208-226 Food Structure and Function

Credit Points:	12.500
Level:	Undergraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 2, - Taught on campus.
Time Commitment:	Contact Hours: Thirty-six hours of lectures and 12 hours of tutorials Total Time Commitment: Not available
Prerequisites:	208-225 Food Chemistry, Biology and Nutrition.
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry. It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability
Coordinator:	Kate Howell
Subject Overview:	The basic biochemical components that form the structure of food products consist of the natural materials assembled in relationships that can be altered by the presence of additives, ingredients and processing or Âhandling. This subject examines the macro structure of food, and the relationships between the basic structure and the additives (emulsifiers, flavours and other components in the environment of the total matrix), plus the physical chemistry of the components as part of a food matrix, including the influence of processing on these structures. This will include the interactions between emulsifiers and flavours within a food matrix, and interactions between water-proteins, water, lipids, protein-proteins, protein-lipids, protein-carbohydrates, and carbohydrate-lipids. This subject will describe the influence of processing on these interactions among food components using examples from research projects in related areas. On completion of this subject, students should be able to: # recognise the importance of interactions of ingredients in food systems; # describe the interaction of water with food components; # explain the interactions of emulsifiers with other food components; # describe the significance of flavour interactions with food matrix and their effects on perception; # describe the role of interactions among food components on microstructure, texture and rheology of food products; and # display an understanding of the impact of food processing on the interactions between macro-components of food components, the structure of the macro-components and the consequences of these interactions.

Assessment:	One 2-hour final examination (45%), one 1-hour mid-semester examination (25%) and one assignment of 2000 words (30%).
Prescribed Texts:	None
Recommended Texts:	# **Ingredient Interactions (Effect on Food Quality)** (G G Anilkumar (ed.)), Marcel Dekker, Inc., 1995
Breadth Options:	This subject is a level 2 or level 3 subject and is not available to new generation degree students as a breadth option in 2008. This subject or an equivalent will be available as breadth in the future. Breadth subjects are currently being developed and these existing subject details can be used as guide to the type of options that might be available. 2009 subjects to be offered as breadth will be finalised before re-enrolment for 2009 starts in early October.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	Information Not Available
Related Course(s):	Bachelor of Food Science