

# HORT 7002 GREENHOUSE CONTROL SYSTEMS

**Credit Points** 10

**Legacy Code** 301359

**Coordinator** Jing He (<https://directory.westernsydney.edu.au/search/name/Jing He/>)

**Description** This subject develops an understanding of the leading controlling systems for protected cropping in low, medium and high-tech greenhouses. The main topics are: the integration of hardware and software in a range of different protected cropping systems, management of the aerial environment (e.g. manageable parameters and greenhouse climate engineering, radiation management, energy sources and distribution systems, ventilation, air conditioning and cooling systems, screens, carbon dioxide-sources and distribution), and management of the hydroponic environment (factors, tools, control of water and nutrient balance, water quality, salinity effects). The subject emphasises computing skills, calculation, and analysis that are applicable to a range of different greenhouse control systems.

**School** Science

**Discipline** Horticulture

**Student Contribution Band** HECS Band 1 10cp

Check your fees via the Fees ([https://www.westernsydney.edu.au/currentstudents/current\\_students/fees/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Postgraduate Coursework Level 7 subject

## Restrictions

Must be enrolled in postgraduate course

## Assumed Knowledge

Students enrolling in this subject should have knowledge of one of the following subject areas: horticultural production systems; environmental sustainability analytics; computing and technological applications; marketing principles and business management.

## Teaching Periods

### Autumn (2024)

#### Hawkesbury

##### On-site

**Subject Contact** Jing He (<https://directory.westernsydney.edu.au/search/name/Jing He/>)

**View timetable** ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=HORT7002\\_24-AUT\\_HW\\_1#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=HORT7002_24-AUT_HW_1#subjects))

## 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
Quiz	Three online quizzes of 60 minutes each including multiple choice and short answer questions	30	N	Individual
Report	One practical report (1,000 words)	15	N	Group
Presentation	15 minutes	15	N	Group
Essay	2,000 words	40	N	Individual