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.

CLEMENT LOY, FIONA STANAWAY, KENJI FUJITA, SHARON REID, KAROLINA KULCZYNSKA-LE BRETON
## Important dates for 2018

<table>
<thead>
<tr>
<th>SEMESTER ONE</th>
<th>SEMESTER TWO</th>
<th>PUBLIC HOLIDAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 MARCH LECTURES BEGIN</td>
<td>30 JULY LECTURES BEGIN</td>
<td>26 JANUARY AUSTRALIA DAY</td>
</tr>
<tr>
<td>31 MARCH HECS CENSUS DATE</td>
<td>31 AUGUST HECS CENSUS DATE</td>
<td>30 APRIL GOOD FRIDAY</td>
</tr>
<tr>
<td>30 MARCH - 2 APRIL EASTER BREAK</td>
<td>24 - 28 SEPTEMBER AVCC COMMON WEEK / NON-TEACHING PERIOD</td>
<td>2 MAY EASTER MONDAY</td>
</tr>
<tr>
<td>2 - 6 APRIL AVCC COMMON WEEK / NON-TEACHING PERIOD</td>
<td>5 - 9 NOVEMBER STUDY VACATION</td>
<td>25 APRIL ANZAC DAY</td>
</tr>
<tr>
<td>11 - 15 JUNE STUDY VACATION</td>
<td>12 - 24 NOVEMBER EXAMINATION PERIOD</td>
<td>11 JUNE QUEEN’S BIRTHDAY</td>
</tr>
<tr>
<td>18 - 30 JUNE EXAMINATION PERIOD</td>
<td>24 NOVEMBER SEMESTER ENDS</td>
<td>1 OCTOBER LABOUR DAY</td>
</tr>
<tr>
<td>30 JUNE SEMESTER ENDS</td>
<td></td>
<td>25 DECEMBER CHRISTMAS DAY</td>
</tr>
<tr>
<td></td>
<td></td>
<td>26 DECEMBER BOXING DAY</td>
</tr>
</tbody>
</table>

For more information see sydney.edu.au/study/study-dates.html
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

“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)
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 Sydney 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 Medical 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 Master’s degree 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 master’s 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 Diagnostic and Screening Tests. Our units of study are constantly revised and updated with new methodology and clinical content, to ensure that 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 healthcare, 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

<table>
<thead>
<tr>
<th>COURSE</th>
<th>STRUCTURE</th>
<th>TOTAL CPS</th>
<th>CANDIDATURE LENGTH</th>
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</thead>
<tbody>
<tr>
<td>Graduate Certificate in Clinical Epidemiology</td>
<td>2 core units (12 credit points)</td>
<td>24</td>
<td>0.5 year full time*</td>
</tr>
<tr>
<td></td>
<td>Electives (12 credit points)</td>
<td></td>
<td>1-3 years part time</td>
</tr>
<tr>
<td>Graduate Diploma in Clinical Epidemiology</td>
<td>2 core units (12 credit points)</td>
<td>36</td>
<td>1-2 years full time</td>
</tr>
<tr>
<td></td>
<td>Electives (24 credit points)</td>
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<td>1-3 years part time</td>
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<tr>
<td>Master of Medicine (Clinical Epidemiology)</td>
<td>2 core units (12 credit points)</td>
<td>48</td>
<td>1-3 years full time</td>
</tr>
<tr>
<td></td>
<td>Electives** (36 credit points)</td>
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<td>2-4 years part time</td>
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<tr>
<td>Master of Science in Medicine (Clinical Epidemiology)</td>
<td>2 core units (12 credit points)</td>
<td>48</td>
<td>1-3 years full time</td>
</tr>
<tr>
<td></td>
<td>Electives** (36 credit points)</td>
<td></td>
<td>2-4 years part time</td>
</tr>
</tbody>
</table>

*Available Semester One only
** Master’s degree students must take 6 credit points of capstone units of study within their electives

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, whilst the Master of Science in Medicine is for all other graduates.

Students who are enrolled in the graduate certificate, graduate diploma or masters course must undertake the following two core units of study, which account for 12 credit points:

- CEPI5100 - Introduction to Clinical Epidemiology
- PUBH5018 - Introductory Biostatistics

In addition to the core units, students complete their degree by undertaking elective units of study from within the Clinical Epidemiology units of study table, which can be viewed on page 19. For rules about elective units of study, please see page 18. For examples of how units of study can be combined depending on your requirements, please see page 20.

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 13 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 6 credit points, students should expect to spend nine to twelve hours studying per week, for each week of the semester. If the 6 credit point unit of study runs for only half of a semester then students should expect to spend eighteen to twenty-four 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 without special permission from the course coordinator.

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 2017 can be found via this link: sydney.edu.au/study/study-dates.html
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 daytimes and 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.

International or domestic students intending to study full time are only eligible to commence their degree in semester one. This is because there are insufficient elective units available in semester 2 that do not require the prior completion of pre-requisites in semester 1.

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 only study a maximum of 25 per cent of their course by online and/or distance learning. If you have any questions about your visa requirements, please contact a member of the international office compliance team: student.compliance@sydney.edu.au

For more information about Australian Student Visas please see the Department of Immigration and Citizenship at www.border.gov.au/Trav/Stud, and the University of Sydney’s International Students support website - sydney.edu.au/study/academic-support/support-for-international-students.html

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 us (sph.cepi@sydney.edu.au) and our compliance officers (student.compliance@sydney.edu.au).

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 Sydney 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 | sydney.edu.au/study/finances-fees-costs/scholarships/australia-awards.html
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 Sydney School of Public Health also offer units of study in online and/or intensive 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 18 and “example of course structures” for suggestions about how to combine units for distance study.

Accreditation

The Clinical Epidemiology program is accredited by the Royal Australasian College of Surgeons (RACS).

Clinical epidemiology alumni may be eligible to apply for CPD/CME points with medical colleges in which they are completing their training.
Fees and scholarships

The Clinical Epidemiology graduate certificate, graduate diploma and master’s degree courses are all full-fee paying and incur standard Sydney School of Public Health postgraduate coursework fees. Fees are payable in advance in semester instalments and differ between domestic and international students. A domestic student is a student who is a citizen or permanent resident of Australia. Domestic students who are Australian citizens may choose to pay through FEE-HELP, and fees may be tax deductible.

International and Domestic student fees can be found on the Sydney Courses website by searching for ‘clinical epidemiology’ - sydney.edu.au/courses/

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. Domestic 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 government assistance please see the Australian Government Study Assist website - studyassist.gov.au/sites/studyassist/helppayingmyfees

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/study/finances-fees-costs/fees-and-loans/student-services-amenities-fee.html

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. humanservices.gov.au/customer/services/centrelink/austudy
Sydney School of Public Health
clinical epidemiology scholarship

Scholarships are available for Master’s degree students in Clinical Epidemiology. These scholarships are only available to domestic students.

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 Master’s degree, and are paid on a pro rata basis depending on a student’s credit point load.

For more information, please contact
sph.cepi@sydney.edu.au
or visit
sydney.edu.au/medicine/public-health/study/study-program/coursework-degrees/clinical-epidemiology.php

Other options?

As a prospective student you may also want to explore other avenues for funding 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

“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.”

GEORGE
MASTER OF MEDICINE (CLINICAL EPIDEMIOLOGY)
Master of Medicine (Clinical Epidemiology) in conjunction with Sydney Medical Program

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 Sydney School of Medicine.

If approved, Sydney Medical School students would initially need to apply for the Master of Science in Medicine (Clin Epi) then, once they have completed their medical degree, transfer across to the MMed (Clin Epi).
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 standalone 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/study/study-program/professional-development/introduction-clinical-epidemiology.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 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 on sph.cepi@sydney.edu.au if you are interested in the program but do not have clinical experience.

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 links at ‘course options’ at:

sydney.edu.au/medicine/public-health/study/study-program/coursework-degrees/clinical-epidemiology.php

Please Note: applicants 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.

Once you have been accepted into the Sydney School of Public Health’s Clinical Epidemiology program, you will be emailed instructions about how to accept your offer. You will then want to plan your study. The following pages provide enrolment tips as well as advice on how to plan your degree, including what units you may study, when you can study them, and in what modes they are offered. We also provide advice on units of study that might fit into specific areas of interest you may have, as well as unit of study outlines.
Enrolment

New students

Once you have accepted your offer of admission, you will then be required to enrol in your course prior to commencement. Detailed enrolment instructions will be sent by Student Services 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. In choosing your units of study you should take account of the pre-/co-requisites, prohibitions and timetabling. A helpful starting place is the ‘Planning your study’ section on page 18, where you will find the course rules, the Clinical Epidemiology Units of Study Table, which outlines all core and elective units available, and also some examples of how different units can be combined in different ways depending on how you wish to study.

Continuing students

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

Need enrolment help?

For questions about enrolment please see Enrolment and Course Planning or contact the postgraduate student administration unit on medicine.pgassist@sydney.edu.au. You may, of course, always contact sph.cepi@sydney.edu.au for additional enrolment support.
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 Sydney Student through MyUni and you can find out more about student administration here:
sydney.edu.au/study/student-administration.html

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 relevant Census Date. To find out what the census dates are for each session, please look at ‘Session dates - for coursework students’ at sydney.edu.au/study/study-dates.html

Suspending your candidature

If you have to interrupt your candidature at any time after you have commenced your degree then you must apply to suspend your candidature. Suspensions applied for in advance, through Sydney Student are automatically approved for the first suspension of up to 2 semesters. Any further suspensions require approval and clear justification for the request in
the application, made via Sydney Student. Please note that it is only possible to suspend up to four semesters during the course of your degree.

All students wishing to suspend their candidature should read the policy, check here sydney.edu.au/students/suspend-your-studies.html, and apply via Sydney Student.

Please note that if you fail to enrol and do not make an application to suspend, 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.

Students returning from suspension will be contacted by Student Services with information regarding their enrolment. Following this, they will be required to follow the enrolment process outlined on page 15.

**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/students/discontinue-your-course.html

**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/students/change-your-course/allowable-transfers-and-upgrades-downgrades.html

“...course equipped me with the knowledge and skills required to search, evaluate, design, conduct and report clinical research in order to improve the health care of individual patients.”

KENJI
MASTER OF SCIENCE IN MEDICINE (CLINICAL EPIDEMIOLOGY)
Planning your study

Course requirements

The Graduate Certificate in Clinical Epidemiology requires the successful completion of 24 credit points of units of study including:

- 12 credit points of core units of study; and
- 12 credit points of elective units of study from Part A Electives.

The Graduate Diploma in Clinical Epidemiology requires the successful completion of 36 credit points of units of study including:

- 12 credit points of core units of study; and
- 24 credit points of elective units of study, consisting of:
  - a minimum of 18 credit points from Part A Electives; and
  - a maximum of 6 credit points from Part B Electives.

The Master of Medicine (Clinical Epidemiology) and the Master of Science in Medicine (Clinical Epidemiology) require the successful completion of 48 credit points of units of study including:

- 12 credit points of core units of study; and
- a minimum of 6 credit points of capstone units of study; and
- 30 credit points of additional elective units of study, consisting of:
  - a minimum of 18 credit points from Part A Electives; and
  - a maximum of 12 credit points from Part B Electives.

Units of Study – Core, Capstones and Electives

The Clinical Epidemiology Units of Study Table on pages 19-20 details all core, capstone and elective units of study that you may take as part of your course (within the rules outlined above). Should you wish to study outside of the official Clinical Epidemiology Unit of Study Table, you must:

1. Not exceed the maximum number of credit points from non-clinical epidemiology electives; that is, 6 credit points for the master’s degree or graduate diploma. No non-clinical epidemiology electives are permitted for students undertaking the Graduate Certificate. Please also note that any non-listed electives undertaken as part of the Graduate Diploma or Master’s degree cannot be counted towards the minimum credit points of Part A Electives required for degree completion. Therefore, Graduate Diploma students who have already undertaken 6 credit points of Part B Electives, and Master’s degree students who have already undertaken 12 credit points of Part B electives, cannot undertake any non-clinical epidemiology electives.

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. Submit a special permission request addressed to the unit coordinator via Sydney Student in order to obtain permission to enrol in the 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.
### Clinical Epidemiology Units of Study Table

<table>
<thead>
<tr>
<th>UNIT CODE</th>
<th>UNIT NAME</th>
<th>CREDIT POINTS</th>
<th>DELIVERY MODE</th>
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<tbody>
<tr>
<td></td>
<td><strong>Core units</strong></td>
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<td></td>
<td><em>All students must take these two units</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PUBH 5018</td>
<td>Introductory Biostatistics</td>
<td>6</td>
<td>F, O</td>
</tr>
<tr>
<td>CEPI 5100</td>
<td>Introduction to Clinical Epidemiology</td>
<td>6</td>
<td>F, O</td>
</tr>
<tr>
<td></td>
<td><strong>Capstone Units (these units are also found in Part A Electives)</strong></td>
<td></td>
<td></td>
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<td></td>
<td><em>Students taking a Master award course must take a minimum of 6 credit points of capstone units.</em></td>
<td></td>
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</tr>
<tr>
<td>CEPI 5300</td>
<td>Health and Medical Research Grants: Theory and Practice</td>
<td>6</td>
<td>F, O</td>
</tr>
<tr>
<td></td>
<td><strong>Offered in semester 1 only</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEPI 5205</td>
<td>Doing a Systematic Review</td>
<td>6</td>
<td>P</td>
</tr>
<tr>
<td>CEPI 5207</td>
<td>Teaching Clinical Epidemiology</td>
<td>6</td>
<td>P</td>
</tr>
<tr>
<td>CEPI 5215</td>
<td>Writing and Reviewing Medical Papers</td>
<td>6</td>
<td>O, BM</td>
</tr>
<tr>
<td>CEPI 5505</td>
<td>Clinical Epidemiology Project 1</td>
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<td>P</td>
</tr>
<tr>
<td>CEPI 5506</td>
<td>Clinical Epidemiology Project 2</td>
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<tr>
<td></td>
<td><strong>Offered in semesters 1 and 2</strong></td>
<td></td>
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<tr>
<td>CEPI 5200</td>
<td>Quality and Safety in Health Care</td>
<td>6</td>
<td>O</td>
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<tr>
<td>CEPI 5300</td>
<td>Health and Medical Research Grants: Theory and Practice</td>
<td>6</td>
<td>F, O</td>
</tr>
<tr>
<td>CEPI 5305</td>
<td>Translating Research Into Practice</td>
<td>Not available in 2018</td>
<td>2</td>
</tr>
<tr>
<td>CEPI 5308</td>
<td>Patient-Reported Outcomes Measurement</td>
<td>2</td>
<td>O</td>
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<tr>
<td>CEPI 5310</td>
<td>Advanced Statistical Modelling</td>
<td>4</td>
<td>F, O</td>
</tr>
<tr>
<td>CEPI 5314*</td>
<td>Introduction to Systematic Reviews (TAV)</td>
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<td>CEPI 5315</td>
<td>Introduction to Systematic Reviews</td>
<td>6</td>
<td>F, O</td>
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<tr>
<td>QUAL 5002</td>
<td>Qualitative Methodologies &amp; Study Design</td>
<td>6</td>
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<tr>
<td></td>
<td><strong>Offered in semester 1 only</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEPI 5204</td>
<td>Advanced Systematic Reviews</td>
<td>Not available in 2018</td>
<td>2</td>
</tr>
<tr>
<td>CEPI 5211</td>
<td>Introduction to Genetic Epidemiology</td>
<td>Not available in 2018</td>
<td>2</td>
</tr>
<tr>
<td>CEPI 5306</td>
<td>Clinical Practice Guidelines</td>
<td>2</td>
<td>O</td>
</tr>
<tr>
<td>CEPI 5311</td>
<td>Diagnostic and Screening Tests (Part 1)</td>
<td>2</td>
<td>F, O</td>
</tr>
<tr>
<td>CEPI 5312</td>
<td>Diagnostic and Screening Tests (Parts 1 and 2)</td>
<td>6</td>
<td>F, O</td>
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<tr>
<td>INFO 9003</td>
<td>Information Technology for Health Professionals</td>
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<tr>
<td>PUBH 5205</td>
<td>Decision Analysis</td>
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<td>F, O</td>
</tr>
<tr>
<td>PUBH 5206</td>
<td>Controlled Trials</td>
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<tr>
<td>PUBH 5211</td>
<td>Multiple Regression and Statistical Computing</td>
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<td>F, O</td>
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<tr>
<td>PUBH 5212</td>
<td>Categorical Data Analysis</td>
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<td>F, O</td>
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<td>Survival Analysis</td>
<td>2</td>
<td>F, O</td>
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<tr>
<td>PUBH 5224</td>
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<td>F</td>
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<tr>
<td>PUBH 5302</td>
<td>Health Economic Evaluation</td>
<td>4</td>
<td>BM</td>
</tr>
<tr>
<td>PUBH 5307</td>
<td>Advanced Health Economic Evaluation</td>
<td>2</td>
<td>BM</td>
</tr>
<tr>
<td></td>
<td><strong>Offered in semester 1 and 2</strong></td>
<td></td>
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</tr>
<tr>
<td>CEPI 5205</td>
<td>Doing a Systematic Review</td>
<td>6</td>
<td>P</td>
</tr>
<tr>
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<td>Teaching Clinical Epidemiology</td>
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<td>P</td>
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<td>CEPI 5215</td>
<td>Writing and Reviewing Medical Papers</td>
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<tr>
<td>CEPI 5505</td>
<td>Clinical Epidemiology Project 1</td>
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<td>Clinical Epidemiology Project 2</td>
<td>4</td>
<td>P</td>
</tr>
<tr>
<td>PUBH 5215</td>
<td>Introductory Analysis of Linked Data</td>
<td>6</td>
<td>BM</td>
</tr>
<tr>
<td>PUBH 5500</td>
<td>Advanced Qualitative Health Research</td>
<td>6</td>
<td>BM</td>
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</table>
Table 1 - Clinical Epidemiology units available in distance learning format

<table>
<thead>
<tr>
<th>Semester 1 Online</th>
<th>Credit Points</th>
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</thead>
<tbody>
<tr>
<td>CEPI 5200 Quality and Safety in Health Care</td>
<td>6</td>
</tr>
<tr>
<td>CEPI 5308 Patient-Reported Outcomes Measurement</td>
<td>2</td>
</tr>
<tr>
<td>CEPI 5310 Advanced Statistical Modelling</td>
<td>4</td>
</tr>
<tr>
<td>CEPI 5315 Introduction to Systematic Reviews</td>
<td>6</td>
</tr>
<tr>
<td>PUBH 5018 Introductory Biostatistics</td>
<td>6</td>
</tr>
<tr>
<td>PUBH 5020 Chronic Disease Prevention and Control</td>
<td>6</td>
</tr>
<tr>
<td>BETH 5204 Clinical Ethics</td>
<td>6</td>
</tr>
<tr>
<td>Semester 2 Online</td>
<td>Credit Points</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>CEPI 5306  Clinical Practice Guidelines</td>
<td>2</td>
</tr>
<tr>
<td>CEPI 5311  Diagnostic and Screening Tests (Parts 1)</td>
<td>2</td>
</tr>
<tr>
<td>CEPI 5312  Diagnostic and Screening Tests (Parts 1 &amp; 2)</td>
<td>6</td>
</tr>
<tr>
<td>PUBH 5019  Cancer Prevention &amp; Control</td>
<td>6</td>
</tr>
<tr>
<td>PUBH 5032  Making Decisions in Public Health</td>
<td>2</td>
</tr>
<tr>
<td>PUBH 5206  Controlled Trials</td>
<td>2</td>
</tr>
<tr>
<td>PUBH 5211  Multiple Regression and Statistical Computing</td>
<td>4</td>
</tr>
<tr>
<td>PUBH 5212  Categorical Data Analysis</td>
<td>2</td>
</tr>
<tr>
<td>PUBH 5213  Survival Analysis</td>
<td>2</td>
</tr>
<tr>
<td>BETH 5202  Human and Animal Research Ethics</td>
<td>6</td>
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<tr>
<td>BETH 5203  Ethics and Public Health</td>
<td>6</td>
</tr>
<tr>
<td>BETH 5208  Introduction to Human Research Ethics</td>
<td>2</td>
</tr>
<tr>
<td>BETH 5209  Medicines Policy, Economics and Ethics</td>
<td>2</td>
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</table>

<table>
<thead>
<tr>
<th>Semester 1 and 2 Online</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CEPI 5100  Introduction to Clinical Epidemiology</td>
<td>6</td>
</tr>
<tr>
<td>CEPI 5215  Writing and Reviewing Medical Papers</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Units available in Block Mode (weekday/weekend workshops)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEPI 5215  Writing and Reviewing Medical Papers</td>
</tr>
<tr>
<td>CEPI 5300  Health and Medical Research Grants: Theory and Practice</td>
</tr>
<tr>
<td>CEPI 5305  Translating Research into Practice</td>
</tr>
<tr>
<td>PUBH 5032  Making Decisions in Public Health</td>
</tr>
<tr>
<td>PUBH 5206  Controlled Trials</td>
</tr>
<tr>
<td>PUBH 5215  Introductory Analysis of Linked Data</td>
</tr>
<tr>
<td>PUBH 5302  Health Economic Evaluation</td>
</tr>
<tr>
<td>PUBH 5307  Advanced Health Economic Evaluation</td>
</tr>
<tr>
<td>PUBH 5422  Health and Risk Communication</td>
</tr>
<tr>
<td>PUBH 5500  Advanced Qualitative Health Research</td>
</tr>
<tr>
<td>BETH 5202  Human and Animal Research Ethics</td>
</tr>
<tr>
<td>BETH 5203  Ethics and Public Health</td>
</tr>
<tr>
<td>BETH 5204  Clinical Ethics</td>
</tr>
<tr>
<td>BETH 5208  Introduction to Human Research Ethics</td>
</tr>
<tr>
<td>INFO 9003  Information Technology for Health Professionals</td>
</tr>
<tr>
<td>QUAL 5002  Qualitative Methodologies &amp; Study Design</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Units that are project-based (offered both semesters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEPI 5205  Doing a Systematic Review</td>
</tr>
<tr>
<td>CEPI 5207  Teaching Clinical Epidemiology</td>
</tr>
<tr>
<td>CEPI 5505  Clinical Epidemiology Project 1</td>
</tr>
<tr>
<td>CEPI 5506  Clinical Epidemiology Project 2</td>
</tr>
</tbody>
</table>
“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 2 - Combining units to meet learning interests

<table>
<thead>
<tr>
<th>UNIT CODE</th>
<th>UNIT NAME</th>
<th>CPS*</th>
<th>DELIVERY MODE**</th>
<th>SEMESTER OFFERED</th>
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<tbody>
<tr>
<td>All students study core units</td>
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<td></td>
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<tr>
<td>CEPI 5100</td>
<td>Introduction to Clinical Epidemiology</td>
<td>6</td>
<td>F, O</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>PUBH 5018</td>
<td>Introductory Biostatistics</td>
<td>6</td>
<td>F, O</td>
<td>1</td>
</tr>
<tr>
<td>For students interested in biostatistics and learning skills for quantitative analysis</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEPI 5204</td>
<td>Advanced Systematic Reviews</td>
<td>2</td>
<td>F</td>
<td>2</td>
</tr>
<tr>
<td>CEPI 5205</td>
<td>Doing a Systematic Review</td>
<td>6</td>
<td>P</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>CEPI 5310</td>
<td>Advanced Statistical Modelling</td>
<td>4</td>
<td>F, O</td>
<td>1</td>
</tr>
<tr>
<td>CEPI 5311</td>
<td>Diagnostic and Screening Tests (Part 1)</td>
<td>2</td>
<td>F, O</td>
<td>2</td>
</tr>
<tr>
<td>CEPI 5312</td>
<td>Diagnostic and Screening Tests (Parts 1 &amp; 2)</td>
<td>6</td>
<td>F, O</td>
<td>2</td>
</tr>
<tr>
<td>CEPI 5315</td>
<td>Introduction to Systematic Reviews</td>
<td>6</td>
<td>F, O</td>
<td>1</td>
</tr>
<tr>
<td>PUBH 5206</td>
<td>Controlled Trials</td>
<td>2</td>
<td>BM, O</td>
<td>2</td>
</tr>
<tr>
<td>PUBH 5211</td>
<td>Multiple Regression and Statistical Computing</td>
<td>4</td>
<td>F, O</td>
<td>2</td>
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<tr>
<td>PUBH 5212</td>
<td>Categorical Data Analysis</td>
<td>2</td>
<td>F, O</td>
<td>2</td>
</tr>
<tr>
<td>PUBH 5213</td>
<td>Survival Analysis</td>
<td>2</td>
<td>F, O</td>
<td>2</td>
</tr>
<tr>
<td>PUBH 5215</td>
<td>Introductory Analysis of Linked Data</td>
<td>6</td>
<td>BM</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>For students wanting to gain qualitative skills</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>CEPI 5200</td>
<td>Quality and Safety in Health Care</td>
<td>6</td>
<td>O</td>
<td>1</td>
</tr>
<tr>
<td>CEPI 5306</td>
<td>Clinical Practice Guidelines</td>
<td>2</td>
<td>O</td>
<td>2</td>
</tr>
<tr>
<td>CEPI 5308</td>
<td>Patient-Reported Outcomes Measurement</td>
<td>2</td>
<td>O</td>
<td>1</td>
</tr>
<tr>
<td>CEPI 5315</td>
<td>Introduction to Systematic Reviews</td>
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<td>F, O</td>
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</tr>
<tr>
<td>PUBH 5500</td>
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<td>1 &amp; 2</td>
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<tr>
<td>BETH 5203</td>
<td>Ethics and Public Health</td>
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<td>BM, O</td>
<td>2</td>
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<tr>
<td>BETH 5204</td>
<td>Clinical Ethics</td>
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<td>BM, O</td>
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<tr>
<td>QUAL 5002</td>
<td>Qualitative Methodologies &amp; Study Design</td>
<td>6</td>
<td>BM</td>
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</tr>
<tr>
<td>For students interested in health economics and policy</td>
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<tr>
<td>CEPI 5200</td>
<td>Quality and Safety in Health Care</td>
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<td>O</td>
<td>1</td>
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<tr>
<td>CEPI 5305</td>
<td>Translating Research into Practice</td>
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<td>BM</td>
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<tr>
<td>CEPI 5306</td>
<td>Clinical Practice Guidelines</td>
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<td>O</td>
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</tr>
<tr>
<td>CEPI 5308</td>
<td>Patient-Reported Outcomes Measurement</td>
<td>2</td>
<td>O</td>
<td>1</td>
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<tr>
<td>CEPI 5315</td>
<td>Introduction to Systematic Reviews</td>
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<td>F, O</td>
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<tr>
<td>PUBH 5032</td>
<td>Making Decisions in Public Health</td>
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<td>BM, O</td>
<td>2</td>
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<td>PUBH 5205</td>
<td>Decision Analysis</td>
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<td>F, O</td>
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<tr>
<td>PUBH 5302</td>
<td>Health Economic Evaluation</td>
<td>4</td>
<td>BM</td>
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</tr>
<tr>
<td>PUBH 5307</td>
<td>Advanced Health Economic Evaluation</td>
<td>2</td>
<td>BM</td>
<td>2</td>
</tr>
<tr>
<td>For students interested in understanding and using evidence in clinical practice</td>
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</tr>
<tr>
<td>CEPI 5200</td>
<td>Quality and Safety in Health Care</td>
<td>6</td>
<td>O</td>
<td>1</td>
</tr>
<tr>
<td>CEPI 5305</td>
<td>Translating Research into Practice</td>
<td>2</td>
<td>BM</td>
<td>1</td>
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<tr>
<td>CEPI 5306</td>
<td>Clinical Practice Guidelines</td>
<td>2</td>
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<td>2</td>
</tr>
<tr>
<td>CEPI 5311</td>
<td>Diagnostic and Screening Test (Part 1)</td>
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<td>F, O</td>
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<tr>
<td>CEPI 5312</td>
<td>Diagnostic and Screening Test (Part 1 &amp; 2)</td>
<td>6</td>
<td>F, O</td>
<td>2</td>
</tr>
<tr>
<td>CEPI 5315</td>
<td>Introduction to Systematic Reviews</td>
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<td>1</td>
</tr>
<tr>
<td>PUBH 5206</td>
<td>Controlled Trials</td>
<td>2</td>
<td>BM, O</td>
<td>2</td>
</tr>
</tbody>
</table>

*CPS - Credit Points
**Unit Delivery Modes - BM: Block Mode, F: Face-to-face, O: Online, P: Project
Other Course Planning Considerations

Full-time versus part-time study

It is possible to study all of our courses full-time, and complete the Master’s degree in 2 semesters, but only if you are commencing in semester 1. The vast majority of our students complete their course part-time whilst working, or studying a different program concurrently, and certainly doing so allows for the most flexibility in unit of study choice. For example, there are some units of study in semester 1, such as CEPI5310 Advanced Statistical Modelling, that you will not be able to take if you study full-time in one year as you need to complete PUBH5018 Introductory Biostatistics, PUBH5211 Multiple Regression and Stats Computing and PUBH5212 Categorical Data Analysis over semesters 1 and 2 as pre-requisites.

When should I study the core units?

It is important to note that the vast majority of our elective units have the two core units as pre-requisites, and we therefore recommend completing them as soon as possible. If you are commencing in semester 2, you can study CEPI5100 Introduction to Clinical Epidemiology straight away, but will have to wait until the following semester to complete PUBH5018 Introductory Biostatistics. Part-time students starting in semester 1 may take both core units in their first semester; however, if they want to take a lighter load, it is also possible to take PUBH5018 in semester 1 and then CEPI5100 in semester 2.

Pre-/Co-requisites and Prohibitions

Pre-/co-requisites and prohibitions are in place for a reason, and when planning your degree you’ll need to take these into careful consideration. Only under exceptional circumstances are these waived, and to do so you will need to submit an application for Special Permission via your Sydney Student portal. Special Permission requests are sent directly to the unit of study coordinator for assessment, and you will then be notified of the outcome.

Big Picture Course planning

We recommend, where possible, planning your degree out in full from the outset. This will include looking at what advanced units you would like to take, and then working backwards to ensure that you complete any necessary pre-requisites, and avoid any prohibitions. In doing so we strongly recommend reading the using the tables and unit of study outlines found herein, consulting the Handbook and our course structure website (with associated links), and contacting any relevant unit of study coordinators should you have specific unit of study questions.

The Clinical Epidemiology team is here to help you, so please do not hesitate to get in touch, as follows:

- A/Prof Clement Loy, Program Director - clement.loy@sydney.edu.au (in Semester 1)
- Dr Fiona Stanaway, Course Coordinator – fiona.stanaway@sydney.edu.au (in Semester 2)
- Program Administrator – sph.cepi@sydney.edu.au
Unit of study outlines

CORE UNITS

CEPI5100
Introduction to Clinical Epidemiology

6 Credit Points
Dr Fiona Stanaway
Session: Semester 1, Semester 2
Classes: Offered online and face-to-face (daytime tutorials)
Prohibitions: PUBH5010
Assessment: Completion of online quizzes (15%), tutorial participation (10%), 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.

Textbooks: Course notes are provided.

PART A ELECTIVES

CEPI5200
Quality and Safety in Health Care

6 Credit Points
Professor Merrilyn Walton
Session: Semester 1
Classes: offered online
Assumed knowledge: clinical experience strongly recommended
Assessment: online participation (20%); 4x1500 word assignments (80%)

This course is specifically designed for health professionals who are working in health care. It will equip participants with underpinning knowledge about patient safety. The course modules cover quality and safety principles, professionalism and ethics, risk management and risk information, complexity theory, clinical governance and the impact of adverse events, methods to measure and make improvements in health care. The modules, tools and the discussions are designed to enable participants to change behaviours by understanding the main causes of adverse events- poor team work, busyness, hierarchies. The course provides foundation knowledge about quality and safety; governments around the world are concerned to address unsafe care. The course will better prepare health professionals to understand the complexity of health care and take steps to minimise the opportunities for errors and address vulnerabilities in the system.

Textbooks: Runciman, Bill, Merry A Walton M Safety and Ethics in Healthcare: A Guide to Getting it Right. 2007 Ashgate Publisher
CEPI5204
Advanced Systematic Reviews

This unit of study is not available in 2018

2 Credit Points
A/Professor Lisa Askie

Session: Semester 2b Classes: (face to face) 1x2hr seminar/week for 6 weeks Prerequisites: PUBH5211
Corequisites: CEPI5203 or CEPI5314 or CEPI5315
Assessment: critical appraisal assignment (50%), data analysis assignment (50%) Practical Work: Two sessions are conducted in the computer lab

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
Adjunct Professor Giovanni Strippoli

Session: Semester 1, Semester 2 Classes: student project under supervision. Prerequisites: CEPI5203 or CEPI5314 or CEPI5315
Corequisites: PUBH5018
Assessment: 1 x 3000 word systematic review (100%)

Note: Please speak to the Unit Coordinator if you have not successfully completed the assumed knowledge units prior to enrolling in CEPI5205

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 a meta analysis) in a topic area nominated by the student. The student will be supported by a supervisor allocated to them, but the project will be student-driven. 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.

Textbooks: There are no essential readings for this unit.

CEPI5207
Teaching Clinical Epidemiology

6 Credit Points
Dr Sharon Reid

Session: Semester 1, Semester 2 Classes: student project under supervision. Prerequisites: CEPI5100 or PUBH5010 Corequisites: (CEPI5311 or CEPI5312) and (CEPI5203 or CEPI5314 or CEPI5315) Assessment: Project report (75%) Participation (25%)

This unit aims to further participants knowledge and skills in teaching clinical epidemiology. Participants undertake a project where they will develop a teaching and learning resource based upon the teaching and learning 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 teaching and learning resource of at least 9 hours-equivalent face-to-face teaching time. By the end of this unit participants will have developed, delivered and evaluated a teaching and learning resource in Clinical Epidemiology by; developing materials about clinical epidemiology relevant to the target audience and setting; developing an approach to teaching and learning which is relevant to the target audience and setting; developing and using an assessment tool appropriate for the teaching and learning resource; and reflecting on their own learning in this unit of study.


CEPI5211
Introduction to Genetic Epidemiology

This unit of study is not available in 2018

2 Credit Points
A/Professor Clement Loy, Dr Gabrielle Williams

Session: Semester 2a Classes: offered face-to-face Assessment: 1x2000 word 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.

CEPI5215
Writing and Reviewing Medical Papers

6 Credit Points
A/Professor Angela Webster

Session: Semester 1, Semester 2 Classes: 9 self-paced modules each comprising: course notes, lectures, demonstrations, exercises, quizzes

Prerequisites: PUBH5010 or CEPI5100

Prohibitions: CEPI5214

Assessment: quizzes (30%), assignment 1 (20%), assignment 2 (50%)

Additional Info: Students without the pre-requisites are encouraged to contact the unit coordinator to discuss their motivation and experience.

Recommended Co-requisites: PUBH5018. Assumed Knowledge: Some basic knowledge of summary statistics is assumed.

Students will work at their own pace through 9 modules covering research integrity, medical style, abstracts, presentations and posters, constructing a paper, data visualisation, manuscript submission, responding to reviewers comments, publication dissemination, and reviewing a paper. This unit aims to teach students the principles of research integrity in writing for medical journals, typical issues they may face, and link to resources to help them maintain integrity through their publishing careers. It will guide them to reliable evidence based resources to improve their conference abstract, presentation and poster design, and manuscript style and writing. Students will learn about reporting guidelines, common pitfalls in writing and presenting research, choosing a journal, keywords, improving tables and figures for manuscripts through open source software, copyright, writing cover letters and response letters to reviewers. Students will learn about measuring research impact and ways to improve your research reach, dealing with the media and press releases, using social media in dissemination, digital archiving and basic skills needed to act as a quality peer-reviewer. This is an online unit, but those needing to study in block mode will do online study as well as a workshop.

Textbooks: No mandatory text book-readings available online.

CEPI5300
Research Grants: theory and practice

6 Credit Points
A/Professor Germaine Wong

Session: Semester 1 Classes: 12 online or face-to-face sessions and 1 face-to-face workshop (June)

Prerequisites: (PUBH5010 or CEPI5100) and PUBH5018

Prohibitions: CEPI5505

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 and 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 their completed research proposal.

CEPI5305
Translating Research Into Practice

This unit of study is not available in 2018

2 Credit Points
A/Professor Clement Loy

Session: Intensive May Classes: Block mode (2x 1day)

Prerequisites: (CEPI5100 or PUBH5010) and PUBH5018

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.


CEPI5306
Clinical Practice Guidelines

2 Credit Points
Dr Martin Howell

Session: Semester 2a Classes: offered online

Assumed knowledge: clinical experience strongly recommended

Assessment: 1 x 4-page critical appraisal and barriers
assessments (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.

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**CEPI5308**

**Patient-Reported Outcomes Measurement**

*2 Credit Points*

*Prof Madeleine King*

**Session:** 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%), 1x3000 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 60 minutes per lecture), plus a series of 5 related quizzes (approx 30 minutes). The written assignment (3300 word limit) is an appraisal of the application of an existing PROM as an outcome in a clinical study.

**Textbooks:** Streiner DL, Norman GR. Health Measurement Scales: a practical guide to their development and use. Oxford University Press. 3rd, 4th or 5th Editions all suitable.

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**CEPI5310**

**Advanced Statistical Modelling**

*4 Credit Points*

*A/Professor Patrick Kelly*

**Session:** Semester 1  Classes: 2hr lec/tut/week x 12 weeks, also offered fully online.  **Prerequisites:** PUBH5212  **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.
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 and application.

Textbooks: Course notes will be provided

CEPI5314
Introduction to Systematic Reviews (TAV)

4 Credit Points
Dr Sharon Reid, Professor Jonathan Craig
Session: Semester 1 Classes: all students will work though three online-modules and participate in weekly tutorials (online or on-campus depending on mode enrolled) over 12 weeks Prerequisites: CEPI5102 Corequisites: CEPI5100 or PUBH5010 Prohibitions: CEPI5203, CEPI5315 Assessment: module assessment tasks (30%) and 1 x 3500 word assignment (70%) after the modules are completed

Note: For pre-2017 students only

In this unit of study, we aim to introduce you to systematic reviews and meta-analyses of relevance to healthcare with a particular focus on systematic reviews of randomized controlled trials. This is a TAV (Transitional Arrangement Version) of CEPI5315 for the cohort of students who enrolled before 2017 AND have completed CEPI5102 Literature searching. Students can choose to learn in online or normal day (on-campus) mode. All students will work through three online modules, delivered over twelve weeks, addressing the following topics at an introductory level: What and why systematic reviews and meta-analyses of relevance to healthcare questions and searching for systematic reviews; how a systematic review is conducted and understanding the principles of meta-analysis; and how to appraise, interpret and apply the results of systematic reviews (and meta-analyses). Students will have the opportunity to discuss unit of study learning materials in online tutorials or via weekly (on-campus) tutorials. Readings and other learning materials will be available via eLearning.

Textbooks: Readings and access to other learning resources are available through the unit’s eLearning site.

CEPI5505
Clinical Epidemiology Project 1

2 Credit Points
Prof Jonathan Craig
Session: Semester 1, Semester 2 Classes: Student project under supervision – three meetings with supervisor (face to face or distance) Prerequisites: (CEPI5100 or PUBH5010) and PUBH5018 Prohibitions: CEPI5300 Assessment: 1 x 2000 word assignment and project planning (study proposal 90% and project management 10%)

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. 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 but will include face to face meetings, email and telephone support. A minimum of two meetings/weekshops are required, coinciding with the development of the project and a near-final proposal, 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

Session: Semester 1, Semester 2
Classes: Student project under supervision – three meetings with supervisor (face to face or distance)
Prerequisites: (CEPI5100 or PUBH5010) and PUBH5018
Corequisites: CEPI5300 or CEPI5505
Assessment: 1 x 4000 word assignment and project planning (90% study proposal and 10% project management)

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 but will include face to face meetings, email and telephone support. A minimum of two meetings are required, to be organised by the student, coinciding with the development of the project, a draft proposal and a near-final proposal, one at the beginning and one at the end of semester.

Textbooks: There are no essential readings for this unit.

INFO9003
IT for Health Professionals

6 Credit Points
Session: Semester 2
Classes: Lectures, Laboratories, Project Work - own time
Prohibitions: INFO5003
Assessment: Through semester assessment (100%)

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 widespread use of information technology in a variety of Health areas.

PUBH5205
Decision Analysis

2 Credit Points
Dr Andrew Martin
Session: Semester 2
Classes: Six 2-hour sessions (inclusive of computer practicals) or online. Practical Work: Three computer practicals (in class or online)
Prerequisites: PUBH5018 and (PUBH5010 or CEPI5100)
Assumed knowledge: PUBH5302 Health Economic Evaluation
Assessment: 5 x practicals/exercises (10%), 1 x exam (30%), and 1 x assignment (60%)

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. Lectures are accompanied by practical exercises and readings. Students gain practical skills using decision analysis software (TreeAge) via computer practicals. Lectures and practicals may be completed online (however on-line students must purchase their own TreeAge software student license).

PUBH5206
Controlled Trials

2 Credit Points
Mr Chris Brown and Dr Andrew Martin
Session: Semester 2a
Classes: 2 x 1 day workshops; or online
Prerequisites: PUBH5018
Assessment: 6 x practicals (10%), 1 x short answer/multiple choice exam (40%), and 1 x take-home exam (50%)

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. This material may also be completed online.

Textbooks: Recommended: Keech A, Gebski V, Pike R. Interpreting and reporting clinical trials: a guide to the CONSORT statement and the principles of randomised

1a = first half of semester 1; 1b = second half of semester 1; 2a = first half of semester 2; 2b = second half of semester 2
controlled trials. Sydney: Australasian Medical Publishing Company; 2007. A list of suggested readings associated with the course will be provided.

**PUBH5211**

**Multiple Regression and Stats Computing**

4 Credit Points

Associate Professor Patrick Kelly

**Session:** Semester 2  **Classes:** 2hrs per week for 13 weeks. This unit may be undertaken in face to face or online mode. All students must have regular access to a reliable internet connection capable of streaming or downloading video recorded lectures.  **Prerequisites:** PUBH5018  **Assessment:** Quizzes (10%); 1x 4 page assignment (20%); and 1x 10 page assignment (70%). The assignments will involve analysing data. Students must pass the final assignment to pass this unit of study.

**Note:** The statistical software package we shall be using in this unit is web-based. There is no cost/fee to use this software.

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. 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. The focus of this unit is on the application of fitting appropriate linear regression models and interpreting the results. The material in this unit is covered by lectures, tutorials, course notes and online discussions. 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.

**PUBH5213**

**Survival Analysis**

2 Credit Points

Dr Erin Cvejic

**Session:** 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 regular access to a reliable internet connection capable of streaming or downloading video recorded lectures.  **Corequisites:** PUBH5211  **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), also making use of follow-up data for those who do not experience the event of interest. 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 materials to read beforehand. This is followed by a lecture, then participants are given a small number of 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, followed by the lecture 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 survival data sets.

**Textbooks:** Course notes are provided, along with links to additional readings through the library.

**PUBH5215**

**Introductory Analysis of Linked Data**

6 Credit Points

Professor Judy Simpson

**Session:** 25-29 June, 12-16 November  **Classes:** block/intensive mode 5 days 9am-5pm  **Corequisites:** (PUBH5010 or BSTA5011 or CEPI5100) and (PUBH5211 or BSTA5004)  **Assessment:** Reflective journal (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...
This unit of study is intended for students who have
Textbooks:
1x 1500 word assignment or equivalent class presentation
4 Credit Points
Advanced Epidemiology
A/Professor Alison Hayes
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Assessment:
assignment 1 (40%), assignment 2 (60%)
(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
Session: Semester 2 Classes: Weekly classes (combined lectures and tutorials) for 13 weeks. Prerequisites: PUBH5010 or CEPi5100 and PUBH5018 Assessment: 1x1500 word assignment or equivalent class presentation (30%); 1x 4000 word assignment (or equivalent answers to specific methodological questions) (70%)
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 extend students’ practical and theoretical knowledge of epidemiology beyond basic principles, provide students with an opportunity to consolidate critical appraisal skills and to acquire some of the practical knowledge and skills needed to design epidemiological research.

PUBH5302
Health Economic Evaluation
4 Credit Points
A/Professor Alison Hayes
Session: Intensive September Classes: 2x 2day compulsory workshops Prerequisites: ((PUBH5010 or CEPi5100) and PUBH5018) or (HPOL5001 as a prerequisite and HPOL5003 as a co-requisite) 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; modelling in economic evaluation. The workshops consist of interactive lectures and class exercises.
Textbooks: A course manual will be provided to each student.

PUBH5307
Advanced Health Economic Evaluation
2 Credit Points
Professor Kirsten Howard
Session: Intensive October Classes: 1 x 2day compulsory workshop Prerequisites: PUBH5018 and (PUBH5010 or CEPi5100) Corequisites: PUBH5205 and PUBH5302 Assessment: 1x written assignment (100%)
Note: Department permission required for enrolment
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 modelling, including conduct of sensitivity analyses (one way, multi-way and probabilistic sensitivity analysis) and 4) presenting and interpreting results of cost effectiveness analyses.

PUBH5500
Advanced Qualitative Health Research
6 Credit Points
Dr Julie Mooney-Somers (semester 1); Andrea Smith (semester 2)
Session: Semester 1; Semester 2 Classes: 2x3 full day workshop in March/April (semester 1); 2x3 full day workshops in August/September (semester 2) Prohibitions: QUAL5005 or QUAL5006 Assessment: Interviewing activity with reflection (25%); 2000 word essay (25%); 2xgroup presentations (20%); multiple choice quizzes (20%); 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
“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)
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.

QUAL5002
Qualitative Methodologies and Study Design

6 Credit Points
Dr Julie Mooney-Somers

Session: Intensive May, Semester 1
Classes: 2x3 full day workshops
Corequisites: PUBH5500
Assumed knowledge: Basic understanding of the nature of qualitative knowledge and the processes of qualitative research.
Assessment: Group presentation (2x15%); peer review (2x10%); 4000wd assignment (50%)

Note: Department permission required for enrolment

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.

PART B ELECTIVES

PUBH5019
Cancer Prevention and Control

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
Professor Adrian Bauman

Session: Semester 1
Classes: 20 hrs online lectures; 16 hours online discussions
Assessment: 1000 word assignment (20%), 2000 word assignment (40%), online discussions and participation (40%)

Assumed Knowledge: PUBH5033, PUBH5010 or CEPI5100 or equivalent

Note: Department permission required for enrolment

This course offers a public health approach to examining the global issue of chronic diseases (e.g. cardiovascular disease, type 2 diabetes, cancer, chronic lung disease) and their prevention. The course examines why chronic disease is a global problem, and describes WHO frameworks for chronic disease prevention. It also reviews the epidemiology of specific chronic diseases including trends in and surveillance of these conditions, and the global (and country level) burden of disease. Teaching will focus on clinical prevention, in particular, the role of primary care, other clinicians and allied health professionals in providing lifestyle advice for people with chronic disease (tertiary prevention) and for people without chronic disease (primary prevention).
Students will be involved in evaluating the effectiveness of different prevention strategies and will examine the role of health policy and strategic planning in developing effective and sustainable chronic disease management programs and health services 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**  
A/Prof James Gillespie, A/Prof Alison Hayes  
**Session:** Semester 2  
**Classes:** 2-day workshop; fully online version available  
**Assessment:** Multiple choice assessment (50%); Written assignment of 1000 words (50%)

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.

**PUBH5422**  
**Health and Risk Communication**

**6 Credit Points**  
Dr Claire Hooker, Associate Professor Julie Leask, Professor Phyllis Butow  
**Session:** Semester 2  
**Classes:** 4x8hr intensive or Distance Education (online). Attendance is compulsory if enrolled in face-to-face mode  
**Prohibitions:** BETH5208

**Assessment:** Continuous assessment (short weekly tasks) (10%); 2x400wd short tasks (10%); 1x1500wd essay (30%); 1x2500wd essay (50%)

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

**Note:** 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. Students will be contacted if this occurs.

Textbooks: All readings are made available via eLearning.
BETH5203
Ethics and Public Health

6 Credit Points
A/Professor Stacy Carter
Session: Semester 2
Classes: 5x7hour intensives; or Distance Education (online). Prohibitions: BETH5206
Assessment: 5xOnline Quiz (50%); 1x2500wd essay (50%)

This unit provides students with an overview of the ethical and policy issues that underlie public health and public health research. The unit begins with some fundamentals: the nature of ethics, of public health (and how it might be different to clinical medicine) and of public health ethics. It introduces key concepts in public health ethics including liberty, utility, justice, solidarity and reciprocity, and introduces students to different ways of reasoning about the ethics of public health. A range of practical public health problems and issues will be considered, including ethical dimensions of communicable and non-communicable diseases in populations, and the ethical challenges of public health research. 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
A/Professor Ainsley Newson
Session: 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%); 2x400wd Short Tasks (10%)

This unit will facilitate students to critically review 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.

Note: 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. Students will be contacted if this occurs.

Textbooks: All readings are accessed online via eLearning.

BETH5208
Introduction to Human Research Ethics

2 Credit Points
A/Professor Ainsley Newson
Session: Semester 2a
Classes: Block mode (1.5 days) or online
Prohibitions: BETH5202
Compulsory Co-requisites: GENC5020
Assessment: 1x1500wd essay (80%); 1x 400wd task (10%); participation in class/online (10%)

Additional Info: If an insufficient number of students opt to attend seminars on campus, the coordinator may choose to teach this Unit of Study in online mode only. Students will be contacted if this occurs.

This unit 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 briefly reviews the history of research and the impact of research abuse on human participants.

Textbooks: All readings are accessed online via eLearning.

BETH5209
Medicines Policy, Economics and Ethics

6 Credit Points
Dr Wendy Lipworth, Narcyz Ghinea
Session: Semester 2
Classes: Fully online
Assessment: Online work (15%) 1x minor essay (35%) 1x major essay (50%)
Assumed Knowledge: A degree in science; medicine; pharmacy; nursing; allied health; philosophy/ethics; sociology/anthropology; history; law; communications; public policy; business; economics; commerce; organisation studies; or other relevant field; or by special permission.

Medicines save lives but they can be costly and can have serious adverse effects. Value-laden decisions are continuously being made at individual, institutional, national and international levels regarding the medicines we need, want and can afford. In this unit of study, we will explore and critique global and national policies and processes related to medicines, examining how research and development agendas are set; how medicines are assessed and evaluated; and how new technologies are translated into practice. We will also explore broader trends such as globalisation, commercialisation and changing consumer expectations. By the end of the course, students will understand the forces shaping
the development, regulation, funding and uptake of medicines both nationally and internationally, and the political, ethical, legal and economic issues that are at stake. This course is designed to appeal to a wide range of students from ethics, law, public health, health care, policy, communications, economics, business, politics, administration, and biomedical science. Students will be encouraged to focus on issues of most relevance to their own area of study or work.

Textbooks: Readings will be provided

HPOL5006
Business of Health

Note: Department permission required for enrolment. Students need to demonstrate at least one year’s work experience in a related field. A waiver would be granted for students enrolled in MHPOL or MBA as this is already a course requirement of these programs.

6 Credit Points
A/Prof James Gillespie, Prof John Buchanan
Session: July Intensive Classes: Block/intensive mode – 5 days Assessment: Tutorial assessments and presentations (20%), 1x2000wd report (30%), 1x3000wd essay (50%)

Healthcare is now one of the largest employers and sectors in the Australian economy. Approximately two thirds of its funding comes from government, while two thirds of services are provided by the private sector. This unit explores this complex mix, building an understanding of the inter-relationships among the players in the industry, public and private. The course will explore the financial and regulatory environment in which providers operate and identify the main business models used by different players in the industry, including service providers, private insurers, employers, and government regulators.

The unit will draw on expert lecturers and case studies to give an understanding of the incentives, constraints that shape strategies to create value in Australian healthcare.

Students’ outcomes will include an understanding of the ‘eco-system’ of Australian healthcare and a capacity to identify and evaluate public and private business strategies in the main healthcare sectors.

Textbooks: Course reading list will be provided.
Useful resources during your candidature

Throughout your studies the University will communicate with you via your University email account, MyUni and eLearning site. 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](http://sydney.edu.au/myuni)) and log into your Sydney Student account.

**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/](http://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 unikey@uni.sydney.edu.au. For more information on Sydney Mail please see [sydney.edu.au/ict/student/email](http://sydney.edu.au/ict/student/email).

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
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. LMS 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/study/learning-and-teaching/timetable.php

Useful IT links

- Student IT Portal - sydney.edu.au/ict/student/
- Access Labs in the University - sydney.edu.au/ict/student/locations/city-campus.shtml

“...The clinical epidemiology course came highly recommended but was even better than I anticipated. Epidemiology and biostatistics is taught extremely well and the assignments were very relevant to my work. “

BRADLEY
MASTER OF MEDICINE
(CLINICAL EPIDEMIOLOGY)
Student guides


University of Sydney policies

- Sydney Medical School Policies and Forms - sydney.edu.au/medicine/current-students/policies-forms/index.php

Library and research

- University of Sydney Library - library.sydney.edu.au

School of Public Health timetables


Campus Cards

- sydney.edu.au/campus-cards

Special Consideration

- sydney.edu.au/current_students/special_consideration/

General information and support services

For information about academic support and appealing against academic decisions please see sydney.edu.au/students/browse.html?category=administration&topic=complaints-and-appeals

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/study/academic-support/aboriginal-and-torres-strait-islander-support.html
- 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/study/academic-support/disability-support.html
- International Office - sydney.edu.au/study/academic-support/support-for-international-students.html
- Scholarships - sydney.edu.au/scholarships/
Meet the Clinical Epidemiology Team

Teaching staff

A/Prof Clement Loy is a clinical epidemiologist and cognitive neurologist, with a research interest in molecular genetics. He is Director of the Huntington Disease (HD) Service at Westmead, which serves about 70% of people with HD in New South Wales. He is an investigator in a number of NHMRC and NIH funded projects, and clinical trials for people with HD. He likes numbers, went through the Clinical Epidemiology program in the late 1990s, and enjoys teaching clinical epidemiology. He strives to translate evidence into practice and serves on a number of governmental advisory panels, including the Economic Subcommittee of the PBAC.

Dr Sharon Reid MBBS MPH FRACGP FRANZCOG Dip Paed a Senior Lecturer in Clinical Epidemiology at the School of Public Health, University of Sydney. She is also a General Practitioner and works clinically in Addiction Medicine at Royal Prince Alfred Hospital. Sharon’s main research and academic interests are around postgraduate teaching and learning, systematic reviews, quality and safety in health care, and drug health impacts on women. She enjoys family, friends, gentle gym work-outs and ‘Rocky Road’ Chocolate.

Dr Fiona Stanaway is a medical doctor with a special interest in immigrant health. She completed a Master of Public Health followed by a PhD on health and ageing in Italian Immigrants in Australia. Fiona has been heavily involved in teaching Evidence Based Medicine to medical graduates for a number of years, before taking on the role of Course Coordinator for the Clinical Epidemiology Program. She also coordinates the core unit of the Clinical Epidemiology Program, CEPI5100 Introduction to Clinical Epidemiology. Her many and varied interests include ballet classes, making her own clothes and learning foreign languages. She aims to be fluent in ten languages before she dies (currently up to four).
Prof Jonathan Craig is a Senior Staff Specialist in Paediatric Nephrology at the Children’s Hospital at Westmead and holds a personal Chair in Clinical Epidemiology in the School of Public Health at the University of Sydney. He has an interest in the development, synthesis, dissemination and implementation of clinical research evidence to guide clinical decision-making, particularly in the area of kidney disease and child health. He is Coordinating Editor of the Cochrane Kidney and Transplant Group and is Associate Dean of Research for the Faculty of Medicine. He is on PBAC and MSAC and so has an understanding of how research can be used in policy decisions.

A/Prof Angela Webster is a Nephrologist and Transplant Physician, having trained in England, Scotland and Australia. She studied clinical epidemiology and subsequently a PhD at the University of Sydney. Always believing one job is never enough, she now splits her time between her staff specialist appointment at Westmead hospital and teaching and research in clinical epidemiology at the school of public health. Her research interests are wide ranging, but centre around design and reporting of studies, and on the theme of the interaction of chronic diseases. She can’t function without a cup of tea in the morning, and her favourite things include her young son, snorkelling on sunny days, camping in remote places, purring cats, left-field British comedy and long evenings sharing food and wine with friends.

Dr Naomi Noguchi is an Associate Lecturer in Clinical Epidemiology. Naomi practiced primary care with geriatric patients in Japan before obtaining her Masters of Public Health and PhD in epidemiology from the University of Sydney. Her PhD was on the Concord Health and Ageing in Men Project (CHAMP study), with a particular focus on older men’s urinary symptoms. Her research interests include the geriatric syndromes and frailty, and her passion has always lied in teaching EBM subjects. Naomi is a keen ocean swimmer and also enjoys stand-up paddle boarding, cooking, baking and reading.
A/Prof Germaine Wong is a nephrologist at Westmead Hospital, with special interests in transplantation. She is also NHMRC Post-doctoral Research Fellow, Ludwig Engel Research Fellow and Senior Lecturer at the School of Public Health, University of Sydney. Her main areas of research interests include: cancer epidemiology in the chronic kidney disease, social ethics in organ donation and allocation, decision analytical modelling, health economics, population health research, and quality of life studies in patients with chronic kidney disease.

Adjunct A/Prof Giovanni Strippoli is a nephrologist and epidemiologist at the School of Public Health at the University of Sydney. He is chairman of the Academy and SVP Scientific Affairs at Diaverum, a global organization active in education and research and treating over 30,000 people with chronic kidney disease worldwide. He has an interested in the design, conduct, synthesis, dissemination and implementation of clinical research evidence to guide clinical decision making in the area of chronic kidney disease, diabetes and hypertension. He is an author of more than 200 peer-reviewed publications, and deputy Coordinating Editor of the Cochrane Kidney & Transplant Group. He enjoys collecting and breeding rare and exotic macaws, among other species in his menagerie located in Southern Italy.

Administration staff

Ms Karolina Kulczynska-Le Breton is the Program Administrator for the Clinical Epidemiology and Biostatistics programs. She completed a Bachelor degree in Russian and Spanish studies, followed by a Master of Cross-cultural Communication at The University of Sydney. Currently she is completing a Master of Business Administration, majoring in Human Resource Management. Her passions include learning foreign languages (currently she speaks four), traveling, reading fiction novels, and classical music. She is a soprano singer in Sydney Philharmonia Choirs.
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.

Clinical Epidemiology Program

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F +61 2 9351 7420
E sph.cepi@sydney.edu.au

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<td>Clinical Epidemiology Program Administrator</td>
<td>General course enquiries</td>
<td><a href="mailto:sph.cepi@sydney.edu.au">sph.cepi@sydney.edu.au</a></td>
<td>+61 2 9351 5994</td>
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<tr>
<td>Clinical Epidemiology Course Coordinator</td>
<td>Requests to undertake non-recommended elective units of study</td>
<td><a href="mailto:fiona.stanaway@sydney.edu.au">fiona.stanaway@sydney.edu.au</a></td>
<td>+61 2 9351 4380</td>
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<td>Unit of Study Coordinator</td>
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<td>See Unit of Study Outlines on page 25 for applicable coordinator</td>
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<td>Faculty Services Office</td>
<td>Changes to your candidature or enrolment</td>
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<td>+61 2 8627 8239</td>
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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
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