Course Outline

GENS1111

Big Fat Myths

School of Biotechnology and Biomolecular Sciences
Faculty of Science

Term 3, 2020

1. **Staff**

Position	Name	Contact Details
Course Convenor	Dr Nirmani Wijenayake	bfm@unsw.edu.au

2. Course information

NB: Some of this information is available on the UNSW Handbook[1]

Year of Delivery	2020
Course Code	GENS1111
Course Name	Big Fat Myths
Location	Wholly online
Lesson and Quiz times	Wholly online, work through as you wish before given deadlines.
Academic Unit	BABS, School of Biotechnology and Biomolecular Sciences
Level of Course	UG
Units of Credit	6 UOC
Session(s) offered	Term 1 and Term 3
Assumed Knowledge	Nil prior knowledge assumed, but an enthusiasm to understand how our body works and to learn about the amazing discoveries that have led to our current understanding of human metabolism and physiology will be an advantage in this course.
Prerequisites or Co-requisites	-
Exclusions	**Note**: Students enrolled in a Faculty of Science program should not take this course but can enrol in the equivalent course, BABS1111
Hours per week	6
Number of Weeks	10
Commencement Date	14th of September 2020

[1] UNSW Handbook: https://www.handbook.unsw.edu.au/

2.1 Course summary

Weight loss fads in the form of diets and exercise regimes (with mostly unrealistic claims) are ubiquitous in modern day life; however, there is surprising ignorance and confusion about how we lose weight, with most people unable to answer the simplest question: when you lose weight, where does the fat go? Popular (incorrect) answers include energy, heat, faeces and sweat. Surprisingly, this question has also baffled health professionals including general practitioners, dietitians and professional trainers.

This course will lift the veil on weight loss by tracing every atom you eat into and out of your body, and you will learn the fate of fat during weight loss, that is, it is converted to carbon dioxide and water and exits your body mainly through your lungs. Along the way, you will also learn how humans convert foods into useful energy, what exactly is happening in your bodies during weight loss and weight gain, and by the end you will be able to critically examine popular weight loss claims as well as your own diet and lifestyle. Diet myths and wellness nonsense topple like dominoes along the way.

No prior scientific knowledge is assumed as we aim to provide you with the knowledge to answer this big, fat myth.

2.2 Course aims

- This course will introduce students to basic modern biochemistry principles that natural philosophers (what we now call scientists!) have worked hard over hundreds of years to understand how we, as humans, convert foods to useful energy. Particular focus is on the metabolic processes of weight loss and weight gain and how we store this energy when there is excess (think couch potato) and how we utilise it in times of deficiency (exercise, weight loss and sadly, starvation).
- In doing so, students will dispel current myths on weight loss and weight gain, restoring their confidence in the age-old wisdom that to lose weight, you simply need to eat less and move more.

2.3 Course learning outcomes (CLOs)

On completion of this course, you (the successful student) will be able to:

1. Recognise and describe the history of science that has led to our current understanding of human metabolism.
2. Explain how weight loss occurs by eating less, moving more, or a combination of both, and how weight gain occurs by doing the opposite.
3. Describe what fat is using the five-level body composition model.
4. Describe and explain metabolism as the conversion of food into useful energy by digestion, absorption and respiration.
5. Prepare an exercise and food journal to analyse, evaluate and reflect on your own and others diet and lifestyle behaviours.
6. Appraise and assess popular weight loss claims and diet myths.

2.4 Relationship between course and program learning outcomes and assessments

Course Learning Outcome (CLO)	LO Statement	Related Tasks & Assessment
CLO 1	Recognise and describe the history of science that has led to our current understanding of human metabolism	Lecture Assessments, Online Lesson Examination
CLO 2	Explain how weight loss occurs by eating less, moving more, or a combination of both, and how eight gain occurs by doing the opposite	Lecture Assessments, Weigh Loss Method Critique, Food and Exercise Journal, Online Lesson Examination
CLO 3	Describe what fat is using the five-level body composition model	Lecture Assessments, Online Lesson Examination
CLO 4	Describe and explain metabolism as the conversion of food into useful energy by digestion, absorption and respiration	Lecture Assessments, Food and Exercise Journal, Online Lesson Examination
CLO 5	Prepare an exercise and food journal to analyse, evaluate and reflect on your own and others diet and lifestyle behaviours	Lecture Assessments, Food and Exercise Journal, Online Lesson Examination
CLO 6	Appraise and assess popular weight loss claims and diet myths	Lecture Assessments, Weigh Loss Method Critique, Online Lesson Examination

3. Strategies and approaches to learning

3.1 Learning and teaching activities

Throughout the course, students are encouraged to critically evaluate concepts and ideas by encouraging questioning and self-directed learning by participating in all online activities including online lessons and quizzes.

The course highlights the link between theory and practise with learning activities on biochemical theory complementing the case studies and everyday scenarios learning in the online lessons. Learning and assessment activities identify students' misconceptions and preconceptions on the course topic (myth busting) and use a variety of real-world examples of human's diet and exercise to illustrate key ideas and encourage students to draw on their prior knowledge.

3.2 Expectations of students

- To pass the course you must attempt, complete, and pass all the assessable components of the course.
- You are expected to be comprehensive and punctual in completing all online modules. The online lessons and activities aim to inspire and motivate students to explore the course subject further by providing numerous optional course material and links to additional learning resources.
- The course has a Microsoft Teams site set up to promote interactions between students. As this is a fully online course where you work completely on your own, it is important to still foster some engagement with your peers. Therefore, there will be weekly challenges set up on Microsoft Teams and you will be expected to participate in these. This will also allow you to collaborate with each other on course learning activities.
- If you have course-related questions, you are encouraged to use Microsoft Teams or the discussion forum on the course's Moodle website. These are monitored regularly. If more help is needed, you may send enquiries to the course email address (bfm@unsw.edu.au) or requests for appointments from your UNSW email. **When sending an email to the course coordinator, you must state your name, student number and the course you are enrolled in.**
- If you are worried about your progress or the performance in the course, please consult with the course authority as soon as possible.

4. Course schedule and structure

Week *(Begins)*	**Online Lessons**	**Assessment**
Week 1 *(14 September)*	Course Introduction and Expectations	
Week 2 *(21 September)*	Lesson 1: Fat Limits Lesson 2: History of Weight Loss	
Week 3 *(28 September)*	Lesson 3: What is Fat? (atoms and molecules) Lesson 4: What is Fat? (cells to whole body)	
Week 4 *(5 October)*	Lesson 5: Digestion and Absorption I Lesson 6: Digestion and Absorption II	**Quiz 1:** Thursday 8th of October 10 am OR 8 pm
Week 5 *(12 October)*	Lesson 7: Food as Energy Lesson 8: Metabolism	
Week 6 *(19 October)*	Lesson 9: Eat Less or Move More Lesson 10: How to read health news	**Assessment 1:** Food and Exercise Journal Analysis submission (Due date: Thursday 22nd of October at 5 pm)
Week 7 *(26 October)*		
Week 8 *(2 November)*		**Quiz 2:** Thursday 5th of November 10 am OR 8 pm
Week 9 *(9 November)*		**Assessment 2:** Weight loss method critique video submission (Due date: Thursday 12th of November)
Week 10 *(16 November)*		**Assessment 2:** Weight loss method critique video peer review (Due date: Thursday 19th of November)

5. Assessment

5.1 Assessment tasks

You must complete and pass ALL the assessable components seen below to pass the course.

Assessment Task	Description	Weight	Due Date
Online lessons **(Formative)**	Weekly Smart Sparrow lessons that include multiple choice and short answer questions. Requires completion of entire lesson which includes multiple-choice and short answer questions to pass the course. The two course quizzes will be based on the information from these lessons.	0%	All the lessons must be completed by Week 10.
Quiz 1	Covers Lessons 1-4 and compulsory reading material from Weeks 2 and 3. The quizzes consist of multiple-choice questions.	20%	Due date: 8th of October 10 am OR 8 pm
Quiz 2	Covers Lessons 5-10 and compulsory reading material from Weeks 4 and 6. The quizzes consist of reason and assertion questions.	30%	Due date: 5th of November 10 am OR 8 pm
Assignment 1: Food and Exercise Journal Analysis	Analyse an assigned food and exercise journal and write a refection about the findings.	25%	Due date: 22nd of October 5 pm
Assignment 2: Weight loss method critique	This assignment contains two assessable components: 1. **Video:** Students are required to create a *pro-science* video to debunk a weight loss method (20%). 2. **Peer Review:** Students peer review 4 other videos to learn about other weight loss methods (5%).	25%	**Video** Due date: 12th of November 5 pm **Peer Review** Due date: 19th of November 5 pm

Please check the Assessment sections on Moodle for more information on Assessment 1 and 2.

Further information:

- UNSW grading system: https://student.unsw.edu.au/grades
- UNSW assessment policy: https://student.unsw.edu.au/assessment

5.2 Assessment criteria and standards

The major components of this course are the contents delivered through online lessons. This will be assessed by two quizzes and two assignments. More details on the assessment tasks and how they will be graded will be provided during the course (online via Moodle).

5.3 Submission of assessment tasks

Assignment submission

All assignments will be submitted online via Moodle. More details on assignment submission, deadlines will be provided on Moodle.

Any assessment task that is submitted after the due date will have a late penalty applied to them. Late submissions will incur a 10% decrease in the overall mark per day**.** Any assignments handed in more than 7 days late will not be marked. Extensions required due to unforeseeable circumstances must be arranged at least 3-5 days prior to the due date.

Late Submissions of Assignments

Instructions for Assignments are available from the start of the Term. You should be planning to complete them well before the deadlines. If you are unable to complete the assignments by the due submission day and time, you must contact Nirmani (bfm@unsw.edu.au) at least 4 days prior to the due date and provide a medical certificate or other professional documentation that supports the reason for your inability to complete the Assignment. Note that a **10% penalty per day** will ensue if you do not provide a satisfactory explanation. Please note that, if you ask for special consideration for a task that has been available for completion weeks in advance, the day before it is due, no consideration will be granted.

Special Consideration for missed Quizzes

If you are unwell on the day of the quiz or were unable to attempt the quiz for a reason out of your control, you need to contact Nirmani within 2 days of the quiz with evidence for your absence. If you can provide supporting documentation for your absence, an alternate supplementary assessment will be provided within 2 weeks of the original quiz.

DSU Students:

If you are a student registered with the DSU, you may be eligible for some extensions for the two assignments. Please email your supporting letter by the end of Week 1 so we can discuss what provisions will be available for you.

5.4. Feedback on assessment

Students will receive constructive feedback on their assignments in a timely manner (within 2 weeks after submissions as instructed in the UNSW assessment Policy). The delivery method of feedback may vary depending on the assessment type. Full details will be provided on the course Moodle site.

6. Academic integrity, referencing and plagiarism

Academic integrity is fundamental to success at university. Academic integrity can be defined as a commitment to six fundamental values in academic pursuits**:** honesty, trust, fairness, respect, responsibility and courage.[1] At UNSW, this means that your work must be your own, and others' ideas should be appropriately acknowledged. If you don't follow these rules, plagiarism may be detected in your work.

Further information about academic integrity and **plagiarism** can be located at:

- The *Current Students* site https://student.unsw.edu.au/plagiarism**,** and
- The *ELISE* training site http://subjectguides.library.unsw.edu.au/elise/presenting

The *Conduct and Integrity Unit* provides further resources to assist you to understand your conduct obligations as a student: https://student.unsw.edu.au/conduct.

7. Readings and resources

There are no required readings for this course. All resources are online and provided in the online lessons or as web links within Smart Sparrow or on Moodle.

A useful resource for this course is the book, *Big Fat Myths*[1], which the course was based on.

[1] Meerman R., Big Fat Myths, Random House Australia 2016.

8. Administrative matters

Biosciences Student Office

Student Advisor (BABS)

Email: BABStudent@unsw.edu.au

Tel: +61 (2) 9385 8047

Website: https://www.babs.unsw.edu.au/contact/biosciences-student-office

Faculty Contact

Dr Gavin Edwards

Associate Dean (Academic Programs)

Email: g.edwards@unsw.edu.au

Tel: +61 (2) 9385 4652

[1] International Center for Academic Integrity, 'The Fundamental Values of Academic Integrity', T. Fishman (ed), Clemson University, 2013.

9. Additional support for students

- The Current Students Gateway: https://student.unsw.edu.au/
- Academic Skills and Support: https://student.unsw.edu.au/academic-skills
- Student Wellbeing, Health and Safety: https://student.unsw.edu.au/wellbeing
- Disability Support Services: https://student.unsw.edu.au/disability-services
- UNSW IT Service Centre: https://www.it.unsw.edu.au/students/index.html
- UNSW Academic Calendar Key Dates: https://student.unsw.edu.au/dates
- UNSW Handbook: http://www.handbook.unsw.edu.au/2018/index.html
- UNSW Learning Centre: http://www.lc.unsw.edu.au/
- UNSW Student Equity and Disabilities Unit: https://student.unsw.edu.au/disability
- Counselling and Support: https://www.counselling.unsw.edu.au/
- University Health Service: http://www.healthservices.unsw.edu.au/
- The Hub: https://student.unsw.edu.au/hub
- UNSW Careers and Employment Service: http://www.careers.unsw.edu.au/
- ARC- Student Life: https://www.arc.unsw.edu.au/
- UNSW Student Life: https://www.unsw.edu.au/life