

Course Title:	Web Development
Course Code:	COMP721
Descriptor Start Date:	01/01/2023
Descriptor End Date:	30/01/2025
POINTS:	15.00
LEVEL:	7
PREREQUISITE/S:	COMP603
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

Extends the students' knowledge of data communications and internetworking over the World Wide Web, to cover issues associated with development of applications in this environment. Emphasis is upon the analysis, design and development of web-based applications for a variety of purposes using current tools and techniques.

LEARNING OUTCOMES

1. Design and build an Internet based information system which exploits a range of technologies, standards, languages, media types, design and programming techniques in order to satisfy a business need.
2. Devise strategies for the development, and implementation of an enterprise wide internet, intranet and extranet or a web portal including the choice and justification of a suitable set of architectural, database communication, design and presentation standards. Explore, evaluate and apply a layered set of internetworking concepts to solve problems in a range of business problem domains.
3. Demonstrate an understanding of current and emerging protocols, standards and trends in World Wide Web Technology and assess their impact on the design, implementation and use of information systems.
4. Discuss the role of the World Wide Web in organisations, evaluate the capabilities of the underlying internetworking technologies, the functionality of the separate components they provide, and assess their applicability and value in solving different types of problems to meet the needs of business enterprises.
5. Critique web related interfacing and interoperability standards and the role of component-based development techniques, and apply applicable standards and techniques to develop limited scale web-based applications built upon these concepts.

CONTENT

The course covers the following topics:

- (X)HTML
- Cascading Style Sheets
- Web-based security
- XML
- Web Services
- Web design
- Information Architecture
- Three-tiered architecture
- Web application languages
- Web based database access
- Web based object-oriented programming
- Error resolution techniques for web-based applications

LEARNING & TEACHING STRATEGIES

Participatory teaching methods will be emphasised. Many concepts will be developed through problem-based learning, discussion and analysis. Other approaches will include:

- personal reading and research assignments
- critical analysis and reporting
- the writing of architectural, design and other specification documents
- lectures, guest lectures, and mini lectures
- practical tutorials
- case studies, business scenarios and problem-based learning techniques
- individual and group practical exercises
- discussion sessions
- practical software design and development projects and mini projects

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

ASSESSMENT PLAN

Assessment Event	Weighting %	Learning Outcomes
Assignment (Programming)	50.00	1,2,3
Lab Works	20.00	1,3,4,5
Problem Solving Questionnaire	30.00	3,4,5

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 the course, students must satisfy the stated learning outcomes and achieve a minimum overall grade of C-.

LEARNING RESOURCES

A recommended reading list will be provided.

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

Principal Programme: AK3697, Bachelor of Computer and Information Sciences

Related Programme/s: AK3698
AK1041
AK3001
AK3003
AK3756
AK3706

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