

Pre- and co-requisites and other linkages:

Pre-requisites (assumed entry knowledge and skills):

- Food chemistry (141.395)
- Principles of statistics (161.100)
- Industrial research techniques (143.340)

Co-requisites

- Food formulation technology (141.362)

Other Cross-linkages (follow-on studies):

- Food product development (141.457)
- Food technology project (141.459)
- Food process design and safety (141.471)
- Advanced food technology (141.491)

Assessment:

The final grade will be determined based on the following weightings:

15%	Report on Sensory Lab (QDA)
20%	Group report and presentation on Special Topics for characterisation of foods (Report 10% and Presentation 10%)
65%	Final examination (3 hours)

Deadlines and Penalties

Report on Sensory lab	15%	Due TBA
Report on Special Topics for characterisation of foods	10%	Due TBA

Due dates for Sensory lab report and Special Topic Assignment will be advised.

The report and assignment must be submitted by 12pm on the due date to the assignment box in Bldg 22.

Late reports will automatically receive a 10% reduction on the mark awarded. Additional marks will be deducted for every extra day late, up to a maximum of 30% of the total marks available deducted as the penalty. Report or assignment submitted over two weeks late will be graded as zero and this will be considered as failing terms.

Requirements to Successfully Complete the Paper:

- Attendance for all laboratory sessions is compulsory. When lack of attendance at a laboratory session is unavoidable due to illness or unforeseen circumstances, then permission for exemption is required from the course coordinator prior to the scheduled event.
- Submission of one (1) sensory laboratory report
- Submission of one (1) group lab report on a special topic
- Presentation of one (1) group seminar on a special topic
- Attendance at final exam (unless aegrotat application made)
- NOTE: All submissions must be typed or word processed

Failure to complete any of these requirements will lead to a DNC unless covered by the Aegrotat Regulations.

Learning Programme and Schedule:

Food colour measurements Colour measurement: theory and techniques	K.Goh	6 lectures 2 hrs Lab session
Viscosity measurement Quantitative food texture and rheological measurement techniques	K.Goh	3 lectures 3 hrs Lab session
Microscopy Overview of Confocal & Electron Microscopy Techniques used in sample preparation and its use in relation to food structure.	K.Goh	2 lectures
Sensory Techniques Quantitative Descriptive Analysis Statistical techniques used to evaluate sensory/instrumental relationships Techniques in training panels	J. Grigor	9 lectures 9 hrs sensory Lab session
Food Flavours Instrumental techniques used in flavours/off-flavours measurement.	J. Grigor	5 lectures 2 hrs Lab session
Particle size determination	L. Matia-Merino	4 lectures
Viscoelastic properties	L. Matia-Merino	5 lectures
Flour characterisation	A Hardacre	1 lecture
Food texture measurements	M.Golding	5 lectures 3 hrs Lab session
Differential Scanning Calorimetry (DSC) What is it? An introduction to the technique and its application	M.Golding	2 lectures

Conditions for Aegrotat Pass and Impaired Performance:

If you are prevented by illness, injury or a serious crisis from attending an examination, or another compulsory assessment element that occurs at a fixed time and place, you may apply for an aegrotat consideration.

To qualify for an aegrotat pass on the final examination, you must have attempted at least 40% of the total formal assessment and your performance must be well above the minimum pass standard, so that the examiners can be confident that you would have passed the paper if you had completed the final examination. You may also apply for aegrotat consideration for other compulsory assessment elements that occur at a fixed time and place if you are prevented by illness, injury or a serious crisis from attending. You must apply on the form available from the Examinations Office, the Student Health Service or the Student Counselling Service.

Conditions for Impaired Performance:

If you consider that your performance in, or preparation for, an examination, or another compulsory assessment element that occurs at a fixed time and place, has been seriously impaired by illness, injury or a serious crisis, you may apply for an impaired performance consideration. You must apply on the form available from the Examinations Office, the Student Health Service or the Student Counselling Service.

Student Time Budget

Contact hours	Lectures	38 hours
	Laboratories	19
	Assignment consultation	4
	Exam	3
	Seminar on Special Topics	2
Non-contact hours	Laboratory Report Writing	23
	Assignment	20
	Expected personal study	32
	Examination preparation	46
Total		189 hours

Books for Recommended Reading:

Bourne M. 2002. Food texture and viscosity : concept and measurement. 2nd edition. San Diego, Calif. London : Academic Press.

Hunter R.W. Harold R.W. 1987. The measurement of appearance. 2nd edition. New York : Wiley.

Meilgaard M, Civille G.V., Thomas C.B. 1999. Sensory evaluation techniques. 3rd edition. Boca Raton, Fla: CRC Press.

Plagiarism:

Massey University, College of Sciences, has taken a firm stance on plagiarism and any form of cheating. Plagiarism is the copying or paraphrasing of another person's work, whether published or unpublished, without clearly acknowledging it. It includes copying the work of other students. Plagiarism will be penalised; it is likely to lead to loss of marks for that item of assessment and may lead to an automatic failing grade for the paper and/or exclusion from enrolment at the University.

Proposed Feedback and Support for Student Learning:

Academic staff will demonstrate the laboratory and will be available to answer questions. Markers will provide feedback comments on your laboratory reports. The Course Coordinator is available to see students at any time during the semester, but it is essential for students to make an appointment. Note: some of lecturers teach on both Albany and Turitea campuses and may not be available at all times during certain period of the semester.

Grievance Procedures:

A student who claims that he/she has sustained academic disadvantage as a result of the actions of a University staff member should use the University Grievance Procedures. Students, whenever practicable, should in the first instance approach the University staff member concerned. If the grievance is unresolved with the staff member concerned, the student should then contact the College of Sciences office on his/her campus for further information on the procedures, or read the procedures in the University Calendar.

Additional Costs

Protective clothing: Each student must provide themselves with a clean white laboratory coat for routine laboratories.

Timetable for 141.330 Palmerston North

		Monday	Tuesday	Wednesday
Week	Date	Lab 12-3pm RB1.20	Lecture 11-1pm AH3	Lecture 10-12pm ICLT
1	13-15 Jul	Kelvin (colour) 12-3 pm Sci Tower	Kelvin (colour) 12-1 pm AgHort	Matt (texture)
2	20-22 Jul	Kelvin (colour) 12-3 pm Riddet	Matt (texture)	Matt (texture)
3	27-29 Jul	John (sensory) B27/Riddet	John (sensory) B106/Riddet	
4	3-5 Aug	Matt (texture lab)	Matt (DSC)	
5	10-12 Aug	John (sensory lab)	John (sensory lab)	John (sensory lab)
6	17-19 Aug	John (sensory) B27/Riddet		(colour lab)
	Semester break			
7	7-9 Sep	Matt (viscosity) 12-3 pm	Lara (particle)	Lara (particle)
8	14-16 Sep	Matt (microscopy) 12-2 pm	Lara (particle) 11-12 pm	Lara (viscoelasticity)
9	21-23 Sep		Lara (viscoelasticity) 11-12 pm	Lara (viscoelasticity)
10	28-30 Sep	John (flavour) 12-3 pm B27/Sci Tower	Allan (flour characterisation) 11-12 pm	
11	5-7 Oct	John (flavour) 1-3 pm B106/Riddet		
12	12-14 Oct	(flavour lab)	Group oral presentation	Group oral presentation

Video conference room**Albany****B106:** Building 106 (Bldg106.15), **B27:** Building 27 (Bldg27.10)**Palmerston North****Riddet:** Riddet (R12 2.04), **AgHort:** AgHort (AH3.83), **Sci Tower:** Science Tower B (ScB2.09)

ORAL PRESENTATION ASSESSMENT
Food Characterization (141.330)

Speaker(s): _____

Topic: _____

A. CONTENT (WHAT IS SAID)

Introduction	/10
Does it outline the background of the topic?	
Objectives	/10
Is there a clear focus on the subject?	
Material	/35
Is the material accurate?	
Is the material informative?	
Structure	/10
Is there a clear flow of ideas?	
Conclusion	/10
Does it tie the presentation together?	

B. DELIVERY (HOW IS IT SAID)

Technical aids	/10
Are they clear, easy to see and comprehend?	
Voice	/5
Is it clear and varied in pace and pitch?	
Non-vocal	/10
Does the speaker show confidence and preparation?	
Does the speaker make eye contact with audience?	
Does the speaker use gesture effectively?	
Is there relaxed and appropriate use of notes?	

Total:

Instructions for group assignments

*You are to prepare a report (10% **of course work**) and an approximately 25 mins presentation (10%) on the given topic. In your report, all literatures used must be referenced. I would recommend that you start to do this assignment **soonest possible** to avoid last minute panic!*

Your report (preferably not exceeding 25 pages) should be printed on single-sided A4 size paper with 1.5 line spacing and a font size of 12. Presentation will made using Microsoft PowerPoint.

Deadlines

All reports will be submitted to [redacted] via e-mail attachment on 12th October 2009. You are also required to submit all reference materials used in a separate folder physically to me. All presentation slides are to be submitted for grading on 12th October 2009.

The topics of the group assignment are given as follow:

Group 1.

Determination of starch pasting properties

Group 2

Determination of crystallization and melting properties of milk fat

Group 3

Determination of the particle size of powdered samples

Group 4

Quantification of textural properties of Cream cheese

Group 5

Determination of viscoelastic properties of yoghurt