203	Ethics and Public Health	6
BETH 5204	Clinical Ethics	6
BETH 5208	Introduction to Human Research Ethics	2
INFO 9003	Information Technology for Health Professionals	6
QUAL 5002	Qualitative Methodologies & Study Design	6
UNITS THAT ARE PROJECT BASED		
CEPI 5205	Doing a Systematic Review	6
CEPI 5206	Introduction - Teaching Clinical Epidemiology	2
CEPI 5207	Advanced - Teaching Clinical Epidemiology	6
CEPI5214	Writing and Reviewing Medical Papers	4
CEPI 5505	Clinical Epidemiology Project 1	2
CEPI 5506	Clinical Epidemiology Project 2	4

Table 4: Combining units to meet learning preferences: customising your degree to fit your interests

UNIT CODE	UNIT NAME	CPS*	DELIVERY MODE**	SEMESTER OFFERED
ALL STUDENTS STUDY CORE UNITS				
CEPI 5100	Introduction to Clinical Epidemiology	6	F, O	1 & 2
CEPI 5102	Literature Searching	2	O	1 & 2
PUBH 5018	Introductory Biostatistics	6	F, O	1
FOR STUDENTS INTERESTED IN BIOSTATISTICS AND LEARNING SKILLS FOR QUANTITATIVE ANALYSIS, CONSIDER THESE UNITS				
CEPI 5203	Introduction to Systematic Reviews	2	O	2
CEPI 5204	Advanced Systematic Reviews	2	F	2
CEPI 5303	Diagnostic and Screening Test (Part 1)	2	F, O	2
CEPI 5304	Diagnostic and Screening Test (Part 1 & 2)	6	F, O	2
CEPI 5310	Advanced Statistical Modelling	4	F, O	1
PUBH 5206	Controlled Trials	2	BM, O	2
PUBH 5211	Multiple Regression and Statistical Computing	4	F, O	2
PUBH 5212	Categorical Data Analysis	2	F, O	2
PUBH 5213	Survival Analysis	2	F, O	2
PUBH 5215	Introductory Analysis of Linked Data	6	BM	1 & 2
FOR STUDENTS WANTING TO GAIN QUALITATIVE SKILLS, CONSIDER INCLUDING THESE UNITS				
CEPI 5200	Quality and Safety in Health Care	6	O	1
CEPI 5203	Introduction to Systematic Reviews	2	O	2
CEPI 5306	Clinical Practice Guidelines	2	O	2
CEPI 5308	Patient Reported Outcomes Measurement	2	O	1
PUBH 5309	Translational Health	2	BM	2
PUBH 5500	Advanced Qualitative Health Research	6	BM	1
BETH 5201	Ethics & Biotechnology	6	F, O	1
BETH 5203	Ethics and Public Health	6	BM, O	2
BETH 5204	Clinical Ethics	6	BM, O	1
QUAL 5002	Qualitative Methodologies & Study Design	6	BM	1
FOR STUDENTS INTERESTED IN HEALTH ECONOMICS AND POLICY, CONSIDER INCLUDING THESE UNITS				
CEPI 5200	Quality and Safety in Health Care	6	O	1
CEPI 5203	Introduction to Systematic Reviews	2	O	2
CEPI 5305	Translating Research into Practice	2	BM	1
CEPI 5306	Clinical Practice Guidelines	2	O	2
CEPI 5308	Patient Reported Outcomes Measurement	2	O	1
PUBH 5032	Making Decisions in Public Health	2	BM, O	2
PUBH 5205	Decision Analysis	2	F	2
PUBH 5302	Health Economic Evaluation	4	BM	2
PUBH 5307	Advanced Health Economic Evaluation	2	BM	2
PUBH 5309	Translational Health	2	BM	2
CLINICIANS UNDERSTANDING AND USING EVIDENCE IN PRACTICE				
CEPI 5200	Quality and Safety in Health Care	6	O	1
CEPI 5203	Introduction to Systematic Reviews	2	O	2
CEPI 5305	Translating Research into Practice	2	BM	1

CEPI 5306	Clinical Practice Guidelines	2	O	2
PUBH 5206	Controlled Trials	2	BM, O	2
CEPI 5303	Diagnostic and Screening Test (Part 1)	2	F, O	2
CEPI 5304	Diagnostic and Screening Test (Part 1 & 2)	6	F, O	2

*CPS - Credit Points

**Unit Delivery Modes - B: Blended, BM: Block Mode, F: Face-to-face, O: Online, P: Project

Table 5: Masters study program example (full-time over 12 months commencing semester 2)

A full-time study program, starting in semester two, can be challenging because the core units of study are useful background throughout the course and are necessary prerequisites for several electives. Ideally, full-time students should start in semester one unless they have previous postgraduate experience in biostatistics and epidemiology. However, in some circumstances, provided that minimum credit-point requirements can be met, it is feasible to commence study in semester 2. Students proposing full time study starting semester 2 are advised to discuss their plans with a Clin Epi academic before enrolling.

SEMESTER TWO	Need to meet full-time study requirements and over 12 months make up a total of 48 credit points	CREDIT PTS	DELIVERY MODE
CEPI 5100	Introduction to Clinical Epidemiology	6	F, O
CEPI 5102	Literature Searching	2	O
CEPI 5203	Introduction to Systematic Reviews	2	O
CEPI 5211	Introduction to Genetic Epidemiology	2	F
CEPI 5303	Diagnostic and Screening Test (Part 1)	2	F, O
CEPI 5304	Diagnostic and Screening Test (Part 1 & 2)	6	F, O
CEPI 5306	Clinical Practice Guidelines	2	O
PUBH 5019	Cancer Prevention & Control	6	O
PUBH 5032	Making Decisions in Public Health	2	BM, O
PUBH 5309	Translational Health	2	BM
PUBH 5417	Injury Epidemiology Prevention & Control	4	O
BETH 5202	Human and Animal Research Ethics	6	BM, O
BETH 5203	Ethics and Public Health	6	BM, O
BETH 5208	Introduction to Human Research Ethics	2	BM, O
INFO 9003	Information Technology for Health Professionals	6	BM
SEMESTER ONE			
CEPI 5200	Quality and Safety in Health Care	6	O
CEPI 5205	Doing a Systematic Review	6	P
CEPI 5214	Writing and Reviewing Medical Papers	4	O
CEPI 5206	Introduction - Teaching Clinical Epidemiology	2	P
CEPI 5300	Health and Medical Research Grants: Theory and Practice	6	F, O
CEPI 5308	Patient Reported Outcomes Measurement	2	O

Table 5 cont.

CEPI 5505	Clinical Epidemiology Project 1	2	P
CEPI 5506	Clinical Epidemiology Project 2	4	P
PUBH 5018	Introductory Biostatistics	6	F, O
PUBH 5020	Chronic Disease Prevention and Control	6	O
PUBH 5500	Advanced Qualitative Health Research	6	BM
BETH 5201	Ethics & Biotechnology	6	F, O
BETH 5204	Clinical Ethics	6	BM, O

Unit of study outlines

CEPI5100

Introduction to Clinical Epidemiology

6 Credit Points

Dr Fiona Stanaway

Prohibition: PUBH5010 **Offered:** Semester 1, Semester 2
Classes: offered online or face-to-face (daytime tutorials).
Assessment: Completion of online quizzes (15%), tutorial participation (10%), 1x 2500word assignment 1 (15%), assignment 2 (60%)

This unit introduces the concept of clinical epidemiology and provides students with core skills in clinical epidemiology at an introductory level. Topics covered include asking and answering clinical questions; basic and accessible literature searching techniques; study designs used in clinical epidemiological research; confounding and effect modification; sources of bias; interpretation of results including odds ratios, relative risks, confidence intervals and p values; applicability of results to individual patients; critical appraisal of clinical epidemiological research literature used to answer questions of therapy (RCTs and systematic reviews), harm, prognosis, diagnosis, screening and clinical guidelines; and translating research into practice.

Textbooks: Online readings and other learning resources will be provided.

CEPI5102

Literature Searching

2 Credit Points

Dr Sarah White

Offered: Semester 1, Semester 2 **Classes:** offered online.
Assessment: completion of online quizzes (20%), 1x 2000word assignment (80%)

Students will learn how to formulate a searchable question; the pros and cons of different information sources; how to

structure an electronic database search; important fields in MEDLINE; useful practical tips for searching MEDLINE; methodological filters, journal citation reports, bibliometrics, and how to organise and manage references. The assignment requires students to demonstrate their search skills for clinical problems (marks allocated for how many relevant articles found, the content terms used, the methodological terms used, and the databases searched) and to demonstrate skills in the use of information tracking interfaces and Endnote.

Textbooks: Online readings and other learning resources will be provided.

PUBH5018

Introductory Biostatistics

6 Credit Points

Dr Kevin McGeechan and A/Prof Patrick Kelly

Offered: Semester 1 **Classes:** 2 x 2hr lecture, 10 x 1hr lectures, 11 x 2hr tutorials, 2 x 1hr and 8 x 0.5hr statistical computing self directed learning tasks over 12 weeks - lectures and tutorials may be completed online **Assessment:** 1x4 page assignment (30%) and 1x2.5hr open-book exam (70%). For distance students it may be possible to complete the exam externally with the approval of the course coordinator.

This unit aims to provide students with an introduction to statistical concepts, their use and relevance in public health. This unit covers descriptive analyses to summarise and display data; concepts underlying statistical inference; basic statistical methods for the analysis of continuous and binary data; and statistical aspects of study design. Specific topics include: sampling; probability distributions; sampling distribution of the mean; confidence interval and significance tests for one-sample, two paired samples and two independent samples for continuous data and also binary data; correlation and simple linear regression; distribution-free methods for two paired samples, two independent

samples and correlation; power and sample size estimation for simple studies; statistical aspects of study design and analysis. Students will be required to perform analyses using a calculator and will also be required to conduct analyses using statistical software (SPSS). It is expected that students spend an additional 2 hours per week preparing for their tutorials. Computing tasks are self-directed.

Textbooks: Course notes are provided.

CEPI5200 Quality and Safety in Health Care

6 Credit Points

Professor Merrilyn Walton

Assumed knowledge: clinical experience strongly recommended **Offered:** Semester 1 **Classes:** offered online **Assessment:** online participation (20%) and 4x1000 word assignment tasks (80%)

The unit has four major content areas delivered as modules covering: An understanding Q&S in Healthcare; Professional and ethical practice; Clinical governance; Improving Healthcare. At the end of the unit students will: understand the background to quality and safety in health care, from Australian and international perspectives; understand the nature of health care error including the methods of error detection and monitoring, and quality indicators; understand the role of good communication and other professional responsibilities in quality and safety in healthcare; have developed an understanding of clinical governance, accountability and systems management; have considered methods for improving healthcare such as getting research into practice, clinical practice guidelines and clinical practice improvement. This unit consists of online discussions and activities based around key provided readings and other resources.

Textbooks: Online readings and other learning resources will be provided.

CEPI5203 Introduction to Systematic Reviews

2 Credit Points

Dr Sharon Reid

Corequisite: CEPI5102 **Offered:** Semester 2a **Classes:** offered online **Assessment:** submission of weekly tasks and participation in discussion (18%) and assignment 1x 2500word report (82%)

Students will learn how to critically appraise a review of the effectiveness of an intervention; how to do a meta-analysis; how to weigh up benefits and harms (applicability); how to avoid misleading meta-analyses and how to find or do better systematic reviews. At the end of this unit, participants should be able to: search for systematic reviews; critically appraise reviews of randomised controlled trials, do a meta-analysis of randomised trials using available software; and use meta-analytic methods for weighing up benefits and harms of an intervention in individual patient management and

practice policy development. The assignment task involves: outlining a clinical or health policy decision; identifying a systematic review of randomized controlled trials; critically appraising a systematic review of randomized controlled trials; consideration of the applicability of the evidence and what additional information is required to better inform decision making.

Textbooks: Online readings and other learning resources will be provided.

CEPI5204 Advanced Systematic Reviews

2 Credit Points

A/Prof Lisa Askie

Corequisite: CEPI5203 **Prerequisite:** PUBH5211 **Offered:** Semester 2b **Classes:** (face to face) 1x2hr seminar/week for 6 weeks **Assessment:** critical appraisal assignment (50%), data analysis assignment (50%)

The aim of this unit is to critically appraise and apply, at an advanced level, the best evidence on systematic reviews. This unit extends beyond the 'Introduction to Systematic Reviews' unit by exploring in-depth important issues around systematic reviews. At the end of the unit, students should be able to understand the advantages of individual participant data meta-analyses; critically appraise a review of observational studies; understand differences in systematic review of observational studies compared with randomized trials; understand the potential pitfalls of meta-regression; perform and interpret a sub-group and meta-regression analysis; analyse continuous data and understand the methods by which missing data can be imputed; and understand the common problems in meta-analysis of continuous data. The seminar sessions are interactive and based on discussion of reading material. Two sessions are based in the computer lab.

Textbooks: Course notes are provided.

CEPI5205 Doing a Systematic Review

6 Credit Points

A/Prof Giovanni Strippoli

Corequisite: CEPI5102 **Prerequisite:** (CEPI5100 or PUBH5010) and PUBH5018 and CEPI5203 - Please speak to the Unit Coordinator if you have not successfully completed the prerequisite units prior to enrolling in CEPI5205 **Offered:** Semester 1, Semester 2 **Classes:** student project under supervision (can be studied by distance) **Assessment:** 1 x 3000 word systematic review (100%)

This project unit provides an opportunity to apply skills learnt in other units and further develop knowledge and skills by undertaking a systematic review (ideally including –but not necessarily so–a meta analysis/forest plots; preferentially a systematic review of randomised trials but also a systematic review of cohort studies may be undertaken) in a topic area nominated by the student. Students may select systematic reviews which generally involve small numbers of included

studies (6-10). The student will be supported by the unit coordinator, but the project will be student-driven. In order to define the question to be addressed in the systematic review, the student may need to select a clinical content area expert that may advise them about whether the topic would be appropriate and whether there is relevant literature and open questions that may be summarized and addressed in the systematic review. The assessment task is to undertake a systematic review and present the review in the form of a paper suitable for submission to a peer reviewed scientific, academic or professional journal. The study coordinator will supervise activities and will generally have 3 interactions with the student on the following: 1. Identifying the right questions; 2. providing input to a first draft; 3. providing input on a pre-final draft.

Textbooks: There are no essential readings for this unit.

CEPI5206 Intro Teaching Clinical Epidemiology

2 Credit Points

Dr Sharon Reid

Corequisite: CEPI5303 and CEPI5203 **Prerequisite:** CEPI5100 or PUBH5010 **Prohibition:** CEPI5207 **Offered:** Semester 1, Semester 2 **Classes:** student project under supervision. **Assessment:** course materials developed and evaluation report (100%)

The aim of this unit is to further students' knowledge and skills in teaching clinical epidemiology at an introductory level. Students have the opportunity to develop their own teaching modules based upon the modules they have been exposed to in the Clinical Epidemiology Program at the University of Sydney. There is no additional face-to-face teaching. Participants are expected to develop, teach and evaluate a clinical epidemiology module of at least 3 hours teaching time. Participants will use the unit coordinator as a supervisor for their work in this unit. By the end of this unit participants will have developed, delivered and evaluated a teaching module in Clinical Epidemiology by: developing materials about clinical epidemiology relevant to the target audience and setting; developed a method of teaching which is relevant to the target audience and setting; developing and using an assessment tool appropriate for the teaching module; developing and using a method of evaluation appropriate for the teaching module.

Textbooks: Recommended: Straus SE, Glasziou P, Richardson WS, Haynes RB. Evidence-base medicine. How to practice and teach EBM. 4th Edition, Churchill Livingstone, Edinburgh.

CEPI5207 Advanced Teaching Clinical Epidemiology

6 Credit Points

Dr Sharon Reid

Corequisite: CEPI5303 and CEPI5203 **Prerequisite:** CEPI5100 or PUBH5010 **Prohibition:** CEPI5206 **Offered:**

Semester 1, Semester 2 **Classes:** student project under supervision. **Assessment:** 1 x 2500 word essay, course materials developed and evaluation report (100%)

This unit aims to further participants knowledge and skills in teaching clinical epidemiology - at an advanced level. Participants have the opportunity to develop their own teaching modules based upon the modules they have been exposed to in the Clinical Epidemiology Program at the University of Sydney. There is no additional face-to-face teaching. Participants are expected to develop, teach and evaluate a clinical epidemiology module of at least 9 hours teaching time. They are also expected to nominate a topic in the area of Teaching Clinical Epidemiology and explore the area in an essay. By the end of this unit participants will have developed, delivered and evaluated a teaching module in Clinical Epidemiology by: developing materials about clinical epidemiology relevant to the target audience and setting; developed a method of teaching which is relevant to the target audience and setting; developing and using an assessment tool appropriate for the teaching module; developing and using a method of evaluation appropriate for the teaching module; explored, through an essay, an academic area of interest in Teaching Clinical Epidemiology.

Textbooks: Recommended: Straus SE, Glasziou P, Richardson WS, Haynes RB. Evidence-base medicine. How to practice and teach EBM. 4th Edition, Churchill Livingstone, Edinburgh.

CEPI5211 (TO BE RESTED IN 2016) Introduction to Genetic Epidemiology

2 Credit points

Dr Gabrielle Williams

Offered: Semester 2a **Classes:** face-to-face **Assessment:** 1x2000 wd assignment (70%) and class quizzes/presentations (30%)

This unit introduces the concepts and methodology used in genetic epidemiology. It begins with a refresher on molecular biology and genetics, followed by a survey of commonly used study designs. Practical implementation and statistical analysis of these studies will then be discussed. The unit concludes by exploring potential clinical and societal ramifications. By the end of this unit students will be able to critically appraise genetic epidemiological studies and act as informed research collaborators.

CEPI5214 Writing and Reviewing Medical Papers

4 Credit Points

A/Prof Angela Webster

Prerequisite: PUBH5018 and (CEPI5100 or PUBH5010). Please speak to the Unit Coordinator if you have not successfully completed these units prior to enrolling in CEPI5214. **Offered:** Semester 1, Semester 2 **Classes:** offered online - 8 self-paced modules each comprising: course notes, lecture, demonstrations, exercises, formative self-assessment and quizzes **Assessment:** Discussion board participation (5%), module based quizzes (25%), submitted

assignment (70%)

This unit aims to teach students the principles of research integrity in writing for medical journals, to guide them to resources to improve their conference abstract and manuscript writing and submission to a peer reviewed journal. Students will learn about reporting guidelines, common pitfalls in writing and presenting research, improving tables and figures for manuscripts, writing cover letters and responding to reviewer's comments. Students will learn skills needed to act as a peer-reviewer.

Textbooks: No mandatory text books - readings available online.

CEPI5300

Health and medical research grants: theory and practice

6 Credit Points

A/Prof Clement Loy

Corequisites: (CEPI5100 or PUBH5010) and PUBH5018
Prohibition: CEPI5505 **Offered:** Semester 1 **Classes:** 12 online or face-to-face sessions and 1 face-to-face workshop (June) **Assessment:** 1 x written research proposal (40%); online class presentations (30%); peer assessment (30%)

In this unit of study, the student will develop his/her own research proposal, to a standard suitable for a peer-reviewed granting body. Each section of a grant proposal (Aims, Background/Significance, Methods, Analysis) will be discussed, with the student presenting & refining the corresponding section of his/her own proposal in a synchronous online workshop setting. This will then be complemented by online presentations from experienced researchers on the practical aspects of clinical research, followed by synchronous online class discussion. Topics include: observational studies, randomized controlled trials, diagnostic test evaluation, qualitative studies, funding application, ethical approval, publication strategies and grant administration. The unit will conclude with a one-day, face-to-face, mandatory workshop- where students will learn about budgeting, peer review of research grants, and present his/her completed research proposal.

CEPI5303

Diagnostic and Screening Tests (Part 1)

2 Credit Points

A/Prof Clement Loy

Prerequisite: CEPI5100 or PUBH5010 **Prohibition:** PUBH5208 (previous UoS), CEPI5202, CEPI5304 **Offered:** Semester 2 **Classes:** 1x2hr seminar/week for 6 weeks, online (synchronous online webinars) or face-to-face **Assessment:** abridged critical appraisal (30%), written assignment (70%)

This unit of study introduces the student to basic concepts behind diagnostic and screening tests, including: test accuracy, sources of bias in test evaluation, critical appraisal of test evaluation studies, principles and use of evidence in making decisions about population screening. After completing this unit of study, the student should have a basic understanding of contemporary issues and the methodology underlying, diagnostic and screening test evaluation & application.

CEPI5304

Diagnostic and Screening Tests (Part 1 & 2)

6 Credit Points

A/Prof Clement Loy

Prerequisite: CEPI5100 or PUBH5010 **Prohibition:** PUBH5208 (previous UoS), CEPI5202, CEPI5303 **Offered:** Semester 2 **Classes:** 1x2hr seminar/week for 13 weeks, online (synchronous online webinars) or face-to-face **Assessment:** Critical appraisal (10%), class discussion/presentations (40%) and two written assignment (50%)

This unit of study introduces the student to basic concepts behind diagnostic and screening tests, including: test accuracy, sources of bias in test evaluation, critical appraisal of test evaluation studies, principles and use of evidence in making decisions about population screening. It will then move to more advanced topics including: application of test results to individual patients, place of tests in diagnostic pathways, impact of tests on patient outcome, tests with continuous outcome, receiver-operator characteristic curves, systematic review of diagnostic tests, predictive models, monitoring, diagnostic tests in the health system, and over-diagnosis. After completing this unit of study, the student should have a comprehensive understanding of contemporary issues and the methodology underlying, diagnostic and screening test evaluation & application.

CEPI5305

Translating Research Into Practice

2 Credit Points

A/Prof Clement Loy

Prerequisite: (CEPI5100 or PUBH5010) and PUBH5018 **Offered:** BM May **Classes:** Block mode (2x 1day) **Assessment:** class presentations (15%) and 1x essay (85%)

Generally speaking, implementation of research evidence into clinical practice is slow and incomplete. For instance, about 30% of patients do not receive treatment of proven effectiveness, while 20% receive treatments which are unnecessary or potentially harmful. This unit of study aims to help you translate research findings into clinical practice in your workplace. Before the first workshop, you will be asked to identify an evidence-practice gap in your area of clinical practice. In the workshop we will provide you with a theoretical framework for implementing change in clinical practice, and work through barriers to, and enablers for change. We will then review effective strategies for change implementation, and look at some real life examples. We will discuss methods for measuring the effectiveness of change implementation, and for identifying problems during implementation. By the end of this unit of study, you will be able to plan and carry out a knowledge implementation project.

NB. Students enrolled in this unit of study should have had some work experience in the health care setting.

Textbooks: Grol R, Wensing M, Eccles M. Improving patient care: the implementation of change in clinical practice. Elsevier, Edinburgh 2005.

CEPI5306 Clinical Practice Guidelines

2 Credit Points

Dr Martin Howell

Assumed knowledge: clinical experience strongly recommended **Offered:** Semester 2a **Classes:** offered online **Assessment:** 1 x 4-page critical appraisal and barriers assessment (50%), online discussions and quizzes (50%)

During this unit students will evaluate guideline development; critical appraisal of guidelines; introduction to implementation and evaluation of guidelines; involvement of consumers in guidelines; examination of hospital-based and community-based guidelines. Group and individual critical appraisal work is required.

Textbooks: Online readings and other learning resources will be provided.

CEPI5308 Patient-Reported Outcomes Measurement

2 Credit Points

Professor Madeleine King

Offered: Semester 1b **Classes:** online learning, expected student effort: 6-8 hours per week including 1.5 hour online lecture, readings and quizzes each week for six weeks **Assessment:** completion of online quizzes (25%), 1x3300 word assignment (75%)

The aim of this unit is to enable students to appraise patient-reported outcome measures (PROM) and incorporate them into clinical research. PROMs include: symptoms, side-effects, health-related quality of life, satisfaction and preferences. Topics include: definitions, structure and functions of PROMs; item-generation and selection; questionnaire design; assessing validity, reliability and responsiveness to clinically important change; utilities and preferences; developing and appraising studies using PROMs. The online sessions comprise six lectures outlining the principles, with illustrative examples (approx 90 minutes per lecture), plus a series of 5 related quizzes (approx 30 minutes). The written assignment may be one of four options (student's choice): 1) a protocol for the development and validation of a new PROM; 2) a protocol for the revalidation of an existing PROM in a population in which it has not previously been validated; 3) a protocol for application of an existing PROM for a specific purpose in a specific patient population and clinical context; 4) an appraisal of the application of an existing PROM as an outcome in a clinical study.

Textbooks: Course notes are provided. Streiner DL, Norman GR. Health Measurement Scales: a practical guide to their development and use. 4th Ed. Oxford University Press, 2008. (course textbook)

CEPI5310 Advanced Statistical Modelling

4 Credit Points

A/Prof Patrick Kelly

Prerequisite: PUBH5212 **Offered:** Semester 1 **Classes:**

2hr lec/tut/week x 12 weeks, also offered fully online. **Assessment:** 2 x data analysis report (2x50%)

This unit covers statistical analysis techniques that are commonly required for analysing data that arise from clinical or epidemiological studies. Students will gain hands on experience applying model-building strategies and fitting advanced statistical models. In particular, students will learn a statistical software package called Stata, how to handle non-linear continuous variables, and how to analyse correlated data. Correlated data arise from clustered or longitudinal study designs, such as, cross-over studies, matched case-control studies, cluster randomised trials and studies involving repeated measurements. Statistical models that will be covered include fixed effects models, marginal models using Generalised Estimating Equations (GEE), and mixed effects models (also known as hierarchical or multilevel models). This unit of study focuses on data analyses using Stata and the interpretation of results.

Textbooks: No mandatory text books. Course notes are provided.

CEPI5505 Clinical Epidemiology Project 1

2 Credit Points

Prof Jonathan Craig

Prerequisite: (CEPI5100 or PUBH5010) and PUBH5018 and CEPI5102 **Prohibition:** CEPI5300 **Offered:** Semester 1, Semester 2 **Classes:** student project under supervision, and two half-day workshops **Assessment:** 3 meetings with supervisor (face to face or distance) and 1 x 2000word assignment

This unit provides students with an opportunity to develop a Clinical Epidemiology study proposal under supervision. The proposal will include: background to the project; project plan; project significance; justification of the project; project method; budget; and ethical implication of project. At the end of the unit, the student will be proficient in writing research proposals suitable for submission to an appropriate funding body. Student assignment involves writing a study proposal suitable for submission to a funding body. This project unit is a capstone unit and student driven. It is the responsibility of the student to identify a suitable project, in consultation with a local clinical supervisor and the unit coordinator, based upon area of interest to the student and local capacity to provide support to the student. Supervision is flexible and could include face to face meetings, email and telephone support. A minimum of three meetings are required, to be organised by the student, coinciding with the development of the project, a draft proposal and a near-final proposal. Two half-day workshops will also be held, one at the beginning and one at the end of semester.

Textbooks: There are no essential readings for this unit.

CEPI5506 Clinical Epidemiology Project 2

4 Credit Points

Prof Jonathan Craig

Corequisite: CEPI5300 or CEPI5505 **Prerequisite:** (CEPI5100 or PUBH5010) and PUBH5018 and CEPI5102

Offered: Semester 1, Semester 2 **Classes:** student project under supervision, and two half-day workshops **Assessment:** One 4000 word assignment (100%)

The aim of this unit is to conduct a clinical epidemiology project and write a report on the project in the form of a paper suitable for publication. The project will involve: refining the project proposal; data collection; data analysis; and produce a report suitable for publication. At the end of the unit, the student will be proficient in conducting and writing a report of a clinical epidemiology project. The report should be suitable for publication in a peer reviewed journal. This project unit is a capstone unit and student driven. It is the responsibility of the student to identify a suitable project, in consultation with a local clinical supervisor and the unit coordinator, based upon area of interest to the student and local capacity to provide support to the student. Feasibility is a critical criteria for selection of the topic given the tight time frame. Supervision is flexible and could include face to face meetings, email and telephone support. A minimum of three meetings are required, to be organised by the student, coinciding with the development of the project, a draft proposal and a near-final proposal. Two half-day workshops will also be held, one at the beginning and one at the end of semester.

Textbooks: There are no essential readings for this unit.

PUBH5019 **Cancer Prevention and Control**

6 Credit Points

Dr Monica Robotin

Prerequisite: PUBH5010 or CEPI5100 **Offered:** Semester 2 **Classes:** 24 hours online lectures, 15 hours online discussions **Assessment:** 2 assignments (65%), 8 online tutorials (30%), 1 reflective piece (5%)

This unit aims to provide students with specific information on the concepts, methods and applications underpinning cancer prevention and control at population level. It is designed to address specific educational needs of students in various programs within the School of Public Health and to offer a broad-based perspective on cancer control, ranging from primary prevention, screening and early intervention, tertiary prevention and palliative care. Emphasis will be given to cancers with the greatest impact at population level and where evidence demonstrates that policies and interventions are capable of reducing cancer incidence, mortality, prolonging survival and improving quality of life. Although focusing on specific Australian conditions, the information will be presented in the context of regional and global cancer control efforts. At the completion of the unit, students will be equipped with the basic tools to design, plan, implement and evaluate cancer control programs in Australia or other countries.

Textbooks: Readings for this unit will be available on the eLearning site.

PUBH5020 **Chronic Disease Prevention and Control**

6 Credit Points

Dr Monica Robotin

Prerequisite: PUBH5010 or CEPI5100 **Offered:** Semester 1 **Classes:** 24 hrs online lectures; 12 hrs online discussions **Assessment:** assignments (70%), on-line discussions (30%)

This course offers a broad-based integrated perspective on chronic disease prevention. The course reviews the epidemiology of selected chronic diseases with the highest impact at population level in Australia (cardiovascular diseases; cancer; chronic lung disease; diabetes and chronic renal disease). The information will focus on Australian settings, but presented within the context of a regional perspective of chronic disease prevention.

Teaching will focus on the interrelationships between the biological and epidemiological aspects of chronic diseases, the interplay between determinants of health and chronic disease, and the balance between high risk and population based strategies for reducing disease burden, and exploring their applicability to disease prevention. Students will be involved in evaluating the effectiveness of different prevention strategies and will examine the role of health policy in developing effective and sustainable chronic disease management programs in different settings (in Australia and the region).

Textbooks: Readings for this unit will be available on the eLearning site.

PUBH5032 **Making Decisions in Public Health**

2 Credit Points

Dr James Gillespie

Offered: Semester 2 **Classes:** 2-day workshop; fully online version available **Assessment:** Written assignment of 2000 words (100%)

This unit introduces students to the methods by which evidence is translated, used and abused when governments make decisions affecting public health. Students will become familiar with the main tools used by health economists and policy analysts. The unit will emphasize the role of different forms of evidence and values for priority-setting and policy-making.

Unit technical content is unified by common themes and case studies. Students will apply methods and principles of health economics e.g. resource scarcity, opportunity cost, efficiency and equity to practical real-life examples (including specific indigenous health issues) to critically consider the role of economic evidence in health decision-making in Australia.

Students will then use policy analysis methods to critically examine the Australian health care system and decision-making in public health. The unit will pay particular attention to questions of power and equity, including the position of indigenous peoples. Finally, it will look at how evidence is framed and used in decision-making.

Teaching will make use of contemporary case studies so students learn how technical analytical tools are used in

practical examples of policy development, decision-making and public debate.

The unit gives public health students an essential basic knowledge of both disciplines (health economics and health policy) and lays the groundwork for more advanced studies.

PUBH5205 Decision Analysis

2 Credit Points

Dr Andrew Martin, Professor John Simes, Dr Deme Karikios

Prerequisite: PUBH5018 and (CEPI5100 or PHUB5010)

Assumed knowledge: Recommended: PUBH5302 Health Economic Evaluation **Offered:** Semester 2b **Classes:** Six 2 hour sessions (comprising lectures and computer practicals) **Assessment:** 1 x quiz (20%) and 1 written assignment (80%)

This unit examines quantitative approaches to public health and clinical decision-making. Topics of study include: decision trees and health-related utility assessment; incorporating diagnostic information in decision making; sensitivity and threshold analysis; and application of decision analysis to economic evaluation. Students gain practical skills using decision analysis software via computer practicals undertaken within Sessions 4 and 5. The assessment quiz (20%) is conducted in the first part of Session 5. Exercises are set at the end of most sessions and are reviewed at the start of the following session. Readings are also set after most sessions. Preparation time for each session is 1-2 hours.

PUBH5206 Controlled Trials

2 Credit Points

Dr Andrew Martin, Ms Liz Barnes, Dr Chee Lee

Prerequisite: PUBH5018 **Offered:** Semester 2 **Classes:** 2 x 1 day workshops or online **Assessment:** 2 x online short answer/multiple choice quizzes (2x20%), and a take-home exam (60%)

This unit introduces the principles underpinning the design and conduct of high quality clinical trials to generate good evidence for health care decision making. The topics include clinical trial design, randomization, sample size, measures of treatment effect, methodological issues, trial protocols, and ethical principles. The unit is delivered over 2 full days via formal lectures followed by practical sessions. Lecture notes will be provided.

Textbooks: Recommended: Keech A, GebSKI V, Pike R. Interpreting and reporting clinical trials: a guide to the CONSORT statement and the principles of randomised controlled trials. Sydney: Australasian Medical Publishing Company; 2007

A list of suggested readings associated with the course will be provided to students for their interest in the course notes.

PUBH5211 Multiple Regression and Stats Computing

4 Credit Points

A/Prof Patrick Kelly

Prerequisite: PUBH5018 **Offered:** Semester 2 **Classes:** 2hr per week for 13 weeks. This unit may be undertaken in face to face or online/distance mode. All students must have access to a computer with Microsoft Windows 7 or later and a good internet connection. **Assessment:** 1x 4 page assignment (30%) and 1x 10 page assignment (70%)

Students will learn how to analyse data using multiple linear regression. Multiple linear regression is a powerful statistical method for analysing a continuous outcome variable with several explanatory variables. In particular, this unit will cover how to compare more than two groups, adjust for confounders, test for effect modification, calculate adjusted means, conduct appropriate model checking, and teaches strategies for selecting the 'best' regression model. Students will learn how to apply these methods using the statistical package called SAS.

In this unit, each topic is covered by a one hour statistics lecture, a one hour SAS lecture, a one hour SAS practical and a one hour statistics tutorial to discuss the interpretation of the results. Each fortnight there is an exercise on the material covered in the statistics lecture. The SAS practical covers the necessary statistical computing to answer the questions for the tutorial the following week. The assignments will involve practical analysis and interpretation of a data set.

This unit is the prerequisite for learning other types of regression models, such as logistic regression (PUBH5212) and survival analysis (PUBH5213).

Textbooks: Course notes are provided.

PUBH5212 Categorical Data Analysis

2 Credit Points

Dr Kevin McGeechan

Corequisite: PUBH5211 **Prerequisite:** PUBH5018 **Offered:** Semester 2b **Classes:** 1 x 2hr lecture, 5 x 1hr lectures, and 5 x 1hr tutorials over 6 weeks. Also available online - such students must have access to a computer with Microsoft Windows 7 or later and a good internet connection. **Assessment:** 1x 3 page report (30%) and 1x 8 page report (70%)

In this unit the biostatistical concepts covered in earlier units are extended to cover analysis of epidemiological studies where the outcome variable is categorical. Topics of study include: testing for trend in a 2 x r contingency table; the Mantel-Haenszel test for the combination of several 2 x 2 tables, with estimation of the combined odds ratio and confidence limits; multiple logistic regression; Poisson regression; modelling strategy. The assignments will involve practical analysis and interpretation of categorical data. Data analyses will be conducted using statistical software (SAS).

Textbooks: Course notes are provided.

PUBH5213 Survival Analysis

2 Credit Points

Dr Tim Schlub

Corequisite: PUBH5211 **Offered:** Semester 2b **Classes:** 1 x 1hr lecture and 1 x 1hr tutorial per week for six weeks both face to face and distance mode. Students studying in distance mode must have access to a computer running Microsoft Windows. **Assessment:** 1x 3 page assignment (20%) and 1x 10 page assignment (80%)

During this unit, students learn to analyse data from studies in which individuals are followed up until a particular event occurs, e.g. death, cure, relapse, making use of follow-up data also for those who do not experience the event. This unit covers: Kaplan-Meier life tables; logrank test to compare two or more groups; Cox's proportional hazards regression model; checking the proportional hazards assumption; and sample size calculations for survival studies. For each topic participants are given some material to read beforehand. This is followed by a lecture, then participants are given one or two exercises to do for the following week. These exercises are discussed in the tutorial at the next session before moving on to the next topic. That is, in most weeks the first hour is a tutorial and the lecture is given in the second hour. Participants are expected to run SAS programs in their own time. Preparation time for each session is 2-3 hours. The assignments both involve use of SAS to analyse a set of survival data.

Textbooks: Course notes are provided.

PUBH5215 Introductory Analysis of Linked Data

6 Credit Points

Professor Judy Simpson

Prerequisite: (PUBH5010 or BSTA5011 or CEPI5100) and (PUBH5211 or BSTA5004) **Offered:** Intensive June & Intensive November **Classes:** block/intensive mode 5 days 9am-5pm **Assessment:** Workbook exercises (30%) and 1x assignment (70%)

This unit introduces the topic of linked health data analysis. It will usually run in late June and late November. The topic is a very specialised one and will not be relevant to most MPH students. The modular structure of the unit provides students with a theoretical grounding in the classroom on each topic, followed by hands-on practical exercises in the computing lab using de-identified linked NSW data files. The computing component assumes a basic familiarity with SAS computing syntax and methods of basic statistical analysis of fixed-format data files. Contents include: an overview of the theory of data linkage methods and features of comprehensive data linkage systems, sufficient to know the sources and limitations of linked health data sets; design of linked data studies using epidemiological principles; construction of numerators and denominators used for the analysis of disease trends and health care utilisation and outcomes; assessment of the accuracy and reliability of data sources; data linkage checking and quality assurance of the study process; basic statistical analyses of linked

longitudinal health data; manipulation of large linked data files; writing syntax to prepare linked data files for analysis, derive exposure and outcome variables, relate numerators and denominators and produce results from statistical procedures at an introductory to intermediate level. The main assignment involves the analysis of NSW linked data, which can be done only in the School of Public Health Computer Lab, and is due 10 days after the end of the unit.

Textbooks: Notes will be distributed in class.

PUBH5224 Advanced Epidemiology

6 Credit Points

Professor Tim Driscoll

Prerequisite: PUBH5010 or CEPI5100 **Offered:** Semester 2 **Classes:** Weekly on-line plus two optional half-day workshops. **Assessment:** Multiple Choice Questions (Prober) and Course Assessment (MCQ) both 10% (ungraded, full marks for completion); creation of an original Annalisa Decision Aid with 1500-2000 word Report (80%)

This unit of study is intended for students who have completed Epidemiology Methods and Uses (or an equivalent unit of study) at a credit or higher level. It is designed to provide students with an opportunity to consolidate critical appraisal skills, to acquire the practical knowledge and skills needed to design epidemiological research, and to extend students' theoretical knowledge of epidemiology beyond basic principles.

PUBH5302 Health Economic Evaluation

4 Credit Points

Dr Alison Hayes

Prerequisite: (PUBH5010 or CEPI5100 and PUBH5018) or (HPOL5001 as a prerequisite and HPOL5003 as a co-requisite) **Offered:** Intensive September **Classes:** 2x 2day compulsory workshops **Assessment:** assignment 1 (40%), assignment 2 (60%)

This unit aims to develop students' knowledge and skills of economic evaluation as an aid to priority setting in health care. This unit covers: principles of economic evaluation; critical appraisal guidelines; measuring and valuing benefits; methods of costing; modeling in economic evaluation. The workshops consist of interactive lectures, class exercises.

Textbooks: A course manual will be provided to each student.


PUBH5307 Advanced Health Economic Evaluation

2 Credit points

TBA

Offered: Intensive October **Classes:** 1 x 2day compulsory workshop **Prerequisites:** PUBH5018 and PUBH5010 or CEPI5100 **Corequisites:** PUBH5205 and PUBH5302 **Assessment:** 1x written assignment (100%)

Note: Coordinator permission required for enrolment.

A portrait of a woman with blonde hair, wearing a black graduation cap and gown. She is smiling and looking towards the camera. The background is a blurred brick wall. A dark grey rectangular box containing a quote is positioned on the lower left, and an orange rectangular box with her name and degree is on the lower right.

“I have now acquired the skills to rapidly appraise published research for validity, and this is important to help me decide which research could be applied to my patients. I have also learned the skills to undertake a systematic review, and plan to do more of these in the future..”

SUZANNE
MASTER OF MEDICINE
(CLINICAL EPIDEMIOLOGY)

The aims of this unit are to provide students with an understanding of the concepts, application and analytical techniques of more advanced methods of health economic evaluation and with practical working knowledge of how to conduct economic evaluations using stochastic and deterministic data. This unit will focus on students developing the hands-on skills of conducting economic evaluations, included detailed practical instruction in the use of decision analytic software such as TreeAge and Excel. The format will be in face to face workshops with lectures followed by computer based exercises directly relating to the lectures. The broad topic areas covered are: 1) analysis of health outcomes including survival and quality of life measures 2) analysis of costs 3) economic modeling, including conduct of sensitivity analyses (one way, multi-way and probabilistic sensitivity analysis) and 4) presenting and interpreting results of cost effectiveness analyses.

PUBH5309 Translational Health

2 Credit Points

Emeritus Professor Jack Dowie, Professor Glenn Salkeld

Offered: Semester 2 **Classes:** Weekly on-line plus two optional half-day workshops. **Assessment:** Multiple Choice Questions (Prober) and Course Assessment (MCQ) both 10% (ungraded, full marks for completion); creation of an original Annalisa Decision Aid with 1500-2000 word Report (80%)

Translational Health introduces the main existing translational methods and models in healthcare, most of which focus on 'knowledge translation' and 'bringing evidence into practice', i.e. on moving results from the basic sciences through clinical and public health science and guidelines into clinical and public health decision and policy making. Most of these models diagnose the problem of 'loss in translation' in terms of institutional and professional barriers and blocks along the translation pathways. While acknowledging these, Translational Health focuses on the modelling method - the 'language' and 'vocabulary' - most likely to perform the translation task effectively in relation to patient-centered practice. The technique underlying the method is Multi-Criteria Decision Analysis (in contrast to conventional Decision Analysis) and the template for its practical implementation is the Annalisa 2.0+ software. It is shown how high quality clinical and public health decision making needs to be based on 'values translation' as well as 'knowledge translation'. And how the approach can facilitate the desirable 'backwards translation' to ensure research is practice-relevant in both content and format. Students choose from a set of topics within which to pursue the principles, follow empirical examples and develop their own analyses in a practicum.

PUBH5417 Injury Epidemiology Prevention & Control

4 Credit Points

Dr Lisa Keay

Offered: Semester 2 **Classes:** Online lectures and moderated discussions over 13 weeks (workload 6-8hr/week) **Assessment:** 1x 4000 word assignment (60%) and participation in two moderated online discussions (40%)

This one-semester online unit teaches students about the principles of injury epidemiology, prevention and control. It provides a basis for the assessment and investigation of injury issues and the development, implementation and evaluation of injury prevention programs. The unit will cover: injury measurement and classification (descriptive methods); risk factor identification (analytic methods); evidence-based interventions for injury prevention; priority setting in injury control; injury prevention policy; strategies in injury control; implementing strategies in injury control; program evaluation in injury prevention; injury and Indigenous Australians and an international perspective on injury. During this unit, students will: gain an understanding of the epidemiology of injury, including the burden of injury, injury surveillance, methods for estimating the frequency and severity of injury, and methods for identifying risk factors; gain an understanding of the theories underpinning injury prevention and illustrate their application; develop an appreciation of the process of priority setting in injury, the design and implementation of injury prevention interventions, and the principles and conduct of evaluations.

Textbooks: Lecture notes, case studies and journal articles will be provided online from a password-protected site. Recommended text: McClure R, Stevenson M, McEvoy S. The Scientific Basis of Injury Prevention and Control. Melbourne: IP Communications, 2004.

PUBH5422 Health and Risk Communication

6 Credit Points

Dr Claire Hooker, A/Prof Julie Leask, Professor Phyllis Butow

Offered: Semester 2 **Classes:** Block / intensive - 5 days Monday - Friday

Online activities **Assessment:** Assignment 1 x 3000 word (55%), Assignment 2 x 2000 words (35%), Pre-block online activities (10%)

In this unit, students will develop a critical awareness of the determinants of effective communication, particularly in relation to health risks to the individual and to society.

The first half covers individual health risk communication in clinical settings, including: theories of health communication, patient centred care and shared decision making; evidence-based communication skills; research paradigms including interaction analysis; cross-cultural communication in health care; discussing prognosis and informed consent. The second half explores risk communication for public health. We teach theories of risk perception and communication with particular application to public health incident responses. We give practical guides to media messages, risk message framing, public engagement, traditional and social media, and the ethical aspects of public communication. The unit offers students the opportunity to learn from outstanding guest lecturers who work in these areas and interactive opportunities for students to try their skills in risk communication and decision making.

Textbooks: Readings will be provided

PUBH5500 Advanced Qualitative Health Research

6 Credit Points

Dr Julie Mooney-Somers

Prohibition: QUAL5005 **Offered:** Intensive March/April
Classes: 2x3 full day workshop **Assessment:** interviewing activity with reflection (35%); 2500wd essay (35%); multiple choice quizzes (2x10%); in-class participation (10%)

This unit of study provides a comprehensive introduction to qualitative inquiry in health. It is designed for beginners and people who want an advanced-level introduction. Over the course of the unit we will address: What is qualitative research? How is it different from quantitative research? What is its history? What research problems can it address? How do I design a qualitative study? What are the different (and best) ways to generate data? How do you analyse qualitative data? Is methodology different to method? What are ontology and epistemology? What is reflexivity (and aren't qualitative researchers biased)? What are the ethical issues? What is good quality qualitative research? Can I generalise qualitative findings? You will get practical experience and skills through carrying out an observation, participating in a focus group, conducting an interview, analysing data, arguing for qualitative research in health, and appraising the quality of published literature. In both workshops you will meet working qualitative researchers and hear about their projects. This advanced unit will show you a new way of thinking critically about research and researching, and give you the skills and confidence to begin evaluating and doing qualitative research for yourself.

BETH5201 Ethics and Biotechnology

6 Credit Points

Dr Ainsley Newson

Offered: Semester 1 **Classes:** 6x2hr seminars & 1x8hr intensive; or fully online. Attendance is compulsory if enrolled in face-to-face mode. **Assessment:** 2x400wd tasks (2x10%); 1x1500wd essay (30%); 1x2500wd essay (40%); participation in seminars or online (10%)

This unit of study introduces students to the ethical, social and legal issues that underlie a wide range of biotechnologies, including: genetics, genomics, human reproduction, stem cell research, nanotechnology and emerging biotechnologies. Key concepts influencing debates in this area are covered, such as 'procreative beneficence', personhood, risk, consent, public engagement, and property in the body (including gene patenting). Topical case studies are included to keep up with recent developments in the field. Students will explore the ethical limits to research and knowledge in biotechnology.

All assessments must be completed to pass this Unit.

Textbooks: All readings are accessed online via elearning.

N.B If an insufficient number of students opt to attend seminars on campus, the co-ordinator may choose to teach this Unit of Study in online mode only.

BETH5202 Human and Animal Research Ethics

6 Credit Points

Dr Ainsley Newson

Offered: Semester 2 **Prohibition:** BETH5208 **Classes:** 4x8hr intensive or online. Attendance is compulsory if enrolled in face-to-face mode. **Assessment:** Continuous assessment (short weekly tasks) (10%); 'Best 3' short weekly tasks (10%); 1x1500wd essay (30%); 1x2500wd essay (50%)

This unit of study critically examines research ethics in its wider context, from structuring research to its dissemination. It explores the ethical underpinnings of a variety of research methods and their use in humans and non-human animals including the justifications for engaging in research, key concepts in research ethics and research integrity. The unit also reviews the history of research and the impact of research abuse on participants, both human and animal.

All assessments must be completed to pass this Unit.

Textbooks: All readings are made available via elearning.

BETH5203 Ethics and Public Health

6 Credit Points

A/Prof Stacy Carter

Prerequisite: A three-year undergraduate degree in science, medicine, nursing, allied health sciences, philosophy/ethics, sociology/anthropology, history, or other relevant field, or by special permission. **Prohibition:** BETH5206 **Offered:** Semester 2 **Classes:** 5x8hr Intensives; or Distance Education (online). Attendance is compulsory if enrolled in face-to-face block mode. **Assessment:** 5xOnline Quiz (50%); 1x2500wd essay (50%)

This unit provides students with an overview of the ethical and political issues that underlie public health and public health research. The unit introduces key concepts in public health ethics including liberty, utility, justice, paternalism, solidarity and reciprocity, and introduces students to different ways of reasoning about the ethics of public health. A critical history of public health and an examination of public health law provide important context. Students also explore the ethical dimensions of central public health problems, including modifying lifestyles, managing communicable diseases, screening and overdiagnosis, researching communities, responding to global health challenges and using evidence. Throughout, the emphasis is on learning to make sound arguments about the ethical aspects of public health policy, practice and research. Most learning occurs in the context of five teaching intensives, which are highly interactive and focus on the development and application of reasoning skills.

Textbooks: Students are provided with a list of readings (in digital format).

BETH5204 Clinical Ethics

6 Credit Points

Dr Ainsley Newson

Offered: Semester 1 **Classes:** 4x8hr Intensives or Distance Education (online). Attendance is compulsory if enrolled in face-to-face mode. **Assessment:** 1x1500wd case study (30%); 1x2500wd essay (50%); continuous assessment (short weekly tasks) (10%); 'Best 3' short weekly tasks (10%).

This unit will provide students with an overview of the ethical issues that underlie the delivery of healthcare. Students will explore: major conceptual models for ethical reasoning in the clinical context; key ethical concepts in the clinical encounter (such as consent, professionalism and confidentiality); major contexts in which ethical issues arise in clinical practice; and the role of clinical ethics consultation. The unit will also consider specific issues and populations within clinical practice, such as ethical aspects of healthcare at the beginning and end of life. Learning activities will include lectures (in an intensive format), facilitated discussion, case study activities, readings and weekly discussions.

All assessments must be completed to pass this Unit.

Textbooks: All readings are accessed online via elearning.

BETH5208 Introduction to Human Research Ethics

2 Credit Points

Dr Ainsley Newson

Prohibition: BETH5202 **Offered:** Semester 2 **Classes:** Block mode (1.5 days) and online **Assessment:** 1x1500wd essay (80%); 1x 300wd task (10%); participation in class/online (10%)

This unit of study introduces students to human research ethics in its wider context. It explores the ethical underpinnings of the research endeavour including the justifications for engaging in research and research integrity. The unit also reviews the history of research and the impact of research abuse on human participants.

Textbooks: All readings are accessed online via elearning.

QUAL5002 Qualitative Methodologies & Study Design

6 Credit Points

Dr Julie Mooney-Somers

Corequisite: PUBH5500 **Assumed knowledge:** Basic understanding of the nature of qualitative knowledge and the processes of qualitative research. **Offered:** Intensive May **Classes:** 2x3 full day workshop **Assessment:** group presentation (2x15%); peer review (2x10%); 4000wd assignment (50%)

Qualitative methodologies are historical traditions and systems for planning and justifying research methods. This intermediate unit assumes a basic understanding of qualitative research and focuses on qualitative methodologies. Qualitative methodologies are informed by theories from sociology, anthropology, philosophy and other disciplines. They shape the research questions, objectives, design and outcome of a qualitative study. This course begins with general principles of qualitative methodology and study design. We examine several qualitative methodologies in detail, including:

narrative inquiry, community based participatory research, ethnography, grounded theory, arts-based, and qualitative synthesis. We consider their historical and theoretical roots, the research practices they encourage, and their current status. The final session considers how we can use methodologies as resources rather than recipes, maintaining both flexibility and coherence in our study designs.

NB: Departmental permission is required for students who have not completed PUBH5500.

INFO 9003 Information Technology for Health Professionals

6 Credit Points

A/Prof Simon Poon, A/Prof Clement Loy

Offered: Intensive September **Classes:** Block mode **Assessment:** assignment (30%), lab skills (20%), final exam (50%)

Information technologies (IT) and systems have emerged as the primary platform to support communication, collaboration, research, decision making, and problem solving in contemporary health organisations. The essential necessity for students to acquire the fundamental knowledge and skills for applying IT effectively for a wide range of tasks is widely recognised. This is an introductory unit of study which prepares students in the Health discipline to develop the necessary knowledge, skills and abilities to be competent in the use of information technology for solving a variety of problems. The main focus of this unit is on modelling and problem solving through the effective use of using IT. Students will learn how to navigate independently to solve their problems on their own, and to be capable of fully applying the power of IT tools in the service of their goals in their own health domains while not losing sight of the fundamental concepts of computing.

Students are taught core skills related to general purpose computing involving a range of software tools such as spreadsheets, database management systems, internet search engine. Students will undertake practical tasks including scripting languages and building a small scale application for managing information. In addition, the course will address the issues arising from the wide-spread use of information technology in a variety of Health area.

Textbooks: Students are expected to purchase a guided learning workbook developed for this unit of study.

1a – first half of semester 1

1b – second half of semester 1

2a – first half of semester 2

Sb – second half of semester 2



SCHOOL OF
PUBLIC HEALTH AND
TROPICAL MEDICINE

(L-R) CLEMENT LOY, FIONA
STANAWAY, KENJI (STUDENT),
SHARON REID, KAROLINA
KULCZYNSKA-LE BRETON

Changing your enrolment



Sydney Student

Sydney Student is the University's online student self-administration service. It is your own secure and private portal in which you will manage most of the admin relating to your studies.

Sydney Student means you will have:

- one central, University-wide student administration system
- consistent administration processes across all faculties and schools
- reliable and secure 24/7 online access to self-manage your candidature
- improved access to online information and services
- user-friendly administrative support
- less paperwork
- the ability to make requests, as well as track progress from submission to approval.

You can access student administration through MyUni and you can find out more about student administration here: http://sydney.edu.au/current_students/student_administration/sydney_student.shtml

Download a guide to selecting units of study in **Sydney Student** (PDF 311KB)

Unit of study variations

You can add, withdraw and discontinue from units of study online through Sydney Student by the relevant deadline. Please note discontinuation from a subject after the census incurs a financial liability and the unit will remain on your transcript, possibly with a fail grade.

If you are thinking of making changes to your enrolment, for example, dropping subjects or withdrawing from your program, please be sure to do so before the Census Date. To find out what the census dates are for each session, please go to: web.timetable.usyd.edu.au/censusDates.jsp

Candidature variations

If you need to vary or alter your enrolment, for instance by changing from full-time to part-time enrolment, please visit the Sydney Medical School coursework candidature changes page on the website, here:

sydney.edu.au/medicine/current-students/enrolment-variations/postgraduate/candidature-changes.php



Suspending your candidature

If you have to interrupt your candidature at any time after you have enrolled and commenced you must apply to suspend your candidature. Suspension of candidature is permitted for two semesters or, in exceptional circumstances, for three semesters. Requests for suspension must be made in advance and not retrospectively, and reasons for the suspensions must be given. All students wishing to suspend their candidature should read the policy, and check here: sydney.edu.au/medicine/current-students/enrolment-variations/postgraduate/candidature-changes.php

Please note that if you do not notify the Postgraduate Student Administration Unit of your wish to suspend, and simply fail to re-enrol, your candidature will be regarded as having lapsed, and you will be required to re-apply for admission to candidature if you wish to continue your studies.

Withdrawing from your degree program

If your circumstances are such that you are unable to anticipate when you will be able to resume your candidature you should seek to withdraw from your candidature. Should

you be able to resume at a later date you would have to re-apply for admission. Some credit might then be given for work that you had completed prior to your withdrawal, but you would, in effect, be commencing a new candidature. All students wishing to withdraw their candidature should read the policy, and check here: sydney.edu.au/medicine/current-students/enrolment-variations/postgraduate/candidature-changes.php

Transferring your candidature to another degree

In some cases it is possible to transfer from one degree program to another and obtain credit for work already completed. The Clinical Epidemiology program is regarded as an embedded program, which means that, subject to satisfactory progress and approval, it is possible to upgrade to a higher degree level while retaining credit for units of study already completed. Conversely, if you are unable to fulfil all requirements for a higher degree it is also possible to downgrade to a lower degree. All students wishing to transfer their candidature should read the policy, and check here: sydney.edu.au/medicine/current-students/enrolment-variations/postgraduate/candidature-changes.php

Useful resources during your candidature



Throughout your studies the University will communicate with you via your University email account, MyUni and Blackboard eLearning. It is your responsibility to ensure that the University has the correct contact details for you. You will be able to update your details in one of the following ways:

Online

Go to MyUni (sydney.edu.au/myuni) and select 'Update your contact details' from the sidebar. Follow the prompts to update your details.

In person

Student Centre
Darlington Campus
Level 3, Jane Foss
Russell Building

By mail

Student Centre
Jane Foss Russell
Building, G02
The University of Sydney
NSW 2006

UniKey

When you enrol at the University you are provided with an eight character UniKey account username and password. This account is the key to accessing the University's services and resources. For more information about your UniKey please see sydney.edu.au/ict/student/unikey/.

Your university email account

Every student at the University of Sydney is issued with a Sydney Mail email account. To access your inbox you will need to login using your email address, which is in the format @uni.sydney.edu.au. For more information on Sydney Mail please see sydney.edu.au/ict/student/sydney-mail/.

The University will only email information to your student email account. Your student email account will be used to contact you about assessments and examination related matters such as supplementary exams. For this reason it is imperative that you check your account regularly. Failure to read and respond where necessary to formal University communication could mean that you fail to correctly maintain your enrolment, which may lead to unnecessary financial and/or academic liability.

Diverting your email

If you do not wish to use the university email as your primary email account, please follow the simple instructions on the IT website in order to forward your student emails to your



personal email: sydney.edu.au/ict/student/email-storage/redirect.shtm.

MyUni

The MyUni student portal is your gateway to online student resources. It is located at sydney.edu.au/myuni and can be accessed using your UniKey login and password. Through MyUni you will be able to manage your enrolment, update your contact details, and find links to important information.

LMS eLearning

Most units of study in the School of Public Health are accompanied by an online eLearning site through LMS eLearning. Each unit of study site will provide links to unit resources, assessment and course outlines, announcements, and a grade centre used for uploading assignments. LSM can be accessed through your MyUni site or at elearning.sydney.edu.au using your UniKey and password. For more information please see sydney.edu.au/elearning/student/.

Information technology

The University provides a range of Information Technology (IT) services that will facilitate your learning experience for the duration of your candidature. It is important that you check your student email account, MyUni site

and LMS eLearning site regularly, and that you know your UniKey account ID. For more information on any of the student IT services please see sydney.edu.au/ict/student/.

School of Public Health computer lab

The School of Public Health has a large computer lab situated on the third floor of the Edward Ford Building (A27). The Lab, available for students studying at the School, has networked PCs with a range of word processing, spreadsheet and statistical software. Students also have access to the Physiology Computer Lab, located in the Anderson Stuart Building (F13). These labs are often booked for classes, so please check the timetables. For more information and links to the timetables please see sydney.edu.au/medicine/public-health/current/coursework/it.php.

Useful IT links

- Student IT in the School of Public Health - sydney.edu.au/medicine/public-health/current/coursework/it.php
- Student IT Portal - sydney.edu.au/ict/student/
- Access Labs in the University - sydney.edu.au/ict/student/locations/city-campus.shtml

Student guides

- School of Public Health Current Students Webpage - <http://sydney.edu.au/medicine/public-health/current/coursework/index.php>
- Sydney Medical School and The Sydney School of Public Health Postgraduate Guide - http://sydney.edu.au/medicine/study/postgraduate/MedicinePG_Guide.pdf

University of Sydney policies

- Assessment Policies in the Sydney Medical School - sydney.edu.au/medicine/public-health/current/coursework/resources/assessment.php
- Sydney Medical School Policies and Forms - sydney.edu.au/medicine/current-students/policies-forms/index.php

Library and research

- University of Sydney Library - sydney.edu.au/library/
- Literature Searching Resources - sydney.edu.au/medicine/public-health/current/coursework/resources/links_literaturesearch.php

School of Public Health timetables

- Timetable information - sydney.edu.au/medicine/public-health/current/coursework/timetables/index.php

General information and support services

For information about academic support and appealing against academic decisions please see sydney.edu.au/medicine/current-students/essential-information/postgraduate/index.php.

The University of Sydney provides a host of Student Services to ensure that you are supported throughout your time at the University:

- Aboriginal and Torres Strait Islander Students - sydney.edu.au/current_students/student_services/indigenous_support.shtml
- Accommodation - sydney.edu.au/current_students/accommodation/index.shtml
- Career Guidance - sydney.edu.au/careers/
- Chaplains - sydney.edu.au/chaplains/
- Child Care - sydney.edu.au/stuserv/child_care/
- Counselling and Psychological Services - sydney.edu.au/current_students/counselling/
- Disability Services - sydney.edu.au/stuserv/disability/
- Financial Assistance - sydney.edu.au/stuserv/financial_assistance_office/index.shtml
- International Office - sydney.edu.au/internationaloffice/
- Scholarships - sydney.edu.au/scholarships/
- Student Safety - sydney.edu.au/current_students/student_services/safety

Further information

If you have any questions about postgraduate study in Clinical Epidemiology with the School of Public Health, please contact us or visit our website.



L-R: JONATHAN CRAIG,
SUZANNE MAHADY, ANGELA
WEBSTER, FIONA STANAWAY,
CLEMENT LOY, PHILIP CLAYTON

Clinical Epidemiology Program

Room 301, Edward Ford Building (A27)
University of Sydney, NSW, 2006

T +61 2 9351 5994

F +61 2 9351 7420

E sph.cepi@sydney.edu.au

CONTACT	FOR ENQUIRIES REGARDING	INFO/EMAIL	PHONE
Clinical Epidemiology Administrative Officer	General course enquiries	sph.cepi@sydney.edu.au	+61 2 9351 5994
Clinical Epidemiology Course Coordinator	Requests to undertake non-recommended elective units of study	fiona.stanaway@sydney.edu.au	+61 2 9351 5994
Unit of Study Coordinator	Unit content, assessments, extensions etc.	See Unit of Study Outlines on page 25 for applicable coordinator	See Unit of Study Outlines on page 25 for applicable coordinator
Postgraduate Student Administration Unit	Changes to your candidature or enrolment	medicine.pgassist@sydney.edu.au	+61 2 935 15760
LMS eLearning Support	Problems with LMS eLearning	sph.onlinesupport@sydney.edu.au	
HECS and Fee Office	Local Fees and HELP Information	hecs.office@sydney.edu.au	+61 2 8627 8239
International Office	International applications; fees and loans; student advisors; visas	sydney.edu.au/internationaloffice/	+61 2 8627 8300

ACKNOWLEDGEMENT OF COUNTRY

The School of Public Health acknowledges the traditional owners of Country, the Gadigal peoples of the Eora nation, upon whose land the University of Sydney now stands. As we learn from one another and share our knowledge, teaching and research practices at the University today, may we also pay respect to the knowledge embedded forever within the Aboriginal custodianship of Country.

SCHOOL OF PUBLIC HEALTH

Sydney Medical School

T +61 2 9351 5994

F +61 2 9351 5049

E sph.cepi@sydney.edu.au

sydney.edu.au/medicine/public-health

Produced by the School of Public Health, the University of Sydney, November 2015
The University reserves the right to make alterations to any information contained within this publication without notice.