

SUBJECT OUTLINE



Subject Name:

Dietary Planning Across the Lifespan

Subject Code:

NMDD221

SECTION 1 – GENERAL INFORMATION

Award/s:	Total course credit points:	Level:
Bachelor of Health Science (Naturopathy)	128	3 rd Year
Bachelor of Health Science (Nutritional and Dietetic Medicine)	96	3 rd Year
Bachelor of Health Science (Nutritional Medicine)	96	3 rd Year
Duration: 1 Semester		
Subject Coordinator: Dr Bradley McEwen (Sydney Campus)		
Subject is: Core	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	2 hour lecture	1 hour tutorial
Intensive Delivery	Details:	Summer School - contact hours are delivered over 5 weeks with 2 x 4 hour days delivered per week. Assessment: Practical participation for the intensive is assessed in class. Analysis report for intensive delivery is due to be uploaded by Sunday in Week 3 of the Summer School period. Final case-based exam for intensive delivery is conducted in Week 6 of the Summer School period.
Full Time		
Part Time		

Pre-requisites: NMDS111, NMDM121, NMDF121

Co-requisites: Nil

SECTION 2 – ACADEMIC DETAILS

Subject Rationale

This subject introduces the skills for assessing clients' diets and determining appropriate plans for modifying diet and food choices in individuals. Building on knowledge from previous nutritional medicine and bioscience subjects, students explore nutritional assessment tools such as anthropometric measurements and dietary analysis software, and learn principles for working with clients to assist them with implementing changes to their diets. The changing nutritional needs across the human lifespan are examined with reference to common conditions. This subject prepares students for clinical practice where they will address the nutritional and dietary management of clients' health conditions.

Learning Outcomes

1. Apply specific dietary requirements across the life stages.
2. Conduct anthropometric investigations to establish specific nutritional needs across the lifespan to optimise health.
3. Develop appropriate evidence-based individualised therapeutic dietary plans according to lifestage.
4. Construct therapeutic dietary plans using data obtained from dietary analysis software.
5. Evaluate client nutritional status and apply weight loss principles and strategies in nutritional management.

Assessment Tasks				
Type	Learning Outcomes Assessed	Week Content Delivered	Week Due	Weighting
Anthropometric and Nutrient Analysis Report (1500 words)	2,3,4	1-3	Sunday following Week 6	50%
Case-based Final Exam (2 hours)	1-5	1-13	Final Exam Period	50%
Active participation in this subject is critical to ensure achievement of required outcomes. To achieve this, students will need to attend at least 80% of tutorial / practical classes , and provide input into class discussions.				

Prescribed readings:

- Croxford, S., Itsiopoulos, C., Forsyth, A., Belski, R., Thodis, A., Shepherd, S., & Tierney, A. (2015). *Food and nutrition throughout life*. Crows Nest, NSW: Allen & Unwin.

Recommended readings:

- Appleton, A., & Vanbergen, O. (2007). *Metabolism and nutrition* (4th ed.). Edinburgh, Scotland: Mosby Elsevier. [ebook available]
- Brown, J. E. (2017). *Nutrition through the lifecycle* (6th ed.). Boston, MA: Cengage Learning.
- Katz, D. L., Friedman, R. S. C., & Lucan, S. C. (2014). *Nutrition in clinical practice: A comprehensive, evidence-based manual for the practitioner* (3rd ed.). Philadelphia, PA: Lippincott Williams & Wilkins. [ebook available]
- Kopelman, P. G., Caterson, I. D., & Dietz, W. H. (Eds.). (2010). *Clinical obesity in adults and children* (3rd ed.). Oxford, England: Wiley-Blackwell. [ebook available]
- Langley-Evans, S. (2009). *Nutrition a lifespan approach*. Oxford, England: Wiley-Blackwell. [ebook available]
- Mahan, L. K., & Raymond, J. L. (2016). *Krause's food & the nutrition care process* (14th ed.). St. Louis, MO: Elsevier Saunders. [ebook available]
- Ross, A. C., Caballero, B., Cousins, R. J., Tucker, K. L., & Ziegler, T. R. (2014). *Modern nutrition in health and disease* (11th ed.). Philadelphia, PA: Wolters Kluwer/Lippincott Williams & Wilkins. [ebook available]
- Whitney, E., Rolfes, S. R., Crowe, T., Cameron-Smith, D., & Walsh, A. (2016). *Understanding nutrition, Australia and New Zealand edition* (3rd ed.). South Melbourne, VIC: Cengage Learning.

Subject Content		
Week	Lecture	Tutorial
1.	Introduction to dietary planning nutritional screening and assessment <ul style="list-style-type: none"> Foundation of a healthy diet following holistic nutrition principles Review of dietary guidelines and nutrient reference values (NRVs) Energy equations Food records Exchange lists and programs Physical signs of nutrient deficiencies Biochemical analysis of nutrient deficiencies 	Practical: <ul style="list-style-type: none"> Students use the various tools introduced in this session to assess the nutritional status of their partner
2.	Anthropometric assessment <ul style="list-style-type: none"> BMI, hip / waist, skin folds, bioelectrical impedance analysis 	Demonstration: <ul style="list-style-type: none"> Conducting anthropometrics Practical:

	<ul style="list-style-type: none"> • Interpretation of body fat and lean muscle mass in relation to dietary planning • Changes in lean muscle mass as a predictor of catabolic and anabolic states and nutritional implications and management 	<ul style="list-style-type: none"> • Students conduct anthropometrics in pairs
3.	<p>Dietary clinical assessment</p> <ul style="list-style-type: none"> • Diet diaries • Nutritional Assessment software • Advantages and disadvantages of software <p>Implementing change and adherence</p> <ul style="list-style-type: none"> • Establishing goals for modification of the diet • Motivating the client to initiate dietary changes • Obstacles to implementing food choice changes and modifications to diet 	<p>Demonstration:</p> <ul style="list-style-type: none"> • Dietary analysis software <p>Practical:</p> <ul style="list-style-type: none"> • Conduct a 24 hour dietary analysis
4.	<p>Infertility and pre-conception diets</p> <ul style="list-style-type: none"> • Diet and lifestyle factor associated with infertility <ul style="list-style-type: none"> ○ Men ○ Women • Dietary recommendations to aid fertility <ul style="list-style-type: none"> ○ Men ○ Women • Preconception and early pregnancy diets for improving reproductive outcomes 	<p>Activity:</p> <ul style="list-style-type: none"> • Develop a pre-conception checklist for a couple who are planning to conceive in about 3 months
5.	<p>Pregnancy and lactation:</p> <ul style="list-style-type: none"> • Nutrition and dietary planning in pregnancy and lactation • Healthy weight gain • Food safety • Dietary management of <ul style="list-style-type: none"> ○ Pre-eclampsia ○ Gestational diabetes ○ Anaemia ○ Other • Dietary approaches for optimizing breast milk supply • Mastitis 	<p>Group work:</p> <p>Short communication to educate client on:</p> <ul style="list-style-type: none"> • the importance of food safety • healthy eating plan during pregnancy • how to reduce risk of gestational diabetes • healthy weight gain • how to treat mastitis
6.	<p>Infancy</p> <ul style="list-style-type: none"> • Nutritional requirements • Breast feeding • Bottle feeding • Introduction of solid foods • Growth chart analysis • Failure to thrive • Diet related deficiencies 	<p>Group work:</p> <ul style="list-style-type: none"> • Compare three infant formulas noting ingredients, nutrient content, marketing/health claims and cost • Assess a minimum of three public health guidelines with regard to introduction of solids
7.	<p>Childhood</p> <ul style="list-style-type: none"> • Nutritional requirements • Factors influencing food intake • Fussy eaters • Childhood obesity 	<p>Activity:</p> <ul style="list-style-type: none"> • Search for and briefly evaluate recipe books and recipe websites offering suggestions for children's meals and then list your top three recipe books and websites

	<ul style="list-style-type: none"> Nutritious and appealing meals and snacks for children of various ages 	
NON-TEACHING WEEK Semester 1 - This aligns with the week after Easter so it may fall between weeks 6 to 8. Semester 2 - The break week falls between Weeks 7 and 8.		
8.	Adolescence: <ul style="list-style-type: none"> Nutritional requirements Nutrition screening and assessment – key indicators of nutrition risk Food behaviours and influences Common nutritional deficiencies Eating disorders Energy drinks Vegetarianism 	Activity: <ul style="list-style-type: none"> Review school based health program aimed at reducing eating disorders and obesity (e.g. Life Smart 2013)
9.	Adult Nutrition <ul style="list-style-type: none"> Dietary strategies for disease prevention <ul style="list-style-type: none"> CVD Cancer Dementias Diabetes Osteoporosis Screening and biochemical assays Common dietary inadequacies in adulthood Common dietary excesses 	<ul style="list-style-type: none"> Case study
10.	Adult Nutrition: Weight management <ul style="list-style-type: none"> Review metabolic factors associated with overweight and obesity: <ul style="list-style-type: none"> Genes and obesity Adipocyte biology Appetite regulation Dietary interventions for weight loss and evidence of what works 	Activity: <ul style="list-style-type: none"> Review and evaluate three commercial weight loss program and three supplements that claim to promote weight loss
11.	Adult Nutrition: Therapeutic diets <ul style="list-style-type: none"> Anti-inflammation diet Wellness diet Phytoestrogens and phytochemicals Mediterranean diet Low advanced glycation end-products (AGE) diet Raw food Therapeutic fasting 	Group work: <ul style="list-style-type: none"> Search the public health promotion literature to see if you can find any programs that have successfully increased fruit and vegetable intake in adult males Develop some tips that could be used in clinical practice for encouraging adult male clients to increase their fruit and vegetable intake
12.	Dietary recommendations for exercise and sport <ul style="list-style-type: none"> Fueling recommendations for pre, during and post exercise Hydration and electrolyte requirements Common sport related nutritional deficiencies Supplements in sport 	Nil
13.	Older Adults:	Group work:

	<ul style="list-style-type: none"> • Review of nutritional requirements • Dietary plans for active ageing • Nutritional impacts associated with polypharmacy • Physiological change and the effect on digestion and assimilation of nutrients • Health assessment of older adults • Dietary interventions for the management of catabolic states 	<ul style="list-style-type: none"> • Working in small groups summarise the signs and symptoms of dehydration and develop some tips for dehydration prevention in older adults
14.	Non-Teaching Week/Practical Exam Week 1. Note that make-up classes may be scheduled in this week.	
15.	Non-Teaching Week/Practical Exam Week 2. Note that make-up classes may be scheduled in this week.	
16.	Final Exam Week 1 Please refer to the Exam Timetable for your local campus for the exact day and time of exam.	
17.	Final Exam Week 2 Please refer to the Exam Timetable for your local campus for the exact day and time of exam.	