



## Bachelor of Networking and Telecommunications (BNeT)

<b>CRICOS Code</b>	0101638
<b>National Course Id</b>	CRS1400451
<b>Full Time</b>	3 years
<b>Part Time</b>	6 years (Domestic students only – see below)
<b>Units</b>	24
<b>Campus</b>	Level 16, 233 Castlereagh Street, Sydney 2000
<b>ILETS Academic</b>	6.0 overall with no band less than 6.0
<b>Delivery mode</b>	Face to Face
<b>Outcome</b>	Bachelor of Networking and Telecommunication

### Course Description

The Bachelor of Networking and Telecommunications (BNeT) course is grounded in foundational mathematics, programming, networking and telecommunications units. These skills and knowledge are then built on in a series of units covering the main areas of today's Networking and Telecommunications industry, including the following: cloud computing; wireless and mobile technologies; operating systems; IP networks; switched and routed networks; optical transmission networks; MPLS networking; and Voice over IP.

### Career Outcomes

A career in one of the fastest growing professions. The rapid development and evolution in global information structures, cloud, web, and mobile technologies has seen businesses (Telcos, retailers, banks, educational institutions and so on) all face major challenges in providing networks that are accessible and secure. The need for specialists who can design, build, maintain, support, and protect these networks is growing.

### Accreditation

The Bachelor of Networking and Telecommunications is accredited by the Tertiary Education Quality and Standards Agency (TEQSA):

<https://www.teqsa.gov.au/national-register/course/polytechnic-institute-australia-pty-ltd-2>

The Diploma of Networking Technology is accredited by the Tertiary Education Quality and Standards Agency (TEQSA):

<https://www.teqsa.gov.au/national-register/course/polytechnic-institute-australia-pty-ltd-3>

### Course Learning Outcomes

<b>CLO1</b>	A demonstrate your understanding of a body of knowledge including recent developments in the area of networking and telecommunications networks
<b>CLO2</b>	Demonstrate a developed understanding of the principles of networks and telecommunications engineering
<b>CLO3</b>	Demonstrate an understanding of the principles underlying the planning and management of networks and telecommunications

**Created:** 23 November 2019

**Modified:** 07 February 2022

**Review Date:**

**Document Owner:** MKT

**Version:** 2.0

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<b>CLO 4</b>	Apply mathematical and computational skills necessary for the solution of theoretical and practical problems
<b>CLO 5</b>	Demonstrate creativity and initiative in application of analytical, problem-solving and design skills to networks and telecommunications
<b>CLO 6</b>	To successfully work independently with personal accountability in solving problems in networks and telecommunications
<b>CLO 7</b>	Demonstrate high-level oral and written communication skills
<b>CLO 8</b>	To apply your knowledge to design, investigate and solve specific problems in the area of networking and telecommunications and their applications through directed studies or projects in the form of internships with industry or research providers.

### Graduate attributes

<b>GA1</b>	Communicate effectively in a diverse range of professional or community context
<b>GA 2</b>	Complete work tasks and assignments independently or as an effective member of multidisciplinary teams
<b>GA 3</b>	Engage in and value life-long learning leading to the enhancement of professional knowledge and skills
<b>GA 4</b>	Are information and technology literate
<b>GA 5</b>	Respond appropriately to a changing workforces, cultures and values reflecting a global work environment
<b>GA 6</b>	Demonstrate critical thinking, problem solving and decision-making abilities essential to contributing soundly to the resolution of issues confronting organisations
<b>GA 7</b>	Facilitate intellectual curiosity
<b>GA 8</b>	Act in an ethical manner in all aspects of professional life.



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### Course Structure

UNIT CODE		UNIT NAME	CORE / ELECTIVE	PRE-REQUISITES
<b>YEAR 1 (Semester 1 or 2)</b>				
1	ICT100	Fundamentals of computer system hardware and software	Core	None
1	NTW100	Introduction to computer networking	Core	None
1	ICT101	Mathematics for computing	Core	NSW HSC Band 4 for English and Band 3 in Advanced Mathematics or Band 4 in Standard 2 Mathematics or equivalent
1	GBU100	Professional Business Communications	Core	None
2	NTW101	Principles of network administration	Core	NTW100
2	ICT102	Foundations of programming	Core	None
2	ICT103	Introduction to telecommunications systems	Core	None
2	GBU200	Business ethics and corporate social responsibility	Core	None
<b>YEAR 2 (Semester 1 or 2)</b>				
1	ICT200	Cloud computing	Core	ICT102, ICT103, NTW100
1	NTW202	Mobile and wireless technologies	Core	ICT103, NTW100
1	ICT201	Operating Systems and administration	Core	ICT100, ICT101
1	NTW201	Scalable IP networks	Core	ICT103, NTW100
2	NTW200	Implementing switched and routed networks	Core	NTW100, NTW101
2	NTW203	Network Security	Core	NTW101
2	ICT202	Enterprise virtualisation	Core	ICT103, NTW100
2	ICT300	Broadband access technologies and networks	Core	ICT103, NTW100
<b>YEAR 3 (Semester 1 or 2)</b>				
1	NTW300	Optical transmission networks	Core	ICT103, NTW100
1	NTW301	Multiprotocol Label Switching (MPLS) Networking	Core	NTW201
1	NTW302	Interior routing protocols and their implementation	Core	NTW201
1	NTW303	Telecommunications network management	Core	NTW101
2	PDV300	ICT Project	Core	ICT101, GBU100, ICT102, ICT200, NTW202, ICT201, NTW201, NTW200, NTW203, ICT202, and ICT300
2	ITC303	Unified Communications	Core	ICT103, NTW100
2	ITC304	Long Term Evolution (LTE) Technologies	Elective	NTW202

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	NTW304	Border gateway protocols (BGP)	Elective	NTW302
	NTW305	Virtual private LAN services (VPLS)	Elective	NTW301
	NTW306	Quality of service (QOS)	Elective	NTW301, NTW302
	NTW307	Optical network design and planning	Elective	NTW300
	NTW308	Radio network design and planning	Elective	NTW202

### Please Note

- The program is available each intake but note that some units of study are subject to quotas and minimum enrolment requirements.
- Not all units of study are available every semester, and changes in course structure occur from time to time.

### Exit Outcomes

To obtain the Bachelor of Networking and Telecommunications (BNeT), candidates are required to successfully complete all 24 units (with a minimum of 12 units, 50%, completed at the Institute). Not all units are offered each semester. If you complete the 8 100 level units with the Institute (either at the Institute or with Advanced Standing not exceeding 4 of the 100 level units), you will be eligible to obtain the Diploma of Networking Telecommunications (DipNT).

### International Student Duration

The CRICOS-registered duration is 156 weeks or 3 years of full-time study (6 semesters). Please note the part time mode is not available to a holder of a student visa, who is not a citizen of Australia or New Zealand, or who is not an Australian permanent resident, or who is a temporary resident of Australia.

### Domestic Student Duration

For domestic students the BNeT course is 3 years full-time or 6 years part-time.

### Delivery Method

Face-to-face on campus.

### Assessment Methods

The Institute uses authentic assessment principles that may include practical exercises, case studies, presentations, reports, online simulations, essays, and examinations. These may include being done under invigilation.

### Entry Requirements

- Completion of Year 12, or equivalent, with a minimum ATAR of 60 **AND**
- NSW (or equivalent) Band 4 Standard English; and
- NSW (or equivalent) Band 3 Advanced Mathematics; or
- NSW (or equivalent) Band 4 Standard 2 Mathematics.

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- An equivalent secondary qualification overseas that also meets the mathematics requirement above; or
- An accredited Tertiary Preparation Program or a Foundation Year Program offered by an accredited Australian provider that also meets the mathematics requirement above; or
- One year of completed accredited full-time study at a registered institution of tertiary education at AQF level 5 or above that also meets the mathematics requirement above.

### Language requirements

#### Language proficiency

- IELTS Academic: 6.5 with no band less than 6.0; or
- TOEFL: 575 or better; or
- TOEFL IBT (International Benchmark Test): 91 or better; or
- TOEFL CBT (Computer Based Test): 235 or better; or
- Academic PTE (Pearson Test of English): 58 or better; or
- Cambridge English: CAE and CPE (from 2015): 176 or better; or
- General Certificate of Education (GCE): A Levels with a C or better in English; or
- KITE: all bands B2 with a result greater than 450 in each band; or
- Duolingo: overall 115 with no band less than 110.

English Language Test results are valid for two years from the date of the results up to the date of commencement at the Institute. The most recent test supersedes ALL previous tests.

### Attendance Requirements

The Institute has enforceable requirements in relation to attendance. Further details are provided at Item 20 of the Terms and Conditions.

### Fees

The course fees (per semester) are indicated below and are based on a standard full-time study load and duration. Your course fees and duration may vary if you have applied for and been granted Advanced Standing. Tuition fees may increase during your studies. Students are advised in advance of any increase in tuition fees being implemented.