



CHIR921

Topics in Chiropractic 1

S1 Day 2013

Chiropractic

Contents

<u>General Information</u>	2
<u>Learning Outcomes</u>	2
<u>Assessment Tasks</u>	3
<u>Delivery and Resources</u>	5
<u>Unit Schedule</u>	11
<u>Policies and Procedures</u>	12
<u>Graduate Capabilities</u>	13

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General Information

Unit convenor and teaching staff Unit Convenor Stephney Whillier stephney.whillier@mq.edu.au Contact via stephney.whillier@mq.edu.au
Credit points 4
Prerequisites CHIR918 and CHIR919
Corequisites
Co-badged status
Unit description This unit includes studies in nutrition, pharmacology, developing research methodology and conducting research, plus professional studies. It facilitates the development of skills which are fundamental to both the establishment and successful running of a chiropractic practice. The unit comprises: <ol style="list-style-type: none">1. Lecture sessions covering professional topics such as medical ethics, law and jurisprudence, business and communication skills.2. A substantial research project including critical evaluation of clinical literature.3. An understanding of fundamental concepts in the fields of nutrition and pharmacology.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

Learning Outcomes

On successful completion of this unit, you will be able to:

- Critically analyse ethical and legal issues.
- Recognise ethically compromising situations.
- Understand the Chiropractic code of practice, and legal concepts in chiropractic.
- Know the principles of establishing and managing a chiropractic practice.
- Demonstrate small business management skills.
- Understand ethical practice management.

Explain the importance of detailed protocols to guide research projects as well as systematic reviews.

Demonstrate skills in planning and writing protocols.

Summarise the central elements involved in the process of writing protocols for both research projects and systematic reviews.

Demonstrate an understanding of the role of ethical considerations in research project proposals.

Describe the importance of pre-planned protocols for systematic reviews.

Apply a knowledge of research design to analyse, interpret and critique journal articles.

Appreciate the importance of evidence based health care and the different levels of evidence.

Use library and internet resources for accessing Chiropractic and health literature.

Write papers suitable for publication in scientific journals.

Demonstrate an understanding of the basic concepts of pharmacodynamics (drug action), pharmacokinetics (drug movement through the body) and mechanisms of action

Define a range of therapeutic drug classes

Name commonly used pharmacological agents in the treatment of common disorders

Demonstrate an understanding of the ethical and safety issues related to drug usage

Explain the significance of toxicity, adverse reactions, contraindications and side effects

as it relates to drug use 21. Demonstrated an understanding of how to utilise the

information contained in drug references such as MIMS and the Australian Prescription

Properties Guide 22. Demonstrate a sound knowledge of the fundamentals in nutritional

science, including energy and metabolism, macronutrients and micronutrients. 23. Use

current research to critically evaluate present nutritional issues and trends.

Assessment Tasks

Name	Weighting	Due
<u>1</u>	40%	1a: W 7, 1b: W11
<u>2</u>	10%	W8
<u>3</u>	50%	exam week

1

Due: **1a: W 7, 1b: W11**

Weighting: **40%**

Task 1a: 'Developing a protocol for clinical research projects and systematic reviews'

Based on the lectures in week 2 and 3 that highlight the steps involved in the process of writing detailed protocols for research projects (lecture 1) and systematic reviews (lecture 2), develop a detailed protocol for either your clinical research project or systematic literature review, fulfilling the learning outcomes associated with the research project

Task 1b: Submission of midyear report

This submission will reflect your understanding of the current status on the topic you have chosen **and** will outline your proposed work for the 2nd semester in CHIR922 Research Project component. It will showcase your ability to search the appropriate databases for relevant literature and critically appraise the published literature.

On successful completion you will be able to:

- Explain the importance of detailed protocols to guide research projects as well as systematic reviews.
- Demonstrate skills in planning and writing protocols.
- Summarise the central elements involved in the process of writing protocols for both research projects and systematic reviews.
- Demonstrate an understanding of the role of ethical considerations in research project proposals.
- Describe the importance of pre-planned protocols for systematic reviews.
- Apply a knowledge of research design to analyse, interpret and critique journal articles.
- Appreciate the importance of evidence based health care and the different levels of evidence.
- Use library and internet resources for accessing Chiropractic and health literature.
- Write papers suitable for publication in scientific journals.

2

Due: **W8**

Weighting: **10%**

TBA

On successful completion you will be able to:

- Critically analyse ethical and legal issues.
- Recognise ethically compromising situations.
- Understand the Chiropractic code of practice, and legal concepts in chiropractic.
- Know the principles of establishing and managing a chiropractic practice.
- Demonstrate small business management skills.
- Understand ethical practice management.

3

Due: **exam week**

Weighting: **50%**

20% each for nutrition and pharmacology, 10% for professional studies

On successful completion you will be able to:

- Critically analyse ethical and legal issues.
- Recognise ethically compromising situations.
- Understand the Chiropractic code of practice, and legal concepts in chiropractic.
- Know the principles of establishing and managing a chiropractic practice.
- Demonstrate small business management skills.
- Understand ethical practice management.
- Demonstrate an understanding of the basic concepts of pharmacodynamics (drug action), pharmacokinetics (drug movement through the body) and mechanisms of action
- Define a range of therapeutic drug classes
- Name commonly used pharmacological agents in the treatment of common disorders
- Demonstrate an understanding of the ethical and safety issues related to drug usage
- Explain the significance of toxicity, adverse reactions, contraindications and side effects as it relates to drug use 21. Demonstrated an understanding of how to utilise the information contained in drug references such as MIMS and the Australian Prescription Properties Guide 22. Demonstrate a sound knowledge of the fundamentals in nutritional science, including energy and metabolism, macronutrients and micronutrients. 23. Use current research to critically evaluate present nutritional issues and trends.

Delivery and Resources

Topic 1: Research Methods

RECOMMENDED READINGS

1. D L Sackett et al. 2000. Evidence based medicine: how to practice and teach EBM. 2nd Ed. Churchill Livingstone, Edinburgh.
2. S Polgar and S Thomas. 2000. Introduction to research in the health sciences. 4th Ed. Churchill Livingstone, Edinburgh.
3. C Higano. 2003. How to appraise research. A guide for chiropractic students and practitioners. Churchill Livingstone.
4. Janice R. Mathews, John M. Bowen, Robert W. Matthews. 2000. Successful scientific writing: a step by step guide for the biological and medical sciences. 2nd ed. Cambridge University Press, New York.
5. Edward J. Huth. 1999. Writing and publishing in medicine. 3rd ed. Williams & Wilkins, Baltimore
6. Straus, S.E et al. 2005. Evidence Based Medicine; 3 ed; Churchill Livingstone
7. Katz, Michael J. 2006. From research to manuscript: a guide to scientific writing. Dordrecht : Springer.
8. Gilpin, Andrea A., 2000. A guide to writing in the sciences. Toronto ; Buffalo [N.Y.] : University of Toronto Press.

USEFUL WEB-RESOURCES:

<http://www.cochrane.org> (Cochrane Collaboration, the most reliable source of evidence in health care)

<http://www.fcer.org> (Federation of Chiropractic Education and Research)

<http://www.pedro.fhs.usyd.edu.au> (Physiotherapy Evidence Database)

<http://www.nwhealth.edu/library/journals.html> (List and links to many Journals)

Topic2: Nutrition

Required text:

Introduction to Clinical Nutrition, Third Edition

· Sardesai; Vishwanath | Publisher: Taylor and Francis

- CRC Press | Publication 2011
- Edition 3

<http://www.routledge.com/books/details/9781439818183/>

Recommended reading:

1. Berdanier, CD & Zempleni, J (2008) *Macronutrients, Micronutrients, and Metabolism*. Taylor and Francis, CRC Press
2. Berdanier, L & Berdanier, CD (2009) *Case Studies in Physiology and Nutrition*. Taylor and Francis, CRC Press P&R
3. Berdanier, CD (2011) *CRC Desk Reference for Nutrition, Third Edition*. Taylor and Francis
4. Whitney E & Rolfes SR (2008) *Understanding Nutrition*. 11th Ed. Thomson, Wadsworth, CA
5. Bender, DA (2007) *Introduction to Nutrition and Metabolism, Fourth Edition*
Taylor and Francis, CRC Press
6. Stewart (2012) *Handbook of Nutritional Assessment: Principles and Practice in Primary Care*. Anshan Publishing
7. Bidlack, WR & Rodriguez, RL. (2012) *Nutritional Genomics: The Impact of Dietary Regulation of Gene Function on Human Disease*. Taylor and Francis, CRC Press P&R
8. Maughan, R et al (2004) *Food, Nutrition and Sports Performance II*
The International Olympic Committee Consensus on Sports Nutrition. Taylor and Francis, Routledge
9. Wildman, R (2002) *The Nutritionist: Food, Nutrition, and Optimal Health*. Taylor and Francis, Routledge

10. Riby L et al (2012) Nutrition and Mental Performance: A Lifespan Perspectiv. Palgrave Macmillan UK

11. Kang, J (2012) Nutrition and Metabolism in Sports, Exercise and Health. Taylor and Francis, Routledge

12. Herrin, M & Larkin, M (2012) Nutrition Counseling in the Treatment of Eating Disorders. Taylor and Francis, Routledge

13. Fanzo, J et al (2013) Diversifying Food and Diets: Using Agricultural Biodiversity to Improve Nutrition and Health. Taylor and Francis, Routledge | Publication Date: March 26, 2013

14. Ferguson, L (2013) Nutrigenomics and Nutrigenetics in Functional Foods and Personalized Nutrition. Taylor and Francis, CRC Press | Publication Date: June 15, 2013

15. Brewer, S (2013) Nutrition: A Beginner`s Guide. Oneworld| Publication Date: March 1, 2013

16. Leyse-Wallace, R(2013) Nutrition and Mental Health. Taylor and Francis, CRC Press P&R Publication Date: August 12, 2013

Topic3: Professional Studies

Required reading:

Zetler J & Bonello. R (2012) Essentials of Law, Ethics and Professional Issues for CAM. Elsevier, NSW

Recommended reading:

1. MacKay H. "Why Don't People Listen?" Sydney, Pan MacMillan Publishers. 1996
2. Myerscough P. R. & Ford M., Talking with Patients, Oxford, Oxford University Press. 1996
3. Bolton R. People Skills: How to assert yourself, Listen to Others, and Resolve Conflicts, Sydney, Simon & Schuster. 1997
4. Spence G, How To Argue and Win Every Time, London, Macmillan General Books. 1995

5. Micklethwait J and Wooldridge A, The Witch Doctors. What the Management Gurus are Saying, Why it Matters and How to Make Sense of it. London. Heinemann. 1996
6. Aubuchon N. The Anatomy of Persuasion. Amacom. 1997
7. Gerber M, The E Myth Revisited. 1996
8. The Business and Practice Essential. Prepared for the graduate chiropractor. CAA Victoria Branch.

Topic4: Pharmacology

Recommended reading:

1. Herbs & Natural Supplements

<http://www.elsevierhealth.com.au/complementary-medicine/herbs-and-natural-supplements-paperback/9780729539104/>

2. Clinical Naturopathy

<http://www.elsevierhealth.com.au/clinical-general-medicine/clinical-naturopathy-paperback/9780729539265/>

3. Pharmacology resources

<http://www.elsevierhealth.com.au/pharmacology/spe-40044/>

4. Workbook for Pharmacology

<http://www.elsevierhealth.com.au/medical-assisting/workbook-for-pharmacology-principles-and-applications-paperback/9781455706402/>

5. Pharmacology for Health Professionals (this comes with comprehensive additional resources on Evolve)

<http://www.elsevierhealth.com.au/general-nursing/pharmacology-for-health-professionals-paperback/9780729539296/>

6. Bullock S & Manias E (2011) Fundamentals of Pharmacology. Pearson Education, Australia

7. Hollinger, MA (2007) Introduction to Pharmacology, Third Edition. CRC Press.

8. Meyer J & Quenzer L (2005) Psychopharmacology: Drugs the Brain and Behavior. Sinauer Associates.

9. Feldman R et al (1997) Principles of Neuropsychopharmacology. Sinauer Associates.

10. Hedaya, MA (2012) Basic Pharmacokinetics. Taylor & Francis, CRC Press P&R

11. Kelly, WN (2011) Pharmacy: What it is and How It Works, Third Edition. CRC Press

12. Julian RM (2010) A Primer of Drug Action. Worth Publishers

13. Brahmachari, G (2013) Chemistry and Pharmacology of Naturally Occurring Bioactive Compounds. CRC Press P&R

	Topic 1 Research Methods	Topic 2 Nutrition	Topic 3 Professional Studies	Topic 4 Pharmacology	Total
Lectures	1 × 2 hour lectures in weeks 2 and 3 only.	1 × 1 hour lectures per week, weeks 1 – 12	1 x 2 hour lectures in weeks 4 – 12	No scheduled lectures. Recorded lectures are available on iLearn, with powerpoint and additional notes	3 hours per week, weeks 1-12
Class times & locations	Monday,8-10am, E7B T2	Thursday,10-11am, E7B T4 (exception to this in weeks 1 and 4 – see timetable)	Monday, 8-10am, E7B T2 (exception to this week 4 – see timetable)		

Other	1-2 hours per week with supervisor and 1-2 hours a week in research project development.			2hrs a week going through online lectures and information	4-6 hours per week
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Unit Schedule

Wk	Start Date	Lecture (Monday, 8-10am) Venue: E7B T2	Lecture (Thursday, 10-11 am) Venue: E7B T4
1	25 Feb	Introduction to the course Nutrition: Energy and Metabolism (SW)	Nutrition: Energy and Metabolism (SW)
2	4 Mar	Research Project: Developing a protocol for clinical research projects and systematic reviews (RZP)	Nutrition: What should dietary intake be based on? (SW)
3	11 Mar	Research Project: Developing a protocol for clinical research projects and systematic reviews (RZP)	Nutrition: What should dietary intake be based on? (SW)
4	18 Mar	Professional studies: Professional Ethics and Ethical Issues in Chiropractic. (RB)	Professional studies: Interprofessional Communications. (RB)
5	25 Mar	Professional studies: Realistic Business Expectations for the New Graduate. (RB)	Nutrition: What should dietary intake be based on? (SW)
6	1 April	<i>Easter Monday</i>	Nutrition: Macronutrients (SW)
7	8 April	Professional studies: Professional Registration, Professional Associations and Societies. (CB)	Nutrition: Macronutrients (SW)
	15-28 April	Midsemester break	
8	29 April	Professional studies: Practice Management and Practice Promotion. (RB)	Nutrition: Macronutrients (SW)
9	6 May	Professional studies: Medicolegal Issues and Record Keeping (RB and JZ)	Nutrition: Macronutrients (SW)
10	13 May	Professional studies: What is Law? And Legal Frameworks. (JZ)	Nutrition: Micronutrients (SW)

11	20 May	Professional studies: The Law of Torts and Contracts and Contract Law. (JZ)	Nutrition: Micronutrients (SW)
12	27 May	Professional studies: Conflict Resolution, Legal Entities & Business Structures and Financial & Business Planning. (JZ)	Nutrition: Micronutrients (SW)
13	3 June	Professional studies: Going to Court and Chiropractic Malpractice Case Studies. (RB)	Revision and Exam Preparation (SW)

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](#). Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://www.mq.edu.au/policy/docs/academic_honesty/policy.html

Assessment Policy <http://www.mq.edu.au/policy/docs/assessment/policy.html>

Grading Policy <http://www.mq.edu.au/policy/docs/grading/policy.html>

Grade Appeal Policy <http://www.mq.edu.au/policy/docs/gradeappeal/policy.html>

Grievance Management Policy http://mq.edu.au/policy/docs/grievance_management/policy.html

Special Consideration Policy http://www.mq.edu.au/policy/docs/special_consideration/policy.html

In addition, a number of other policies can be found in the [Learning and Teaching Category](#) of Policy Central.

Student Support

Macquarie University provides a range of Academic Student Support Services. Details of these services can be accessed at: <http://students.mq.edu.au/support/>

UniWISE provides:

- Online learning resources and academic skills workshops http://www.students.mq.edu.au/support/learning_skills/
- Personal assistance with your learning & study related questions.
- The Learning Help Desk is located in the Library foyer (level 2).
- Online and on-campus orientation events run by Mentors@Macquarie.

Student Services and Support

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

Details of these services can be accessed at <http://www.student.mq.edu.au/ses/>.

IT Help

If you wish to receive IT help, we would be glad to assist you at <http://informatics.mq.edu.au/help/>.

When using the university's IT, you must adhere to the [Acceptable Use Policy](#). The policy applies to all who connect to the MQ network including students and it outlines what can be done.

Graduate Capabilities

PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

This graduate capability is supported by:

Learning outcomes

- Critically analyse ethical and legal issues.
- Recognise ethically compromising situations.
- Understand the Chiropractic code of practice, and legal concepts in chiropractic.
- Know the principles of establishing and managing a chiropractic practice.
- Demonstrate small business management skills.
- Understand ethical practice management.
- Explain the importance of detailed protocols to guide research projects as well as systematic reviews.
- Demonstrate skills in planning and writing protocols.
- Summarise the central elements involved in the process of writing protocols for both research projects and systematic reviews.
- Demonstrate an understanding of the role of ethical considerations in research project proposals.
- Describe the importance of pre-planned protocols for systematic reviews.
- Apply a knowledge of research design to analyse, interpret and critique journal articles.
- Appreciate the importance of evidence based health care and the different levels of evidence.
- Use library and internet resources for accessing Chiropractic and health literature.
- Write papers suitable for publication in scientific journals.
- Demonstrate an understanding of the basic concepts of pharmacodynamics (drug action), pharmacokinetics (drug movement through the body) and mechanisms of action
- Define a range of therapeutic drug classes

- Name commonly used pharmacological agents in the treatment of common disorders
- Demonstrate an understanding of the ethical and safety issues related to drug usage
- Explain the significance of toxicity, adverse reactions, contraindications and side effects as it relates to drug use 21. Demonstrated an understanding of how to utilise the information contained in drug references such as MIMS and the Australian Prescription Properties Guide 22. Demonstrate a sound knowledge of the fundamentals in nutritional science, including energy and metabolism, macronutrients and micronutrients. 23. Use current research to critically evaluate present nutritional issues and trends.

PG - Critical, Analytical and Integrative Thinking

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

Learning outcomes

- Critically analyse ethical and legal issues.
- Recognise ethically compromising situations.
- Know the principles of establishing and managing a chiropractic practice.
- Demonstrate small business management skills.
- Explain the importance of detailed protocols to guide research projects as well as systematic reviews.
- Demonstrate skills in planning and writing protocols.
- Summarise the central elements involved in the process of writing protocols for both research projects and systematic reviews.
- Apply a knowledge of research design to analyse, interpret and critique journal articles.
- Appreciate the importance of evidence based health care and the different levels of evidence.
- Write papers suitable for publication in scientific journals.

PG - Research and Problem Solving Capability

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:

Learning outcomes

- Recognise ethically compromising situations.
- Know the principles of establishing and managing a chiropractic practice.
- Demonstrate small business management skills.
- Explain the importance of detailed protocols to guide research projects as well as systematic reviews.
- Demonstrate skills in planning and writing protocols.
- Summarise the central elements involved in the process of writing protocols for both research projects and systematic reviews.
- Demonstrate an understanding of the role of ethical considerations in research project proposals.
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- Appreciate the importance of evidence based health care and the different levels of evidence.
- Use library and internet resources for accessing Chiropractic and health literature.
- Write papers suitable for publication in scientific journals.

PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

Learning outcomes

- Demonstrate small business management skills.
- Explain the importance of detailed protocols to guide research projects as well as systematic reviews.
- Demonstrate skills in planning and writing protocols.
- Summarise the central elements involved in the process of writing protocols for both research projects and systematic reviews.
- Describe the importance of pre-planned protocols for systematic reviews.
- Apply a knowledge of research design to analyse, interpret and critique journal articles.
- Write papers suitable for publication in scientific journals.

PG - Engaged and Responsible, Active and Ethical Citizens

Our postgraduates will be ethically aware and capable of confident transformative action in relation to their professional responsibilities and the wider community. They will have a sense of connectedness with others and country and have a sense of mutual obligation. They will be able to appreciate the impact of their professional roles for social justice and inclusion related to national and global issues

This graduate capability is supported by:

Learning outcomes

- Critically analyse ethical and legal issues.
- Recognise ethically compromising situations.
- Know the principles of establishing and managing a chiropractic practice.
- Demonstrate small business management skills.
- Understand ethical practice management.
- Demonstrate an understanding of the role of ethical considerations in research project proposals.
- Appreciate the importance of evidence based health care and the different levels of evidence.
- Demonstrate an understanding of the ethical and safety issues related to drug usage

PG - Capable of Professional and Personal Judgment and Initiative

Our postgraduates will demonstrate a high standard of discernment and common sense in their professional and personal judgment. They will have the ability to make informed choices and decisions that reflect both the nature of their professional work and their personal perspectives.

This graduate capability is supported by:

Learning outcomes

- Critically analyse ethical and legal issues.
- Recognise ethically compromising situations.
- Understand the Chiropractic code of practice, and legal concepts in chiropractic.
- Know the principles of establishing and managing a chiropractic practice.
- Demonstrate small business management skills.
- Understand ethical practice management.
- Demonstrate an understanding of the role of ethical considerations in research project proposals.
- Demonstrate an understanding of the ethical and safety issues related to drug usage