



Wireless Networks (8227.5)

Please note these are the 2026 details for this unit

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Available teaching periods

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EFTSL

0.125

Delivery mode

On-campus

Credit points

3

Location

Bruce, Canberra

Faculty

Faculty Of Science
And Technology

Discipline

School Of Information
Technology & Systems

Study level

Level 2 -
Undergraduate
Intermediate Unit

HECS Bands

Band 2 2021
(Commenced After 1
Jan 2021)
Band 3 2021
(Commenced Before
1 Jan 2021)

Introduction



Wireless networks have become one of key technologies of the 21st century. This unit will introduce basic concepts in wireless networks, such as satellite system, ad hoc networks formed by mobile users, RFID, etc. This unit focus on qualitative descriptions and realistic explanations of relationships between wireless networks and performance parameters.

This unit may be cotaught with 10100 Wireless Networks PG.



Learning outcomes

On successful completion of this unit students will be able to:

1. Identify the basic concept of wireless networks;
2. Analyse traffic theories, mobile radio propagation, channel coding, and cellular concepts;
3. Compare and contrast multiple division techniques, mobile communication systems, and existing wireless networks;
4. Classify network protocols, ad hoc and sensor networks, wireless MANs, LANs and PANs; and
5. Apply wireless ID technologies, in particular RFID work.

Graduate attributes

1. UC graduates are professional - communicate effectively
1. UC graduates are professional - employ up-to-date and relevant knowledge and skills
1. UC graduates are professional - use creativity, critical thinking, analysis and research skills to solve theoretical and real-world problems
1. UC graduates are professional - work collaboratively as part of a team, negotiate, and resolve conflict
2. UC graduates are global citizens - make creative use of technology in their learning and professional lives
3. UC graduates are lifelong learners - adapt to complexity, ambiguity and change by being flexible and keen to engage with new ideas
3. UC graduates are lifelong learners - reflect on their own practice, updating and adapting their knowledge and skills for continual professional and academic development
3. UC graduates are lifelong learners - evaluate and adopt new technology

Prerequisites

11485 Introduction to Network Engineering

Corequisites

None.

Incompatible units

10100 Wireless Networks PG.

Equivalent units

None.

Assumed knowledge

None.



Availability



Availability for enrolment in 2027 is subject to change and may not be confirmed until closer to the teaching start date.

Year	Location	Teaching period	Teaching start date	Delivery mode	Unit convener
2026	Bruce, Canberra	Semester 1	16 February 2026	On-campus	Dr Md Farhad Hossain
2027	Bruce, Canberra	Semester 1	15 February 2027	On-campus	Dr Md Farhad Hossain

Timetable



Resources



Required texts

Textbook

- Mahbub Hassan. Wireless and Mobile Networking. CRC Press, 2022.
- Jack L. Burbank, Julia Andrusenko, Jared S. Everett and William T.M. Kasch. Wireless Networking: Understanding Internetworking Challenges. Wiley-IEEE Press, 2013.

Reference book:

- Vijay K. Garg. Wireless Communications and Networking. Morgan Kaufmann Publishers, 2007
- J. W. Mark and W. Zhuang. Wireless Communications and Networking. Prentice Hall, 2002
- B. A. Forouzan. Data Communications and Networking. McGraw Hill, 5th edition, 2013.

Online materials:

Lecture materials, lab materials, tutorial questions and answers, assignment specifications, and other details are available on the unit Canvas site.



Assessment requirements



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UC acknowledges the Ngunnawal people, traditional custodians of the lands where Bruce campus is situated. We wish to acknowledge and respect their continuing culture and the contribution they make to the life of Canberra and the region. We also acknowledge all other First Nations Peoples on whose lands we gather.

