

TFCEDUC15F: Mathematics for Education

Education and Social Work
(15 Points)

Course Prescription

Development of fundamental mathematics concepts including an understanding of arithmetic ideas as expressed in fractions, decimals and percentages, ratio and proportion, and algebraic thinking. Application of these concepts in contexts such as financial literacy, problem solving, and real-life mathematics will form the basis of this course.

Course Overview

The course enables students to think critically and conceptually about the way mathematical problems are solved, in contrast to just relying on rules (that are often forgotten). Students are required to reflect on the mathematical understandings they bring with them and evaluate any new learning on a personal level. By solving real-world problems students will develop an awareness of the importance of maths, and how it impacts on many aspects of their daily lives.

Many of the contexts for this course will come from the student's own everyday interactions or from news/sports events happening around the world. The use of digital devices to locate information is part of the course, especially when this information is used to solve everyday problems.

Student engagement is increased by the use of activities that are culturally and contextually relevant. Group work is maximised to allow the development and facilitation of skills and knowledge.

This course will foster the achievement and success of individuals and groups as it provides opportunities for all students to collaborate with and support each other. The use of hands on equipment will assist in the development of mathematical reasoning, and enable all students to successfully manage the development of less difficult to more complex mathematical understandings.

Course Requirements

Restriction: EDFOUND 15F

Capabilities Developed in this Course

Capability 1: Disciplinary Knowledge and Practice

Capability 2: Critical Thinking

- Capability 3: Solution Seeking
- Capability 4: Communication and Engagement
- Capability 5: Independence and Integrity
- Capability 6: Social and Environmental Responsibilities

Graduate Profile: [Tertiary Foundation Certificate](#)

Learning Outcomes

By the end of this course, students will be able to:

1. Demonstrate an understanding of foundational mathematical problems in a range of contexts (Capability 1 and 3)
2. Explain and communicate foundational mathematical ideas and concepts (Capability 1, 2 and 4)
3. Identify and evaluate new learning in mathematics (Capability 2 and 4)
4. Apply foundational mathematics understanding to solve real world problems (Capability 3 and 6)
5. Develop and demonstrate learning practices that promote engagement and success (Capability 5)

Assessments

Assessment Type	Percentage	Classification
In class tasks	60%	Group & Individual Coursework
Final Test	40%	Individual Test
2 types	100%	

Assessment Type	Learning Outcome Addressed				
	1	2	3	4	5
In class tasks	✓	✓	✓	✓	✓
Final Test	✓	✓		✓	

To pass this course students must attempt all coursework assessments, and achieve at least 50% for the course overall.

The in class tasks will include a range of collaborative and individual assessments. There will be no opportunity for extensions.

Workload Expectations

This course is a standard 15 point course. On average, students are expected to spend 10 hours per week in each 15 point course that they are enrolled in.

A typical semester including the study/exam period totals approximately 15 weeks. This means that for this

course you should expect to commit 48 hours to direct contact via on-campus workshops'

You can also reasonably expect to commit approximately 100-120 hours to independent learning. This may include reading (and more reading), note-taking, face-to-face and/or online discussion, writing, engaging in collaborative group work, problem solving, undertaking practical tasks, reflecting on learning, accessing learning and study resources, and assignment and test preparation and completion.

Delivery Mode

Campus Experience

This course is presented over 5 days on January 11, 12, 13, 16, and 17 from 9:00 am-5:00pm daily.

Attendance is expected at all scheduled tutorials, in class tasks, and the final test to complete components of the course.

Tutorials will not be available as recordings.

The course is delivered at Epsom campus.

Learning Resources

Course materials are made available in a learning and collaboration tool called Canvas which also includes reading lists and lecture recordings (where available).

Please remember that the recording of any class on a personal device requires the permission of the instructor.

Student Feedback

At the end of every semester students will be invited to give feedback on the course and teaching through a tool called SET or Qualtrics. The lecturers and course co-ordinators will consider all feedback and respond with summaries and actions.

Your feedback helps teachers to improve the course and its delivery for future students.

Class Representatives in each class can take feedback to the department and faculty staff-student consultative committees.

As a result of student feedback:

1. The assessed in class tasks will continue in 2023.
2. The exam will be replaced by a final test
3. The development and application of strategies and practices that promote success will remain an integral part of this course.

Other Information

Attendance in class as well as engagement with course activities and readings support academic success.

As such there is an attendance requirement for this course.

- Students must make every effort to attend all classes and complete all the necessary in-class requirements.

Academic Integrity

The University of Auckland will not tolerate cheating, or assisting others to cheat, and views cheating in coursework as a serious academic offence. The work that a student submits for grading must be the student's own work, reflecting their learning. Where work from other sources is used, it must be properly acknowledged and referenced. This requirement also applies to sources on the internet. A student's assessed work may be reviewed against online source material using computerised detection mechanisms.

Class Representatives

Class representatives are students tasked with representing student issues to departments, faculties, and the wider university. If you have a complaint about this course, please contact your class rep who will know how to raise it in the right channels. See your departmental noticeboard for contact details for your class reps.

Inclusive Learning

All students are asked to discuss any impairment related requirements privately, face to face and/or in written form with the course coordinator, lecturer or tutor.

Student Disability Services also provides support for students with a wide range of impairments, both visible and invisible, to succeed and excel at the University. For more information and contact details, please visit the [Student Disability Services' website](http://disability.auckland.ac.nz) <http://disability.auckland.ac.nz>

Special Circumstances

If your ability to complete assessed coursework is affected by illness or other personal circumstances outside of your control, contact a member of teaching staff as soon as possible before the assessment is due.

If your personal circumstances significantly affect your performance, or preparation, for an exam or eligible written test, refer to the University's [aegrotat or compassionate consideration page](https://www.auckland.ac.nz/en/students/academic-information/exams-and-final-results/during-exams/aegrotat-and-compassionate-consideration.html) <https://www.auckland.ac.nz/en/students/academic-information/exams-and-final-results/during-exams/aegrotat-and-compassionate-consideration.html>.

This should be done as soon as possible and no later than seven days after the affected test or exam date.

Learning Continuity

In the event of an unexpected disruption, we undertake to maintain the continuity and standard of teaching and learning in all your courses throughout the year. If there are unexpected disruptions the University has contingency plans to ensure that access to your course continues and course assessment continues to meet

the principles of the University's assessment policy. Some adjustments may need to be made in emergencies. You will be kept fully informed by your course co-ordinator/director, and if disruption occurs you should refer to the university website for information about how to proceed.

Student Charter and Responsibilities

The Student Charter assumes and acknowledges that students are active participants in the learning process and that they have responsibilities to the institution and the international community of scholars. The University expects that students will act at all times in a way that demonstrates respect for the rights of other students and staff so that the learning environment is both safe and productive. For further information visit [Student Charter](https://www.auckland.ac.nz/en/students/forms-policies-and-guidelines/student-policies-and-guidelines/student-charter.html) <https://www.auckland.ac.nz/en/students/forms-policies-and-guidelines/student-policies-and-guidelines/student-charter.html>.

Disclaimer

Elements of this outline may be subject to change. The latest information about the course will be available for enrolled students in Canvas.

In this course students may be asked to submit coursework assessments digitally. The University reserves the right to conduct scheduled tests and examinations for this course online or through the use of computers or other electronic devices. Where tests or examinations are conducted online remote invigilation arrangements may be used. In exceptional circumstances changes to elements of this course may be necessary at short notice. Students enrolled in this course will be informed of any such changes and the reasons for them, as soon as possible, through Canvas.