

COMP 7016 VISUALISATION

Credit Points 10

Legacy Code 301112

Coordinator Quang Vinh Nguyen ([https://directory.westernsydney.edu.au/search/name/Quang Vinh Nguyen/](https://directory.westernsydney.edu.au/search/name/Quang%20Vinh%20Nguyen/))

Description This subject introduces the fundamentals and technologies of information visualisation. It covers the major concepts of information visualisation, human-computer perception and methods for visual data analysis. Students will learn the knowledge and skills required for identifying suitable visualisation techniques and tools appropriate for various data types and applications. The subject provides students with opportunities to explore recent research in the visualisation field. Please note any offerings at Melbourne campus are only applicable for Australian Technical and Management College (ATMC) students.

School Computer, Data & Math Sciences

Discipline Computer Science

Student Contribution Band HECS Band 2 10cp

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Postgraduate Coursework Level 7 subject

Pre-requisite(s) MATH 7016 (for students in 3779)

Incompatible Subjects MATH 2014 Visual Analytics

Restrictions

Students must be enrolled in a postgraduate program.

Assumed Knowledge

Familiarity with computer software programs, such as Microsoft Office.

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Explain the purpose of information visualisation
2. Identify strengths, limitations and opportunity of visualisation techniques
3. Evaluate common visualisation techniques for relational data, multi-dimensional data and spatio-temporal data
4. Analyse interaction methods in visualisation
5. Apply common visualisation tools for data analysis
6. Evaluate visual analytics technologies and tools for data analysis

Subject Content

Information visualisation including main concepts and overview

Visual mappings and visual perception

Trees and graphs visualisation

Multi-dimensional data visualisation

Spatio-temporal data visualisation

Interaction

Using visualisation and tools to understand data

Visual Analytics

Attendance

Attendance at tutorial / practical classes is considered compulsory and students are expected to attend all tutorial classes. Students should attend the tutorial that they registered in and continue to attend this tutorial throughout the semester. This practice enables students to maintain adequate performance and continuity in their program and tutors to maintain contact and monitor students' progress.

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
Practical	2 hours each	20	N	Individual
Report	1,500 to 2,000 words report	30	N	Individual
Report	1,500 to 2,000 words report	30	N	Individual
Quiz	60 minutes	20	N	Individual

Teaching Periods

Quarter 3 (2023)

Parramatta City - Macquarie St

On-site

Subject Contact Zhonglin Qu ([https://directory.westernsydney.edu.au/search/name/Zhonglin Qu/](https://directory.westernsydney.edu.au/search/name/Zhonglin%20Qu/))

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=COMP7016_23-Q3_PC_1#subjects)

Autumn (2024)

Melbourne

On-site

Subject Contact Quang Vinh Nguyen ([https://directory.westernsydney.edu.au/search/name/Quang Vinh Nguyen/](https://directory.westernsydney.edu.au/search/name/Quang%20Vinh%20Nguyen/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=COMP7016_24-AUT_MB_1#subjects)

Parramatta - Victoria Rd

On-site

Subject Contact Quang Vinh Nguyen ([https://directory.westernsydney.edu.au/search/name/Quang Vinh Nguyen/](https://directory.westernsydney.edu.au/search/name/Quang%20Vinh%20Nguyen/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=COMP7016_24-AUT_PS_1#subjects)

Quarter 3 (2024)

Parramatta City - Macquarie St

On-site

Subject Contact Zhonglin Qu ([https://directory.westernsydney.edu.au/search/name/Zhonglin Qu/](https://directory.westernsydney.edu.au/search/name/Zhonglin%20Qu/))

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