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#### Printed: 06 June 2015, 03:59PM

The published on-line version of the Course Profile is the authoritative version and by the publication of the Course Profile on-line the University deems the student has been notified of and read the course requirements.

# 1. General Course Information

## 1.1 Course Details

COURSE CODE	2092EDN
COURSE TITLE	Mathematics Education 2
ACADEMIC ORGANISATION	EDN School of Education and Professional Studies
SEMESTER	Semester 2 2015 to Semester 2 2015
MODE	Mixed Mode
LEVEL	Undergraduate
LOCATION	Mt Gravatt, On Campus
CREDIT POINT VALUE	10

### **Restrictions:**

Restriction: Student must be in program 1050 B Education - Primary or 1052 B Education Special Education

### Course Description:

Focussing on the teaching of Measurement & Geometry, & Statistics & Probability, this course aims to develop personal understanding of mathematical concepts and processes, and develop an understanding of teaching strategies which promote problem-solving, mathematical reasoning and use of ICTs.

## Assumed Background:

This course complements the knowledge and skills gained from Mathematics Education 1; however, students may enrol in Mathematics Education 2 before completing Mathematics Education 1 in some circumstances.

## 1.2 Course Introduction

This course requires three hours of contact per week - one hour online lecture, one hour on-campus workshop and one hour on-campus tutorial. Students are required to view the weekly online lecture and participate fully in all on-campus workshops and tutorials. Student attendance and engagement in all workshops and tutorials is a critical factor in achieving the learning objectives of this course. You are encouraged to attend and actively participate in workshops and tutorials and your absence should be communicated to the Course Convenor if you are unable to attend. In addition, you are expected to complete between 6-7 hours of independent study each week - engaging with the readings, completing tutorial tasks, working on assessment tasks etc.

## **Previous Student Feedback**

Previous student feedback has indicated that the course is informative, useful and well-organised. Students indicated that they were appreciative of the help provided at the workshops, in tutorials and via email. Student feedback suggested that the course scaffolding and the use of assignment templates was particularly beneficial to learning. Feedback also indicates that students, despite being apprehensive about mathematics, found the course a rewarding experience of mathematics.

Primary Convencr Dr Kevin Larkin         PHONE       07 5552 9783         EMAIL       K.larkin@griffith.edu.au         CAMPUS       Gold Coast Campus         BUILDING       Arts & Education 1 (G30)         ROOM       3.34         CONSULTATION       Please send an email to arrange an appointment or to make enquires related to the Students may also discuss course related matters during the weekly workshops a will also be available each week across the three campuses during the course of Students should regularly consult the course website and their University email fo announcements, resources, hints, and helpful information related to the course.         Campus Convenor Dr Kevin Larkin         PHONE       07 5552 9783         EMAIL       K.larkin@griffith.edu.au         CAMPUS       Mt Gravatt Campus         BUILDING       Arts & Music (M09)         ROOM       2.114         CONSULTATION       Please send an email to arrange an appointment or to make enquiries related to the Students may also discuss course related matters during the weekly workshops a will also be available each week across the three campuses during the course of Students may also discuss course related matters during the weekly workshops a will also be available each week across the three campuses during the course of Students should regulary consult the course website and their University email fo announcements, resources, hints, and helpful information related to the course.         GONSULTATION       Ligan L08_2.41	
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Tutor Mrs Rebekah Strang       EMAIL	r
EMAIL r.strang@griffith.edu.au	
CAMPUS Mt Gravatt Campus	
CONSULTATION Rebekah is available for consultation - please make initial contact via email	
OTHER LOCATION Gold Coast Campus	

### 1.4 Timetable

Timetables are available on the Griffith Timetables 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 is taught on three campuses this semester, Logan, Mt Gravatt and the Gold Coast. Content and assessment will be consistent across all campuses. All students access the lectures from the course website and attend workshops and tutorials on their 'home' campus.

# 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 <u>Lecture Capture Policy</u>.

The lecture series delivered as part of this course is not suitable for automatic recording and therefore will not be recorded.

# 2. Aims, Outcomes & Graduate Attributes

### 2.1 Course Aims

This course aims to prepare students to be confident and competent teachers of mathematics in the areas of geometry, measurement, statistics and probability at the primary school level. The course aims to provide students with opportunities to develop high levels of competency in mathematics content, pedagogy, and curriculum knowledge relevant to teaching mathematics at this level. Students will be encouraged to develop confidence in making effective use of this knowledge in teaching situations.

### 2.2 Learning Outcomes

After successfully completing this course you should be able to:

- 1 Demonstrate an understanding of the mathematics content associated with geometry, measurement, statistics and probability;
- 2 Understand a range of pedagogical approaches associated with teaching geometry, measurement, statistics and probability;
- 3 Plan, implement, and critique effective pedagogical and assessment practices at the classroom and whole school level.
- 4 Identify and understand challenges and contemporary issues relating to the teaching and learning of mathematics;

**5** Demonstrate an awareness of inclusive practice in teaching mathematics;

- 6 Demonstrate what is entailed in effective use of appropriate technology to enhance students' learning of mathematics;
- 7 Function as a critically reflective mathematics teacher.

## 2.3. Graduate Attributes

Griffith University aims to prepare its graduates to be leaders in their fields by being:

- Knowledgeable and Skilled in their Disciplines
- Effective Communicators and Team Members
- Innovative and Creative with Critical Judgement
- · Socially Responsible and Engaged in their Communities
- Competent in Culturally Diverse and International Environments

University wide attributes

GRADUATE ATTRIBUTE	LEARNING OUTCOMES
A. KNOWLEDGEABLE AND SKILLED IN THEIR DISCIPLINES	
A1. Comprehensive knowledge and skills relating to their disciplines	1, 2, 4
A2. An interdisciplinary perspective	4
A3. Capacity to find, evaluate and use information	1, 2, 3
A4. Ability to apply discipline/professional skills and knowledge in the workplace	1, 2, 3, 4, 5, 6, 7
B. EFFECTIVE COMMUNICATORS AND TEAM MEMBERS	
B1. Capacity to communicate effectively with others orally	
B2. Capacity to communicate effectively with others in writing	3
B3. Capacity to communicate effectively with others using ICTs, multimedia, visual, musical and other forms appropriate to their disciplines	6
B4. Capacity to interact and collaborate with others effectively, including in teams, in the workplace, and in culturally or linguistically diverse contexts	
C. INNOVATIVE AND CREATIVE WITH CRITICAL JUDGEMENT	
C1. Ability to use knowledge and skills to devise solutions to unfamiliar problems	1, 2, 4, 5, 6, 7
<b>C2.</b> Ability to analyse and critically evaluate arguments and evidence appropriate to their disciplines (eg collect, analyse and interpret data and information, generate and test hypotheses, synthesise and organise information)	1, 2, 3, 4, 7
C3. Knowledge of research methodologies in their disciplines and capacity to interpret findings	1
C4. Ability to generate ideas/products/art works/methods/approaches/perspectives as appropriate to the discipline	
D. SOCIALLY RESPONSIBLE AND ENGAGED IN THEIR COMMUNITIES	
D1. Ethical awareness (professional and personal) and academic integrity	7
D2. Capacity to apply disciplinary knowledge to solving real life problems in relevant communities	2, 5, 7
D3. Understanding of social and civic responsibilities, human rights and sustainability	7
D4. Understanding the value of further learning and professional development	
E. COMPETENT IN CULTURALLY DIVERSE AND INTERNATIONAL ENVIRONMENTS	
E1. Awareness of and respect for the values and knowledges of Australian Aboriginal and Torres Strait Islander First Peoples	5
E2. Respect, awareness, knowledge and skills to interact effectively in culturally or linguistically diverse contexts	5
E3. A global and international perspective on their disciplines	5

# 3. Learning Resources

### 3.1 Required Resources

#### Australian Curriculum - Mathematics - Years Foundation to Year 10

Reys, R. E., Lindquist, M. M., Lambdin, D. V., Smith, N. L., Rodgers, A., Falle, J., Frid, S. & Bennett, S. (2012). Helping children learn mathematics (1st Australian Edition.) Danvers, MA: John Wiley & Sons. (Hardcopy or eBook)

### 3.2 Recommended Resources

Jorgensen, R., & Dole, S. (2011). Teaching mathematics in primary schools. (2<sup>nd</sup> ed.) Crows Nest, N.S.W.: Allen & Unwin.

Siemon, D., Beswick, K., Brady, K., Clark, J., Faragher, R., & Warren, E. (2011). *Teaching Mathematics: Foundations to Middle Years*. South Melbourne: Oxford University Press.

Van de Walle, J. A.; Karp, K. & Bay-Willimas, J. (2012). *Elementary and middle school mathematics. Teaching developmentally: International Edition* (8th ed.). Sydney: Pearson Education.

### **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.

<u>Readings</u> - 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 student portal.

Student Services - facilitate student access to and success at their academic studies. Student Services includes: Careers and Employment Service; Chaplaincy; Counselling Services; Health Service; Student Equity Services (incorporating the Disabilities Service) and the Welfare Office.

Information Services (Workshops and Training) - provides learning skills support in three key areas: academic skills, computing skills and library research skills. The study skills resources on this website include self-help tasks focusing on critical thinking, exam skills, note taking, preparing presentations, referencing, writing and time management.

<u>Support for learning</u> - the University provides access to common use computing facilities for educational purposes. <u>Code of Practice</u> - Griffith Information Technology Resources.

## 3.5 Other Learning Resources & Information

De Klerk, J. (1999). Illustrated maths dictionary (3rd ed.). Sydney, Australia: Longmans.

The Australian Association of Mathematics Teachers (AAMT) - http://www.aamt.edu.au/

Mathematics Education Research Group of Australasia (MERGA) - http://www.merga.net.au/

National Council of Teachers of Mathematics (NCTM) - http://www.nctm.org/

# 4. Teaching & Learning Activities

# 4.1 Learning Activities

UNIVERSITY

Week Commencing	Activity	Learning Outcomes
27 Jul 15	Learning Expectations and Assessment (Lecture): (Lecture 1). Learning Expectations and Assessment; The Australian Curriculum (Mathematics) Teaching mathematics to Primary School Students. Mathematics and the National Curriculum. The nature of geometry & measurement; Australian Curriculum Workshops and tutorials relate to the lecture content. See course website (L@G) for further details. Notice re Attendance: Student attendance and engagement in all workshops and tutorials is a critical factor in achieving the learning objectives of this course. You are encouraged to attend and actively participate in workshops and tutorials and your absence should be communicated to the Course Convenor if you are unable to attend.	1, 2, 3, 7
	Readings/Ref: Aust Curriculum ; Reys et al. ;	
3 Aug 15	Geometry - 2D Shapes (Lecture): (Lecture 2). Geometry - 2D shapes; polygons, circles, ellipses & angles.	1, 2, 3, 4, 6
Ū	See course website (L@G) for further details. <b>Readings/Ref:</b> Aust Curriculum ; Reys et al. ;	
	Geometry - 3D Objects (Lecture): (Lecture 3).	
10 Aug 15	Geometry - 3D objects; prisms, Platonic solids, cones & cylinders	1, 2, 4, 6
TO AUG 15	See course website (L@G) for further details.	1, 2, 4, 0
	Readings/Ref: Aust Curriculum ; Reys et al. ;	
	Geometry - Transformations (Lecture): (Lecture 4).	
17 Aug 15	Geometry - Transformations, symmetry, position & direction	1, 2, 4, 5, 6
	See course website (L@G) for further details.	1, 2, 4, 3, 0
	Readings/Ref: Aust Curriculum ; Reys et al. ;	
24 Aug 15	Measurement (Lecture): (Lecture 5).	
	Measurement - Length, perimeter, circumference, metric system	4 9 4 5 9
	See course website (L@G) for further details.	1, 2, 4, 5, 6
	Readings/Ref: Aust Curriculum ; Reys et al. ;	
	Sequence of teaching measurement, area and volume (Lecture): (Lecture 6).	
o	Sequence of teaching measurement, area and volume	
31 Aug 15	See course website (L@G) for further details.	1, 2, 4, 5, 6
	Readings/Ref: Aust Curriculum ; Reys et al. ;	
	Statistics - Data Representation & Interpretation (Lecture): (Lecture 7) Statistics - Data Representation and Interpretation	
7 Sep 15	See course website (L@G) for further details.	1, 2, 4, 5, 6
	Readings/Ref: Aust Curriculum ; Reys et al. ;	
	Statistics - Teaching; Probability - Chance (Lecture): (Lecture 8) Statistics - Teaching; Probability - Chance	
14 Sep 15	See course website (L@G) for further details.	1, 2, 4, 5, 6
	Readings/Ref: Aust Curriculum ; Reys et al. ;	
	Probability - Teaching (Lecture): (Lecture 9). Probability - Teaching	
21 Sep 15	Probability - Teaching See course website (L@G) for further details.	1, 2, 4, 5, 6
	Readings/Ref: Aust Curriculum ; Reys et al. ;	
	Study Week (Review of Course & Portfolio) (Study Week): See course website (L@G) for further details.	
28 Sep 15		1, 2, 4, 5, 6
	Readings/Ref: Aust Curriculum ; Reys et al. ;	

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Week Commencing	Activity	Learning Outcomes
	Measurement - Time, mass, temperature and capacity (Lecture): (Lecture 10) Measurement - Time, mass, temperature and capacity	
12 Oct 15	See course website (L@G) for further details.	1, 2, 3, 4, 5, 7
Readings/Ref: Aust Curriculum ; Reys et al. ; Working Mathematically (Lecture): (Lecture 11)		
19 Oct 15	Working Mathematically (Lecture): (Lecture 11). Working Mathematically An overarching approach to the authentic teaching of mathematics including the four proficiencies from the Australian Curriculum. See course website (L@G) for further details.	1, 2, 3, 4, 5, 7
	Readings/Ref: Aust Curriculum ; Reys et al. ;	
26 Oct 15	<b>Revision (Review):</b> (Lecture 12) Revision Geometry, Measurement, Statistics, Probability and Working Mathematically. See course website (L@G) for further details.	1, 2, 3, 4, 5, 6, 7
	Readings/Ref: Aust Curriculum ; Reys et al. ;	

### 4.2 Other Teaching and Learning Activities Information

Griffith University provides an enterprising information rich learning architecture, which supports BYOD (bring your own device) and BYO App (bring your own application), enabling seamless data and process integration across systems. It is therefore an acceptable expectation that all students enrolled in programs offered by The School of Education and Professional Studies will make use of their own device and BYO App for use during all learning activities.

This course will use a variety of student-centred teaching and learning methods that respond to the needs of a diverse student population. The course is designed, through a mixture of online lectures and interactive workshops/tutorials, to provide theoretical and practical links with classroom practice. As this is a 10CP course, students are required to spend ten hours per week in teaching and learning situations (1 hour online lecture, 1 hour face to face tutorial plus 6-7 hours of additional activities and study relating to the course).

This course covers the relevant primary school content of the geometry, measurement, statistics, and probability strands of the Australian Curriculum. The course will follow the general guidelines of the Australian Curriculum but will incorporate other views of mathematics curriculum and planning in order to expose students to a wide range of experiences in their initial preparation as a teacher of primary mathematics. It is expected that students will demonstrate a high level of personal competency in mathematics.

The content in this course will:

- · Prepare students for the breadth of experience in curriculum likely to be encountered in schools;
- · Require students to reflect on their own learning of mathematics and how to teach mathematics.
- Make an explicit link between mathematics theory and practice through assessment items, lectures, workshops and tutorials that explore the theory/practice nexus;
- · Link with the students' school experiences through tutorials and previous practicum experiences

#### **AITSL Standards**

This course addresses the following Australian Professional Standards for Teachers at Graduate Level.

Australian Professional Standards for Teachers (Graduate Stage)	Focus Area 1	Focus Area 2	Focus Area 3	Focus Area 4	Focus Area 5	Focus Area 6	Focus Area 7
1. Know students and how they learn		x					Not Applicable
2. Know the content and how to teach it	x	x			x	x	Not Applicable
3. Plan for and implement effective teaching and learning			x	x			
<ol> <li>Create and maintain supportive and safe learning environments</li> </ol>						Not Applicable	Not Applicable
5. Assess, provide feedback and report on student learning						Not Applicable	Not Applicable
6. Engage in professional learning					Not Applicable	Not Applicable	Not Applicable
7. Engage professionally with colleagues, parents/carers and the community					Not Applicable	Not Applicable	Not Applicable

# 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	LEARNING OUTCOMES
<i>Portfolio - evidence</i> Measurement, Geometry, Statistics and Probability	30 Sep 15 23:55	60%	1, 2, 3, 4, 5, 6
Exam - constructed response Final Examination	Examination Period	40%	1, 2, 3, 4, 5, 7

### 5.2 Assessment Detail

Measurement, Geometry, Statistics and Probability **Type:** Portfolio - evidence **Learning Outcomes Assessed:** 1, 2, 3, 4, 5, 6 **Due Date:** 

30 Sep 15 23:55

Weight: 60%

Task Description:

See the course website (L@G) for campus-specific details of assessment items, including required tasks and submission details.

#### Criteria & Marking:

Assessment Criteria:

- · Demonstrated understanding of the key conceptual and developmental theories underpinning mathematics
- Demonstrated understanding of relevant curriculum content
- Demonstrated understanding of key concepts, skills, strategies and resources that are appropriate for teaching or learning mathematics
- Demonstrated understanding of pre-requisite requirements, and logical development of ideas within an activity, using resources (concrete and digital) and appropriate mathematical terminology
- · Congruence with course themes and emphases with regard to mathematics education and accuracy and correctness of mathematics
- Demonstrated understanding of appropriate and effectiveassessment tools
- Completeness of set tasks and compliance with task requirements
- Demonstration of an appropriate level of literacy, ICT skills, and APA 6<sup>th</sup> Referencing

Submission: This assessment is to be submitted via Learning@Griffith.

#### This assessment item:

- is a school based activity
- · is an individual activity
- · does not include a self assessment activity

#### **Final Examination**

Type: Exam - constructed response Learning Outcomes Assessed: 1, 2, 3, 4, 5, 7 Due Date: Examination Period Weight: 40% Perusal: 5 minutes Duration: 120 minutes Format: Closed Book Task Description: The exam requires a demonstration of a broad understanding of the 'applied 'areas of mathematics education including mathematics content and pedagogy, as well as relevant aspects of mathematics education stressed in the course. It covers material from the whole course (Weeks 1 to13). The overn provides an expectivity for students to:

- The exam provides an opportunity for students to: • demonstrate knowledge of relevant content, principles, procedures and terminology in primary school measurement, geometry, statistics and
- probability;
  demonstrate how students might solve problems in primary measurement, geometry, statistics, and probability;
- explain how children develop conceptual understanding and skills in these areas of mathematics; and
- describe appropriate class activities and resources for the teaching of these topics;
- The exam will take place in the official Exam Period and will consist of short answer questions. Students may apply for a deferred exam through Student Administration. These are granted on reasonable grounds only (e.g. ill health, family bereavement, etc.), and documentation must be supplied. Please ensure your availability for the entire examination period.

#### Criteria & Marking:

Assessment Criteria

- Congruence of mathematics pedagogy answers with course content and emphases as detailed in the text, lectures, course materials and contemporary mathematics education literature
- · Completeness of tasks and compliance with questions asked
- · Accuracy and correctness of mathematics given in answers

- · Organisation and structure of responses
- · Legibility of answers
- Neatness of diagrams and other graphics

#### 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

Marks for all assessment items including the final assessment piece will be recorded in the Marks Centre and made available to students through **My Marks** on *Learning@Griffith*.

You must submit all assessment tasks to be eligible to receive a passing grade. Different aspects of the Course Learning Outcomes are assessed in each task.

Feedback will be provided to students within three weeks of the date of submission of the portfolio for assessment items submitted by the due date. *Literacy skills*:

Students are expected to demonstrate competency in literacy skills in all assessment items - including spelling, grammar, terminology, expression, clarity, referencing, etc. Marks will be deducted for errors in these areas. Students experiencing difficulties should seek help from the learning assistance unit.

#### Important assessment information

#### Copies of assessment items:

Students should ensure they keep copies of assessment items that they submit. Assignments are to be clearly labelled.

#### Extensions on due dates:

Students who wish to have an extension to the due date for assessment items should apply in writing at least one day before the due date (preferably earlier). Extensions are usually only granted in circumstances of genuine illness, bereavement, etc. Official documentation such as medical certificates should be included with applications. Late assignments will be penalised by 10% of the total marks for each working day that the assignment is late without an extension. Students should consult the University Assessment Policy, e.g., in relation to late submission and associated penalties or any other issues related to assessment.

#### Deferred exams or alternate exams:

Students seeking deferred exams should apply in writing via the online forms available from L@G.

#### Supplementary Assessment:

Supplementary assessment is available in this course for students who achieve a grade of 3, in accordance with Section 8 of the University Assessment Policy. http://policies.griffith.edu.au/pdf/Assessment%20Policy.pdf A mark of at least 50% is required on the Supplementary Assessment item to receive a grade of 4 for the course.

#### Determining final grades:

This course conforms to the university's policy for the award of grades. Grades will be awarded according to the University assessment criteria and the specific course criteria.

## 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 Misconduct

Students must conduct their studies at the University honestly, ethically and in accordance with accepted standards of academic conduct. Any form of academic conduct that is contrary to these standards is academic misconduct and is unacceptable.

Some students engage deliberately in academic misconduct, with intent to deceive. This conscious, pre-meditated form of cheating is one of the worst forms of fraudulent academic behaviour, for which the University has zero tolerance and for which penalties, including exclusion from the University, will be applied.

However, the University recognises many students commit academic misconduct without intent to deceive. These students may be required to undertake additional educational activities to remediate their behaviour.

Specifically, it is academic misconduct for a student to:

- Cheat in examinations and tests by communicating, or attempting to communicate, with a fellow individual who is neither an invigilator or member of staff; by copying, or attempting to copy from a fellow candidate; attempting to introduce or consult during the examination, any unauthorised printed or written material, or electronic calculating or information storage device; or mobile phones or other communication device, or impersonates another.
- Fabricate results by claiming to have carried out tests, experiments or observations that have not taken place or by presenting results not supported by the evidence with the object of obtaining an unfair advantage.
- Misrepresent themselves by presenting an untrue statement or not disclosing where there is a duty to disclose in order to create a false
  appearance or identity.
- Plagiarise by representing the work of another as their own original work, without appropriate acknowledgement of the author or the source. This category of cheating includes the following:
  - collusion, where a piece of work prepared by a group is represented as if it were the student's own;
  - acquiring or commissioning a piece of work, which is not his/her own and representing it as if it were, by purchasing a paper from a commercial service, including internet sites, whether pre-written or specially prepared for the student concerned and submitting a paper written by another person, either by a fellow student or a person who is not a member of the University;
  - duplication of the same or almost identical work for more than one assessment item;
  - copying ideas, concepts, research data, images, sounds or text;
  - paraphrasing a paper from a source text, whether in a manuscript, printed or electronic form, without appropriate
  - acknowledgement;
  - cutting or pasting statements from multiple sources or piecing together work of others and representing them as original work;
  - submitting, as one's own work, all or part of another student's work, even with the student's knowledge or consent.

A student who willingly assists another student to plagiarise (for example, by willingly giving them their own work to copy from) is also breaching academic integrity and may be subject to disciplinary action.

#### Reasonable Adjustments for Assessment - Students with Disabilities Policy

This 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 <u>Griffith University Disclosure Statement</u> 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.

#### Application for Special Consideration, Extensions or Deferred Assessment

Students applying for deferred assessment or special consideration on medical grounds must submit a <u>Griffith University Student Medical</u> <u>Certificate</u> completed by a registered medical or dental practitioner.

#### **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:**

- <u>Academic Integrity website</u>
- <u>Academic Standing, Progression and Exclusion Policy</u>
- <u>Assessment Policy</u>
- <u>Assessment Submission and Return Procedures</u>
- End of Semester 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
- <u>Student Academic Misconduct Policy</u>

## 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 semester 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.

#### 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 and laboratory health and safety information is available on the Griffith Safe and Well website.

#### **Other Key Student-Related Policies**

All University policy documents are accessible to students via the <u>Griffith Policy Library</u> and links to key policy documents, in addition to those listed in 6.1 above, are included below for easy reference:

- <u>Student Communications Policy</u>
- Health and Safety Policy
- Student Administration Policy
- Student Charter
- Student Review and Appeals Policy
- <u>Student Review and Appeals Procedures</u>
- <u>Student Grievance Policy</u>

#### **Other Course Guidelines**

Levels of literacy must be at a tertiary level. Work that does not conform to this level may not gain a pass mark. This is a prerequisite requirement of this course. Expression must be non-sexist and non-racist. Inclusive language must be used. All assessment items submitted must be the original copy. Students must retain a back-up copy of their work.

**Extensions** must be sought **prior** to the due date, in writing, through the course convenor. Extensions sought after the due date will be granted only in extenuating circumstances such as provision of a medical certificate containing appropriate documentation of illness.

All assignments must use a recognised and systematic system for citations and reference list (not a bibliography).

Word limits must be adhered to. Assessment items that exceed the word limit will be read to the limit. The remainder may be disregarded and marks only awarded for that which is contained within the word limit. The assignment is to be submitted electronically via L@G.

Both assessment items must be completed to gain a passing grade in this course. The assignment will be returned in tutorials or according to other arrangements made in tutorials. Uncollected assignments are retained by the course convenor for a period of 6 months, after which time any uncollected work will be disposed of.

Course evaluation:

Students are requested to complete an online course evaluation before the end of the semester.

#### Referencing guidelines:

Students are required to use the APA 6th style for referencing sources in written work. See the Current Edition of the Publication Manual of the American Psychological Association. The APA style guide is available in the library.

#### Plagiarism: Griffith University Assessment Policy

Plagiarism is knowingly presenting the work or property of another person as if it were one's own. Griffith University believes that students must conduct their studies at the University honestly, ethically and in accordance with accepted standards of academic conduct.

# Learning Summary

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

## Learning Outcomes

Grittith

After successfully completing this course you should be able to:

- 1 Demonstrate an understanding of the mathematics content associated with geometry, measurement, statistics and probability;
- 2 Understand a range of pedagogical approaches associated with teaching geometry, measurement, statistics and probability;
- 3 Plan, implement, and critique effective pedagogical and assessment practices at the classroom and whole school level.
- 4 Identify and understand challenges and contemporary issues relating to the teaching and learning of mathematics;
- **5** Demonstrate an awareness of inclusive practice in teaching mathematics;
- 6 Demonstrate what is entailed in effective use of appropriate technology to enhance students' learning of mathematics;
- 7 Function as a critically reflective mathematics teacher.

## **Assessment & Learning Activities**

LEARNING ACTIVITIES	LEARNING OUTCOMES						
	1	2	3	4	5	6	7
earning Expectations and Assessment (Lecture)	•	•	•				•
Geometry - 2D Shapes (Lecture)	•	•	•	•		•	
Geometry - 3D Objects (Lecture)	•	•		•		•	
Geometry - Transformations (Lecture)	•	•		•	•	•	
Measurement (Lecture)	•	•		•	•	•	
Sequence of teaching measurement, area and volume (Lecture)	•	•		•	•	•	
Statistics - Data Representation & Interpretation (Lecture)	•	•		•	•	•	
Statistics - Teaching; Probability - Chance (Lecture)	•	•		•	•	•	
Probability - Teaching (Lecture)	•	•		•	•	•	
Study Week (Review of Course & Portfolio) (Study Week)	•	•		•	•	•	
Measurement - Time, mass, temperature and capacity (Lecture)	•	•	•	•	•		•
Norking Mathematically (Lecture)	•	•	•	•	•		•
Revision (Review)	•	•	•	•	•	•	•
ASSES	SMENT TA	sks					
Neasurement, Geometry, Statistics and Probability	•	•	•	•	•	•	



LEARNING ACTIVITIES		LEARNING OUTCOMES						
	1 IES	2	3	4	5	6	7	
Final Examination	•	•	•	•	•		•	

### **Graduate Attributes**

Griffith University aims to prepare its graduates to be leaders in their fields by being:

- Knowledgeable and Skilled in their Disciplines
- Effective Communicators and Team Members
- Innovative and Creative with Critical Judgement
- · Socially Responsible and Engaged in their Communities
- Competent in Culturally Diverse and International Environments

University wide attributes
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#### LEARNING OUTCOMES **GRADUATE ATTRIBUTES** 1 2 3 4 5 6 7 A KNOWLEDGEABLE AND SKILLED IN THEIR DISCIPLINES A1. Comprehensive knowledge and skills relating to their disciplines • • • A2. An interdisciplinary perspective • A3. Capacity to find, evaluate and use information • • A4. Ability to apply discipline/professional skills and knowledge in . • e • • the workplace **B EFFECTIVE COMMUNICATORS AND TEAM MEMBERS**

#### B1. Capacity to communicate effectively with others orally

B2. Capacity to communicate effectively with others in writing		•			
B3. Capacity to communicate effectively with others using ICTs, multimedia, visual, musical and other forms appropriate to their disciplines				•	

B4. Capacity to interact and collaborate with others effectively, including in teams, in the workplace, and in culturally or linguistically diverse contexts

#### C INNOVATIVE AND CREATIVE WITH CRITICAL JUDGEMENT

C1. Ability to use knowledge and skills to devise solutions to unfamiliar problems	•	•		•	•	•	•
C2. Ability to analyse and critically evaluate arguments and evidence appropriate to their disciplines (eg collect, analyse and interpret data and information, generate and test hypotheses, synthesise and organise information)	•	•	•	•			•
C3. Knowledge of research methodologies in their disciplines and capacity to interpret findings	٠						

C4. Ability to generate ideas/products/art works/methods/ approaches/perspectives as appropriate to the discipline

#### D SOCIALLY RESPONSIBLE AND ENGAGED IN THEIR COMMUNITIES

D1. Ethical awareness (professional and personal) and academic integrity				٠
D2. Capacity to apply disciplinary knowledge to solving real life problems in relevant communities	•		•	•

D3. Understanding of social and civic responsibilities, human rights and sustainability				•
and sustainability				

D4. Understanding the value of further learning and professional development

E COMPETENT IN CULTURALLY DIVERSE AND INTERNATIONAL ENVIRONMENTS								
E1. Awareness of and respect for the values and knowledges of Australian Aboriginal and Torres Strait Islander First Peoples					•			
E2. Respect, awareness, knowledge and skills to interact effectively in culturally or linguistically diverse contexts					•			
E3. A global and international perspective on their disciplines					•			