Faculty of Science, Medicine and Health
School of Health Sciences
Subject Outlines
Subject Name: SHS 354 Nutrition and Food Innovation I

Section A: Subject Information

Subject Code & Name:	SHS 354 Nutrition and Food Innovation I
Credit Points:	8
Pre-requisite(s):	CHEM215 and BMS103 OR CHEM215 and SHS 110
Co-requisite(s):	None
Restrictions:	None
Equivalence:	BMS313 , BMS 314, SFC904, SHS 355
Assessment:	Debate 10%; Mid Semester Quiz 20%; Presentation and Report 40%;Final Exam 30%
Session:	Spring 2013
Campus Locations:	Wollongong
Delivery Method:	On Campus
Contact Hours:	2hrs Lect, 1hr Tut per week

Subject Timetable
All timetable information is subject to variation, with last minute room changes due to change in enrolment numbers being the most common. **Check the latest information on the university web timetable via the Timetable link under Study Resources on the Current Students webpage or log into SOLS to view your personal timetable prior to attending classes, particularly in the first few weeks of session.**

Subject Coordinator
Name: Anne McMahon
Location: School of Health Sciences, Building 41, Room 225
Consultation times: Monday 1300-1600 and Thursday 1400-1500
Telephone: 61 2 4221 4829
Email: anne_mcmahon@uow.edu.au

Student Administration
Location: 41.152
Telephone: 61 2 4221 3492
Email: smah_student_enquiries@uow.edu.au

Prescribed Text
Course notes and recommended reading (available as e-readings from the library)

Assessment Tasks

1- Debate	2- Mid-session exam	3- Presentation and Report	4- Final Exam
Due Date: 29 August Percentage: 10 %	Due Date: Week 7 tbc Percentage:20 %	Due Date: 24 or 31 October Percentage:40 %	Due Date: tbc exam Weeks 9-21 November Percentage:30 %

eLearning Space
For information regarding the eLearning spaces please use the following links:
Blackboard Vista - http://www.uow.edu.au/student/elearning/vista/index.html.
Moodle - http://uowblogs.com/moodlelab/files/2013/05/Moodle_StudentGuide-1petpo7.pdf

Section A: Subject Information

Subject Description

The subject introduces students to the use of technologies that underpin the development of the contemporary Australian food supply to achieve a health outcome. These include but are not limited to: functional foods and genetic modification and its applications in food production; the impact of these applications such as in feeding programs on livestock and/or plant agricultural practices; issues concerning trends for new food delivery systems, such as home meal solutions or ready to eat meals and related food safety concerns, and the use of risk assessment frameworks in food regulation. The overall impact of the use of biotechnology and new food production technologies (based on nutrition principles and research) in the food supply system will be reviewed.

Learning Outcomes

On completion of this subject, students should be able to:
(a) Describe how nutrition may act as a driving force behind food innovation
(b) Outline the basic principles of genetic modification and discuss its role in the development of the food supply with respect to government policy and consumer demand
(c) Evaluate specific case studies of food supply innovation such as feeding programs for livestock, plant biotechnology using nutritional, economical, environmental and other criteria and develop proposals for new food innovations
(d) Describe trends in the production and retailing of food supply innovations such as home meal solutions
(e) Discuss the role of food technology in the prevention of food poisoning and related food safety issues in the changing food supply system
(f) Critique the role of biotechnology and other technology in food production and retailing

Subject Contacts

Subject Coordinator/Lecturer

Name: Anne McMahon
Location: School of Health Sciences, Building 41, Room 225
Consultation times: Monday 1300-1600 and Thursday 1400-1500
Telephone: 61 2 4221 4829
Email: anne_mcmahon@uow.edu.au

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Attendance/Study time

On-campus delivery: It is expected that students will allocate 10 hours per week to this subject, including class attendance. Class attendance is not an assessable component for the purposes of accumulating marks, but attendance at certain classes may be compulsory and failure to meet attendance requirements may result in a Technical Fail for the subject– please see Section B: Assessment Information for details.

Timetable of Topics

Week	Week start date	Lecture*	Lecturer*	Tutorial	Assessment Task
1	29/7/13	Introduction Food Supply into the new Millennium -what does it all mean?	Ms Anne McMahon UOW	*No tutorial in week 1*	
2	5/8/13	Putting Omega 3's back into the diet Innovation in Omega 3's	A.Prof Peter McLennan	Introduction to tutorials. Innovation in Australia's food and its regulation Assign students to groups for GM food debate.	
3	12/8/13	Strategies for effective research development and commercialisation	Prof Ian Brown Clover Corp	Clarifying the GM food debate and assigning students to groups for GM food debate.	
4	19/8/13	GMO Foods – the nutrition perspective Home meal replacements	Ms Anne McMahon UOW	Review of potential uses & benefits of food biotechnology in groups for presentation back to class.	
5	26/8/13	Nutrition and health claims. Defining what the system looks like	Dr Peter Williams	**GM food Debate (may commence at earlier time to accommodate all students)**	Debate 10 % 29/08/13
6	2/9/13	Measuring consumer trends and expectations for food innovation	Dr Trevor Webb	Findings from food biotechnology review and discussion around presentation and report Confirm food for main report	
7	9/9/13	Managing IP- what to remember in nutrition research	Gavin Dixon	Review a potential health claim and follow the process for developing substantiation	**Mid Session Quiz 20% room and time to be advised**
8	16/9/13	**Monday 13.30- 15,30** Food for the future today? Looking at new food innovation offerings within the food supply **Thursday 10.30-11.30** Looking for a healthy outcome? The development of an innovative fibre ingredient	Dr Geoffrey Annison AFGC Dr Eleanor Beck	Presentation on findings on health claim substantiation.	
9	23/9/13	The Smart Foods Centre: integrating nutrition with food innovation	Prof Linda Tapsell SFC UOW	Finalising group presentation	
BREAK	30/9/13				
10**	7/10/13	Public Holiday		Finalising group presentation	
11	14/10/13	Addressing safety issues – exploring technological solutions	Dr Nai Tran-Dinh CSIRO	**Group Presentations**	Presentation 40 % Tutorial time Week 11 and 12 (either 24 or 31/10/13)
12	21/10/13	Nutrigenomics - an emerging trend in human nutrition	Dr Dilip Ghosh	**Group Presentations**	
13	28/10/13	Subject Summary	Ms Anne McMahon	Final discussion	Final exam 30% tbc during exam period 9-21 November

* note external lecturers may occasionally need to be rescheduled ** is a public holiday

Textbooks and Supplementary Materials

Prescribed Text
Course notes and recommended reading (available as e-readings from the library)

Recommended Additional Readings
Murano PS Understanding Food Science and Technology Thomas and Wadsworth USA 2003

Recommended readings are not intended as an exhaustive list and students should use the Library catalogue and databases to locate additional resources.

eLearning Space
This subject has materials and activities available via eLearning. To access eLearning you must have a UOW user account name and password, and be enrolled in the subject. eLearning is accessed via SOLS (student online services). Log on to SOLS and then click on the eLearning link in the menu column.

For information regarding the eLearning spaces please use the following links:
Moodle - http://uowblogs.com/moodlelab/files/2013/05/Moodle_StudentGuide-1petpo7.pdf

eReadings
Electronic readings for this subject are available through the library website. Visit the Catalogue via the Library link on the UOW homepage or see staff at the Information Desk in the Library for information and help with eReadings.

Graduate Qualities
Information on the UOW Graduate Qualities can be found at via the Learning and Teaching link on the UOW homepage. The University of Wollongong has developed five graduate qualities which it considers express valuable qualities that are essential for UOW graduates in gaining employment and making an important contribution to society and their chosen field. Student development of the following graduate qualities in particular will be enhanced by their participation in this subject:

1. **Informed**: Have a sound knowledge of an area of study or profession and understand its current issues, locally and internationally. Know how to apply this knowledge. Understand how an area of study has developed and how it relates to other areas.
2. **Independent learners**: Engage with new ideas and ways of thinking and critically analyse issues. Seek to extend knowledge through ongoing research, enquiry and reflection. Find and evaluate information, using a variety of sources and technologies. Acknowledge the work and ideas of others.
3. **Problem solvers**: Take on challenges and opportunities. Apply creative, logical and critical thinking skills to respond effectively. Make and implement decisions. Be flexible, thorough, innovative and aim for high standards.
4. **Effective communicators**: Articulate ideas and convey them effectively using a range of media. Work collaboratively and engage with people in different settings. Recognise how culture can shape communication.
5. **Responsible**: Understand how decisions can affect others and make ethically informed choices. Appreciate and respect diversity. Act with integrity as part of local, national, global and professional communities.

Recent Improvements to this Subject
Change: None

Reason: None

Section B: Assessment

Minimum Requirements for a Pass in this Subject

To receive a clear pass in this subject a total mark of 50% or more must be achieved. In addition, students must meet all of the minimum performance requirements as listed below. Failure to meet any of the minimum performance requirements is grounds for awarding a Technical Fail (TF) in the subject even where total marks accumulated are greater than 50%.

Minimum Academic Performance: A Technical Fail (TF) grade **will** be awarded for the subject even where a student gains a total mark that would otherwise allow a passing grade if a student meets one or more of the following criteria:

- does not attempt all assessment tasks
- does not pass the final exam

Minimum Attendance: student attendance at tutorials, practicals seminars and/or simulations is compulsory and students must attend 100% of classes. Absences will require a medical certificate or other suitable documentation which must be presented to Student Central after formal notification of Academic Consideration is lodged through SOLS by the student as soon as practical after the absence has occurred. Students who do not meet minimum attendance requirements may be awarded a Technical Fail (TF) for this subject.

Minimum Participation: Student participation in tutorials, practicals and/or seminars is an assessable component of this course. Students who do not meet minimum participation requirements may be awarded a Technical Fail (TF) for this subject.

Students who do not meet the overall minimum performance level requirements outlined above may be given a Technical Fail (TF) grade on their academic transcript even where the total marks accumulated are 50% or higher. Where a Technical Fail is awarded, the grade is displayed as TF but a mark is not displayed on the academic transcript. For the purposes of calculating a Weighted Average Mark (WAM) a TF is allocated a mark of 49.

Details of Assessment Tasks

Assessment 1	Genetic foods debate
Format	Debate – individual assessment
Due date	Week 5 during tutorial time
Weighting	10%
Length	2 minutes per person
Details	Debate outlining an argument for or against the role of gene technology. Each person will be assigned a specific role* to play such as regulator or consumer and will be either asked to defend or refute gene technology's role within the food supply using current evidence from a variety of sources such as scientific evidence and main stream media.
Submission	Submit hardcopy of the main points and provide sources used in a reference list assignment to SMAH Central on Level 1 in Bld 41

*Roles include: Consumer, Farmer, Regulator, Politician, Scientist, Food Industry

Assessment 1 will be marked using the following criteria:

1. Clarity of introduction to defend argument position	2%
2. Identification and presentation of main points	2%
3. Summary and conclusion	2%
4. Creativity in engaging audience	2%
5. Written material demonstrating concise main points and reference list	2%
Total	**10 %**

Assessment 2	Midsession test
Format	In-class test Multiple choice and short answer
Due date	Week 7 during week commencing 09/09/13
Weighting	20%
Length	50 minute duration
Details	The mid-session test will be held in a time to be confirmed within Week 8. It will consist of multiple choice and short answer questions. Content will be based on the materials covered during lectures, tutorials and readings for weeks 1-7. Assessment will be marked as follows: all 10 multiple choice questions are of equal weight and 6 short answer worth 5 marks each. Exam mark will be out of 40 but the final mark will be converted to a mark out of 20.

Assessment 3	Food Innovation Today
Format	Group Presentation and Individual Report
Due date	Groups will be assigned to one of the following dates Week 11 or Week 12 tutorial time
Weighting	40% (comprising of 15 % for group presentation and 25 % for individual report)
Length	Group presentations: 3 minutes per person for 4 person group. Total time 15 minutes per group includes 12 minutes presentation and 3 minutes for questions. Individual report: 2000 words.
Details	Part 1 of this assessment item is group work. There will be 4-5 people per group. Groups will be formed in week 2 and each group will need to identify the specific food product they will be investigating which needs to be agreed with the tutor by week 4. The presentation needs to be based on factual scientific information and arguments need to prepared and presented by each member of the group. A 1- 1½ page hard copy of the main points prepared by each speaker to be submitted with a copy of PowerPoint presentation. Presentation will be assessed as per criteria below. Part 2 of this assessment will be an individual report on the specific food product identified and its role in meeting the nutritional needs within the community. The report needs to be structured as per criteria below.
Submission	**Email soft copy** of Power Point slides **to the tutor the day before** the presentation is scheduled and **submit hardcopy** of your speaker points and hard copy of Power Point slides **on the day of presentation** including copy of the Power Point slides to SMAH Central on Level 1 in Building 41. It must have a cover sheet for the group component and must identify the group members. Submit a **hard copy** of your **individual assignment** to SMAH Central on Level 1 in Bld 41 with a separate cover sheet **on the same day of the presentation.**

Assessment 3 will be marked using the following criteria:

Group Presentation

1. Presentation skills
    - use of aids (if relevant) and verbal delivery across the team. This includes the ability to respond to any questions 5 %
2. Content of the presentation
    - including ability to present a scientifically based information on the role of the product, identification of how science played a role in its innovation, clarification of any commercial, marketing and quality issues and how they might have been addressed, and expected outcomes for the product 6%
3. Written material
    - Each group will submit one group summary report. The group summary report needs a title page identifying the food product, the innovation investigated and the group membership student details. Each student is expected to contribute a 1 -1½ page summary of their individual main points and the associated references each student has used to support their points presented. A hard copy of the Power Point presentation slides printed 3/page is also required. 4%.

Total **15%**

Please note: all group members are equally responsible for the quality of the work produced by the group. Each group member needs to attend group meetings and should read through the material being submitted for the group assignment. Peer marking may be used if there are problems with group dynamics. However, issues need to be discussed with the subject coordinator before the due date of the work.

Individual Report

1. Clear identification of the need for the product based on a nutritional issue in the community 4%
2. Adequate rationale for product development specifying how science guided research and the development of the product and the quality of evidence for any claims 9%
3. Identification of the relevant commercial and marketing issues such as intellectual property issues, compliance with government regulations (labelling, use of ingredients etc), advantages/disadvantages to producer or consumer and include a feasible plan to address these issues 10%
4. Report layout, grammar, quality of references, and correct referencing style 2%

Total **25%**

Assessment 4	Final examination
Format	Final exam Multiple choice and short answer
Due Date	Within exam period 9 -21 November
Weighting	30%
Length	2 hours and 15 minutes
Details	Assessment will be marked as follows: all 30 multiple choice questions are of equal weight and 7 short answer worth 10 marks each. Final exam to cover all material in the subject.

Scaling
Scaling will not occur in this subject.

Submission of Assignments
Specific submission instructions have been included in the assignment details section of this outline. An assignment cover sheet must be attached to all assignments and all sections of the cover sheet must be completed by the student. Receipts will be issued on submission of assignments and students are required to retain this receipt until they have received the final mark for that assessment task. The receipt is the only proof of submission of assignments and students will be required to produce this in the event that an assessment task is considered to be lost. Students are also expected to keep a copy of all their submitted assignments in the event that re-submission is required.

Note that if assignments are submitted in the after-hours slot in SMAH Central or via post, the receipt must be filled out and left attached to the coversheet. The receipt will be stamped and retained under the counter at SMAH Central for later collection during business hours. You must collect your receipt personally and you will be required to show your student card at the counter of SMAH Central to obtain your receipt. Any assignments received without the coversheet attached, receipt section completed in full or receipt missing will not be receipted.

Students may post their assignments in to:

SMAH Central (41.152)
University of Wollongong
Wollongong NSW 2522

Due Date
Unless otherwise specified, assignments are due by 4:00pm on the due date specified for the assessment task.

The date of submission by post for students will be considered to be the postmark date stamped on the assignment envelope. Note that it is not generally necessary to use Express Post as long as the envelope is clearly postmarked. However, approved late submission or other requirements of the Subject Coordinator may necessitate use of Express Post. If Express Post is used you will need to specifically request that the Post Office postmark your envelope, as Express Post envelopes do not normally carry a postmark.

Late Submission
Late submission of an assessment task without an approved extension of the deadline is not acceptable. Marks will be deducted for late submission at the rate of 5% of the total possible marks for that particular assessment task per day. This means that if a piece of work is marked out of 100, then the late penalty will be 5 marks per day (5% of 100 possible marks per day). The formula for calculating the late penalty is the total possible marks x 0.05 x number of days late. For example:

Student A submits an assignment which is marked out of 100. The assignment is submitted 7 days late. This means that a late penalty of 35 marks will apply (100 x 0.05 x 7). The assignment is marked as per normal out of 100 and is given a mark of 85/100, and then the late penalty is applied. The result is that the student receives a final mark of 50/100 for the assignment (85 (original mark) – 35 marks (late penalty) = 50/100 (final mark)).

Student B submits a report which is marked out of 20. The report is submitted three days late. This means that a late penalty of 3 marks will apply ((20 x 0.05 x 3). The report is marked as per normal out of 20 and is given a mark of 17/20, and then the late penalty is applied. The result is that the student receives a final mark of 14/20 for the report (17 (original mark) – 3 marks (late penalty) = 14/20 (final mark)).

For the purposes of this policy a weekend (Saturday and Sunday) will be regarded as two days.

No marks will be awarded for work submitted either: a) after the assessment has been returned to the students or b) more than two weeks after the due date, whichever is the sooner. Notwithstanding this, students must complete all assessment tasks to a satisfactory standard and submit them, regardless of lateness or loss of marks, where submission is a condition of satisfactorily completing the subject.

Extensions
An extension of time to submit assignments can only be granted by the subject coordinator in exceptional circumstances. Pressure of work, either from employment or from other studies, is not an acceptable reason for seeking an extension of time. Carefully note the due date for each assignment and plan your work so that deadlines can be met.

Students seeking an extension must submit an application for academic consideration through SOLS with appropriate documentation PRIOR to the deadline for submission of the assessment task.

Assessment Return
Marked assignments will be handed out in class or be available for collection during academic consultation hours OR according to the arrangement announced by the Subject Coordinator. In accordance with University Policy marked assignments will usually only be retained by the Subject Coordinator/Tutor for 21 days after the declaration of the marks for that assignment. After that time any uncollected assignments will be destroyed.

Supplementary Assessments
Students can log on to SOLS and click on the link titled "Supplementary Assessment" to view any applicable offers or use the following link; http://www.uow.edu.au/student/exams/suppassess/index.html.

Supplementary assessment may be offered to students whose performance in this subject is close to that required to pass the subject, and are otherwise identified as meriting an offer of a supplementary assessment. The precise form of supplementary assessment will be determined at the time the offer of a supplementary assessment is made.

Examination Rules
In 2012, there were a number of changes to the University Examination Rules that affect all current students. You can find this information at the following link; http://www.uow.edu.au/student/exams/index.html.

Supplementary Examinations
You can find the information for supplementary examinations at the following link; http://www.uow.edu.au/student/exams/aboutsupp/index.html.

Student Academic Consideration Policy
Academic Consideration is a process intended to help minimise the impact of serious or extenuating circumstances beyond a student's control which significantly impair a student's ability to complete an assessment task on or by the due date as stipulated in the Subject Outline or to progress academically in a subject relevant to their course of study. Academic consideration may be granted on the basis of medical grounds, compassionate grounds and/or extenuating circumstances.
It is not possible for academic consideration to compensate for every consequence of illness, injury, other serious cause, or extenuating circumstance affecting a student's academic progress. However, academic consideration, where appropriate, may help to minimise the impact of such circumstances by providing a mechanism to vary assessment requirements of a subject or to avoid some of the usual consequences of failure in a subject.

To apply for academic consideration you must submit an application via SOLS, as well as relevant documentation which is submitted in person to Student Central in Bld 17. The Subject Coordinator will be automatically notified of your request once you have submitted documentation and they will approve or decline your application. Students should log on to SOLS to see if their request has been approved. In the event of a genuine emergency, you must notify the Subject Coordinator as soon as possible by whatever means practical at the time, and follow with a formal academic consideration request as soon as you are able to.

The full policy on Student Academic Consideration is found in the Policy Directory on the UOW website.

System of Referencing Used for Written Work
The School uses the Harvard system of referencing, unless otherwise specified for a particular assignment – check Details of Assessment Tasks.

A summary of Harvard system can be accessed via the Library homepage, Related Links, Referencing and citing: http://www.library.uow.edu.au/resourcesbytopic/UOW026621.html.

Use of Internet Sources

Students are able to use the Internet to access the most current information on relevant topics and information. Internet sources should only be used after careful critical analysis of the currency of the information, the role and standing of the sponsoring institution, reputation and credentials of the author, the clarity of the information and the extent to which the information can be supported or ratified by other authoritative sources.

Plagiarism

Plagiarism means using the ideas of someone else without giving them proper credit. ALL work submitted for assessment MUST BE YOUR OWN. The other person may be an author, a lecturer or another student. The work may previously have been published in print or on the Web.

Plagiarism will not be tolerated and may result in the imposition of severe penalties. The University of Wollongong has the power to reprimand and penalise any student found guilty of such offences. If plagiarism is suspected, this will result in appropriate investigations.

"Students are responsible for submitting original work for assessment, without plagiarising or cheating, abiding by the University's Academic Integrity and Plagiarism Policy as set out in the University Handbook, the University's online Policy Directory and in Faculty Handbooks and subject guides. . Re-using any of your own work (either in part or in full) which you have submitted previously for assessment is not permitted without appropriate acknowledgement. Plagiarism has led to the expulsion from the University."

To avoid plagiarism when using other people's work, take care to reference appropriately. For assistance with correct referencing technique, consult with your tutor or lecturer. The Learning Development Centre also provides assistance to students on how to correctly reference.

Please note that you are required to sign a declaration on the assignment cover sheet, stating that you have read and met the requirements for the assignment, that (except for group assignments) you have not collaborated with other students, that you have not plagiarised and that, where you have used the work of others, you have referenced it appropriately. Academic staff will return your assignment unmarked if you have not signed the declaration.

The full policy on Academic Integrity and Plagiarism is found in the Policy Directory on the UOW website.

Section C: General Advice

Students should refer to the Faculty of Science, Medicine and Health website for information on policies, learning and support services and other general advice.