MATH 0006 MATHEMATICS 1 (WSTC PREP)

Credit Points 10

Legacy Code 700284

Coordinator Zdenka Misanovic (https://directory.westernsydney.edu.au/search/name/Zdenka Misanovic/)

Description This unit has been designed to enhance students' numeracy skills and their understanding of basic mathematical concepts taught in high school mathematics. The topics include arithmetic and algebra, elementary functions, and basic geometry and trigonometry. The unit will prepare students and help them follow more advanced topics in Mathematics 2, Mathematics for Engineers Preliminary and Mathematics for Engineers 1, as well as various other Engineering and ICT units.

School Western Sydney The College

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 0 Preparatory subject

Restrictions Students must be enrolled at Western Sydney University, The College.

Assumed Knowledge

Mathematics Year 10 equivalent.

Learning Outcomes

On successful completion of this subject, students should be able to:
1. Perform operations and solve simple problems involving whole numbers, decimals, fractions and surds.
2. Apply algebraic rules and techniques to solve simple equations and manipulate formulas
3. Demonstrate conceptual understanding of a function, the domain and range, function graph, and the inverse function, and apply it to model and analyse relationships between quantities.
4. Relate functions (linear and quadratic) and the corresponding equations and apply the relationship to analyse engineering applications.
5. Apply the basic trigonometric ratios and Pythagoras�fs theorem to solve problems involving. triangles.
6. Calculate areas and volumes.

Subject Content

1. Arithmetic (numbers, operations with numbers including whole numbers, fractions, decimal and percentages, properties of real numbers). Measurements and units, estimates, scientific notation and rounding, uncertainties.
2. Algebra (algebraic rules and techniques, equations and identities, working with formulas).
3. Functions (definition and notation, domain and range, graphs, the inverse function).
4. Linear and Quadratics functions and equations; linear systems of 2 equations.

5. Basic Geometry and Trigonometry (angles, triangles, Pythagoras?fs theorem, trigonometric ratios).
6. Areas and Volumes.
1. Arithmetic (numbers, operations with numbers including whole numbers, fractions, decimal and percentages, properties of real numbers). Measurements and units, estimates,

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.

Item	Length	Percent	Threshold	Individual/ Group Task
Numerical Problem Solving	50 min	5	N	Individual
Quiz	5x10 min	5	N	Individual
Numerical Problem Solving	50 min	20	N	Individual
Report	2 pages	10	N	Individual
Numerical Problem Solving	50 min	20	N	Individual
End-of-session Exam	2 hours	40	N	Individual

Prescribed Texts

- Breach, M. (2011). Fundamental maths: for engineering and science. Basingstoke: Palgrave Macmillan.

Teaching Periods

Term 1
Nirimba Education Precinct
Day
Subject Contact Zdenka Misanovic (https://directory.westernsydney.edu.au/search/name/Zdenka Misanovic/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=MATH0006_22-T1_BL_D#subjects)

Penrith (Kingswood)
Day
Subject Contact Zdenka Misanovic (https://directory.westernsydney.edu.au/search/name/Zdenka Misanovic/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=MATH0006_22-T1_KW_D#subjects)

Term 2
Penrith (Kingswood)
Day
Subject Contact Zdenka Misanovic (https://directory.westernsydney.edu.au/search/name/Zdenka Misanovic/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=MATH0006_22-T2_KW_D#subjects)

Term 3

Nirimba Education Precinct

Day

Subject Contact Zdenka Misanovic (https://directory.westernsydney.edu.au/search/name/Zdenka Misanovic/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=MATH0006_22-T3_BL_D#subjects)

Penrith (Kingswood)

Day

Subject Contact Zdenka Misanovic (https://directory.westernsydney.edu.au/search/name/Zdenka Misanovic/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=MATH0006_22-T3_KW_D#subjects)