

NATS 2041 FUNCTIONALITY OF FOOD INGREDIENTS

Credit Points 10

Legacy Code 301455

Coordinator Rosalie Durham (<https://directory.westernsydney.edu.au/search/name/Rosalie Durham/>)

Description Developing innovative foods requires an understanding of food science and the principles that are applied when experimenting with food ingredients and processes. This subject will enable you to gain the scientific knowledge and methodology skills the food industry employs in the sustainable production of nutritious, healthy and appealing foods. Understanding the physical and chemical properties of, and current process techniques to produce different food types, will enable you to develop attributes required by the world's largest employment sector.

School Science

Discipline Food Science and Biotechnology

Student Contribution Band HECS Band 2 10cp

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 2 subject

Restrictions

Students must successfully complete 100 credit points.

Assumed Knowledge

Knowledge of food commodities and basic chemistry.

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Describe the physical and chemical properties of food commodities.
2. Articulate the design principles and experimental procedures, related to recipe development.
3. Explain the physical characteristics that contribute to quality food products.
4. Describe the scientific principles and skills applied in development of experimental foods.

Subject Content

1. Carbohydrate, Protein and Lipid systems.
2. Biological and Chemical leavening.
3. Sensory and physical characteristics and quality of experimental foods.
4. Principles of sustainable recipe development and experimental food preparation.
5. Experimental procedure and recipe development for different consumer communities.

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are

regularly updated, where there is a difference your Learning Guide takes precedence.

| Type | Length | Percent | Threshold | Individual/ Group Task | Mandatory |
|---------------------|---------------|---------|-----------|------------------------|-----------|
| Quiz | 6x 20min | 30 | N | Individual | N |
| Report | 3x 1000 words | 30 | N | Individual | N |
| End-of-session Exam | 2 hours | 40 | N | Individual | N |

Teaching Periods

Spring (2025)

Hawkesbury

Hybrid

Subject Contact Rosalie Durham (<https://directory.westernsydney.edu.au/search/name/Rosalie Durham/>)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=NATS2041_25-SPR_HW_3#subjects)