DEPARTMENT OF HUMAN NUTRITION

UNIVERSITY OF OTAGO

POSTGRADUATE HANDBOOK 2019

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CONTENTS

DEPARTMENT OF HUMAN NUTRITION – TEACHING STAFF

	Topics Taught
Dr Katherine Black	Sports nutrition
Assoc Prof Rachel Brown	Nuts and health
Assoc Prof Anne-Louise Heath	Iron nutrition; infant nutrition; food-based strategies to improve micronutrient status
Assoc Prof Caroline Horwath	Theories of behaviour change; behavioural aspects of nutrition promotion; nutrition and health communication
Assoc Prof Lisa Houghton	Folate and vitamin D; infant and maternal nutrition, International Nutrition
Sue MacDonell	Nutrition of older adults
Assoc Prof Sheila Skeaff	Nutrients and the processes of nutrition; trace elements in health and disease, in particular iodine; sustainable foods and diets
Dr Bernard Venn	Vitamins; carbohydrates and metabolism; glycaemic load
Carla Thomson	Managing food production in a sustainable manner, food waste, food safety, teaching for professionalism, teacher development and reflective practice
Kirsten Webster	Foodservice management; nutrition and health

INTRODUCTION

Postgraduate students are normally admitted to one of the following programmes:

(a) Honours
    a. Bachelor of Science (Hons) in Human Nutrition;
    b. Bachelor of Applied Science (Hons) in Sports Nutrition
(b) Postgraduate Diploma
    a. Postgraduate Diploma in Science in Human Nutrition;
    b. Postgraduate Diploma in Applied Science in Sports Nutrition
(c) Master's
    a. Master of Dietetics;
    b. Master of Science in Human Nutrition;
(d) Students with a relevant prior degree in biological sciences may be admitted to:
    a. Postgraduate Certificate/Diploma in Health Sciences in Human Nutrition
    b. Master of Health Sciences in Human Nutrition
(e) PhD in Human Nutrition.

Research may be conducted in a variety of settings ranging from the community to the experimental laboratory and can involve dietary, anthropometric, laboratory and clinical assessment; experimentally controlled nutrition intervention studies; epidemiological studies, and qualitative research.

HUMAN NUTRITION POSTGRADUATE PAPERS

HUNT441	Research Methods	Semester two	**20 points**
HUNT445	Applications in Sport and Exercise Nutrition	Semester one	**20 points**
HUNT 452	Nutrition and Human Health	Semester two	**20 points**
HUNT 454	Nutritional Biostatistics	Semester one	**20 points**
HUNT 455	Advanced Topics in Human Nutrition	as required	**20 points**
HUNT 485	Research Project (PGDipSci)	Full year	**20 points**
HUNT 490	Research Project* (PGDipSci)	Full year	**60 points**
HUNT 495	Preliminary Thesis Research (MSc)	Full year	**40 points**

Candidates for a **Postgraduate Diploma in Science** can undertake a research project (HUNT 490 or 485) or HUNT455.

Candidates for a **Master's degree** undertake preliminary thesis research (HUNT 495 **and** a full research thesis HUNT 5).

A Master's degree **by thesis only** is available for students who have previously passed 400 level papers e.g. a BSc(Hons) graduate or a PGDipSci graduate with suitable grades.

Note:
Students who are intending to enrol full-time for fourth year Honours or the papers year or the MSc can apply for the **Bee Nilson Scholarship**. This scholarship is available only to Human Nutrition and Food Science students* who have completed their undergraduate degree at Otago. Information regarding all University scholarships is available from the Scholarships Office.

*HUNT, FOSC or CFSC majors only

BACHELOR OF SCIENCE BSc(HONS) IN HUMAN NUTRITION

To be admitted to the above degree in Human Nutrition students must fulfil one of the following conditions:

i. have been admitted to the degree of Bachelor of Science majoring in the subject or subjects of study proposed with an average grade of at least B+ for the appropriate 300-level papers; (HUNT 311-314; 355)
ii. have been admitted with the status of one who is entitled to proceed to the degree;
iii. have a qualification acceptable to the Pro-Vice-Chancellor and produce evidence acceptable to the Pro-Vice-Chancellor of ability to proceed to the degree.

The Honours programme must be completed in one year of full-time study. The research project must be submitted by June or October of the semester in which the degree is completed.

Normal structure for the programme is set out below. Some variations may be possible. Consult the University Calendar or the Postgraduate Coordinator.

The BSc(Hons) may be completed by taking

- HUNT 490 Dissertation
- HUNT 441 Research Methods
- HUNT 454 Nutritional Biostatistics

And 20 points from

- HUNT 445 Applications in Sport and Exercise Nutrition
- HUNT 452 Nutrition and Human Health
- Or another approved 400-level paper

With the permission of the Heads of Departments concerned, a candidate may substitute a paper of another subject for one of the required papers.

Full regulations for the degree can be found at:
www.otago.ac.nz/courses/qualifications/bschons.html

BACHELOR OF APPLIED SCIENCE WITH HONOURS (BAppSc(Hons)) IN SPORT AND EXERCISE NUTRITION

To be admitted to the above degree in Sport and Exercise Nutrition students must fulfil one of the following conditions:

i. have been admitted to the degree of Bachelor of Applied Science majoring in the subject or subjects of study proposed with an average grade of at least B+ for the appropriate 300-level papers.
ii. have been admitted with the status of one who is entitled to proceed to the degree;
iii. have a qualification acceptable to the Pro-Vice-Chancellor and produce evidence acceptable to the Pro-Vice-Chancellor of ability to proceed to the degree.
iv. The Honours programme must be completed in one year of full-time study. The research project must be submitted by 1 June or 1 November of the semester in which the degree is completed.

Normal structure for the programme is set out below. Some variations may be possible. Consult the University Calendar or Dr Katherine Black, Co-ordinator of the programme.

Papers:

- HUNT 490 Research Project **60 points**

- **One of**
  HUNT 441 Research Methods **20 points**
  HUNT 445 Applications in Sport and Exercise Nutrition **20 points**
  HUNT 452 Nutrition and Human Health, **20 points**
  APPS 499 Applied Science Work Experience **5 points**

  One further approved 400-level paper

With the permission of the Heads of Departments concerned, a candidate may substitute a paper of another subject for one of the required papers.

Full regulations for the degree can be found at:
http://www.otago.ac.nz/courses/qualifications/bappsc.html

POSTGRADUATE DIPLOMA IN SCIENCE (PGDipSci)

Admission requirements for the Postgraduate Diploma in Science are given on the University of Otago website http://www.otago.ac.nz/courses/qualifications/pgdipsci.html. The course may be taken by full-time candidates in one year, or by part-time candidates over more than one year.

A Postgraduate Diploma can be obtained by taking either papers only or by taking papers plus a research paper (HUNT 485) or dissertation (HUNT 490).

Papers only option:

- HUNT 441 Research Methods
- HUNT 452 Nutrition and Human Health
- HUNT 454 Nutritional Biostatistics

and 60 points from

- HUNT 445 Applications in Sport and Exercise Nutrition
- HUNT 455 Special Topics
- HUNT 485 Research Project
- NUTN 407 Advanced Sports Nutrition,
- or other approved 400-level papers

or

- HUNT 490 Dissertation
- HUNT 454 Nutritional Biostatistics
- HUNT 441 Research Methods
- and 20 points from:
    - HUNT 445 Applications in Sport and Exercise Nutrition
    - HUNT 452 Nutrition and Human Health
    - or other approved 400-level papers

With the permission of the Head of Department, a candidate may substitute up to two papers from other related courses of equal standing. (See Appendix D for approved alternative courses.)

For Diploma of Science students opting to take HUNT485 or HUNT490, the research report or dissertation must be submitted **in October.** Some guidelines for the format of the report are given in Appendix D.

International students in the Department of Human Nutrition may be required to undertake supplementary study in addition to that prescribed above, depending on their academic record and completed academic qualifications.

DIPLOMA FOR GRADUATES

The Diploma for Graduates (DipGrad) can be used for many purposes, and in some cases, effectively provides an additional major. It requires you to do at least seven papers, of which at least four are at 300-level or above. The programme is designed for graduates and may be completed by full-time candidates in one year or by part-time candidates over more than one year.

A DipGrad is a great way to retrain or to update existing qualifications. Many students also find it a convenient way to continue learning and that it is a useful bridge to postgraduate study.

Information for new applicants

The DipGrad is intended for students who have earned a degree. In some cases a student who has not earned a degree may also be eligible.

There are two types of DipGrad: Flexible and Endorsed.

- The Flexible DipGrad allows you to build on any extra papers you may have taken during your degree.
- The Endorsed DipGrad allows you to concentrate your papers in one specific subject area as if you were acquiring an extra major.

If you're thinking of doing a DipGrad, start by talking it over with the DipGrad Director who will advise you of your options. You will then need to complete the online application process to apply for the DipGrad programme and select your papers. This is the usual enrolment process that starts with an online application and ends with a Form for Course Approval. This form needs be signed by the DipGrad Director.

While the DipGrad requires you to do at least seven papers, of which at least four are at 300-level, not all papers at the University are worth 18 points, so the regulations regarding the DipGrad are given directly in terms of points.

Note: Endorsement may require enrolment in papers totalling more than 120 points, depending on the extent of prior study in relevant subjects and whether the student wishes to be eligible for postgraduate study in the subject of endorsement.

Regulations for the Diploma for Graduates (DipGrad)

Admission to the Programme

(a) Admission to the programme shall be subject to the approval of the Senate.

(b) Every applicant shall

(i) have been admitted to a degree or a diploma of a university in New Zealand; and

(ii) have attained a satisfactory standard of performance in that degree or diploma; or

(iii) have submitted evidence satisfactory to the Senate of previous training and experience appropriate to the planned programme of study.

The diploma may be taken in any subject or combination of subjects which constitutes a justifiable and academically feasible programme, taking into account the prior qualifications and experience of the candidate concerned. The papers to be included shall be decided in consultation with the Programme Director and the Heads of the Departments concerned.

Structure of the Programme

(a) Every programme of study for the diploma shall

(i) consist of papers worth at least 120 points;
(ii) include at least 72 points for papers at or above 300-level;
(iii) include such other work as may be prescribed in particular cases.

(b) The Diploma may be endorsed in any of the subjects defined in the Schedule of Endorsements if the programme includes the requirements specified in the Schedule.

(c) Students who have been granted transfer credit, ad eundem credit, or RPL credit, on the basis of work which has not been counted towards any other qualification, may include up to 60 points for such credit in a programme. The credit may be at 100- or 200-level only, except in the case of students participating in the Student Exchange Programme, who may be credited with papers at 300-level or above.

MASTER OF APPLIED SCIENCE (MAppSc) IN SPORT AND EXERCISE NUTRITION

Admission to the Programme:

a. Admission to the programme shall be subject to the approval of the Pro-Vice-Chancellor (Sciences).
b. Every applicant shall have fulfilled one of the following conditions:
    i. be a graduate and have achieved an average grade of at least B in the relevant 300-level papers;
    ii. have obtained a Postgraduate Certificate or a Postgraduate Diploma in Applied Science with an average grade of at least B;
    iii. have equivalent alternative qualifications or experience acceptable to the Pro-Vice-Chancellor (Sciences).
c. In considering an applicant's qualifications, regard will be had to the detail of the course of study followed to gain the qualification, as well as the applicant's performance in the programme.

A Master of Applied Science can be obtained by taking:

Three of

- HUNT 441 Research Methods
- HUNT 445 Applications in Sport and Exercise Nutrition
- HUNT 452 Nutrition and Human Health
- NUTN 407 Advanced Sports Nutrition (30 points)

- Four further approved 400- or 500-level papers

- One of
    - APPS 596 Commercialisation Project
    - APPS 597 Supervised Independent Study
    - APPS 598 Workplace-based Project

  Substitutions of other postgraduate papers may be approved by the Head of the Department of Human Nutrition

MASTER OF SCIENCE IN HUMAN NUTRITION (MSc)

The objectives of the MSc degree in Human Nutrition are to introduce the candidate to human nutrition research at the frontiers of knowledge and to train them in relevant research techniques.

The MSc in Human Nutrition is designed to provide a comprehensive and cohesive programme for those entering the Master's level as a terminal degree. The programme requires successful completion of prescribed course work, a written thesis, and oral presentations of the research proposal and results in the departmental seminar series.

The MSc degree may be completed in two ways:

The first option is by successful completion of the following prescribed papers in the Department of Human Nutrition and a thesis embodying the results of supervised research.

The prescribed papers are:

- HUNT 495 Master's Thesis Preparation
- HUNT 441 Research Methods
- HUNT 454 Nutritional Biostatistics
- HUNT 452 Nutrition and Human Health

And 20 points from:

- HUNT 445 Applications in Sport and Exercise Nutrition
- HUNT 455 Advanced Topics in Human Nutrition
- or another approved 400-level paper

and

- HUNT 5 (Thesis).

Note:

i. Note: taking both HASC 413 and PUBH 721 may be substituted for HUNT 454.

ii. Only in exceptional circumstances may the above paper requirements be fulfilled after February of the second year of the MSc degree.

iii. A student may, in consultation with the supervisor, add or substitute an alternative paper of an equivalent level and points value, if the student's research project requires it.

iv. A candidate undertaking both papers and thesis whose paper results are not satisfactory as defined by the department or subject area concerned, or who does not achieve a grade of at least a *B+* for the research report, thesis preparation or dissertation requirement of the programme, shall be required to withdraw from the programme.

In the second year of the MSc students are usually enrolled full-time in their thesis (HUNT 5).

The second option is to complete **a thesis only**. For this option the candidate's qualification for entry to the MSc degree is a BSc with Honours or the Postgraduate Diploma in Science or

equivalent with an average grade of B+ or higher for the research project, thesis preparation or dissertation requirement of the qualification concerned.

Students are encouraged to refer to the Graduate Research website which provides a comprehensive outline of all details relating to the Master's programme.

Admission

Graduates from the Department of Human Nutrition at the University of Otago may be admitted following completion of a BSc, provided they have at least a B+ average in the HUNT311-314 (although under special circumstances a B average will be considered). Admission to the MSc programme in Human Nutrition for students from other universities is normally by a Postgraduate Diploma in Science. Exceptions can be made provided students hold an Honours degree in Human Nutrition or related discipline.

Adequate background and experience will be ensured by the departmental Postgraduate Admissions Committee for all students before they are permitted to enter the programme. Acceptance as a candidate for the MSc degree is dependent upon the Department being able to provide adequate research funds and supervision in the intended area of research.

Fees

Master's candidates are required to enrol and pay the prescribed fees each year until the thesis is submitted. Rules about thesis submission dates and an explanation on pro rata fees can be found on the Graduate Research website.

HUNT 5 – Master's thesis

The MSc research is conducted in an area that is being investigated within the Department and under the guidance of one or more supervisors, at least one of whom shall be a staff member in the Department of Human Nutrition. The Master's thesis proposal must be appropriate in terms of scope of the research question, time limitations, availability of subjects (where appropriate), equipment, and cost to ensure completion within the period allotted for the MSc degree requirements. In the event that appropriate supervision and/or research funds are not available in a student's first choice of a research topic, an alternative research area must be selected.

Early Stage: Preparation

HUNT495

First year MSc students are required to enrol in HUNT 495 (MSc Thesis Preparation). The HUNT 495 paper involves preliminary reading on the research topic, preparing an ethical approval form, development of a research grant, and presentation of a proposal seminar to staff and students in the Department.

Typically during the second semester of Year 1, MSc candidates should prepare a written thesis proposal in consultation with their supervisor(s), together with an approved budget.

Ethics

Ethical approval from the University of Otago Ethics Committee, or as appropriate the Otago District Health Board Ethics Committee, must be sought at this time for all

research involving the use of humans or of personal information (including health records). All of the University's relevant ethical guidelines for research with human participants and information about applications can be found at the following website: http://www.otago.ac.nz/administration/academiccommittees/otago015522.html

Presentation of thesis proposal

Presentation of MSc thesis *proposals* in the departmental seminar series should take place during the second semester of the first year of the programme and will be marked.

Second stage: Writing the thesis

The University Library has produced detailed notes on the preparation of theses from start to finish. The latest version of the document may be viewed at the following website: http://otago.libguides.com/thesisinformation

Candidates must be very careful in using material from other authors and ensure that it is properly acknowledged and permission obtained to reproduce copyright material in other publications.

The thesis can take the form of either a comprehensive thesis (of not more than 40,000 words of text excluding appendices, footnotes and bibliographies) or research paper(s). Candidates are strongly encouraged to submit a duplicated published text of submitted or published research paper(s) as part of the thesis. Additional material that must be included with submitted or published research paper(s) are: general abstract, a full introduction, brief literature review, and a final overall conclusion. It is important that all authors listed on the publication(s) have contributed in a significant way to the work. Any technical assistance and the source of funding support must be acknowledged in any publications arising from the thesis research.

Presentation of results

Presentation of the research results in the departmental seminar series is expected and this should take place during the final semester of study.

MSc candidates are encouraged to present their research thesis results at a professional meeting such as the New Zealand Nutrition Society and to submit their thesis results for publication in a peer-reviewed journal before they leave the Department. It is customary for papers arising from student thesis research and presentations at scientific meetings based on thesis research to be co-authored by the student and the Department research supervisor(s) (and others who have contributed significantly to the research). The principal author is responsible for the entire publication and should ensure that other authors accept, in writing, responsibility either for the entire paper or for that part of it with which they were concerned. Understanding about authorship of publications from a thesis should be determined at the time of proposal development and approval. Original data of published material should be archived for five years after publication for possible future scrutiny.

POSTGRADUATE CERTIFICATE/ DIPLOMA IN HEALTH SCIENCES ENDORSED IN HUMAN NUTRITION

These qualifications are intended for New Zealand-resident professionals in the healthcare and education sectors without a background in Human Nutrition but with a strong background in biological sciences or Health Science. Although a background in Human Nutrition is not required, a background in physiology and biochemistry is strongly recommended.

These qualifications are intended for health and education professionals who are seeking to develop or update their nutrition knowledge and skills in order to complement their work as general practitioners, nurses, pharmacists, dentists, dental nurses, health education or home economics teachers. They are tertiary, not professional, qualifications and do not prepare participants to practise as dietitians. Furthermore, the qualifications are not intended for recent graduates in Human Nutrition.

The PGCertHealSc and the PGDipHealSc (Human Nutrition) provide an entry pathway to return to or continue tertiary studies and gain a postgraduate qualification. Students successfully completing the PGCertHealSc in Human Nutrition and achieving at least a B average are eligible to proceed to the PGDipHealSc endorsed in Human Nutrition.

The PGDipHealSc enables the development of postgraduate-level skills in the field of human nutrition, including an advanced capacity for appraisal of research evidence in this field. The qualification provides an entry pathway to continue tertiary studies and gain a postgraduate qualification and entry to a distance-taught Master's programme. At least a B+ average will be required in the Human Nutrition papers for entry into the Master's programme.

Papers available

NUTN 401	Principles of Human Nutrition	**30 points**
NUTN 402	Nutrition and Health Promotion	**30 points**
NUTN 404	Nutrition and Chronic Disease	**30 points**
NUTN 407	Advanced Sports Nutrition	**30 points**

Requirements:

PGCertHealSc	NUTN401 and one of NUTN402, 404, 407
The PGDipHealSc	NUTN401; two of NUTN402, 404, 407; further approved papers to the value of 30pts

MASTER OF HEALTH SCIENCES ENDORSED IN HUMAN NUTRITION

The MHealSc programme enables healthcare and education professionals to develop advanced skills in the field of human nutrition, including research design skills, and to undertake supervised research in a human nutrition-related area. This is not a professional qualification and does not prepare participants to practice as dietitians.

This qualification is designed to provide a route by which health professionals may gain a Master's degree in Human Nutrition through full or part time study at distance. The Master of Health Sciences endorsed in Human Nutrition (MHealSc) may be undertaken either as a thesis option or a coursework option.

The Master of Health Sciences endorsed in Human Nutrition is intended for New Zealand-resident professionals with a PGDipHealSc (Endorsed in Human Nutrition), PGDipSc (Community Nutrition) or PGDipDiet. If you are interested in undertaking a MHealSc degree, you are advised to complete an approved 30 point research methods paper as part of your PGDipHealSc. If you have completed the PGDipHealSc first without an approved research methods paper, you will normally be required to complete such a paper before commencing a research thesis or dissertation.

Papers available

NUTN 401	Principles of Human Nutrition	**30 points**
NUTN 402	Nutrition and Health Promotion	**30 points**
NUTN 404	Nutrition and Chronic Disease	**30 points**
NUTN 407	Advanced Sports Nutrition	**30 points**

Requirements:

Thesis option	NUTN401; two of NUTN402, NUTN404, and NUTN407; and 30pts of approved research methods paper and a 120pt thesis.
Coursework option	NUTN401; two of NUTN 402, NUTN404, and NUTN407; and approved research methods paper to the value of 30pts, and further approved papers (may include the remaining NUTN paper) to the value of 60pts; and a 60pt research dissertation.

PhD IN HUMAN NUTRITION

The doctoral programme in Human Nutrition aims to promote intellectual independence and to develop the attitudes and capabilities to undertake further independent research at an advanced level. The PhD is distinguished from a Master's, both in the nature and depth of scholarship expected.

There is no required course work for the PhD at the University of Otago. Candidates, however, may be asked to enrol in a paper(s) to gain additional knowledge or skills relevant to the proposed research.

The degree of Doctor of Philosophy at the University of Otago is acquired solely by the submission of a research thesis prepared under supervision. All PhD students are required to have at least two supervisors for their research. The research undertaken must make a significant contribution to knowledge and understanding or application of knowledge. As well, the PhD research is expected to lead to publication in *international refereed* journals and to seminar and/or conference presentations at *major* professional meetings.

Entry requirements

Students entering a PhD programme should show potential for independent, productive, original research. A PhD programme can be entered by three routes:

(i) successful completion of an Honours degree or equivalent with excellent academic standing and strong indications of research potential in Human Nutrition or related discipline

(ii) completion of an MSc programme

(iii) in exceptional circumstances, students can transfer to the PhD degree prior to completion of an MSc programme. Students wishing to be considered for transfer to a PhD programme prior to completion of the MSc programme must so indicate before the end of the second semester of the MSc programme.

Criteria for transfer include demonstration of all or some of the following:

(a) excellent academic record as indicated by at least an A-average in the 400-level prescribed papers;

(b) evidence of a strong aptitude for independent, productive and original research;

(c) demonstration of excellent oral and written communication skills;

(d) demonstration of involvement in the preparation and submission of a research article to a peer-reviewed scientific journal.

The final decision regarding transfer to the PhD programme is made by the University's PhD Academic Advisory Committee, and must have the support of the supervisor(s) and the Head of Department. Information for students wishing to transfer from Master's to PhD is con the Graduate Research website.

Acceptance as a candidate for the PhD degree is also dependent upon the Department being able to provide adequate research funds and expert supervision in the intended area of research. Initial registration for the PhD degree is provisional and is confirmed after one year of full-time or part-time study. It is necessary for all PhD students to both apply for

registration as PhD candidates and enrol in each year of study as students of the University of Otago.

Reporting Progress

The PhD programme is supported by a rigorous process for reporting progress as required by the regulations for the PhD degree. The reporting system is based on two major principles:

- The process should provide a stimulus for honest dialogue between the candidate, supervisors and the department; and
- The process should encourage candidates to conduct a careful and regular review of their achievements and to set goals for the next phase of research.

The timing of progress reports is calculated from the date of admission to the programme.

Progress reports are due at the following intervals: after six months, one year, and then annually thereafter until the submission of the thesis or termination of candidature. Further details of the reporting progress is available on the Graduate Research website.

Publications arising from the thesis research work

It is customary for papers arising from student thesis research and presentations at scientific meetings based on thesis research to be co-authored by the student and the Department research supervisor(s) (and others who have contributed significantly to the research). Understanding about authorship of publications from a thesis should be determined at the time of proposal development and approval. When preparing research papers for publication, the principal author is responsible for the entire publication and should ensure that other authors accept, in writing, responsibility either for the entire paper or for that part of it with which they were concerned. It is important that all authors listed on the publication shall have contributed in a significant way to the work.

When papers based on work completed as part of the PhD thesis are submitted, are in press, or in print, it may be possible to include them as chapters in the thesis, providing that the thesis as a whole presents a coherent and integrated account of the research. More information is available in the Graduate Research website.

During the preparation of the thesis, candidates must be very careful in using material from other authors and ensure that it is properly acknowledged and permission obtained to reproduce copyright material in other publications.

Any technical assistance and the source of funding support must also be acknowledged in any publications arising from the thesis research. Original data of published material should be archived for five years after publication for possible future scrutiny.

Ownership of intellectual property resulting from research is defined in the University of Otago Policy for Intellectual Property Rights. A full statement of the University Council's Policy can be accessed on the website http://www.otago.ac.nz/administration/policies/otago003228.html .

Presentations

PhD students are required to present their proposals and results in the departmental seminar series. Normally, presentations of PhD thesis proposals should take place during the second or third semester of study. Presentation of PhD research *results* should take place during the final semester of your studies.

Format and printing of the thesis

Guidelines on the format and regulations for the presentation of a PhD thesis can be found on the Graduate Research website.

Handing in the thesis

Full details of the process to be followed on completion of the thesis are set out on the Graduate Research website.

ADMISSION OF INTERNATIONAL POSTGRADUATE STUDENTS

The University of Otago is strongly committed to a policy of international education. Enquiries are welcome and should be directed to the International Admissions Coordinator, International Office, email *international@otago.ac.nz* Other relevant information e.g. fees, accommodation, immigration requirements, application forms etc. are available at *http://www.otago.ac.nz/international/index.html*. For degree courses requiring thesis work only there is no closing date for applications. For courses involving taught papers the closing date for applications is 1 October.

New international PhD students pay domestic fees. They will also be able to work for up to 20 hours a week during term. Their partners will also be eligible for an open work permit valid for the duration of the student's course of study.

ENGLISH LANGUAGE REQUIREMENTS

Students whose applications are based on qualifications gained outside New Zealand and for whom English is not their first language are required to meet an English language proficiency standard before they can be considered for admission to any postgraduate courses in the Department of Human Nutrition. The English language requirement may be met by a minimum score in the Test of English as a Foreign Language (TOEFL) of 577 or better and a Test of Written English (TWE) with a pass mark of 4.5 or better. Alternatively, applicants taking the International English Language Testing System (IELTS) must achieve a score of 6.5 or better. For the MDiet, applicants must achieve a score of 7.5 or better, with a minimum score of 7.0 in each of the four bands.

Students for whom English is not the first language may also be required to undertake supplementary study in addition to that prescribed for the postgraduate course being taken, depending on their academic record and completed academic qualifications.

FINANCIAL ASSISTANCE FOR POSTGRADUATE STUDENTS

All students are encouraged to complete applications for external and University scholarships, and/or fellowship awards. Eligible students should plan to apply for these awards, allowing ample time to complete the application and arrange for the necessary letters of reference from academic staff.

Details regarding all available scholarships and awards are available on the website: http://www.otago.ac.nz/study/scholarships/database/index.html .

Examples of external awards are: New Zealand Official Development Assistance Postgraduate Scholarship, Health Research Council, National Heart Foundation of New Zealand.

Travel Funds for Conferences

The Royal Society of New Zealand offers Science Awards for Beginning Scientists to attend their First Overseas Scientific Conference, usually a PhD student in the third year of study. The award is no more than NZ$1000.

The Division of Sciences also offers travel assistance for PhD students, normally in their third year of study to attend conferences related to their research. Application details can be obtained from the Office of the Division of Science.

Some outside organizations also offer general financial support. Information on these organizations is listed in the Scholarship summary printouts available from the University's website at http://www.otago.ac.nz/study/scholarships/database/index.html .The Nutrition Society of New Zealand (Inc.) also offers assistance to internal full-time students presenting a paper at their annual conference. In some circumstances, students can obtain some travel assistance from research grants held by their supervisor(s).

University of Otago Scholarships

These scholarships and awards are designed primarily for domestic students. International students are eligible to apply for an award or scholarship but they are not entitled to assistance with fee payments beyond the domestic fee level. They must meet the shortfall between domestic and full cost fees.

Postgraduate Scholarships may normally only be awarded to candidates enrolled for a full-time course for the degree of Doctor of Philosophy who achieved an average grade of A- or higher in the fourth year of an Honours degree, or in a postgraduate diploma or equivalent, or in a Master's degree. Tenure is for three years, subject to the provision of a satisfactory annual PhD progress report by the Department. The current value of an Otago doctoral scholarship is fees plus NZ$25,000 per year for up to three years. Applications can be made at any time.

Bee Nilson Scholarships are awarded to Otago students of Human Nutrition or Food Science who are enrolling in either the final year of a BAppSc Honours degree or the papers year of a MSc or MAppSc degree. The value of the award shall be an allowance of $6000 for one year. Note: This scholarship is not available to MDiet students.

University of Otago Postgraduate Award Students are encouraged to apply for these to support their thesis study at the end of the 300 level year. These awards may normally only be awarded to candidates enrolled in a full-time course for a Master's degree involving the preparation of a thesis who achieved an average grade of B+ or higher in the fourth year of an Honours degree, or in a postgraduate diploma or equivalent. Tenure is for one year.

University of Otago Maori Postgraduate Scholarships and Awards
These scholarships may be held only by Maori students.

University of Otago Postgraduate Publishing Bursary (Master's and PhD)
These are bursaries awarded to Master's and PhD candidates whose theses are under examination so as to continue with their student research by preparing papers to the submission stage for publication in journals of international standing (recipients are required to acknowledge the support of the University of Otago Research Committee, by means of the University of Otago Postgraduate Publishing Bursary in any publications prepared during this period). For further information consult the relevant postgraduate handbook.

Divisional Teaching Assistantships
The Division of Science offers a limited number of Divisional Teaching Assistantships which cover payment of tuition fees, and an annual non-taxable emolument plus payment on an hourly rate for any tutoring or demonstrating which is undertaken. Assistantships may be held, subject to annual reconfirmation, for (a) up to three years by students enrolled for the degree of Doctor of Philosophy and (b) up to two years by students enrolled for a Master's degree. Assistantships may not be held concurrently with other scholarships or awards, but no limit is placed on additional earnings provided that the academic criteria for full-time study are met.

Department of Human Nutrition Demonstrators
The Human Nutrition Department has a limited number of demonstrator positions, depending on undergraduate numbers and current funding levels. Applications are invited in December; positions are confirmed in February. Preference is given to senior postgraduate students for these positions. Senior postgraduate students may also be invited to give some 200 level nutrition lectures. Students selected to be demonstrators or to present some lectures are encouraged to attend courses held by the Higher Education Development Centre.

University of Otago Scholarships for International Postgraduate Students

Jubilee 125 Scholarships provide both an emolument and full international fees. Only three scholarships are available per annum and they are targeted for students only in Thailand, Malaysia and Singapore. Travel to and from their home country at the outset and conclusion of their study is also covered, courtesy of Air New Zealand.

New Zealand International Doctoral Research Scholarships are funded by the New Zealand Government and are administered by Education New Zealand. They provide financial support for students from designated countries undertaking doctoral degrees by research in New Zealand universities. They are awarded on the basis of academic merit.

William Evans Fund provides a maximum of two scholarships per year for postgraduate students from overseas. It provides an emolument and payment of full fees and is intended for PhD candidates of the highest quality from within any field of study.

Vice-Chancellor's Full Fee Only Scholarships are designed for the highest quality international students who wish to study in significant research groups within the University. The scholarships are for fees only, with the expectation that external funding will provide the emolument and research support. Up to five scholarships are available at any one time.

Details regarding all available scholarships and awards are available on the website: http://www.otago.ac.nz/study/scholarships/database/index.html .

EXAMPLES OF POSITIONS HELD BY RECENT GRADUATES

Rosie Gordon BSc, MSc
Smokefree Regional Programme Leader, Public Health South.

Rosie provides regional leadership, management and coordination for smokefree activity across the southern DHB region. Specifically it includes developing a regional tobacco control plan (e.g. what is the DHB going to do to address smoking in its communities, and how it will do it), ensuring it delivers on Ministry of Health smokefree contracts, and also providing local leadership for one of the national health targets - Better Help for Smokers to Quit. Rosie also manages the DHB's Smokefree Coordinators who work across the nine hospitals and primary care settings to train health professionals in smoking cessation. "The skills I learned while doing my master's have been invaluable for the planning and project management side of my job, and personnel management is something I've learned on the job."

Aimee Burns PGDipDiet, MSc, Registered Dietitian
Sports and health dietitian.

Aimee is a New Zealand Registered Dietitian and has a Master's degree in Nutrition from the University of Otago. Aimee is also an ISAK Level 1 Accredited Anthropometrist (body composition testing) and a Nutrition Provider for the New Zealand Academy of Sport, where she is the Lead Nutritionist for the Canterbury Rugby Academy and the New Zealand Under 21 Netball Team. Aimee specializes in sports nutrition and she has a wide range of experience dealing with athletes from both team and individual sports. Aimee's interest areas are nutrition research, performance and competition nutrition, eating to optimise energy levels and mostly importantly healthy eating and disease prevention through nutrition.

Jenny Campbell BCApSc, MSc
Regulatory Strategist, Fonterra

The role involves interpreting food laws in the different countries that Fonterra exports to (e.g. US, China, Europe) and translating this into what sort of claims, labelling etc can be put on various products ranging from yoghurt, cheeses to milk proteins, functional and paediatric nutrition products. Fonterra is an international company and has many offices around New Zealand. The role involves a fair amount of travel, which she really enjoys.

After graduating Jenny worked in London for the Food Standards Agency as a nutritionist on their Saturated Fat & Energy Intake Programme. This involved working with food industry partnership groups to set up a campaign to raise public awareness about sources of saturated fat in the diet and to encourage healthier options.

Alison Bradshaw BPhEd (Hons), BSc, MSc
Research Associate in the School of Kinesiology and Health Sciences, Queen's University, Kingston, Ontario, Canada

Alison is part of a research group of 15-20 who are working on the prevention and reduction of abdominal obesity and related co-morbid conditions such as insulin resistance, through development of lifestyle-based strategies.

Christina McKerchar BCApSc, MSc
National Coordinator, Agencies for Nutrition Action, New Zealand

Christina (Ngati Kahungunu, Ngati Porou) graduated from Otago University with BCApSc in Human Nutrition and worked for five years as a nutrition advisor for Te Hotu Manawa Maori. She also completed a Master of Science degree, majoring in Community Nutrition, based on her work at Te Hotu Manawa Maori.

Her current role as National Coordinator focuses on supporting networking and co-ordination through continuing to expand the organisation's website, producing ANA's newsletters and organising ANA nutrition and physical activity forums throughout New Zealand. She played a "hands on" role in the organisation of a national nutrition and physical activity public health conference in 2005. Her other focus includes supporting national hui, and national fono.

Charlotte Adank BPhEd, BSc, MSc
Public Health Analyst, Otago District Health Board

This position involves providing public health expertise in the decision making processes of the District Health Board. Charlotte works with the Ministry of Health to support public health providers in the Otago region. Her work also involves qualitative and quantitative analysis of the Otago DHB population health information and data, and of health inequalities including specific issues for Maori and Pacific people. She is involved in planning, researching, assessing and presenting policy and programmes and also contributes to Southland and Otago DHB prioritisation decisions.

Glenn Kearney BPhEd/BSc, MSc
All Black and New Zealand Rugby Union High Performance Nutritionist, 2003-7.

Glenn's role took him around the world with the Rugby Union and other sports people, developing nutrition education for athletes, looking into safe supplementation programmes for elite players, and maximising recovery from intensive rugby campaigns. "The quality of the facilities and teaching staff in these areas at Otago, exposure to top researchers and also the pool of like-minded young people within the Otago campus – these things have been a huge benefit to my career."

Claire Smith BSc, MSc, PhD
Research Fellow, Otago University

On completing her MSc Claire spent two years working as a Research Fellow on the Children's Nutrition Survey. This was a great opportunity to be involved in a large survey from start to finish. Claire mainly worked on the 24 hour diet recall component of the survey. After moving to England she secured a job as a nutritionist in the head office of a large supermarket chain (ASDA). This was a varied role and involved working closely with technical and marketing teams on nutrition labelling, customer information and website and Government schemes to reduce fat and salt in food.

Claire is now working as a Research Fellow in the Department of Human Nutrition.

Nikki Hart MSc PGDipDiet, Registered Dietitian
Private Practice Dietitian, Sport and Health Dietitians, Auckland

In 1996 Nikki established a successful private nutrition practice in Auckland, working with weight loss and eating disorder clients, and has built up a strong following of sports clients. She operates Sport and Health Dietitians and has a website providing nutrition information. Nikki is also a nutrition consultant for the New Zealand Academy of Sport, Sports Science New Zealand and various food companies. As well as lecturing at the Auckland University of Technology and Massey University, Nikki enjoys media roles with television and regularly contributes to popular magazines and promotes healthy eating in a fun and practical way.

Ewa Szymlek-Gay, BSc, PhD
Postdoctoral Fellow, Umea University, Sweden.

After completing her PhD in food-based strategies to improve dietary iron intake and biochemical iron status in 12-24 month old New Zealand children, Ewa was awarded a three-year postdoctoral fellowship research to investigate iron requirements and iron metabolism in

infants. She used a randomised controlled trial in 6-month old infants to investigate iron absorption from infant formula, and to determine whether the mode of iron administration (supplementation vs. fortification) and the amount consumed (high intakes vs. low intakes) affect iron absorption, iron utilisation, and zinc absorption. She also used a population-based prospective cohort study to determine how early nutritional patterns in very low birth weight, extremely premature infants affect cognitive and behavioural development, growth, obesity, morbidity, and risk factors for cardiovascular disease.

In 2012 Ewa took up a teaching position in Human Nutrition at Deakin University, Australia.

Francesca Crowe BSc, PhD
Postdoctoral Fellow (Girdlers NZ HRC Fellow), Cancer Epidemiology Unit, University of Oxford, U.K.

Francesca is conducting research in the field of nutritional epidemiology where she is investigating the nutritional determinants of diseases such as cardiovascular disease and cancer. "Studying Human Nutrition at the University of Otago provided me with a comprehensive understanding of the field of nutritional and dietary assessment, which are fundamental to my work. I was also able to develop generic skills such as critical appraisal, statistical analysis, and communication when completing a PhD at the department of Human Nutrition."

Leanne Hodson BSc (Hons), PhD
Research Fellow, University of Oxford, U.K.

Leanne works in a group that has an interest in human whole body integrative physiology with a specific interest in lipid metabolism and adipose tissue function. Her specific research studies involve the use of stable isotope and immunoaffinity techniques to study human metabolism.

Victoria Morrow (nee Anderson) MSc
After completing her Master's Victoria spent four months in Dhaka, Bangladesh as a nutrition intern for Helen Keller International and during this time also volunteered at the nutritional rehabilitation unit at the ICDDR, B hospital. Following this she spent a month in Cambodia working on a project for Helen Keller International. Back in New Zealand she did some report writing for World Vision and part-time work in the Department of Human Nutrition.

Her next nutrition-related job was for HarvestPlus/IFPRI, leading a team of researchers in rural Uganda. This project was to validate the 24-hour recall for the assessment of vitamin A intake of women of childbearing age and children aged 2-5 years. Victoria then worked at University College London as a research associate on the 'DietCompLyf' Study a prospective study to investigate the links between diet and lifestyle and breast cancer recurrence.

Since returning to New Zealand Victoria has worked as a Health Promoter in the Waimakariri District and for the Heart Foundation in Christchurch; she then relocated to Mid-Canterbury and began working for Community and Public Health – a division of the Canterbury District Health Board - as a Health Promoter. As well as nutrition promotion her role includes promotion of smokefree environments, physical activity, and mental health in a range of settings including schools and workplaces.

Penelope Fitzgerald BA (Canterbury), BSc, MSc (Otago)
Research Officer in the Centre of Clinical Research Excellence (CCRE) in Nutritional Physiology, Discipline of Medicine, University of Adelaide

"After returning to university as a somewhat 'mature' student to study Human Nutrition I was at the beginning unsure of what avenue I wanted to take. After taking HUNT 312 there was

no question that research was where I wanted to be. To always be asking questions and endeavouring to answer them – Discovery – what could be more exciting? My MSc research project was a randomised controlled trial aimed at looking for an effect of iodine supplementation on cognition in mildly iodine deficient young adults. Carrying out a research project and writing a thesis has taught me many valuable skills – time management, scientific writing, recruitment, database management, blood handling, and realising that like anything in life, with research sometimes you just have to go with the flow! The skills I developed during my MSc degree in Human Nutrition, and my continued passion for learning and discovery, I believe, allowed me to obtain my current position before I had even handed in my thesis! My work in the CCRE is primarily assisting a PhD student in completing all her studies. The studies we are currently running are investigating the effects of varying protein loads on gastric emptying, antropyloroduodenal pressures, gut hormones, appetite sensations, and subsequent energy intake in healthy lean and obese males. I will also be assisting another post-doctoral fellow in similar studies, but in healthy lean elderly and malnourished elderly people. Everyday I'm using the skills I obtained during my MSc in Human Nutrition, and learning new ones including ultrasound, manometry – a technique involving inserting a tube into the duodenum via the nose, venepuncture, and cannulation".

Jamie Wan BSc, PGDipDiet
After graduating with a PGDipDiet, Jamie secured a position at North Shore Hospital as a Clinical and Foodservice Liaison Dietitian. This allowed her to build on both the clinical and foodservice experiences that she gained at Otago. Her qualifications have taken her around the world and she is currently working for a large foodservice company in the UK, looking after a three-hospital contract where she is responsible for menu development, training foodservice staff and managing a team of cooks who produce special meals for patients. Through this role Jamie was seconded to the management team catering for athletes at the London 2012 Olympics.

"The teaching staff at Otago are incredibly knowledgeable, supportive, and provided helpful guidance to me during my studies. Hands on practical experiences such as taking over the kitchen operation for a dinner service gave me an insight into what it takes to run a catering operation. I really enjoyed my time there and have found that my studies have provided me with a solid foundation for working in the 'real world'."

Agnes Tey BCApSc (Human Nutrition and Consumer Food Science), MSc, PhD
Research Fellow, Singapore Institute for Clinical Sciences, A*STAR

Agnes first enrolled in the Foundation Year Certificate in Health Sciences in 2002 and completed her PhD in Human Nutrition in 2012. During her years at Otago Agnes gained extensive experience conducting randomised controlled trials investigating the effects of incorporating nuts into the usual diet on risk factors for cardiovascular disease in various population groups including the general population, those at risk of cardiovascular disease, overweight and obese subjects, and Māori. She also carried out several sensory and consumer research projects in the areas of taste sensitivities, sensory-specific satiety, and consumers' acceptance for various foods and beverages. After the completion of her PhD Agnes worked for eighteen months as an Assistant Research Fellow in the Department of Human Nutrition. She has recently taken up a position as Research Fellow at A*STAR in Signapore where she will be designing studies and applying for grants to fund interventions to try to reduce metabolic syndrome in Asians.

APPENDIX A: PROGRESS THROUGH MSc THESIS

Semester 1
Prescribed courses
Identify thesis topic
Semester II
Prescribed courses
Thesis proposal and budget
Departmental seminar of proposal
Summer
Method development; subject recruitment; data collection
Literature review
Semester III
Data collection
Methods
Write methods section
Semester IV
Statistical analyses
Write thesis
Summer
Departmental seminar of thesis results
Revise thesis and submit thesis to examiners

APPENDIX B: REQUIREMENTS FOR HUNT 495

(a) A supervisor (organised as early as possible in Semester 1)
(b) Assessment by at least one independent academic staff member and the Postgraduate Coordinator (or equivalent).
(c) Ethical Approval form (end of Semester 1)
This is due the last day of classes in Semester 1. An electronic copy of the form can be emailed to the Postgraduate Coordinator.
(d) Research grant (end of Semester 2)
This is due the last day of classes in Semester 2. An electronic copy of the form can be emailed to the Postgraduate Coordinator.
(e) Oral presentation (Semester 2)
The date of the seminar presentation is organised in consultation with the Postgraduate Coordinator.
(f) A grade at the end of the paper (the mark will count towards scholarship assessment).

Workload – 40 points (400 hours, i.e. approx 15 hours/week)

Additional requirements:
(a) Departmental seminars – attendance mandatory
(b) Health and safety – technical instruction mandatory
(c) Progress on literature review
(d) Preliminary project work – planning, subject recruitment, data collection

APPENDIX C: COMPUTER COMPETENCIES

(a) The Apple Macintosh and/or Microsoft Windows operating systems including the use of folders/directories; copying, moving, deleting files; and printing.
(b) Microsoft Word.
(c) Microsoft Excel, including generation of simple graphs and charts.
(d) Microsoft PowerPoint.
(e) The use of email.
(f) The use of an Internet browser.
(g) The use of a comprehensive statistical programme such as SPSS, SAS or STATA in the PC, Mac, or mainframe environment.
(h) Use of library databases and search engines to do literature searches.
(i) Endnote, an application to keep track of references and to automate bibliographic formatting of papers.
(j) Acrobat Reader, used to read PDF files.

SUGGESTED ELECTIVE COURSES

HASC 413	Biostatistics	15 pts
SCOM409	Introduction to Science Communication	20 pts
SCOM402	The Craft of Storytelling	20 pts
SCOM403	Science and Creative Non-fiction Writing	20 pts
PUBH712	Foundations of Hauora Maori	15 pts
PUBH713	Society, Health and Health Promotion	15 pts
PUBH714	Public Policy and Health Systems	15 pts
PUBH721	Methods for Epidemiological Research	15 pts
PUBH723	Survey Methods	15 pts
PUBH724	Introduction to Qualitative Research Methods	15 pts
PUBH732	Prevention and Control of Disease in Populations	15 pts
PUBH733	Health and Environment	15 pts
PUBH735	The Economics of Health Policy Decision Making	15 pts
PUBH736	Economic Evaluation	15 pts
PUBH742	Global Health and International Health Systems	15 pts
PUBH743	Health Promotion Programme Planning and Evaluation	15 pts
PUBH744	Public Health Policy	15 pts

APPENDIX D: REPORT GUIDELINES

HUNT455 Advanced Topics in Human Nutrition

Semester 1 or semester 2, 20 points

This *could* be a literature review on a topic for which appropriate supervision is available. The topic must be manageable within a 20 point paper (i.e. the work will occupy no more than ***one-sixth*** of the student's study time commitment over the year; or ***one-third*** over a semester)

Note: the topic must be different to that of an MSc or HUNT485 project being undertaken by the student.

Learning Aims and Objectives

The aim of this literature review is to achieve an academic approach reviewing the literature on a specific scientific topic. You will provide a clear definition of the question, critique appropriately, analyse and interpret scientific information in a logical and coherent manner, and draw conclusions. This will allow you to deepen your ability to apply your analytical and critiquing skills.

Satisfactory completion of this paper will be shown by presentation of report which demonstrates that the student is able to:

1. Employ effective information search strategies for accessing appropriate literature.
2. Undertake a literature review that places the topic within a wider field of knowledge
3. Critically analyse a body of knowledge relevant to the research problem across a range of research methodologies and/or within a particular field of interest.
4. Present and discuss findings meaningfully within the field of Human Nutrition.
5. Prepare a written report on the project for a scientific audience.

Content and length of the report

An in-depth evaluative literature review of 5,000-10,000 words in the main body.

Format of the report if literature review.

The following order is recommended:

The preliminaries

- Title page: This will contain the title of your report and your name.
- Abstract
- Acknowledgments
- Table of contents
- List of tables (if applicable)
- List of abbreviations (optional)

Main body

- Introduction
- Methods of the literature search
- Review of the relevant research literature: author must demonstrate some critical appraisal of the theoretical and methodological issues related to the problem

Conclusions and Recommendations

References: A list of all material you have referenced in the body of your dissertation. A standard and consistent citation style is expected within the text.

Title Page
The title page provides a basic introduction to your research. The title for your work should be a meaningful description of your review and include key words that can be used by modern retrieval systems. The title page must also bear the candidate's full name as registered, statement of submission, the institution's name and month and year of submission. There is no page number written on this page but it is considered to be page i.

Abstract
An abstract of no more than 300 words is required. The abstract should consist of a statement of the question, an explanation of the methods used to review the literature, and a summary of the results and a conclusion. Abstracts generally do not have citations.

Acknowledgements
This page is optional. Acknowledgements are the author's statement of gratitude to and recognition of the people and institutions whom helped the author's research and writing. The content and format of this page is up to the student. If included, this section must be numbered with Roman numerals.

Table of Contents
A table of contents is required and can be automated using Microsoft Word.

Tables
Tables can be used to summarise the literature. Tables should appear as near as possible to the text relating to them, and should be numbered consecutively using Arabic numerals. The heading 'Table' and its number and caption title should appear above the table (explanatory footnotes can be placed below the table), leaving the remainder of the page for source citation or explanatory notes.

Introduction
The introduction allows the readers to get the general idea of what your literature review is about. It should be focused on the research question(s), and contain sufficient background information to allow the reader to understand the context and significance of the question you are trying to address. In doing so, you may want to indicate areas of controversy that warrant additional research; gaps in the literature and/or limitations from previous study designs that may need to be extended. It is helpful to write the introduction after composing the entire literature review. The Introduction should be limited to 2 pages.

Methods
The purpose of this section is to establish that the review of the literature followed rigorous scientific principles. This section should describe clearly your selection of the literature (including eligibility and exclusion criteria). Details of search strategies should be included. Report the methods in sufficient detail to allow other researchers to reproduce the literature search and study selection.
No page limit; consult your supervisor(s).

Literature Review
The focus of the literature review is to discuss published information in a particular subject area; to summarise and synthesise the arguments and ideas of others.

Conclusions and recommendations
Provide balanced concluding remarks, as well as and recommendations and implications for future research. This section should be limited to 2 pages.

If you choose with your supervisor to do something other than a literature, see the postgraduate coordinator for guidelines.

Due date
The report is to be submitted by June (if semester 1) or October (if semester 2).

Marking guide
A detailed marking rubric is available on Blackboard. The marking of the literature review will be undertaken by an academic staff member.

HUNT485 Research project

Full year paper, 20 points

The project may be original research, secondary analysis of previously collected data, or a systematic review of published work on a specific topic. This dissertation develops your ability to design and undertake a project under supervision, and to report on this in an appropriate form. It sharpens your analytical and communication skills and provides a supported introduction to planning, conducting and reporting on this type of independent research. The student works independently, supported by regular meetings with a supervisor. The scale of the project should be agreed with the supervisor to ensure that the work will occupy no more than ***one-sixth*** of the student's study time commitment over the year. If a systematic review is undertaken it must be on a topic for which appropriate supervision is available.

Note: the topic must be different to that of an MSc project being undertaken by the student.

Learning Aims and Objectives

The aim of this dissertation is to achieve an academic approach for solving problems by taking part in a scientific research project. You will provide a clear definition of the problem, solve the problem in a scientific way, draw conclusions and discuss the outcomes. This will allow you to deepen your ability to apply your analytical and project management skills.

Satisfactory completion of this paper will be shown by presentation of report which demonstrates that the student is able to:

1. Develop an appropriate research problem and plan and conduct an investigation within ethical guidelines set out by the University of Otago Human Ethics Committee.
2. Employ effective information search strategies for accessing appropriate literature.
3. Undertake a literature review that places the topic within a wider field of knowledge
4. Critically analyse a body of knowledge relevant to the research problem across a range of research methodologies and/or within a particular field of interest.
5. Select, justify and apply appropriate research method(s) to the research problem
6. Analyse, present, and discuss findings meaningfully within the field of Human Nutrition.
7. Prepare a written report on the project for a scientific audience.

Content and length of the research report

A report of 5,000-10,000 words in the main body

Format of the dissertation

The following order is recommended:

The preliminaries

- Title page: This will contain the title of your report and your name.
- Abstract
- Preface
- Acknowledgments
- Table of contents
- List of tables (if applicable)
- List of figures or illustrations (if applicable)

List of abbreviations (optional)

Main body
- Introduction
- Literature review
- Methods
- Results
- Discussion
- Conclusions and Recommendations

References: A list of all material you have referenced in the body of your dissertation. A standard and consistent citation style is expected within the text.

Appendices (optional)

Title Page
The title page provides a basic introduction to your research. The title for your work should be a meaningful description of your project and include key words that can be used by modern retrieval systems. The title page must also bear the candidate's full name as registered, statement of submission, the institution's name and month and year of submission. There is no page number written on this page but it is considered to be page i.

Abstract
An abstract of no more than 300 words is required. The abstract should consist of a statement of the problem, an explanation of the method and procedures, results and a summary of conclusions. There should be no figures or tables. Abstracts generally do not have citations.

Preface
A preface is a statement of the author's contribution of work undertaken in the research thesis. If the project is part of a larger project then this is a good place to provide information on this.
There is no length limit.

Acknowledgements
This page is optional. Acknowledgements are the author's statement of gratitude to and recognition of the people and institutions whom helped the author's research and writing. The content and format of this page is up to the student. If included, this section must be numbered with Roman numerals.

Table of Contents
A table of contents is required and can be automated using Microsoft Word.

Tables
Tables should appear as near as possible to the text relating to them, and should be numbered consecutively using Arabic numerals. The heading 'Table' and its number and caption title should appear above the table (explanatory footnotes can be placed below the table), leaving the remainder of the page for source citation or explanatory notes.

Figures
The term figure is normally used to denote any kind of graphic or illustration other than a table, e.g. figures may include photographs, charts, diagrams. Figures may be in colour or

grey-scale, as appropriate to the subject matter. Figures should appear as near as possible to the text relating to them, and should be numbered consecutively using Arabic numerals. The heading 'Figure' and its number and caption title appear below the figure. Where they are not the author's work, the source should be acknowledged. Text references are made in brackets and should precede the figure unless mentioned as part of a sentence.

Introduction
The introduction allows the readers to get the general idea of what your thesis is about. It should be focused on the thesis research question(s), and contain sufficient background information to allow the reader to understand the context and significance of the question you are trying to address. In doing so, you may want to indicate areas of controversy that warrant additional research; gaps in the literature and/or limitations from previous study designs that may need to be extended. It is helpful to write the thesis introduction after composing the entire research thesis. It will allow you to analyse the whole work. Do not include methods, data, results, or conclusions from the work. The Introduction should be limited to 2 pages.

Literature Review
The main focus of a research project is to develop a new argument, and this will contain a literature review as one of its parts. The focus of the literature review is to discuss published information in a particular subject area; to summarise and synthesise the arguments and ideas of others without adding new contributions. Write for brevity rather than length. The Literature Review should be a maximum of 10 pages (excluding tables).

Methods
The purpose of this section is to establish that the study followed rigorous scientific principles and procedures. This section should describe clearly your selection of the research design (descriptive, observational, experimental, qualitative) and study population (including eligibility and exclusion criteria). Details of randomisation should be included if applicable. Identify the methods and procedures in sufficient detail to allow other researchers to reproduce the results. Give references for established methods, including statistical methods; describe new or substantially modified methods giving reasons for using them and evaluating their limitations. No page limit; consult your supervisor(s).

Results
The results are actual statements of observations, including statistics, tables and figures. Do not interpret results – save that for the discussion. Present your results in a logical sequence in the text, tables and figures. Tables should support your text and not repeat information. No page limit; consult your supervisor(s).

Discussion and Conclusion
A discussion relates the findings to the purpose of the study. Begin with a paragraph that summarises the most important results. Interpret results in terms of background laid out in the introduction – what is the relationship of the present results to the original question? Be careful not to overstate the significance of the results. Comment on additional findings from the specific aims and relate these to the literature. Be sure to include the strengths and limitations of the study, and how these might limit the interpretation of the results. This section should also include implications for future research. The Discussion and Conclusion should be limited to 5-7 pages.

References
A list of all material you have referenced in the body of your dissertation. A standard and

consistent citation style is expected within the text.

Appendices
An appendix is not always required. It provides a place for material that is not absolutely necessary to the text, or is used where whole inclusion in the text might break the flow of discussion. Appendices may be sub-divided according to the class of materials included, in which case each appendix should be listed by capital letter in the Table of Contents.

Due date
The dissertation is to be submitted by October.

Marking guide
A detailed marking rubric is available on Blackboard. The marking of the project will be undertaken by an academic staff member.

HUNT490 Dissertation

Full year paper, 60 points

A HUNT490 is a supervised project of original research. This dissertation develops your ability to design and undertake a research project under supervision, and to report on this in an appropriate form. It sharpens your analytical and communication skills and provides a supported introduction to planning, conducting and reporting on an independent research project. The student works independently, supported by regular meetings with a supervisor, to complete a piece of original research and to write it up in the form of a dissertation. The scale of the project should be agreed with the supervisor to ensure that the work will occupy no more than *one-half* of a student's study time commitment over the year.

Note: the topic must be different to that of an MSc project being undertaken by the student.

Learning Aims and Objectives

The aim of this dissertation is to achieve an academic approach for solving problems by taking part in a scientific research project. You will provide a clear definition of the problem, solve the problem in a scientific way, draw conclusions and discuss the outcomes. This will allow you to deepen your ability to apply your analytical and project management skills.

Satisfactory completion of this paper will be shown by presentation of a dissertation which demonstrates that the student is able to:

1. Develop an appropriate research problem and plan and conduct an investigation within ethical guidelines set out by the University of Otago Human Ethics Committee.
2. Employ effective information search strategies for accessing appropriate literature.
3. Undertake a literature review that places the topic within a wider field of knowledge
4. Critically analyse a body of knowledge relevant to the research problem across a range of research methodologies and/or within a particular field of interest.
5. Select, justify and apply appropriate research method(s) to the research problem
6. Analyse, present, and discuss findings meaningfully within the field of Human Nutrition.
7. Prepare a written report on the project for a scientific audience.

Content and length of the dissertation

A report of no more than 20,000 words in the main body.

Format of the dissertation

The following order is recommended:

The preliminaries

- Title page: This will contain the title of your report and your name.
- Abstract
- Preface
- Acknowledgments
- Table of contents
- List of tables (if applicable)
- List of figures or illustrations (if applicable)
- List of abbreviations (optional)

Main body

- Introduction
- Literature review
- Methods
- Results
- Discussion
- Conclusions and Recommendations

References: A list of all material you have referenced in the body of your dissertation. A standard and consistent citation style is expected within the text.

Appendices (optional)

Title Page
The title page provides a basic introduction to your research. The title for your work should be a meaningful description of your project and include key words that can be used by modern retrieval systems. The title page must also bear the candidate's full name as registered, statement of submission, the institution's name and month and year of submission. There is no page number written on this page but it is considered to be page i.

Abstract
An abstract of no more than 300 words is required. The abstract should consist of a statement of the problem, an explanation of the method and procedures, results and a summary of conclusions. There should be no figures or tables. Abstracts generally do not have citations.

Preface
A preface is a statement of the author's contribution of work undertaken in the research thesis.
If the project is part of a larger project then this is a good place to provide information on this. There is no length limit.

Acknowledgements
This page is optional. Acknowledgements are the author's statement of gratitude to and recognition of the people and institutions whom helped the author's research and writing. The content and format of this page is up to the student. If included, this section must be numbered with Roman numerals.

Table of Contents
A table of contents is required and can be automated using Microsoft Word.

Tables
Tables should appear as near as possible to the text relating to them, and should be numbered consecutively using Arabic numerals. The heading 'Table' and its number and caption title should appear above the table (explanatory footnotes can be placed below the table), leaving the remainder of the page for source citation or
explanatory notes.

Figures
The term figure is normally used to denote any kind of graphic or illustration other than a table, e.g. figures may include photographs, charts, diagrams. Figures may be in colour or

grey-scale, as appropriate to the subject matter. Figures should appear as near as possible to the text relating to them, and should be numbered consecutively using Arabic numerals. The heading 'Figure' and its number and caption title appear below the figure. Where they are not the author's work, the source should be acknowledged. Text references are made in brackets and should precede the figure unless mentioned as part of a sentence.

Introduction
The introduction is the first part of a research dissertation text. The introduction allows the readers to get the general idea of what your thesis is about. It should be focused on the thesis research question(s), and contain sufficient background information to allow the reader to understand the context and significance of the question you are trying to address. In doing so, you may want to indicate areas of controversy that warrant additional research; gaps in the literature and/or limitations from previous study designs that may need to be extended.
It is helpful to write the dissertation introduction after composing the entire research dissertation. It will allow you to analyse the whole work. Do not include methods, data, results, or conclusions from the work. The Introduction should be limited to 2 pages.

Literature Review
The main focus of a research dissertation is to develop a new argument, and a thesis will contain a literature review as one of its parts. The focus of the literature review is to discuss published information in a particular subject area; to summarise and synthesise the arguments and ideas of others without adding new contributions. Write for brevity rather than length. The Literature Review should be a maximum of 15 pages (excluding tables).

Methods
The purpose of this section is to establish that the study followed rigorous scientific principles and procedures. This section should describe clearly your selection of the research design (descriptive, observational, experimental, qualitative) and study population (including eligibility and exclusion criteria). Details of randomisation should be included if applicable. Identify the methods and procedures in sufficient detail to allow other researchers to reproduce the results. Give references for established methods, including statistical methods; describe new or substantially modified methods giving reasons for using them and evaluating their limitations. No page limit; consult your supervisor(s).

Results
The results are actual statements of observations, including statistics, tables and figures. Do not interpret results – save that for the discussion. Present your results in a logical sequence in the text, tables and figures. Tables should support your text and not repeat information. No page limit; consult your supervisor(s).

Discussion and Conclusion
A discussion relates the findings to the purpose of the study. Begin with a paragraph that summarises the most important results. Interpret results in terms of background laid out in the introduction – what is the relationship of the present results to the original question? Be careful not to overstate the significance of the results. Comment on additional findings from the specific aims and relate these to the literature. Be sure to include the strengths and limitations of the study, and how these might limit the interpretation of the results. This section should also include implications for future research. The Discussion and Conclusion should be limited to 7-10 pages.

References
A list of all material you have referenced in the body of your dissertation. A standard and consistent citation style is expected within the text.

Appendices
An appendix is not always required. It provides a place for material that is not absolutely necessary to the text, or is used where whole inclusion in the text might break the flow of discussion. Appendices may be sub-divided according to the class of materials included, in which case each appendix should be listed by capital letter in the Table of Contents.

Due date
The dissertation is to be submitted by October.

Marking guide
A detailed marking rubric is available on Blackboard. The marking of the dissertation will be undertaken by an academic staff member.

HUNT 495 (MSc Thesis Preparation)

Full year paper, 40 points

Overview

This paper is taken by students in the papers year for a Master's degree by papers and thesis. The aim of this paper is to provide students with experience in preparing, writing and/or communicating a research proposals, a section of the literature review and a grant application. The paper focuses on the skills needed for carrying out a research project, where students use their own (proposed Master's) research topic to fulfil the requirements for each assessment. This will promote engagement in the research topic as well as provide a forum to present their proposed work to the Department of Human Nutrition.
Specific aims and objectives for each component of this paper are available on Blackboard.

This paper involves:

- Preliminary reading on the research topic
- Preparation of an ethics application
- Preparation of a research grant
- Presentation of a proposal seminar to staff and students in the Department.
- Students are also required to attend the Department of Human Nutrition weekly seminar series.

Satisfactory completion of HUNT 495 involves:

- Preparation of a literature review section (with summary table) 35%
- Preparation of a research grant 35%
- Presentation in the Departmental Seminar Series outlining the proposed project. 30%

Dates

You may start on your tasks immediately.
Ethics application: This must be handed in by the end of semester 1.
Research grant: This must be handed in by the end of semester 2.
The seminar presentation may be undertaken throughout the year but it is normally given towards the end of the second semester.

It is recommended that do not you leave the HUNT495 assessments until the last date. You should discuss your workload and research plan with your supervisor as soon as possible and draft a timeline for your HUNT495 assessments.

Marking guides

Detailed marking rubrics for the literature review section (with table), the research grant, and the presentation are available on Blackboard. The marking of the ethics application and the research grant will be undertaken by an academic staff member. Staff members sitting in the audience will assess your seminar presentation.