

POSTGRADUATE



2018

Department of Preventive and Social Medicine

Postgraduate Diploma/Certificate in Health Sciences endorsed in Occupational Health

Course Information



Postgraduate Diploma/Certificate in Health Sciences endorsed in Occupational Health

The Postgraduate Certificate in Health Sciences (PGCertHealSc), the Postgraduate Diploma in Health Sciences (PGDipHealSc) and the Master of Health Sciences (MHealSc) endorsed in Occupational Health are all taught through the Dunedin School of Medicine.

These programmes are designed to offer training in occupational health and safety for health science graduates, other graduates who may wish to pursue a career in health and safety, and those people who may already be working in the field. The programme covers hazard identification, risk assessment, hazard management (including legislation), occupational diseases, rehabilitation, occupational hygiene, toxicology, and research methods.

Eligibility

Candidates for the Postgraduate Diploma must either be graduates or hold an appropriate health professional qualification requiring at least three years of full time tertiary study. Admission is always subject to the approval of the Board of the Division of Health Sciences which will require evidence of the candidate's ability to undertake advanced academic study.

Structure of the PGDipHealSc (Occ Hlth)

The Diploma consists of the two occupational health and safety papers (OCCH 401 and OCCH 402), an approved research methods paper or papers to the value of 30 points, and one other paper at 400 level or higher. This equates to 120 points or the equivalent of one year of full-time study.

Structure of the PGCertHealSc (Occ Hlth)

The Certificate consists of the two occupational health and safety papers (OCCH 401 and OCCH 402).

OCCH 401 Occupational Health (30 points) (first semester)

Introduction to occupational health with an emphasis on the prevention of diseases caused by workplace hazards.

Prescription: Introduction to occupational health with an emphasis on the prevention of ill health caused by workplace hazards.



Description: Strategic management of health and safety risks in the workplace requires the systematic and analytical framework taught in this course. Students learn to recognize chemical, physical, biological, ergonomic and psychosocial hazards, and, using the bio-psychosocial model, develop evidence based strategies to manage and control health and safety risks. The graduate will have developed ‘hands on’ skills in the systematic evaluation of occupational health hazards and will be able to formulate a workplace specific health and safety management plan.

Teaching Staff: *Academic Leader*
Associate Professor David McBride, david.mcbride@otago.ac.nz
Course Lecturer
Donna Burt, donna.burt@otago.ac.nz

Paper Structure: The key themes are: The systematic evaluation of risks to health and safety in the workplace and the development of an evidence based management plan.

Teaching Arrangements: A three-day compulsory block weekend workshop in Dunedin. Interactive expert-led seminars by conferencing through Zoom.

Graduate Attribute Emphasised: *Specialist Knowledge:* To possess the ‘hands on’ skills in systematic evaluation of occupational or environmental health hazards in a working or general population.

Learning Outcomes: Students who successfully complete the paper will learn how to carry out a systematic investigation of the workplace in order to identify and manage risks to health and safety in the workplace. Using a team-based collegial approach, the graduate will be able to apply critical analysis skills and use ‘best practice’ in the development of a health and safety management plan.

OCCH 402 Occupational Safety (30 points) (second semester)

Introduction to workplace safety with an emphasis on managing health and safety systems and resources.

Prescription: Introduction to workplace safety with an emphasis on managing health and safety systems and resources.

Description: This paper has a focus on the analysis and management of environmental and psychosocial conditions that contribute to workplace injury and disease. Students will be taught best practice in hazard recognition, control and surveillance and will get team-based, hands-on practice in evaluating the

occupational environment. Graduates will be able to develop and operationalise a strategy to manage health and safety in the workplace so as to meet, and exceed, the requirements of the Health and Safety at Work Act.

Teaching Staff: *Academic Leader*
Associate Professor David, david.mcbride@otago.ac.nz
Course Lecturer
Donna Burt, donna.burt@otago.ac.nz

Paper Structure:

The focus areas of this paper are:

- Statutory requirements for health and safety in the workplace
- Principles of occupational safety
- Identification, assessment and control of safety hazards in the workplace
- Integrating health and safety programmes into management systems

Teaching Arrangements: A three-day compulsory block weekend workshop in Dunedin. Interactive expert-led seminars by conferencing through Zoom.

Graduate Attributes Emphasised: Interdisciplinary perspective, Critical thinking, Teamwork.

Learning Outcomes: Students who successfully complete the paper will be taught best practice in hazard recognition and get team-based, hands-on practice in evaluating the occupational environment. Graduates will be able to develop and operationalise a strategy to manage health and safety in the workplace so as to meet, and exceed, the requirements of the Health and Safety at Work Act.

Assessment

Assessment for each occupational health and safety paper will consist of:

- Two assignments contributing 60% to the final grade
- One final 3 hour examination contributing 40% to the final grade

Students must achieve a grade of at least 50% in each paper for:

- i Internal assessment (a grade of at least 50% across the two assignments) AND
- ii External assessment (a grade of at least 50% in the final examination).



Procedure for applying to study Occupational Health at The University of Otago

For further information please contact:

Occupational Health Secretary
Department of Preventive and Social Medicine
University of Otago
PO Box 56
Dunedin 9054
Tel: (03) 479 7201
Fax: (03) 479 7298
Email: occupational.health@otago.ac.nz

Closing dates for new or transferring enrolments each year are:

- First semester and full-year papers: 10 December in the year preceding the year of intended study
- Second semester papers: 15 June in the year of study

Closing dates for returning students each year are:

- First semester and full-year papers: 15 January in the year of intended study
- Second semester papers: 15 June in the year of study

(Late enrolments may be accepted but could incur a financial penalty)

Summary of Course Schedule

OCCH 401: Occupational Health (Semester One)

Study weekend in Dunedin (compulsory)

The content covered during the weekend includes:

- Site visits
- Ethical issues
- Occupational health carcinogens
- Respiratory hazards
- Noise management programmes
- Psychosocial issues

Introduction to Occupational Health

- Epidemiology of occupational diseases in New Zealand
- National surveillance systems
- Basic principles of workplace inspection
- Occupational health in the New Zealand context

Introduction to the workplace

- Health and safety legislation in New Zealand
- Management structures, industrial relations and the role of unions
- Occupational health services and the role of the occupational health professional

Diseases arising from exposure to physical hazards

- Noise and noise-induced hearing loss
- Thermal environment and lighting
- Ionising and non-ionising radiation (EMFs)

Diseases arising from exposure to chemical hazards I

- Heavy metals (lead, mercury)
- Skin disorders arising from occupational exposure



Diseases arising from exposure to chemical hazards II

- Organic solvents
- Pesticides
- Gases (simple and chemical asphyxiants, irritants)

Occupational respiratory diseases

- Asbestos-related diseases
- Occupational asthma

Diseases arising from exposure to biological hazards

- Bacteria (TB), viruses (HBV), zoonoses (eg., Leptospirosis)
- Farmers and diseases arising from exposure to biological hazards
- Health care workers and diseases arising from exposure to biological hazards

Disorders arising from psychosocial factors in the workplace

- Stress
- Fatigue
- Shiftwork

Ergonomics and human factors

- Workplace and machinery design and assessment
- Lower back pain
- Occupational upper limb problems

Prevention of occupational disorders

Health promotion at work

Summary of Course Schedule

OCCH 402: Occupational Safety (Semester Two)

Study weekend in Dunedin (compulsory)

The content covered during the weekend includes:

- Site visits and practicums
- Principles of occupational hygiene
- Work exposure standards
- Overview of health and safety legislation in New Zealand
- Employee participation

Health and safety systems in New Zealand

- Health and Safety Legislation
- Statutory responsibilities
- Codes of practice
- Advising on the statutory responsibilities of employers and employees

Occupational hygiene

- Control philosophy: hierarchy of controls
- The role of the Occupational Hygienist

Occupational toxicology (1)

- Introduction to toxicology
- Modes of absorption
- Toxicokinetics
- Practical application of work exposure standards

Occupational toxicology (2)

- Toxicity testing
- Carcinogens: carcinogenicity and mutagenicity
- Biological monitoring

The role of EPA, RMA and application of ERMA

Communicating health and safety messages

- Developing the best communication for workplaces
- Effective leadership in health and safety
- Report writing



Hazardous exposures (1)

- Outdoor air pollution
- Oxides of Nitrogen
- Sulphur dioxide

Hazardous exposures (2)

- Indoor air pollution
- Air quality
- Moulds

Incident management

- Accident/Incident prevention
- Theories of accident causation
- Incident investigation
- Management of accidents/incidents at work

Emergency preparedness

- Emergency management from an occupational health and safety perspective
- Emergency preparedness for the health and safety professional
- Application of emergency management theories to operational plans

Audit and quality control in health and safety

- Health and Safety auditing in workplaces
- The role of health and safety auditing for the health and safety professional
- Linking the value of health and safety audit to quality improvement opportunities

Please note that both papers include the following components:

1. A compulsory study weekend in Dunedin at the beginning of each semester
2. Two assignments (comprising 60% of the final mark)
3. One 3 hour final exam (comprising 40% of the final mark)
4. Three 'connect' sessions (these are similar to Skype sessions)

Recommendations

Recommended text:

Levy, BS, Wengman, DH, Baron, SL, Sokas RK. (2011). *Occupational and environmental health – recognizing and preventing disease and injury*. Philadelphia: Lippincott Williams and Wilkins. 6th ed.

This text is available to students as an online resource through the University of Otago Library

Research methods paper options

The preferred research methods paper for the PGDipHealSc endorsed in OCCH is:

AVME 785: Research Methods (first semester). Fully available online, (distance taught, Wellington).

Other options, which should be discussed with academic leader (David McBride)

GENA 821: Research Methods (full year). Taught in Dunedin (distance taught)

HASC 417: Health Sciences Research Methods (full year). Taught in Wellington (distance taught)

HEIN 706: Research Methods – Health Informatics (first semester). Fully available online (distance taught)

NURS 415: Nursing Research Methods (first semester) Taught on Christchurch campus in blocks (designed for nurses)

PHCY 506: Research Methods (second semester). Taught in Dunedin (distance taught)

PSME 406: Special Topic: Mental Health Research Methods (second semester). Distance with block courses in Christchurch.

You can find out more about each of these papers by searching for them on the University of Otago website at this link:

otago.ac.nz/courses/subjects/



Recommended optional papers

REHB 706: Work Rehabilitation (30 points) (second semester)

Contact: Programme Administrator
Rehabilitation Teaching and Research Unit
University of Otago, Wellington
Tel: 04 385 5591
Email: rtru@otago.ac.nz

HAZA 401: Management of Chemical Hazards (20 points) (first semester)

HAZA 404: Environmental Risk Assessment and Management (20 points)
(second semester)

HAZA 405: Basic Toxicology (20 points) (each semester)

HAZA 406: Risk Management Law I (20 points) (first semester)

HAZA 408: Radiation Hazards (20 points) (second semester)

HAZA 409: New Organisms: Risk Assessment and Management (20 points)
(each semester)

Contact: Dr Michelle McConnell, Course Director, Hazards Assessment and
Management
Tel: 64 3 479 5729
Fax: 64 3 479 8540
Email: michelle.mcconnell@otago.ac.nz

Please note that availability of these papers is subject to change.

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For further information contact:
Occupational Health Secretary
Preventive and Social Medicine
University of Otago
PO Box 56, Dunedin 9054
New Zealand
Tel: 64 3 479 7201
Fax: 64 3 479 7298
Email: occupational.health@otago.ac.nz
otago.ac.nz/dsm-psm

