

FSHN1020: Introduction to Nutrition Science and Applications

Ourimbah

Semester 1 - 2024



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

OVERVIEW

Course Description Nutrition science is used to determine our dietary needs, recommended intakes, and our food regulations and policies. This course provides an introduction to food and the nutrients they contain and will cover the concepts and use of food analysis and food databases. The government and food industry bodies which regulate and/or inform food professionals and consumers on foods and nutrients will also be covered. At the end of this course students will have a solid foundation in the basics of nutrition science and its applications, which will assist in future studies or interactions with nutrition information.

Academic Progress Requirements Nil

Contact Hours **Ourimbah**
Computer Lab *
Face to Face On Campus
2 hour(s) per week(s) for 13 week(s) starting Week 1

Lecture
Face to Face On Campus
2 hour(s) per week(s) for 13 week(s) starting Week 1

* This contact type has a compulsory requirement.

Unit Weighting 10

Workload Students are required to spend on average 120-140 hours of effort (contact and non-contact) including assessments per 10 unit course.

COURSE OUTLINE

CONTACTS

Course Coordinator Ourimbah

Dr Taiwo Akanbi
Taiwo.Akanbi@newcastle.edu.au
(02) 43484117
Consultation: By Appointment

Teaching Staff Other teaching staff will be advised on the course Canvas site.

School Office School of Environmental and Life Sciences

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9am-5pm (Mon-Fri)

SYLLABUS

- Course Content**
1. Food composition tables and their use.
 2. Dietary guidelines and models for healthy eating.
 3. Introduction to recommended dietary intakes and how they are generated and regulated.
 4. Macronutrients and micronutrients, their presence in foods and their health related issues.
 5. Food Standards Australia New Zealand (FSANZ).
 6. Nutrient and health claims on food labels as advertisements.
 7. The Australian Food and Nutrition Policies and Regulations
 8. Non-government health agencies, e.g., National Heart Foundation, Diabetes Australia, etc.

Course Learning Outcomes**On successful completion of this course, students will be able to:**

1. Explain how food composition tables are generated and used and how to apply them to record and analyse food intake;
2. Describe dietary guidelines, nutrient reference values and models for healthy eating; how they are generated and regulated and explain how they are used as tools for improving food consumption;
3. Identify the requirements and regulation for food labelling and apply these to the generation of labels;
4. Identify the various sectors of the government and food industry and recognise their role in providing safe and nutritious food;
5. List and describe the nutrients we need from foods, summarising their related health issues, digestion and absorption.

Course Materials**Multi-Media Resource:**

- Xyris Software FoodWorks (current version available on selected UON computers)

Recommended Text:

- Whitney, Eleanor et al. Understanding Nutrition, Australia/New Zealand 4th edition 2019 or 5th Edition 2023. Ebook or hard copy available (10% discount through Cengage: **STUDY10**) Cengage Learning Australia Pty Ltd South Melbourne Australia.

Major References:

- Food Standards Australia and New Zealand: Food Standards Code (FSC): <http://www.foodstandards.gov.au/Pages/default.aspx>
- Food Standards Australia and New Zealand Nutrition Panel Calculator (NPC): <http://www.foodstandards.gov.au/industry/npc/Pages/Nutrition-Panel-Calculator-introduction.aspx>
- National Health and Medical Research Council Guidelines and Publications Australia <https://www.nhmrc.gov.au/guidelines-publications>

COMPULSORY REQUIREMENTS

In order to pass this course, each student must complete ALL of the following compulsory requirements:

Contact Hour Requirements:

- Computer Lab Attend 80% of sessions

Course Assessment Requirements:

- Assessment 1 - Formal Final Exams: Attempt / Submission Requirement - Students must attempt/submit this assessment item to pass the course.

SCHEDULE

Week	Week Begins	Topic	Learning Activity	Assessment Due
1	26 Feb	Introduction to Nutrition Science and Applications	Introduction to Nutrition Science and Applications	
2	4 Mar	Macronutrients 1	Macronutrients 1 - Energy Needs	
3	11 Mar	Macronutrients 2	Macronutrients 2 - Energy Sources and Intake	
4	18 Mar	Micronutrients 1	Micronutrients 1	
5	25 Mar	Micronutrients 2	Micronutrients 2, Digestion and Absorption	
6	1 Apr	Stakeholders and Application of Nutrition Science in Society	Mid-semester test	Mid-semester test (15%)
7	8 Apr	Labelling	Making Labels and Nutrition Information Panels	
Mid-Semester Recess				
Mid-Semester Recess				
8	29 Apr	Nutrient Reference Values, Dietary Guidelines, Guide to Healthy Eating	Nutrient Reference Values, Dietary Guidelines, Guide to Healthy Eating	Case Study: Problem-based learning (15%)
9	6 May	Food Composition Tables and Their Use	Food Composition Tables (Food and Dietary Analysis)	
10	13 May	Models of Healthy Eating	Models of Healthy Eating - Case Studies and Analysis	Project (15%)
11	20 May	Health Claims	Health Claims	
12	27 May	Nutrition Science & Applications - summary, connections and context	Practice Exam	
13	3 Jun	Consultation and revision	Consultation and revision	Written Assignment (20%)
Examination Period				Formal Exam (35%)
Examination Period				

ASSESSMENTS

This course has 5 assessments. Each assessment is described in more detail in the sections below.

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1	Formal Final Exams	Formal exam period	Individual	35%	1, 2, 3, 4, 5
2	Mid-Semester Test	Week 6 in place of computer laboratory on Friday	Individual	15%	4, 5
3	Problem-based Learning	Friday, Week 8 (03/05/2024) at 10pm	Individual	15%	1, 2
4	Written Assignment	Monday, Week 13 (03/06/2024) at 10pm	Individual	20%	2, 4
5	Project	Friday, Week 10 (17/05/2024) at 10pm	Individual	15%	3

Late Submissions The mark for an assessment item submitted after the designated time on the due date, without an approved extension of time, will be reduced by 10% of the possible maximum mark for that assessment item for each day or part day that the assessment item is late. Note: this applies equally to week and weekend days.

Assessment 1 - Formal Final Exams

Assessment Type	Formal Examination
Purpose	The final formal examination is designed to test the individual student's knowledge of the course material and their ability to describe, analyse and hypothesise from this material.
Description	Final formal exam in formal exam period
Weighting	35%
Due Date	Formal exam period
Submission Method	Formal Exam
Assessment Criteria	Details about the structure of the exam will be provided on Canvas prior to exam.
Return Method	Not Returned
Feedback Provided	No Feedback

Assessment 2 - Mid-Semester Test

Assessment Type	In Term Test
Purpose	Mid-semester test is designed to test individual student's knowledge and progress in the course and to help them prepare for the final exam. Feedback will be provided so that students can identify areas where they may be struggling and take steps to improve their performance.
Description	Examination of content delivered in weeks 1-5. Questions will be a mixture of Short answer and Multiple choice questions
Weighting	15%
Length	1 hour
Due Date	Week 6 in place of computer laboratory on Friday
Submission Method	Online
Assessment Criteria	In multiple-choice questions, only correct answers will receive marks, and there is no penalty for incorrect answers. In short answer questions, full marks will be allocated to responses that correctly explain or apply appropriate concepts to the context of the questions. Partial marks will be awarded in accordance with the level of completeness, understanding and accuracy of a response. Incorrect responses will not be penalised with negative points.
Return Method	Online
Feedback Provided	In Class - Marks provided on Canvas and feedback in class and online. Correct answers. Feedback to class on common errors with links to course content. More detailed, personalized feedback can be provided upon request.

Assessment 3 - Problem-based Learning

Assessment Type	Case Study / Problem Based Learning
Purpose	This assessment is designed to promote the development of critical thinking skills, problem-solving abilities, and communication skills in relation to the topics already covered in the course

Description	Case study/problem-based learning on energy requirements, intake, food sources. and balance
Weighting	15%
Due Date	Friday, Week 8 (03/05/2024) at 10pm
Submission Method	Online Via link on Canvas
Assessment Criteria	Case-studies will be provided with questions and exercises on energy requirements, energy intake, sources and energy balance. Marking guide will be embedded within the questions & exercises. Numeric answers will be marked as correct/incorrect, with a margin of error allowed to account for differences in rounding in calculations. Short answers will be awarded as per marking guide.
Return Method	Online
Feedback Provided	Online - Within 3 weeks of submission. Individual rubric/feedback forms provided..

Assessment 4 - Written Assignment

Assessment Type	Written Assignment
Purpose	To test individual student's writing skills and ability to organize ideas, develop points logically and make explicit connections between the topics covered in the course.
Description	Written assignment – on the Australian Dietary Guidelines, Guide to Healthy Eating and Nutrient Reference values, their meaning, use and development will be answered in a written assignment. The marking guide/rubric will be provided on Canvas prior in Week 1.
Weighting	20%
Due Date	Monday, Week 13 (03/06/2024) at 10pm
Submission Method	Online
Assessment Criteria	Rubric will be published on Canvas prior to week 4.
Return Method	Online
Feedback Provided	Online - Within 3 weeks of submission. Individual rubric/feedback forms provided..

Assessment 5 - Project

Assessment Type	Project
Purpose	To test individual student's knowledge of food regulatory laws pertaining to health claims on food labels
Description	Students will design a food label for a given product in accordance with Australian laws, including a nutritional information panel and relevant health claims, and provide a critique of labels provided based on FSANZ requirements.
Weighting	15%
Due Date	Friday, Week 10 (17/05/2024) at 10pm
Submission Method	Online
Assessment Criteria	A rubric will be posted on Canvas prior to week 1.
Return Method	Online
Feedback Provided	Online - Within 3 weeks of submission. Individual rubric/feedback forms provided..

ADDITIONAL INFORMATION

Grading Scheme

This course is graded as follows:

Range of Marks	Grade	Description
85-100	High Distinction (HD)	Outstanding standard indicating comprehensive knowledge and understanding of the relevant materials; demonstration of an outstanding level of academic achievement; mastery of skills*; and achievement of all assessment objectives.
75-84	Distinction (D)	Excellent standard indicating a very high level of knowledge and understanding of the relevant materials; demonstration of a very high level of academic ability; sound development of skills*; and achievement of all assessment objectives.
65-74	Credit (C)	Good standard indicating a high level of knowledge and understanding of the relevant materials; demonstration of a high level of academic achievement; reasonable development of skills*; and achievement of all learning outcomes.

50-64	Pass (P)	Satisfactory standard indicating an adequate knowledge and understanding of the relevant materials; demonstration of an adequate level of academic achievement; satisfactory development of skills*; and achievement of all learning outcomes.
0-49	Fail (FF)	Failure to satisfactorily achieve learning outcomes. If all compulsory course components are not completed the mark will be zero. A fail grade may also be awarded following disciplinary action.

*Skills are those identified for the purposes of assessment task(s).

Attendance

Attendance/participation will be recorded in the following components:

- Computer Lab (Method of recording). Students must attend 80% of their scheduled computer laboratory classes to pass this course

Communication Methods

Communication methods used in this course include:

- Canvas Course Site: Students will receive communications via the posting of content or announcements on the Canvas course site.
- Email: Students will receive communications via their student email account.
- Face to Face: Communication will be provided via face to face meetings or supervision.

Course Evaluation

Each year feedback is sought from students and other stakeholders about the courses offered in the University for the purposes of identifying areas of excellence and potential improvement.

Oral Interviews (Vivas)

As part of the evaluation process of any assessment item in this course an oral examination (viva) may be conducted. The purpose of the oral examination is to verify the authorship of the material submitted in response to the assessment task. The oral examination will be conducted in accordance with the principles set out in the [Oral Examination \(viva\) Procedure](#). In cases where the oral examination reveals the assessment item may not be the student's own work the case will be dealt with under the [Student Conduct Rule](#).

Academic Misconduct

All students are required to meet the academic integrity standards of the University. These standards reinforce the importance of integrity and honesty in an academic environment. Academic Integrity policies apply to all students of the University in all modes of study and in all locations. For the Student Academic Integrity Policy, refer to <https://policies.newcastle.edu.au/document/view-current.php?id=35>.

Adverse Circumstances

The University acknowledges the right of students to seek consideration for the impact of allowable adverse circumstances that may affect their performance in assessment item(s). Applications for special consideration due to adverse circumstances will be made using the online Adverse Circumstances system where:

1. the assessment item is a major assessment item; or
2. the assessment item is a minor assessment item and the Course Co-ordinator has specified in the Course Outline that students may apply the online Adverse Circumstances system;
3. you are requesting a change of placement; or
4. the course has a compulsory attendance requirement.

Before applying you must refer to the Adverse Circumstance Affecting Assessment Items Procedure available at: <https://policies.newcastle.edu.au/document/view-current.php?id=236>

Important Policy Information

The Help button in the Canvas Navigation menu contains helpful information for using the Learning Management System. Students should familiarise themselves with the policies and procedures at <https://www.newcastle.edu.au/current-students/respect-at-uni/policies-and-procedures> that support a safe and respectful environment at the University.

This course outline was approved by the Head of School. No alteration of this course outline is permitted without Head of School approval. If a change is approved, students will be notified and an amended course outline will be provided in the same manner as the original.