



# Course Outline

BABS1111/ GENS1111

Big Fat Myths

School of Biotechnology and Biomolecular  
Sciences  
Faculty of Science

Summer Session, 2018/19

## 1. Staff

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Position	Name	Contact Details
Course Convenor	Prof. Andrew Brown	-
Course Co-convenor and Course contact	Dr Eser Zerenturk	eser@unsw.edu.au

## 2. Course information

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NB: Some of this information is available on the [UNSW Handbook](#)<sup>1</sup>

Year of Delivery	2018/19
Course Code	GENS1111/BABS1111
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	Summer (2018/19) and T3 (2019)
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	<u>For BABS1111</u> : BABS1201 and GENS1111 <u>For GENS1111</u> : BABS1111 <b>Note:</b> Students enrolled in a Faculty of Science program should not take this course but can enrol in the equivalent course, BABS1111

Hours per week	3 (T3) or 6 (Summer)
Number of Weeks	10 (T3) or 5 (Summer)
Commencement Date	3 <sup>rd</sup> December 2018 (Summer) or 16 <sup>th</sup> September 2019 (T3)

<sup>1</sup> UNSW Handbook: <https://www.handbook.unsw.edu.au/>

## 2.1 Course summary (handbook entry<sup>1</sup>)

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.

**Note:** Students enrolled in a Faculty of Science program should not take this course but can enrol in the equivalent course, BABS1111

<sup>1</sup> UNSW Handbook: <https://www.handbook.unsw.edu.au/>

## 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 (CLO)

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	Weekly Quiz, Online Lesson
CLO 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	Weekly Quiz, Weight Loss Method Critique, Food and Exercise Journal, Online Lesson
CLO 3	Describe what fat is using the five-level body composition model	Weekly Quiz, Online Lesson
CLO 4	Describe and explain metabolism as the conversion of food into useful energy by digestion, absorption and respiration	Weekly Quiz, Food and Exercise Journal, Online Lesson
CLO 5	Prepare an exercise and food journal to analyse, evaluate and reflect on your own and others diet and lifestyle behaviours	Weekly Quiz, Food and Exercise Journal, Online Lesson

CLO 6	Appraise and assess popular weight loss claims and diet myths	Weekly Quiz, Weigh Loss Method Critique, Online Lesson
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### 3. Strategies and approaches to learning

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#### 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

Students 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.

Social networks (i.e. Facebook, Twitter etc) will not be used to share class materials and a way to contact academics including demonstrators/tutors involved in this course. If students have course-related questions, they are encouraged to use discussion forums on the course's Moodle website. These are monitored regularly. If more help is needed, students may send enquiries or requests for appointments from their UNSW email. When sending an email to the course coordinator, a student must state their name, student number and the course they are enrolled in.

Students are encouraged to consult with the course authority if in doubt as to their progress.

## 4. Course schedule and structure

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### Standard teaching mode (T3)

This course requires 3 hours per week over 10 weeks during Term 3 for the weekly online lessons, weekly quiz (MCQ) and assessment 1 and 2 (Food and Exercise Journal and Weight Loss Method Critique; due in weeks 4 and 7, respectively).

Week	Online Lesson (Smart Sparrow)	Assessment
Week 1	Fat Limits	Quiz 1
Week 2	Fat Science	Quiz 2
Week 3	Fat Atoms part 1	Quiz 3
Week 4	Fat Atoms part 2	Quiz 4 + Assessment 1: Food and Exercise Journal
Week 5	Atoms In part 1	Quiz 5
Week 6	Atoms In part 2	Quiz 6
Week 7	Atoms Out part 1	Quiz 7 + Assessment 2: Weight loss method critique
Week 8	Atoms Out part 2	Quiz 8
Week 9	Move Your Atoms	Quiz 9
Week 10	The Atomic Diet	Quiz 10

### Intensive teaching mode (Summer)

This course will be delivered in an intensive mode during summer session. This summer course requires 6 hours per week over 5 weeks during Summer session for the weekly online lessons, weekly quiz (MCQ) and assessment 1 and 2 (Food and Exercise Journal and Weight Loss Method Critique; due in weeks 2 and 3, respectively).

<b>Week</b>	<b>Online Lesson (Smart Sparrow)</b>	<b>Assessment</b>
<b>Week 1</b> <i>Mon 3<sup>rd</sup> Dec</i>	Fat Limits Fat Science	Quiz 1 & 2
<b>Week 2</b> <i>Mon 10<sup>th</sup> Dec</i>	Fat Atoms parts 1 & 2	Quiz 3 & 4 + Assessment 1: Food and Exercise Journal
<b>Week 3</b> <i>Mon 7<sup>th</sup> Jan</i>	Atoms In parts 1 & 2	Quiz 5 & 6 + Assessment 2: Weight loss method critique
<b>Week 4</b> <i>Mon 14<sup>th</sup> Jan</i>	Atoms Out parts 1 & 2	Quiz 7 & 8
<b>Week 5</b> <i>Mon 21<sup>st</sup> Jan</i>	Move Your Atoms The Atomic Diet	Quiz 9 & 10

## 5. Assessment

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### 5.1 Assessment tasks

Assessment task	Description	Weight	Week Due
<b>Online lessons*</b>	Weekly Smart Sparrow lessons that include multiple choice and short answer questions.	30 %	Assessment must be completed by the end of every week
<b>Weekly quiz**</b>	Weekly quiz to assess your understanding of provided online content.	20 %	Assessment must be completed by the end of every week
<b>Assessment 1: Food and Exercise Journal***</b>	<p>Students keep a 2-3 day food and exercise diary to work out their daily energy intake and expenditure and answer discussion questions (20%).</p> <p>Students are also required to peer review exercise and food diaries from 2 other students to compare and contrast with their own diaries (10%, randomly assigned).</p>	30 %	<p>Week 4 (T3)/Week 2 (Summer)</p> <p>Week 6 (T3)/Week 3 (Summer)</p>
<b>Assessment 2: Weight loss method critique****</b>	<p>Students are required to create a <i>pro-science</i> "Pinterest" board to debunk various weight loss methods found on "Pinterest" (14%).</p> <p>Students are also required to peer review "Pinterest" boards from 2 other students (6%).</p>	20 %	<p>Week 7 (T3)/ Week 3 (Summer)</p> <p>Week 9 (T3) Week 4 (Summer)</p>

\* Requires completion of entire lesson which includes multiple choice and short answer questions

\*\* The format of the assessment will be a short multiple choice answer quiz.

\*\*\* Assessment must be submitted in two parts: journal and calculations need to be filled in the template documents provided on Moodle, and then both documents uploaded onto Moodle

\*\*\*\* Template must be downloaded from Moodle, filled in and submitted on Moodle.

#### 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 multiple choice and short answer questions within the lessons themselves, the weekly quizzes, and the 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

Details on assignment submission are given in both course outline (please refer to the table provided in section 5.1) and online (via Moodle). All assignments are online submission **ONLY**. No work should be submitted to the Biosciences Student Office (BSO, G27, Biological Sciences Building).

Information on extension of deadline and penalties for late submission will be announced online in Moodle.

### Special consideration

Applications must be made via Online Services in myUNSW. Students must obtain and attach Third Party documentation before submitting the application. Failure to do so will result in the application being rejected.

Further information is provided in the course manual.

## 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. A brief outline of assessment feedback is presented in the table provided in section 5.1. Full details will be provided on the course Moodle site.

## 6. Academic integrity, referencing and plagiarism

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**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.<sup>1</sup> 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>.

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<sup>1</sup> International Center for Academic Integrity, 'The Fundamental Values of Academic Integrity', T. Fishman (ed), Clemson University, 2013.

## 7. Readings and resources

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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*<sup>1</sup>, which the course was based on.

<sup>1</sup> Meerman R., *Big Fat Myths*, Random House Australia 2016.

## 8. Administrative matters

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### Biosciences Student Office

Student Advisor (BABS)

Email: [BABStudent@unsw.edu.au](mailto:BABStudent@unsw.edu.au)

Tel: +61 (2) 9385 8047

### School Contact (set up in progress)

Director of Teaching

Email: [BABSteaching@unsw.edu.au](mailto:BABSteaching@unsw.edu.au)

### Faculty Contact

Dr Gavin Edwards

Associate Dean (Academic Programs)

Email: [g.edwards@unsw.edu.au](mailto:g.edwards@unsw.edu.au)

Tel: +61 (2) 9385 4652

### Additional Websites

- Biosciences Student Office: <https://www.babs.unsw.edu.au/contact/biosciences-student-office>
- School of Biotechnology and Biomolecular Sciences website for current students: <https://www.babs.unsw.edu.au/current-students/undergraduate-programs>
- MyUNSW: <https://my.unsw.edu.au/>

## 9. Additional support for students

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- 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>