

Course Code:	1807NRS			
Course Name:	Safe Administration of Medications			
Trimester:	Health Care Trimester 2, 2018			
Program:	Diploma of Health Care			
Credit Points:	10			
Course Coordinator:	Nicholas Brunette			
Document modified:	23 May 2018			

# **Teaching**

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

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# **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 "my Timetable" link.

# **Prerequisites**

There are no prerequisites for this course.

## Assumed Knowledge:

- 1. It is assumed that students enrolled in this course will have an understanding of basic mathematical concepts such as addition, subtraction, division, multiplication, fractions and decimals.
- 2. Students will have anatomy and physiology knowledge on which to build their understanding of how medications work in the human body.
- 3. Students will have a developing knowledge of healthcare language.

# **Brief Course Description**

1807NRS Safe Administration of Medication is a 10 Credit Point course situated within the second trimester and third trimester of the Diploma of Health Care. The Diploma of Health Care is designed to provide students with a pathway to:

- \* further university studies in health care disciplines, or
- \* direct employment.

#### Rationale

Medication administration is an important nursing activity, completed in collaboration with the client, the medical practitioner and the pharmacist. Medication administration appears to be a simple task but it is a complex, multi-faceted activity. Safe medication practices help to ensure positive client outcomes.

#### Aims

This course aims to organize care for safety and quality related to the clinical application of pharmacology and the administration of medications. Information on the principles of drug action in the body provides an understanding of the rational use of drugs in prevention and treatment of disease. Emphasis will be placed on the mechanism(s) of action, physiological effects, clinical uses, pharmacokinetics and adverse effects of the most important drug(s) in each pharmacological class covered. Roles and responsibilities related to safe medication administration practices are emphasized.

# **Learning Outcomes**

After successfully completing this course you should be able to:

- 1. Explain the principles of pharmacokinetics and pharmacodynamics;
- 2. Discuss the indications, contraindications and adverse effects of medications in relation to pathophysiology and individual client needs;
- 3. Describe contributing factors to medication errors (and near-miss incidents), associated with prescribing, dispensing, administering and monitoring medications;
- 4. Demonstrate proficiency in medication calculations for safe administration of medications in accordance with scope of practice.

Texts and Supporting Materials

## **Required Text:**

Tiziani, A. (2017). *Havard's nursing guide to drugs* (10th ed.). Chatswood, NSW: Mosby Elsevier.

Bullock, S., & Manias, E. (2017). *Fundamentals of Pharmacology* (8th ed.). Frenchs Forest, NSW: Pearson.

#### **Recommended Text:**

Australian Medicines Handbook (2016) Australian Medicines Handbook Pty Ltd. Adelaide, SA: Australian Medicines Handbook.

Brotto, V. & Rafferty, K. (2012). *Clinical Dosage Calculations for Australia and New Zealand*. (1st ed.). Melbourne, Vic: Cengage Publishing.

### **Recommended Readings:**

All recommended reading will be provided on the Griffith College Portal. There will be access to online resources, web links and interactive learning materials.

## **Organisation and Teaching Strategies**

Teaching methods will include a combination of face-to-face strategies such as interactive lectures, tutorials and workshops. Students are also encouraged to utilize web materials including designated self-directed activities and worksheets. The teaching strategies are designed to enable the first year student to engage in a variety of learning platforms. This course is web supported. Lectures and workshop classes are scheduled as per timetable. It is an expectation that students will attend all classes

# Class Contact Summary

Classes for Safe Administration of Medications:

Lectures: 2 hours per week (1-10).

Tutorials: 2 hours per week (1-10) & Revision week (11).

Workshops: 1 hour per week (1-10).

### **Attendance**

**ATTENDANCE at TUTORIALS and WORKSHOPS ARE ESSENTIAL.** These practical sessions provide interactive learning exercises that are essential to the learning outcomes in this course.

You are expected to bring work completed at home to all tutorials and workshops for group and individual discussions and practice. Reflection on the development of your thinking, attitudes and clinical skills is expected during tutorials and workshops.

# **Preparation and Participation in Class**

You are expected to complete your readings, review the lecture notes, and complete all learning activities as detailed in the Tutorial and Workshop before class so that each week you can actively contribute to your learning. You are expected to ask and answer questions, initiate discussions and stimulate debate in group and class situations.

#### **Consultation Times**

Attendance during consultation times is optional and students are encouraged to use this extra help to enable you to meet the stated learning outcomes.

### **Course Materials**

Lecture notes will be made available to you on the 1807NRS Griffith College Portal. Students are encouraged to print these out and bring them to each class so that extra notes can be added.

### **Independent Study**

Independent study requires that you spend time outside classes engaged in learning necessary to acquire the knowledge, skills and attitudes needed to both achieve the learning outcomes and complete your assignments. Independent study includes reading the required text books, using library and internet facilities. For this 10 CP course, you will need to spend at least 10 hours per week engaged in study both timetabled classes and independent study.

# **Program Progression**

Students are reminded that satisfactory Program Progression requires that attendance in classes is maintained at equal to or greater than 80%, and that GPA is maintained at equal to or greater than 3.5 (Australian students) or equal to or greater than 4.0 (International students) in any trimester [please see Griffith College Policy Library - Program Progression Policy - for more information].

### **Content Schedule**

# Module 1 - The 'Student-Registered Nurse', Patient and their Family

**Learning Outcomes**: 1, 2, 3, 4

#### Overview:

This module will discuss the indications, contraindications and adverse effects of medications in relation to pathophysiology (covered in lectures) and individual patient needs. We learn how medications are regulated in Australia and access resources on safe medication use (including indications, contraindications and adverse effects). The roles and responsibilities of nurses and other health care professionals in relation to medication administration, legal and ethical issues and medication regulations are explored, and we develop skills to engage with and educate patients and/or their families about their medications.

Through discussion and self-directed learning activities, you will also gain insight to the patient's perspective and the impact that medication errors have on patients and their families.

## This module contains 3 topics:

TOPIC 1.1: Regulation of medicines in Australia

TOPIC 1.2: Interdisciplinary aspects of medication administration

TOPIC 1.3: Patient assessment prior to medication administration

## **Module 2 - Safe Administration of Medications**

**Learning Outcomes:** 1, 2, 3, 4

## Overview

This module introduces you to the key principles of medication administration. Throughout this module, you will develop your knowledge and skill in performing accurate medication calculations. In this module you will also learn the common routes of medication administration and why we use them.

### This module contains 5 topics:

**TOPIC 2.1: Medication Calculations** 

TOPIC 2. 2: Drug Administration

**TOPIC 2.3: Drug Schedules** 

TOPIC 2.4: Common Routes of Medication Administration

TOPIC 2.5: Ethical issues in Medication Administration

## **Module 3 - Evidence-based Practice**

**Learning** 1, 2, 3

#### Overview:

In this module you will learn how evidence-based practice focuses on care that is underpinned by strong evidence, thus ensuring high quality, safe patient care. Participation in this module will assist you to link pharmacology knowledge to clinical practice situations. Remember of course, that evidence-based practice principles underpin this entire course! Although we have presented the modules separately, they are interwoven with each other.

# This module contains 2 topics:

TOPIC 3.1: Pharmacology

**TOPIC 3.2: Medication Actions** 

Weekly Teaching Schedule

Week	Торіс	Activity	Readings
1	Introduction to Course  A brief history of Pharmacology  Definitions and Key Concepts: Pharmacology, Pharmacodynamics & Pharmacokinetics	Lecture	Refer to Griffith College student portal
	Introduction to Medication Calculations & Mathematical Concepts  Medication Calculation Exercises on the Portal.  Revision of metric system and calculation for tablets.  Tutor  Practice calculations  Use of drug information sources — Havard's nursing guide to drugs/ AMH/NPS/Other Websites		Refer to Griffith College student portal
	Revision of lecture content and quiz  Revision of search strategies for  Assessments.	Workshop	Refer to Griffith College student portal
2	Safety & Regulations Schedules Roles & Responsibilities	Lecture	Refer to Griffith College student portal
	Nomenclature: ACQHS Drug names- suffixes  NIMC Review Drug administration strategies and documentation  Medication Calculation Practice/Revision (Tablets)	Tutorial	Refer to Griffith College student portal

	Using MIMs/AMH *Adverse reactions and interactions — brief case analysis using medication charts  Safety/Schedules revision of lecture content and quiz  Medication Safety - DVD	Workshop	Refer to Griffith College student portal
3	Autonomic Pharmacology: Adrenergic & Cholinergic	Lecture	Refer to Griffith College student portal
	Medication Errors: Analysis of Safety Issues - Applying s systems approach to medication error: Identification, Analysis and Intervention.  Reasons' Model Activity	Tutorial	Refer to Griffith College student portal
	Revision of lecture content and quiz  Medication Calculation Practice	Workshop	
4	Introduction to Chemical Mediators: Prostaglandins, Histamine, Serotonin, Dopamine etc.	Lecture	
	Review or lecture content/Quiz  Medication calculation practice	Workshop	

	Concepts of Weights & Measures		
	Calculation Practice Exam	Tutorial	Refer to Griffith College student portal
5	Analgesics & Gastrointestinal Medications	Lecture	Refer to Griffith College student portal
	Medication Monograph  Patient education and Adult Learning Principles  Problem-based learning activity  Online Medication Calculation Exam	Tutorial	Refer to Griffith College student portal
	Adult Learning & Patient Education	Workshop	Refer to Griffith College student portal
6	Cardiovascular & Renal Medications Anticoagulants	Lecture	Refer to Griffith College student portal
	Worksheet & Review of lecture content	Workshop	Refer to Griffith College student portal
	Medication Monograph  Case Study-Cardiovascular/Renal & Anti-coagulant patient scenarios and problem-based learning activity	Tutorial	Refer to Griffith College student portal
7	Respiratory Medications/ Hypnotic/sedative and treating mood disorders	Lecture	Refer to Griffith College student portal
	Medication Monograph Examining Respiratory Therapy	Tutorial	Refer to Griffith College student portal

	Case study and problem-based learning activity		
	Worksheet & lecture revision and quiz	Workshop	Refer to Griffith College student portal
8	Pharmaceutical Management of Endocrine Disorders	Lecture	Refer to Griffith College student portal
	Quiz & lecture revision  Medication games	Workshop	Refer to Griffith College student portal
	Medication Monograph Case scenarios/Patient scenarios Insulin Therapy & Management of Hypo/Hyperglycemia	Tutorial	Refer to Griffith College student portal
9	Antibiotics & antifungals	Lecture	Refer to Griffith College student portal
	Medication Monograph Case Study and Review of Prescribing Guidelines	Tutorial	Refer to Griffith College student portal
	Quiz & Revision  NIMC audit practice	Workshop	Refer to Griffith College student portal
10	Revision lecture	Lecture	Refer to Griffith College student portal

	MCQ Exam Practice	Tutorial	
	Case scenario & Exam Revision	Workshop	
11	2-hour revision session	Tutorial	

### Assessment

This section sets out the assessment requirements for this course.

# Summary of Assessment

Item	Assessment Task	Weighting	Relevant Learning Outcomes	Due Date
1	Medication Calculations Examination	10%	4	Week 5
2	Log of Learning Activities Workbook	40%	1, 2, & 3	Week 8
3	End of Trimester Exam- selected and constructed responses	50%	1, 2.	Final Examination Period

# Assessment Details

### 1. Medication Calculation Examination.

**Rationale**: This medication calculation examination is to enable students to demonstrate their mastery of drug calculations. You are required to achieve 100%.

**Details:** This 60 minutes online medication calculation examination comprises multiple choice and short answer questions. Students may have multiple attempts until they achieve 100%. For the purposes of the overall course weighting students will be awarded the mark that they achieve on their first attempt.

**Marking Criteria**: The Quiz will be marked in accordance with pre-determined model answers that have been internally moderated.

# 2. Log of Learning activities - Workbook.

Rationale: This assessment enables students to demonstrate their understanding of:

- 1. how medications are regulated in Australia;
- 2. the principles of pharmacokinetics and pharmacodynamics;
- 3. the roles and responsibilities of healthcare professionals involved in the medication cycle;
- 4. the contributing factors to medication errors (and near-miss incidents), associated with prescribing, dispensing, administering monitoring medications and preventative strategies to reduce errors.

**Details:** There are nine (9) questions. This assessment item requires students to complete this workbook and submit an electronic file to Turnitin for text matching by the due dates. The questions in this workbook are short answers. Each answer must be correctly structured using the conventions of academic writing (sentences, paragraphs, grammar, spelling, referencing).

#### Other elements:

- Always refer to the Griffith College DHC Assignment Writing Guidelines 2018.
- Ensure that scholarly literature is used (digitised readings, research articles, relevant Government reports and text books).
- State the word count (excluding your reference list) on the Assignment Coversheet.
- Submit your assignment online via Turnitin as per the instructions on 1807NRS course site.

### **Marking Criteria:**

For detailed marking criteria refer to 1807NRS course site at Griffith College portal

### 3. End of Trimester Examination

**Rationale:** This individual assessment item is designed to assess the knowledge and understanding of the core concepts covered throughout the entire trimester. The exam will assess students' learning stemming from core concepts covered in lectures, tutorials and workshops presented during the whole course.

**Details:** The exam will consist of multiple choice and short answer questions which include 2 Case studies and NIMC audit.

**Marking criteria:** This exam will be marked following a strict marking guide and will undergo a full moderation process.

Further details on assessment will be provided to students via the course site on Griffith College Student Portal and in classes during the trimester.

### Requirements to pass the course:

In order to pass this course and in addition to meeting the tutorial and workshop attendance and participation requirements, students must:

- 1. Attempt and submit ALL assessment items,
- 2. Achieve 100% in the online medication calculation examination (multiple attempts permitted). However, grade achieved on first attempt will be recorded, AND
- 3. Achieve a minimum cumulative total of 50% from all graded assessments.

Submission and Return of Assessment Items

## **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**

To apply for an extension of time for an assessment item you must submit a written request to your lecturer via the Student Website at least 48 hours before the date the assessment item is due. Grounds for extensions are usually: serious illness, accident, disability, bereavement or other compassionate circumstances and must be able to be substantiated with relevant documentation [e.g. medical certificate]. Please refer to the Griffith College website - Policy Library - for guidelines regarding extensions and deferred assessment.

## Penalties for late submission without an approved extension

Penalties apply to assignments that are submitted after the due date without an approved extension. Assessment submitted after the due date will be penalized 10% of the TOTAL marks available for assessment (not the mark awarded) for each day the assessment is late. Assessment submitted more than five days late will be awarded a mark of zero (0) For example:

- > 5 minutes and <= 24 hours 10%
- > 24 hours and <= 48 hours 20%
- > 48 hours and <= 72 hours 30%
- > 72 hours and  $\leq 96$  hours 40%
- > 96 hours and <= 120 hours 50%
- > 120 hours 100%

#### Note:

- Two day weekends will count as one day in the calculation of a penalty for late submission.
- When a public holiday falls immediately before or after a weekend, the three days will count as one day in the calculation of a penalty for late submission.
- When two public holidays (e.g. Easter), fall immediately before or after, or one day either side of a weekend, the four days will count as two days in calculating the penalty for late submission.
- When a single public holiday falls mid-week, the day will not be counted towards the calculation of a penalty.

Please refer to the Griffith College website - Policy Library > Assessment Policy for guidelines and penalties for late submission. *Assessment Feedback* 

Marks awarded for in-trimester assessment items, except those being moderated externally with Griffith University, will be available on the Student Portal within fourteen [14] days of the due date. This does not apply to the final piece of assessment in this course - marks for this item will be provided with the final course result.

#### 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	Practiced	Assessed
Written Communication	Yes	Yes	Yes
Oral Communication		Yes	Yes
Information Literacy	Yes	Yes	Yes
Secondary Research	Yes	Yes	Yes
Critical and Innovative Thinking	Yes	Yes	Yes
Academic Integrity	Yes	Yes	Yes
Self Directed Learning		Yes	Yes
Team Work		Yes	Yes
Cultural Intelligence	Yes	Yes	Yes
English Language Proficiency		Yes	Yes

#### Additional Course Generic Skills

### **Additional Course Information**

### **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 behavior, for which the College has zero tolerance and for which penalties, including exclusion from the College, will be applied.

However, Griffith College also recognizes 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.

Please ensure that you are familiar with the <u>Griffith College Academic Integrity Policy</u>; 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

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