# MATH 3016 MATHEMATICS PROJECT

#### Credit Points 10

Legacy Code 301379

Coordinator Andrew Francis (https://directory.westernsydney.edu.au/ search/name/Andrew Francis/)

**Description** In this unit, students can deepen or apply knowledge gained during their course and practise verbal and written presentation skills. Students will carry out a project under the supervision of an academic staff member. Assisted by their supervisor, students will define the problem to be studied and then acquire, develop and apply the appropriate theory or methodology. They will prepare a final report presenting theoretical results or methodology, an analysis and a discussion followed by an appropriate conclusion, as well as a literature review or a list of references as appropriate. Students will also give a talk on their project.

School Computer, Data & Math Sciences

**Discipline** Mathematics

#### Student Contribution Band HECS Band 1 10cp

Check your HECS Band contribution amount via the Fees (https:// www.westernsydney.edu.au/currentstudents/current\_students/fees/) page.

Level Undergraduate Level 3 subject

Pre-requisite(s) Students not enrolled in 3778 must have successfully completed 30 credit points of Level 2 mathematicsstatistics units from the following list MATH 2010 Linear Algebra MATH 2001 Advanced Calculus MATH 2003 Differential Equations MATH 2011 Making Sense of Data MATH 2009 Introduction to Data Science COMP 2023 Mathematical Programming Students not enrolled in 3778 must also have successfully completed 30 credit points of Level 3 mathematicsstatistics units from the following list MATH 3006 Mathematical Modelling MATH 3003 Analysis MATH 3001 Abstract Algebra COMP 3020 Social Web Analytics MATH 3007 Predictive Modelling MATH 3005 Environmental Informatics MATH 3015 Groups and Symmetry MATH 3013 Fields and Equations MATH 3012 Combinatorics MATH 3014 Financial Mathematics

Equivalent Subjects MATH 3008 Quantitative Project

**Restrictions** Students enrolled in program 3778 Bachelor of Mathematics must have completed 200 credit points before enrolling into the subject.

# **Learning Outcomes**

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

- 1. Plan and develop an investigative project.
- 2. Locate, identify and use information relevant to the problem being studied.
- 3. Undertake self-directed study relevant to the problem being investigated.
- 4. Undertake a theoretical and/or analytical investigation.
- 5. Develop a comprehensive research report in a logical, concise and professional manner.
- 6. Verbally present a project and its results to an audience.

## **Subject Content**

There is no formal content definition for this subject, as the projects offered will vary according to the expertise and interests of academic staff and the research interests of students. Students will choose individual project topics in consultation with the unit coordinator and the supervising staff member.

### 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.

ltem	Length	Percent	Threshold	Individual/ Group Task
Proposal	12-15 pages	10	Ν	Not Known
Presentation	10 minutes	10	Ν	Not Known
Report	20-40 pages	45	Ν	Not Known
Presentation	20 minutes	25	Ν	Not Known
Participation	n/a	10	Ν	Individual

**Teaching Periods** 

### Autumn

#### Campbelltown

Day

Subject Contact Andrew Francis (https:// directory.westernsydney.edu.au/search/name/Andrew Francis/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject\_code=MATH3016\_22-AUT\_CA\_D#subjects)

#### Penrith (Kingswood)

#### Day

Subject Contact Andrew Francis (https:// directory.westernsydney.edu.au/search/name/Andrew Francis/)

View timetable (https://classregistration.westernsydney.edu.au/even/ timetable/?subject\_code=MATH3016\_22-AUT\_KW\_D#subjects)

#### Parramatta - Victoria Rd

#### Day

**Subject Contact** Andrew Francis (https:// directory.westernsydney.edu.au/search/name/Andrew Francis/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject\_code=MATH3016\_22-AUT\_PS\_D#subjects)

# Spring Campbelltown

Day Subject Contact Andrew Francis (https:// directory.westernsydney.edu.au/search/name/Andrew Francis/)

View timetable (https://classregistration.westernsydney.edu.au/even/ timetable/?subject\_code=MATH3016\_22-SPR\_CA\_D#subjects)

### Parramatta - Victoria Rd

Day Subject Contact Andrew Francis (https:// directory.westernsydney.edu.au/search/name/Andrew Francis/)

View timetable (https://classregistration.westernsydney.edu.au/even/ timetable/?subject\_code=MATH3016\_22-SPR\_PS\_D#subjects)