Course Title:	**Networks and Internet**
Course Code:	**COMP504**
Descriptor Start Date:	**28/02/2025**

POINTS:	**15.00**
LEVEL:	**5**
PREREQUISITE/S:	**None**
COREQUISITE/S:	**None**
RESTRICTION/S:	**None**

LEARNING HOURS

Hours may include lectures, tutorials, online forums, laboratories. Refer to your timetable and course information in Canvas for detailed information.

Total learning hours: 150

PRESCRIPTOR

Presents an integrated approach to data communications and computer networking principles, building on IT infrastructure concepts. These concepts are applied in a network environment starting with the application layer and progressing through to the data link layer.

LEARNING OUTCOMES

1. Describe the fundamentals of networks (LAN, routers, switches) and demonstrate how to plan and build them.
2. Explain the "layered" approach to networks and distinguish between the OSI and TCP/IP layers in detail.
3. Give examples of network devices, network addressing schemes, and the types of media used to carry data across the network.
4. Use networking utilities and tools to provide a test environment where a range of network services and data can be observed and analysed.
5. Demonstrate the inclusion of sustainable engineering design in networking.

Disclaimer: Course descriptors may be amended between teaching periods/semesters

CONTENT

- basics of network communication
- network modelling using a top-down approach to networking
- the purpose and principles of the OSI layers
- networks using network addressing IPV4 & IPV6
- technologies and operation of Ethernet
- networking media and cabling a network
- network configuration
- sustainability aspects of design.

LEARNING & TEACHING STRATEGIES

- Lectures, on-line learning, and practical in specialist computer laboratories.
- Workshops/practical in computer laboratories.
- Computer simulation of networks.

ASSESSMENT PLAN

Assessment Event	Weighting %	Learning Outcomes
Laboratory Assessment	50.00	1, 3, 4
Final Exam	50.00	1-5

Grade Map	MAP1
	A+ A A- Pass with Distinction
	B+ B B- Pass with Merit
	C+ C C- Pass
	D Fail

Overall requirement/s to pass the course:

To pass this course, students must attempt all summative assessments and achieve a minimum overall grade of C-.

LEARNING RESOURCES

Required Textbook: Business data communications and networking by Jerry FitzGerald, Alan Dennis, and Alexandra Durcikova, 14th Edition.

For further information, contact: Te Ara Auaha - Faculty of Design & Creative Technologies

Principal Programme:	AK3697, Bachelor of Computer and Information Sciences
Related Programme/s:	AK1271
	AK1301
	AK1302
	AK2006
	AK2040
	AK3001
	AK3698
	AK3756
	HA1042
	HA1043
	ICE1
	INEXCH1
	SABRD1

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