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| Course Code: | BRM100 |
| Course Name: | Essential Mathematics |
| Trimester: | Trimester 3, 2018 |
| Programs: | Engineering and Science |
| Credit Points: | Non credited course |
| Course Coordinator: | Maria Aneiros |
| Document modified: | 12 th of September 2018 |

Teaching Team

Your lecturer/tutor can be contacted via the email system on the portal.

| Name | Email |
|---------------|--|
| Maria Aneiros | maria.aneiros@staff.griffithcollege.edu.au |
| Brock Grant | brock.grant@staff.griffithcollege.edu.au |
| Nima Talebian | nima.talebian@staff.griffithcollege.edu.au |

Staff Consultation

Your lecturer/tutor is available each week for consultation outside of normal class times.

Times that your lecturer/tutor will be available for consultation will be given in the first week of lectures. A list of times and rooms will be published on the Griffith College Portal under the “myTimetable” link.

Prerequisites

There are no prerequisites for this course. However, this course is a prerequisite for some of your diploma courses and consequently will affect your program progression. You will be permitted to undertake this course maximum two times.

Brief Course Description

The Essential Mathematics is delivered in the first trimester of study, and will assist you to develop and/or refresh the fundamental mathematics knowledge and skills required for success in the Diploma maths or maths related course. Essential Mathematics is a free, non-weighted, and competency based (pass/fail), which means that it does not count towards students GPA (grade point average) and consequently, you are not permitted to drop this course. However, it is compulsory and must be completed in order to graduate and it is a prerequisite for the following diploma courses: Mathematics 1A, Mathematics 1B, Engineering Science and Chemistry 1A.

The course comprises a review of basic skills in Arithmetic and Algebra, an introduction to Functions, Linear Functions and Quadratic Functions, and an introduction to matrices, indices, logarithms and Trigonometry.

Rationale

Students are required to understand the basic mathematical principles that lie behind the study of many fields of mathematics. The Essential Mathematics course provides students with a review and an introduction to these concepts and ideas. The course is designed to consolidate and develop students’ understanding of the basic concepts required for further study in mathematics or in mathematics related courses.

Aims

The course acts as a bridge between the students’ previous experience in mathematics and further study in mathematics where previous experiences have not led to a basic consolidation of mathematical concepts. It introduces students to the mathematical way of thinking desirable for further studies in mathematics in various courses.

Learning Outcomes

Upon successful completion of this course students will be able to:

1. Think mathematically.
 2. Solve simple problems in a clear and logical manner.
 3. Understand basic mathematical knowledge in arithmetic, algebra, functions (both linear and quadratic), indices, logarithms and trigonometry.
 4. Model simple situations in a mathematical way.
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Texts and Supporting Materials

All materials required for this course are supplied on the student portal.

All supporting material will be provided on Student Portal and through the online Maths Pathway's platform used in the Essential Mathematics course.

Organisation and Teaching Strategies

The contact time in this course takes place over four (4) hours per week. Each week the lecturer is also available for individual consultation which is an opportunity for students who need extra assistance.

Content Schedule

Weekly Teaching Schedule

| Week | Topic | Activity | Readings |
|---------------|---|-----------------|-----------------|
| 1 - 12 | Module 1 - Arithmetic | Lecture | |
| 1 - 12 | Module 2 - Algebra | Lecture | |
| 1 - 12 | Module 3 - Linear Functions and Equations | Lecture | |
| 1 - 12 | Module 4 - Indices and Logarithms | Lecture | |
| 1 - 12 | Module 5 - Quadratic Functions and Equations | Lecture | |
| 1 - 12 | Module 6 - Trigonometry | Lecture | |

Summary of Assessment

This section sets out the assessment requirements for this course.

| Item | Assessment Task | Weighting | Relevant Learning Outcomes | Due Date |
|------|--------------------------------|-----------|----------------------------|------------|
| 1 | Maths Pathways Diagnostic Test | N/A | N/A | Week 1 & 2 |
| 2 | Maths Pathways Test | N/A | 1-4 | Week 2 |
| 3 | Maths Pathways Test | N/A | 1-4 | Week 3 |
| 4 | Maths Pathways Test | N/A | 1-4 | Week 4 |
| 5 | Maths Pathways Test | N/A | 1-4 | Week 5 |
| 6 | Maths Pathways Test | N/A | 1-4 | Week 6 |
| 7 | Maths Pathways Test | N/A | 1-4 | Week 7 |
| 8 | Maths Pathways Test | N/A | 1-4 | Week 8 |
| 9 | Maths Pathways Test | N/A | 1-4 | Week 9 |

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|----|---------------------|-----|-----|---------|
| 10 | Maths Pathways Test | N/A | 1-4 | Week 10 |
| 11 | Maths Pathways Test | N/A | 1-4 | Week 11 |
| 12 | Maths Pathways Test | N/A | 1-4 | Week 12 |

Assessment Details

Students will be undertaking the Maths Pathway's program and will be required to achieve a mastery level on the prescribed Maths Pathway's modules. The mastery level is at least the Level 9 in the following maths areas: Number and Place Value, Fractions and Decimals, Patterns and Algebra, Linear and Non-Linear relationships, Pythagoras and Trigonometry, Logarithms and Quadratics. This is applicable for the students enrolled into the Engineering and Science programs. Students will be tested every week, in class, under the supervision of their teacher. The assessments will be composed of two portions, an online personalised test and a handwritten personalised test. Any module that is not mastered will be highlighted and retested in following week test.

Submission and Return of Assessment Tasks

Normally you will be able to collect your assignments in class within two [2] days of the due date for submission of the assessment task.

Retention of Originals

You must be able to produce a copy of all work submitted if so requested. Copies should be retained until after the release of final results for the course.

Extensions

Extensions of time for assessment are not applicable in this course.

Assessment Feedback

Marks awarded for assessment items will also be available on the on-line grades system on the Student Website within fourteen [2] days of the due date.

Generic Skills

Griffith College aims to develop graduates who have an open and critical approach to learning and a capacity for lifelong learning. Through engagement in their studies, students are provided with opportunities to begin the development of these and other generic skills.

Studies in this course will give you opportunities to begin to develop the following skills:

| Generic Skills | Taught | Practised | Assessed |
|----------------------------------|--------|-----------|----------|
| Written Communication | Yes | Yes | Yes |
| Oral Communication | | Yes | |
| Information Literacy | | | |
| Secondary Research | | | |
| Critical and Innovative Thinking | Yes | Yes | Yes |
| Academic Integrity | Yes | Yes | Yes |
| Self Directed Learning | | Yes | |
| Team Work | Yes | Yes | Yes |
| Cultural Intelligence | | | |
| English Language Proficiency | | Yes | |

Academic Integrity

Griffith College is committed to maintaining high academic standards to protect the value of its qualifications. Academic integrity means acting with the values of honesty, trust, fairness, respect and responsibility in learning, teaching and research. It is important for students, teachers, researchers and all staff to act in an honest way, be responsible for their actions, and show fairness in every part of their work. Academic integrity is important for an individual's and the College's reputation.

All staff and students of the College are responsible for academic integrity. As a student, you are expected to conduct your studies honestly, ethically and in accordance with accepted standards of academic conduct. Any form of academic conduct that is contrary to these standards is considered a breach of academic integrity and is unacceptable.

Some students deliberately breach academic integrity standards with intent to deceive. This conscious, pre-meditated form of cheating is considered to be one of the most serious forms of fraudulent academic behaviour, for which the College has zero tolerance and for which penalties, including exclusion from the College, will be applied.

However, Griffith College also recognises many students breach academic integrity standards without intent to deceive. In these cases, students may be required to undertake additional educational activities to remediate their behaviour and may also be provided appropriate advice by academic staff.

As you undertake your studies at Griffith College, your lecturers, tutors and academic advisors will provide you with guidance to understand and maintain academic integrity; however, it is also your responsibility to seek out guidance if and when you are unsure about appropriate academic conduct.

In the case of a breach of academic integrity made against a student he or she may request the guidance and support of a Griffith College Student Learning Advisor or Student Counsellor.

Please ensure that you are familiar with the [Griffith College Academic Integrity Policy](#); this policy provides an overview of some of the behaviours that are considered breaches of academic integrity, as well as the penalties and processes involved when a breach is identified.

For further information please refer to the Academic Integrity Policy on the Griffith College website – Policy Library.

Risk Assessment Statement

There are no out of the ordinary risks associated with this course.

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