

SUBJECT OUTLINE



Subject Name:

Neuroendocrinology and Fatigue Management

Subject Code:

NATN422

SECTION 1 - GENERAL INFORMATION

Award/s:	Bachelor of Health Science (Naturopathy)	Total Course Credit Points:	128	Level:	4 th Year
Duration:	1 Semester				
Subject Coordinator:	David Stelfox (Adelaide campus)				
Subject is:	Elective	Subject Credit Points:	2		

Student Workload:

No. timetabled hours per week:	No. personal study hours per week:	Total hours per week:
3	2	5

Delivery Mode:

Face to Face (On campus)	1 x 2 hour lecture	1 x 1 hour tutorial
e-Learning (Online)	Narrated PowerPoint presentations Tutorials: Asynchronous tutor moderated discussion forum and activities Student handouts, web-based resources	
Intensive Delivery (Summer School)	Contact hours are delivered over 5 weeks with 2 x 4 hour days delivered per week Content: Combination lecture and tutorial activities Assessment: Client Information Handout - Week 3; Essay - Week 5; Final Written Exam - Week 6 Full Time Part Time	
Pre-requisites:	SOCQ121, NMDC221, SOCI221, WHMF314, NATC321	
Co-requisites:	Nil	

SECTION 2 – ACADEMIC DETAILS

Subject Rationale

This subject introduces students to the clinical management of fatigue, with a focus on sleep disorder and neuroendocrine causes. Learning develops through contrasting naturopathic and biomedical perspectives of the causes, pathophysiology, differential diagnosis, and management of fatigue. Specific topics of focus are sleep and the neuroendocrine system and the role these play in the onset and sustained clinical presentation of fatigue. Students critically examine naturopathic therapeutic strategies for fatigue, including the associations of sleep disorders, adrenal fatigue, and myalgic encephalomyelitis / chronic fatigue syndrome.

Learning Outcomes

1. Differentiate the naturopathic and biomedical theories of understanding people with sleep disorders and fatigue.
2. Evaluate the naturopathic differential diagnosis, assessment and treatment of fatigue.
3. Describe naturopathic and biomedical diagnostic testing of people with fatigue and sleep disorders and identify neuroendocrine pathogenic and etiological targets for investigation.
4. Compare and contrast naturopathy and biomedicine approaches to case management for the sleep-disordered and fatigued client.
5. Interpret the client lived experience of fatigue and non-recognition of fatigue as a legitimate illness and the way that this may influence the whole case.
6. Critically appraise the evidence for naturopathic therapies applied within the management of sleep disorder-associated and neuroendocrine-based fatigue.

Assessment Tasks

Type	Learning Outcomes Assessed	Session Content Delivered	Due	Weighting
Client Information Handout (500-750 words)	1-3, 5	1-5	Week 7	20%
Essay (2250-2500 words)	4-6	6-7	Week 11	30%
Final Written Exam case study (2 hours)	1-6	1-13	Final Examination Period	50%
All written assessments and online quizzes are due at 11:55 p.m. and submitted through the LMS				

Prescribed Readings:

1. Institute of Medicine. (2015). *Beyond myalgic encephalomyelitis / chronic fatigue syndrome: Redefining an illness*. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK274235/>.
2. Kryger, M. H., Roth, T., & Dement, W. (2017). *Principles and practice of sleep medicine* (6th ed.). Philadelphia, PA: Elsevier. [ebook available]

Recommended Readings:

1. Cooper, C., & Quick, J. (2017). *The handbook of stress and health: A guide to research and practice*. Chichester, England: Wiley Blackwell. [ebook available]
2. Hechtman, L. (2019). *Clinical naturopathic medicine* (2nd ed.). Chatswood, NSW: Elsevier. [ebook available for rev. ed.]
3. Pazderska, A., & Pearce, S. (2017). Adrenal insufficiency: Recognition and management. *Clinical Medicine*, 17(3), 258–262. <http://dx.doi.org/10.7861/clinmedicine.17-3-258>
4. Romm, A. (2015). Adrenal fatigue syndrome: Integrative treatment approach for an evolving diagnosis. *Alternative and Complementary Therapies*, 21(6), 242–246. <http://dx.doi.org/10.1089/act.2015.29028.aro>
5. Ward, C. (2015). *Meanings of ME: Interpersonal and social dimensions of chronic fatigue*. Basingstoke, England: Palgrave MacMillan. [ebook available]

Subject Content		
Week	Lectures	Tutorials
1.	Introduction (Subject Outline / Subject Aims / Assessment / Teaching Resources) Outline fatigue as a clinical presentation	Class discussion <ul style="list-style-type: none"> The incidence, prevalence, causes and client experience of fatigue
2.	Examine the theories of the causes and pathogenic mechanisms of neurological and endocrine associated fatigue	Class exercise <ul style="list-style-type: none"> Examine naturopathic and biomedical aetiological and pathophysiological models of fatigue Case study <ul style="list-style-type: none"> Chronic fatigue syndrome with adrenal fatigue
3.	Examine the aetiological and pathogenic mechanisms of sleep disorders	Class review of a case study of poor sleep onset
4.	Differential diagnosis of the clinical presentation of fatigue and consider Naturopathic scope of practice	Class exercise <ul style="list-style-type: none"> Develop a mind map of clinical presentations of fatigue with diverse associations and influential factors.
5.	Discuss the screening, diagnostic and evaluation methods applied to people with sleep-disorder	Class and online discussion <ul style="list-style-type: none"> Assessing people with sleep disorders and associated fatigue in clinical practice (validated instruments)
6.	Compare and contrast the Naturopathic and biomedical case approaches to the clinical presentation of sleep disorders and fatigue	Class and online discussion <ul style="list-style-type: none"> Naturopathic case-taking for people presenting for treatment of fatigue: discuss hypocortisolism, Addison's disease, and adrenal fatigue
7.	Understand client perspectives and the lived experience of sleep disorders and fatigue	Compare and contrast the 2015 Institute of Medicine diagnostic criteria and algorithm for ME/CFS alongside a sufferers' personal perspective
NON-TEACHING WEEK (note that make-up classes may be scheduled in this week) Semester 1 - This aligns with the week after Easter so it may fall between Weeks 6 to 8 Semester 2 & Online students - The non-teaching week falls between Weeks 7 and 8		
8.	Review the naturopathic management of sleep-disorder fatigue: Part 1 of 2	Class and online discussion <ul style="list-style-type: none"> Developing a lifestyle strategies for a clinical presentation of people with poor sleep onset and maintenance
9.	Review the naturopathic management of sleep-disorder fatigue: Part 2 of 2	Class and online discussion <ul style="list-style-type: none"> Developing a dietary, nutritional supplementation, and herbal strategies for a clinical presentation of people with poor sleep onset and maintenance
10.	Review the naturopathic management of adrenal fatigue	Class and online discussion <ul style="list-style-type: none"> Developing a treatment strategy for a clinical presentation of people with adrenal fatigue accompanied by ongoing workplace stress
11.	Review the naturopathic management of neuroendocrine-based fatigue	Class and online discussion <ul style="list-style-type: none"> Critique a treatment strategy for a complex case involving hormonal dysregulation with digestive involvement Describe strengths and limitations of naturopathic treatment

12.	Review the naturopathic management of chronic fatigue syndrome, including post-viral fatigue	Class and online discussion <ul style="list-style-type: none"> Developing a treatment strategies for a clinical presentation of people with chronic fatigue syndrome and pain
13.	Synthesis of Learning Complete care of the sleep -disordered / fatigued client	Case study <ul style="list-style-type: none"> Presentation of a complex case seeking treatment for fatigue Develop naturopathic case analyses and management strategy
14.	Non-Teaching Week/Practical Examination Week 1 Note that make-up classes may be scheduled in this week	
15.	Non-Teaching Week/Practical Examination Week 2 Note that make-up classes may be scheduled in this week	
16.	Final Examination Week 1 On campus enrolled students: Refer to the Examination Timetable for your local campus for the exact day and time of exam Online enrolled students: You are required to sit examinations on campus per the Examination Policy - Higher Education . The Examination Weeks for subjects offered online are identified in the Online Calendar	
17.	Final Examination Week 2 On campus enrolled students: Refer to the Examination Timetable for your local campus for the exact day and time of exam Online enrolled students: You are required to sit examinations on campus per the Examination Policy - Higher Education . The Examination Weeks for subjects offered online are identified in the Online Calendar	