Griffith UNIVERSITY

1. General Course Information

1.1 Course Details

COURSE CODE	1808ICT
COURSE TITLE	Discrete Structures
ACADEMIC ORGANISATION	ICT School of Information and Communication Technology
TRIMESTER	Trimester 1 2019
MODE	In Person
LEVEL	Undergraduate
LOCATION	Gold Coast, On Campus
CREDIT POINT VALUE	10

Restrictions:

Restriction: Student must be enrolled in one of the following programs: 1535 Bachelor of Computer Science, 1534 Bachelor of Computer Science, 1585 B Engineering (Hon)/BComp Sci

Course Description:

Discrete structures are foundational in that many areas of computer science require the ability to work with concepts from discrete structures and it is pervasive in the areas of data structures and algorithms. Discrete structures includes important material from such areas as set theory, relations, functions, logic, proof techniques, basic counting graph theory, automata and discrete probability theory. Incompatible: 2804ICT: Discrete Structures

Assumed Background:

1) The ability to write clear and correct English.

2) The equivalent of Math B at high school or a bridging course.

1.2 Course Introduction

Discrete structures are foundational material for computer science. By foundational we mean that relatively few computer scientists will be working primarily on discrete structures, but that many other areas of computer science require the ability to work with concepts from discrete structures.

Discrete structures include important material from such areas as Sets, Relations, Functions, Basic and first order logics, Proof techniques, and counting.

Previous Student Feedback

More practices will be shown in classes. One two-hour lectures are changed to two one-hour lectures

1.3 Course Staff

Primary Convenor **Prof Yaoqi Zhou**

PHONE	(07) 555 28349
EMAIL	yaoqi.zhou@griffith.edu.au
CAMPUS	Gold Coast Campus
BUILDING	Multimedia (G23)
ROOM	2.26A
CONSULTATION	2-3pm Thursday
OTHER LOCATION	G24 2.10

1.4 Timetable

Timetables are available on *the Programs and Courses website*.

NB: Details contained in this section of the course profile and section 4.1 Learning Activities are to be read in conjunction with the official class timetable. The published class timetable which is the authoritative source for timetabling information for all campuses can be located by clicking on the link above.

Additional Timetable Information

The course has two one-hour lecture and a one-hour practical class every week. Students are expected to attend each lecture and each practical class. Students are expected to spend at least 10 hours per week on this course. These 10 hours include the contact hours. Students should do problems and study for the assessment items.

> Details contained in this section of the course profile and in section 4.1 Learning Activities are to be read inconjunction with the official class timetable.

1.5 Lecture Capture

It is standard practice at Griffith University that lectures timetabled in lecture capture-enabled venues are recorded and made available to students on the relevant course site, in accordance with the University's Lecture Capture Policy.

The lecture series delivered as part of this course will be recorded and accessible via the Learning@Griffith course site.

2. Aims, Outcomes & Graduate Attributes

2.1 Course Aims

Mathematics is the best tool for precise descriptions, especially when those descriptions need to be manipulated or reasoned with. Discrete structure is the part of mathematics most suited to the information and communication industry. The main aim of this course is to introduce some of the basic topics in discrete structure. A secondary aim of this course is to teach the generic skills of problem solving, rational step-by-step thought, and written communication.

2.2 Learning Outcomes

After successfully completing this course you should be able to:

1 Understand and define some of the concepts of discrete mathematical structures.
2 Relate practical examples to relational models.
3 Perform the operations associated with sets, functions, relations.
4 Convert logical statements from informal language to propositional and predicate logic expressions.
5 Apply each of the proof techniques (direct proof, proof by contradiction, and induction) correctly in the construction of a sound argument.
6 Apply counting arguments, including sum and product rules, inclusion-exclusion principle and arithmetic/geometric progressions.

2.3. Graduate Attributes

For further details on the Griffith Graduate please click here

Griffith University prepares influential graduates to be:

- [Knowledgeable and skilled, with critical judgement](#)
- [Effective communicators and collaborators](#)
- [Innovative, creative and entrepreneurial](#)
- [Socially responsible and engaged in their communities](#)
- [Culturally capable when working with First Australians](#)
- [Effective in culturally diverse and international environments](#)

This table demonstrates where each of the Griffith Graduate Attributes is taught, practised and assessed in this course.

For further details on the Griffith Graduate Attributes please refer to [The Griffith Graduate policy](#).

University wide attributes

GRADUATE ATTRIBUTE	TAUGHT	PRACTISED	ASSESSED
Knowledgeable and skilled, with critical judgement	•	•	•
Effective communicators and collaborators		•	

Additional Course Information on Graduate Attributes

Course Program Learning outcomes.

1. Professional skills including initiative and judgment in planning, problem solving and decision making in professional practice including analysis, design, implementation and maintenance of software technologies both individually and in teams in the development of software products and computing technologies.

2. Abstraction skills to adapt knowledge and skills to solving new computation problems or creating new software technologies across a wide array of application areas, by using appropriate abstraction and system modelling, and design methods.

Australian Computer Society (ACS) Accreditation Course Status

1. ACS Core Body of Knowledge Mappings: Bloom's Levels

Abstract (Analysis); Interpersonal communications (Application);

2. SFIA6 Skill:

Not applicable.

3. ACS Complex Computing Characteristics

Not applicable.

3. Learning Resources

3.1 Required Resources

Details of your Required Learning Resources are available from the [Reading List](#).

3.2 Recommended Resources

Details of your Recommended Learning Resources are available from the [Reading List](#).

3.3 University Learning Resources

The University provides many facilities and support services to assist students in their studies. Links to information about University support resources that are available to students are included below for easy reference.

[Readings](#) - New online service enabling students to access Required and Recommended Learning resources. It connects to the library catalogue to assist with quickly locating material held in Griffith libraries and enables students to manage and prioritise their readings, add personal study notes and export citations.

[Learning@Griffith](#) - there is a dedicated website for this course via the Learning@Griffith at myGriffith.

[Academic Integrity Tutorial](#) - this tutorial helps students to understand what academic integrity is and why it matters. You will be able to identify types of academic misconduct, understand what skills you will need in order to maintain academic integrity, and learn about the processes of referencing styles.

[Student Services](#) provides a range of services to support students throughout their studies including personal support such as Counselling and Health Services; Academic support; and Financial and Welfare support.

[Careers and Employment Service](#) can assist all enrolled students and recent graduates with career direction, course uncertainty, interview preparation, job search tips, LinkedIn reviews and much more. Our [Unitemps Recruitment Service](#) can assist you with finding paid casual work while you study.

[Information Services (Study)](#) provides academic, information and digital skills support resources. The study skills resources on this website include self-help tasks focusing on preparing for your assignment, writing your assignment, exam preparation, referencing and access to free online training to improve your digital skills.

[Support for learning](#) - the University provides access to common use computing facilities for educational purposes.

[Code of Practice](#) - Griffith Information Technology Resources.

3.5 Other Learning Resources & Information

Recommended Resources: A recommended resource is a resource recommended by the teaching team which provides additional background or current information relevant to the course's learning outcomes.

Title: Discrete Mathematics with Applications, 4th edition, Susanna S. Epp

4. Teaching & Learning Activities

4.1 Learning Activities

Week Commencing	Activity	Learning Outcomes
27 Feb 19 14:00 - 27 Feb 19 14:50	**Introduction (Lecture):** Provide an overall view of the course.	1
28 Feb 19 12:00 - 28 Feb 19 12:50	**Sets (Lecture):** Venn diagrams, Union, intersection, complement	1, 2, 3
4 Mar 19 14:00 - 4 Mar 19 14:50	**Sets (Practical):** Venn diagrams, Union, intersection, complement	1, 2, 3
6 Mar 19 14:00 - 6 Mar 19 14:50	**Sets (Lecture):** Cartesian product, Power sets, Cardinality of finite sets	1, 2, 3
7 Mar 19 12:00 - 7 Mar 19 12:50	**Relations (Lecture):** Reflexivity, symmetry, transitivity	1, 2, 3
11 Mar 19 14:00 - 11 Mar 19 14:50	**Sets/Relations (Practical):** Venn diagrams, Union, intersection, complement, Cartesian product, Power sets, Cardinality of finite sets, Reflexivity, symmetry, transitivity	1, 2, 3
13 Mar 19 14:00 - 13 Mar 19 14:50	**Relations & Functions (Lecture):** Equivalence relations, partial orders; Surjections, injections, bijections	1, 2, 3
14 Mar 19 12:00 - 14 Mar 19 12:50	**Functions (Lecture):** Inverses, composition	1, 2, 3
18 Mar 19 14:00 - 18 Mar 19 14:50	**Relations & Functions (Practical):** Equivalence relations, partial orders/Surjections, injections, bijections, inverses, composition	1, 2, 3
20 Mar 19 14:00 - 20 Mar 19 14:40	**Exam 1 (Sets & Relations) (Lecture):** Venn diagrams, Union, intersection, complement, Cartesian product, Power sets, Cardinality of finite sets, Reflexivity, symmetry, transitivity Equivalence relations, partial orders	1, 2, 3, 4
21 Mar 19 12:00 - 21 Mar 19 12:50	**Propositional Logic (Lecture):** Propositional logic, Logical connectives	1, 2, 3, 4
25 Mar 19 14:00 - 25 Mar 19 14:50	**Propositional Logic (Practical):** Propositional logic, Logical connectives	1, 2, 3, 4
27 Mar 19 14:00 - 27 Mar 19 14:50	**Propositional Logic (Lecture):** Truth Tables, Normal forms (conjunctive and disjunctive)	1, 2, 3, 4
28 Mar 19 12:00 - 28 Mar 19 12:50	**Propositional Logic (Lecture):** Validity of well-formed formula	1, 2, 3, 4
1 Apr 19 14:00 - 1 Apr 19 14:50	**Propositional Logic (Practical):** Truth Tables, Normal forms (conjunctive and disjunctive), Validity of well-formed formula	1, 2, 3, 4
3 Apr 19 14:00 - 3 Apr 19 14:40	**Logic (Lecture):** Propositional inference rules	1, 2, 3, 4
4 Apr 19 12:00 - 4 Apr 19 12:50	**First Order Logic (Lecture):** Universal and existential quantification	1, 2, 3, 4
8 Apr 19 14:00 - 8 Apr 19 14:50	**Prop/First Order Logic (Practical):** Propositional logic, Logical connectives, Truth tables, Normal forms (conjunctive and disjunctive), Validity of well-formed formula, Propositional inference rules, Universal and existential quantification	1, 2, 3, 4
10 Apr 19 14:00 - 10 Apr 19 14:50	**Exam 2 (Functions/Prop. Logic) (Lecture):** Surjections, injections, bijections, inverses, composition, Propositional logic, Logical connectives, Truth tables, Normal forms (conjunctive and disjunctive), Validity of well-formed formula, Propositional inference rules	1, 2, 3, 4
11 Apr 19 12:00 - 11 Apr 19 12:50	**First Order Logic (Lecture):** language syntax	1, 2, 3, 4
24 Apr 19 14:00 - 24 Apr 19 14:50	**First Order Logic (Lecture):** First order semantics, normal forms	1, 2, 3, 4
29 Apr 19 14:00 - 29 Apr 19 14:50	**First Order Logic (Practical):** language syntax, first order semantics, normal forms	1, 2, 3, 4
1 May 19 14:00 - 1 May 19 14:50	**First Order Logic (Lecture):** confinement	1, 2, 3, 4
2 May 19 12:00 - 2 May 19 12:50	**Proof Technique (Lecture):** Direct proofs, Disproving by counter example	1, 2, 3, 5
8 May 19 14:00 - 8 May 19 14:50	**Proof Technique (Lecture):** Proof by contradiction, Induction	1, 2, 3, 5
9 May 19 10:00 - 9 May 19 11:00	**Proof Technique (Lecture):** Weak and strong induction (i.e., First and Second Principle of Induction), Recursive mathematical definitions	1, 2, 3, 5
13 May 19 14:00 - 13 May 19 14:50	**Proof Technique (Practical):** Induction over natural numbers, Structural induction, Weak and strong induction (i.e., First and Second Principle of Induction), Recursive mathematical definitions	1, 2, 3, 5
15 May 19 14:00 - 15 May 19 14:40	**Exam 3 (1st order logic & Proof) (Lecture):**	1, 2, 3, 6

Week Commencing	Activity	Learning Outcomes
16 May 19 12:00 - 16 May 19 12:50	**Counting (Lecture):** Counting arguments, Set cardinality and counting, Sum and product rule, Inclusion-exclusion principle, Arithmetic and geometric progressions	1, 2, 3, 6
20 May 19 14:00 - 20 May 19 14:50	**Counting (Practical):** Counting arguments, Set cardinality and counting, Sum and product rule, Inclusion-exclusion principle, Arithmetic and geometric progressions	1, 2, 3, 6
22 May 19 14:00 - 22 May 19 14:50	**Counting (Lecture):** The pigeonhole principle, Permutations & combinations (Definitions, Pascal's identity, binomial theorem), Examples of Solving recurrence relations (eg Fibonacci numbers), Basic modular arithmetic	1, 2, 3, 6
23 May 19 12:00 - 23 May 19 12:50	**Counting (Practical):** The pigeonhole principle, Permutations & combinations (Definitions, Pascal's identity, binomial theorem), Examples of Solving recurrence relations (eg Fibonacci numbers), Basic modular arithmetic	1, 2, 3, 6
27 May 19 14:00 - 27 May 19 14:50	**Exam 4 (Counting) & Revision (Lecture):** All subjects taught	1, 2, 3, 4, 5, 6

5. Assessment Plan

5.1 Assessment Summary

This is a summary of the assessment in the course. For detailed information on each assessment, see **5.2 Assessment Detail** below.

ASSESSMENT TASK	DUE DATE	WEIGHTING	MARKED OUT OF	LEARNING OUTCOMES	MAXIMUM EXTENSION PERIOD
Exam - constructed response Exam 1 (Sets & Relation)	20 Mar 18 14:00 - 20 Mar 18 14:40	20%	30 marks	1, 2, 3	
Exam - constructed response Exam 2 (Function & Propositional logic)	10 Apr 18 14:00 - 10 Apr 18 14:40	20%	30 marks	1, 2, 3, 4	
Exam - constructed response Exam 3 (1st order logic & Proof)	15 May 18 14:00 - 15 May 18 14:40	20%	30 marks	1, 2, 4, 5	
Exam - constructed response Exam 4 (counting)	27 May 18 14:30 - 27 May 18 14:50	10%	10 marks	1, 2, 6	
Exam - constructed response Final Exam (Exam 5)	Examination Period	30%	50 marks	1, 2, 3, 4, 5, 6	

5.2 Assessment Detail

Title: Exam 1 (Sets & Relation)
Type: Exam - constructed response
Learning Outcomes Assessed: 1, 2, 3
Due Date:
    20 Mar 18 14:00 - 20 Mar 18 14:40
Weight: 20%
Marked out of: 30
Perusal: 5 minutes
Duration: 30 minutes
Format: Closed Book
Task Description:
    Questions and answers in Sets & Relation

Criteria & Marking:
    Will grade according to whether or not answers to the questons are correct.

This assessment item:
   • is a school based activity
   • is an individual activity
   • does not include a self assessment activity
   • does not have a re-attempt provision

Title: Exam 2 (Function & Propositional logic)
Type: Exam - constructed response
Learning Outcomes Assessed: 1, 2, 3, 4
Due Date:
    10 Apr 18 14:00 - 10 Apr 18 14:40
Weight: 20%
Marked out of: 30
Perusal: 5 minutes
Duration: 30 minutes

Format: Closed Book
Task Description:
Questions and answers in Function & Propositional logic
Criteria & Marking:
Will grade according to whether or not answers to the questons are correct.

This assessment item:
- is a school based activity
- is an individual activity
- does not include a self assessment activity
- does not have a re-attempt provision

Title: Exam 3 (1st order logic & Proof)
Type: Exam - constructed response
Learning Outcomes Assessed: 1, 2, 4, 5
Due Date:
    15 May 18 14:00 - 15 May 18 14:40
Weight: 20%
Marked out of: 30
Perusal: 5 minutes
Duration: 30 minutes
Format: Closed Book
Task Description:
Questions and answers in 1st order logic & Proof
Criteria & Marking:
Will grade according to whether or not answers to the questons are correct.

This assessment item:
- is a school based activity
- is an individual activity
- does not include a self assessment activity
- does not have a re-attempt provision

Title: Exam 4 (counting)
Type: Exam - constructed response
Learning Outcomes Assessed: 1, 2, 6
Due Date:
    27 May 18 14:30 - 27 May 18 14:50
Weight: 10%
Marked out of: 10
Perusal: 5 minutes
Duration: 15 minutes
Format: Closed Book
Task Description:
Questions and answers in 1st order logic & Proof
Criteria & Marking:
Will grade according to whether or not answers to the questons are correct.

This assessment item:
- is a school based activity
- is an individual activity
- does not include a self assessment activity
- does not have a re-attempt provision

Title: Final Exam (Exam 5)
Type: Exam - constructed response
Learning Outcomes Assessed: 1, 2, 3, 4, 5, 6
Due Date:
    Examination Period
Weight: 30%
Marked out of: 50
Perusal: 10 minutes
Duration: 120 minutes
Format: Closed Book
Task Description:
Cover all subjects taught
Criteria & Marking:
Grade based on correct answers.

This assessment item:
- is a centrally organised activity
- is an individual activity
- does not include a self assessment activity

5.3 Late Submission

An assessment item submitted after the due date, without an approved extension from the Course Convenor, will be penalised. The standard penalty is the reduction of the mark allocated to the assessment item by 10% of the maximum mark applicable for the assessment item, for each working day or part working day that the item is late. Assessment items submitted more than five working days after the due date are awarded zero marks.

5.4 Other Assessment Information

Griffith University Disclosure Statement

The University shall provide reasonable adjustments to assessment for students with disabilities consistent with the Disabilities Standards for Education 2005, while maintaining the academic integrity of its programs. Adjustments shall be made on an individual basis. Please refer to this policy as it sets out the principles and processes that guide the University Reasonable Adjustments for Assessment - Students with Disabilities

Supplementary Assessment is available in this course in accordance with Section 8 of the University Assessment Policy. To achieve a Pass grade for the course a pass mark for the supplementary assessment item must be achieved.

Final Grades

A student's final grade for this course will be based on the aggregation and weighting of marks across assessment, any mandatory pass components and grade cut-offs. Grade cut-offs can vary, so you will need to wait for the official release of grades to be sure of your grade for this course.

- This course is a graded course (i.e 7, 6, 5, 4, 3, 2, 1).

    Students will not be allowed any written material or calculators while doing any assessment item. Each exam is design to assess the student's knowledge, understanding, and skills. Hence each exam has been designed so that there will be plenty of time to finish all questions.

    No assessment items will be returned to students.

6. Policies & Guidelines

This section contains the details of and links to the most relevant policies and course guidelines. For further details on University Policies please visit the Policy Library

6.1 Assessment Related Policies and Guidelines

University Policies & Guidelines

The University's assessment-related policies can be found in the Griffith Policy Library.

The Assessment policy covers topics including: assessment requirements; award of grades; supplementary assessment; special consideration; extensions and deferred assessment; conduct of students in examinations; cheating; plagiarism; notification of results; appeals against the award of grades.

Academic Integrity

Student academic misconduct encompasses all behaviour:

- involving the misrepresentation of academic achievement; or
- undermining the core values (honesty, trust, fairness, respect and responsibility) of academic integrity; or
- breaching academic integrity;

whether intentional or unintentional. Student academic misconduct includes doing as well as attempting to do any of the acts, omissions or things that constitute academic misconduct.

Student academic misconduct is defined in the Institutional Framework for Promoting Academic Integrity among Students.

Please also refer to the Student Academic Misconduct Policy.

Reasonable Adjustments for Assessment - Students with Disabilities Policy

The Reasonable Adjustments for Assessment - Students with Disabilities Policy sets out the principles and processes that guide the University in making reasonable adjustments to assessment for students with disabilities while maintaining the academic integrity of its programs.

Griffith University Disclosure Statement

The Griffith University Disclosure Statement has been developed to identify and negotiate whether necessary and reasonable accommodations and adjustments can be made, wherever possible, to enable students with disabilities and/or health conditions to undertake required learning activities. Course Convenors are encouraged to reference the Griffith University Disclosure Statement in the Learning Activities and Assessment Plan sections of their course profiles.

Assessment, how to submit an assignment and exams, viewing your grades

All you need to know about assessment, exams and grades

Text Matching Software

The University uses text matching software. Students should be aware that your Course Convenor may use software to check submitted assessment tasks. If this is the case, your Course Convenor will provide more detailed information about how the software will be used for individual assessment items.

Related links:

- Academic Integrity website
- Academic Standing, Progression and Exclusion Policy
- Assessment Policy
- Assessment Submission and Return Procedures
- End of Trimester Centrally Administered Examinations Policy and Procedures
- Governance of Assessment and Academic Achievement Standards
- Standards for First Year Assessment

- [Institutional Framework for Promoting Academic Integrity among Students](#)
- [Student Academic Misconduct Policy](#)

6.2 Other Policies and Guidelines

University Policies and Guidelines

Students are responsible for ensuring that they have read all sections of the Course Profile for the course/s in which they are enrolled in any enrolment period. The published online version of the Course Profile is the authoritative version and by the publication of the Course Profile online, the University deems the student has been notified of and read the course requirements. Variations to the Course Profile during the trimester of offer are not permitted except in exceptional circumstances and will be advised in writing to all enrolled students and via the *Learning@Griffith* website. Additional information regarding the content of this course may be published on the *Learning@Griffith* website.

Copyright matters

Copyright applies to all teaching materials and materials generated by students which substantially relate to Griffith University courses. *Students are warned against selling Griffith University teaching materials and their student notes online through commercial websites during and after their studies.* You will almost certainly be in breach of copyright law and Griffith's IT Code of Practice if you post these materials on the internet and commercial websites. Please refer to the [Copyright Guide for Students](#) for further information.

Health and Safety

Griffith University is committed to providing a safe work and study environment. However, all students, staff and visitors have an obligation to ensure the safety of themselves and those whose safety may be affected by their actions. Staff in control of learning activities will ensure as far as reasonably practical, that those activities are safe and that all safety obligations are being met. Students are required to comply with all safety instructions and are requested to report safety concerns to the University.

General health and safety information is available on the [Health, Safety and Wellbeing](#) website.

Other Key Student-Related Policies

All University policy documents are accessible to students via the [Griffith Policy Library](#) and links to key policy documents, in addition to those listed in 6.1 above, are included below for easy reference:

- [Student Communications Policy](#)
- [Health and Safety Policy](#)
- [Student Administration Policy](#)
- [Student Charter](#)
- [Student Review and Appeals Policy](#)
- [Student Review and Appeals Procedures](#)
- [Student Complaints Policy](#)

Learning Summary

Below is a table showing the relationship between the learning outcomes for this course, the learning activities used to develop each outcome and the assessment task used to assess each outcome.

Learning Outcomes

After successfully completing this course you should be able to:

1 Understand and define some of the concepts of discrete mathematical structures.
2 Relate practical examples to relational models.
3 Perform the operations associated with sets, functions, relations.
4 Convert logical statements from informal language to propositional and predicate logic expressions.
5 Apply each of the proof techniques (direct proof, proof by contradiction, and induction) correctly in the construction of a sound argument.
6 Apply counting arguments, including sum and product rules, inclusion-exclusion principle and arithmetic/geometric progressions.

Assessment & Learning Activities

LEARNING ACTIVITIES	LEARNING OUTCOMES					
	1	2	3	4	5	6
Introduction (Lecture)	●					
Sets (Lecture)	●	●	●			
Sets (Practical)	●	●	●			
Sets (Lecture)	●	●	●			

LEARNING ACTIVITIES	LEARNING OUTCOMES					
	1	2	3	4	5	6
Relations (Lecture)	●	●	●			
Sets/Relations (Practical)	●	●	●			
Relations & Functions (Lecture)	●	●	●			
Functions (Lecture)	●	●	●			
Relations & Functions (Practical)	●	●	●			
Exam 1 (Sets & Relations) (Lecture)	●	●	●	●		
Propositional Logic (Lecture)	●	●	●	●		
Propositional Logic (Practical)	●	●	●	●		
Propositional Logic (Lecture)	●	●	●	●		
Propositional Logic (Lecture)	●	●	●	●		
Propositional Logic (Practical)	●	●	●	●		
Logic (Lecture)	●	●	●	●		
First Order Logic (Lecture)	●	●	●	●		
Prop/First Order Logic (Practical)	●	●	●	●		
Exam 2 (Functions/Prop. Logic) (Lecture)	●	●	●	●		
First Order Logic (Lecture)	●	●	●	●		
First Order Logic (Lecture)	●	●	●	●		
First Order Logic (Practical)	●	●	●	●		
First Order Logic (Lecture)	●	●	●	●		
Proof Technique (Lecture)	●	●	●		●	
Proof Technique (Lecture)	●	●	●		●	
Proof Technique (Lecture)	●	●	●		●	

LEARNING ACTIVITIES	LEARNING OUTCOMES					
	1	2	3	4	5	6
Proof Technique (Practical)	●	●	●		●	
Exam 3 (1st order logic & Proof) (Lecture)	●	●	●			●
Counting (Lecture)	●	●	●			●
Counting (Practical)	●	●	●			●
Counting (Lecture)	●	●	●			●
Counting (Practical)	●	●	●			●
Exam 4 (Counting) & Revision (Lecture)	●	●	●	●	●	●
ASSESSMENT TASKS						
Exam 1 (Sets & Relation)	●	●	●			
Exam 2 (Function & Propositional logic)	●	●	●	●		
Exam 3 (1st order logic & Proof)	●	●		●	●	
Exam 4 (counting)	●	●				●
Final Exam (Exam 5)	●	●	●	●	●	●

Graduate Attributes

For further details on the Griffith Graduate please click here

Griffith University prepares influential graduates to be:

- Knowledgeable and skilled, with critical judgement
- Effective communicators and collaborators
- Innovative, creative and entrepreneurial
- Socially responsible and engaged in their communities
- Culturally capable when working with First Australians
- Effective in culturally diverse and international environments

This table demonstrates where each of the Griffith Graduate Attributes is taught, practised and assessed in this course.

University wide attributes

GRADUATE ATTRIBUTE	TAUGHT	PRACTISED	ASSESSED
Knowledgeable and skilled, with critical judgement	•	•	•
Effective communicators and collaborators		•	
Innovative, creative and entrepreneurial			
Socially responsible and engaged in their communities			
Culturally capable when working with First Australians			
Effective in culturally diverse and international environments			