Course Outline

Quantitative Design for Nursing, Midwifery and Health Research

NURS 5152 Study Period 2 - 2023

Internal - City East Campus



Introduction

Welcome

Quantitative Design for Health for Nursing, Midwifery and Health Research (NURS 5152) is a core course for Masters Degree programs offered by UniSA Clinical and Health Sciences. This course comprises of 4.5 units of study and undertaken in one study period (13 teaching weeks). This course aims to develop students skills in designing rigorous quantitative research to inform knowledge, practice, management and policy in nursing, midwifery and health-related fields. The topics covered in this course can be accessed from the Learn online site. Assessment details, including due dates and times, are found in this Course Outline and under the assessment folder on the course home page.

Where should you start?

The first task you should complete is to carefully read this Course Outline. This document provides all the information about this course, including course aims, intended learning objectives, assessment requirements, timetable and the relevant university policies. Please read the Course Outline carefully and ensure that you know what is required of you so that you gain maximum benefit from the course and have the information needed to successfully complete the course.

The next step is to review the course site and read the information located under 'Getting Started'. Information provided includes course overview (including course timetable), introduction to the teaching team, modes of course communication, prescribed and recommended textbooks, and resources for academic study skills.

Student expectations

For 4.5 units of study, it is expected that you will commit 10-12 hours per week completing learning activities, readings, and self-directed learning. During the study period, the teaching team expects you to check the course site every 1-2 days reading any course announcements and participating in discussion forums. When communicating by email, you are required to use your student email account as emails sent from personal or work emails may not be responded to. Students are highly encouraged to communicate about course content and assignments via discussion forums to enhance community learning. You can also set up an 'automatic feed' from all course online discussion forums that will allow you to get an email each day providing an update on the conversations occurring within all the discussion forums.

Administrative enquires about this course

Please address all administrative enquiries about this course (e.g. course enrolment or attending the workshops for internal students) to the Academic Services Officer via <a href="mailto:charge-enrolment-cours

Course site access and IT Help

The course has a range of interactive online learning designed to help you apply your knowledge to different scenarios and problems. It is recommended that you use Google Chrome or Firefox when completing these online activities. For any IT issues, please contact <u>Student AskIT</u> or the <u>IT Help Desk</u> (08) 8302 5000.

I wish you every success in completing this course and we hope that your learning journey is an enjoyable one.

Kind regards

Dr Rasika Jayasekara *RN*, *BA*, *BScN(Hons)*, *PGDipEdu*, *GradDipEduStu* (*Digital L*), MNSc, MClinSc (Evid. Based Healthcare), PhD

Course Coordinator

Academic Work Definitions

Internal mode includes face to face/in person components such as lectures, tutorials, practicals, workshops or seminars that may be offered at a University campus or delivered at another location. Courses delivered in internal mode may also be offered intensively allowing them to be completed in a shorter period of time. There is an expectation that students will be physically present for the delivery of face to face/in person teaching and learning activities.

Workshop

Student information

A workshop is a structured activity, delivered either in person or online in a virtual classroom in which the student is required to actively contribute. Your instructor will facilitate guided activities that relate to course content previously covered in a lecture and/or seminar and/or tutorial.

All students are expected to be familiar with relevant lecture seminar and/or tutorial content prior to a workshop in preparation for undertaking the activities in the workshop.

Online facilitation

Student information

Online courses generally require students to independently read, view and/or work through all required materials, including pre-recorded presentations that have been produced and provided to facilitate this form of learning.

Independent online learning is supported by Online Facilitators who supplement online teaching resources by facilitating, monitoring and moderating online forums; answering student queries via virtual office hours or help desks, online dialogue and/or phone conversations, providing formative feedback on your work or explaining comments and marking of your prior work.

Students are expected to be familiar with all relevant course content, including materials provided and assessments, and engage appropriately with facilitators within the timeframes provided.

Course Teaching Staff

Dr Rasika Jayasekara Lecturer:

UniSA Clinical & Health Sciences Location:

C4-24

Telephone: +61 8 8302 2750

Email: Rasika.Javasekara@unisa.edu.au

Staff Home Page: people.unisa.edu.au/Rasika.Jayasekara

Contact Details

UniSA Clinical & Health Sciences

Level 4, Playford Building UniSA City East Campus Physical Address:

Adelaide 5000

Website: https://www.unisa.edu.au/about-unisa/academic-units/clinical-and-health-sciences/

^{*} Please refer to your Course homepage for the most up to date list of course teaching staff.

Additional Contact Details

Dr Rasika Jayasekara is the Course Coordinator and lecturer for this course. For more information please refer to Dr Jayasekara's staff profile. https://people.unisa.edu.au/Rasika.Jayasekara

Course Overview

Prerequisite(s)

There are no prerequisite courses to be completed before this course can be undertaken.

Corequisite(s)

There are no corequisite courses to be completed in conjunction with this course.

Course Aim

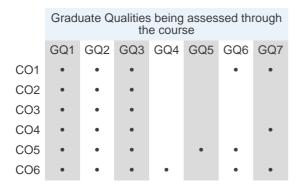
Students will develop skills in designing rigorous quantitative research to inform knowledge, practice, management and policy in nursing, midwifery and health related fields

Course Objectives

On completion of this course, students should be able to:

- CO1. Differentiate quantitative approaches to health research.
- CO2. Critically appraise and synthesize published quantitative research.
- CO3. Identify the characteristics of quantitative research designs.
- CO4. Interpret the results of statistical techniques used in quantitative research.
- CO5. Explain the ethical considerations and scientific rigor in quantitative research.
- CO6. Discuss strategies for reporting quantitative research findings.

Upon completion of this course, students will have achieved the following combination of Graduate Qualities and Course Objectives:



Graduate Qualities

A graduate of UniSA:

- GQ1. operates effectively with and upon a body of knowledge of sufficient depth to begin professional practice
- GQ2. is prepared for life-long learning in pursuit of personal development and excellence in professional practice
- GQ3. is an effective problem solver, capable of applying logical, critical, and creative thinking to a range of problems
- GQ4. can work both autonomously and collaboratively as a professional
- GQ5. is committed to ethical action and social responsibility as a professional and citizen

GQ6. communicates effectively in professional practice and as a member of the community

GQ7. demonstrates international perspectives as a professional and as a citizen

Course Content

Quantitative research process and problem/hypothesis selection in nursing, midwifery and health care research; critical appraisal tools for evaluating methodological quality of quantitative research designs; quantitative research standards; descriptive study designs; experimental study designs (randomised controlled trials, clinical trials); quasi-experimental study designs; internal and external validity; descriptive statistics; inferential statistics; quantitative data analysis software; implication of quantitative research for evidence based nursing, midwifery and healthcare practice.

Teaching and Learning Arrangements

Workshop 7 x 2 hours x fortnightly Directed Study (On-line Study) 13 weeks

Unit Value

4.5 units

Use of recorded material

This course will involve the production of audio and/or video recordings of UniSA students. To protect student privacy, you must not at any time disclose, reproduce or publish these recordings, or related material, in the public domain including online, unless the videoed students give consent for reproduction, disclosure or publication. This requirement is consistent with University statutes, by-laws, policies, rules and guidelines which you agreed to abide by when you signed the Student Enrolment Declaration.

Student recording of learning activities

Students must seek permission prior to recording any UniSA learning activity. See <u>A-56 Policy Student recording of learning activities</u> (https://i.unisa.edu.au/siteassets/policies-and-procedures/docs/academic/a56_student-recording-of-learning-activities.pdf)

Breaches of this Policy contravene the principles of academic integrity, and attract the penalties provided in the <u>Academic Integrity Procedure</u> (https://i.unisa.edu.au/policies-and-procedures/university-policies/).

Learning Resources

Textbook(s)

You will need continual access to the following text(s) to complete this course. Where possible the Library will make the book available for student use. Please check the Library catalogue before purchasing the book(s). The Library will always seek to purchase resources that allow an unlimited number of concurrent users, however availability is dependent on license arrangements with book publishers and platforms. http://www.library.unisa.edu.au

Portney, Leslie, and Mary Watkins (2015). Foundations of Clinical Research: Applications to Practice (https://ebookcentral.proquest.com/lib/UNISA/detail.action?docID=4392815.). F. A. Davis Company.

Reference(s)

The following recommended textbooks and resources are available electronically. Links to these resources are also available via the course's learnonline site.

Bruce, N, Pope, D & Stanistreet, D 2018, <u>Quantitative methods for health research;</u>: a <u>practical interactive guide to epidemiology and statistics</u> / Nigel Bruce, Daniel Pope, Debbi Stanistreet., Second edition., Wiley, Hoboken, New Jersey;; Chichester, West Sussex, England.

University of South Australia. (n.d.). Evidence-Based Practice. Retrieved 16 Feb 2022 https://guides.library.unisa.edu.au/ebp

learnonline course site

All course related materials are available on your learnonline course site which you will be able to access from the 'my Current Studies' section in myUniSA (https://my.unisa.edu.au).

Access to Previous Courses

You will have access to your previous course sites for a period of 4 years. After this time, the course sites will be archived and will be unavailable.

Note: Course readings provided via the University Library are only made available to current students and staff due to licensing and copyright restrictions. Students may download their course readings while they are enrolled in the course for their personal research purposes only.

Assessment

Academic Integrity

Academic integrity is the foundation of university life and is fundamental to the reputation of UniSA and its staff and students. Academic integrity means a commitment by all staff and students to act with honesty, trustworthiness, fairness, respect and responsibility in all academic work.

An important part of practising integrity in academic work is showing respect for other people's ideas and being honest about how they have contributed to your work. This means taking care not to represent the work of others as your own. Using another person's work without proper acknowledgement is considered Academic Misconduct, and the University takes this very seriously.

The University of South Australia expects students to demonstrate the highest standards of academic integrity so that its qualifications are earned honestly and are trusted and valued by its students and their employers. To ensure this happens, the University has policies and procedures in place to promote academic integrity and manage academic misconduct. For example, work submitted electronically by students for assessment will be examined for copied and un-referenced text using the text comparison software Turnitin http://www.turnitin.com.

It is an offence for any person or company to provide academic cheating services to students of Australian universities, irrespective of whether the service is provided by an Australian or overseas operator (see <u>Tertiary Education Quality and Standards Agency Amendment (Prohibiting Academic Cheating Services) Bill 2019 - https://www.legislation.gov.au/Details/C2020A00078). "Academic cheating services" includes providing or undertaking work for students, where that work forms a substantial part of an assessment task.</u>

More information about academic integrity and what constitutes academic misconduct can be found in the <u>Academic Integrity Policy and Procedure</u> (https://i.unisa.edu.au/policies-and-procedures/university-policies/academic/ab-69).

To learn more on academic integrity and how to avoid academic misconduct, please refer to the Academic Integrity Module: https://lo.unisa.edu.au/mod/book/view.php?id=252142

Important information about all assessment

All students must adhere to the University of South Australia's <u>procedures about assessment</u>: http://i.unisa.edu.au/policies-and-procedures/codes/assessment-policies/.

Assessment Details

Details of assessment submission and return are listed under each assessment task. Assessment tasks will be returned to you within 15 working days of submission.

Cover sheets

A cover sheet is not required for assessment tasks submitted via learnonline, as the system automatically generates one.

If the Course Coordinator allows submissions in hard copy format, you will be required to attach an Assignment Cover Sheet which is available on the learnonline student help (https://asklearnonline.unisa.edu.au/app/answers/detail/a id/2222/kw/coversheet) and in myUniSA.

Assessment Descriptions

Assessment 1

Single		40%	40% of Course Total Objectives being assessed:C		d:CO1, CO2, CO3	, CO5	
Title	Team work	Length	Duration	Due date (Adelaide Time)	Submit via	Re-Submission	Re-Marking
Assessment 1 (Part A and Part B)	No	2250 words	-	5 May 2023, 5:00 PM	learnonline	Yes	Yes

Further information on re-marking and re-submission is available in the academic policy, AB-68 P4 Re-marking and Re-submission Procedure

Assignment 1

Part A

Introduction

Part A of this assessment will assess your ability to identify a research problem relevant to your area of clinical practice, formulate a problem statement, develop an answerable research question, and develop a research hypothesis.

By completing Part A of this assessment, you will be able to meet the following course learning outcomes: CO 1 Differentiate major quantitative approaches to research in nursing, midwifery and healthcare; and CO 3 Identify the characteristics of major quantitative research designs.

Instructions

- 1. Briefly describe, drawing on your clinical experiences and relevant resources, a clinical problem in your area of practice.
- 2. Formulate a structured research question using the Population, Intervention, Control/Comparison, Outcome, Time (PICOT) mnemonic.
- 3. Develop a research hypothesis or hypotheses.
- 4. Identify and justify the types of quantitative study designs you will need to answer your research question.

Part B

Introduction

There is an increasing volume of published research now accessible to healthcare professionals. Health professionals require critical appraisal skills to assess the quality of evidence in order to safely influence and inform clinical decision-making. As healthcare professionals we are bound by Codes of Ethics to determine whether the research conducted is ethical. The over-arching learning objective for this part of assessment one is for you to critically appraise one published quantitative research study that is relevant to the topic of inquiry presented in Part A of this assessment, that will answer your formulated research question, and relevant to your developed research hypothesis(es).

By successfully completing Part B of this assessment, you will be able to meet the following course learning outcomes:

- CO 2 Critically appraise and synthesise published quantitative research;
- CO 3 Identify the characteristics of major quantitative research designs; and
- CO 5 Explain the ethical considerations and scientific rigor in quantitative research.

Task

- 1. Present a concise summary of the quantitative research study your have selected to critically appraise. In your summary, include the study design, study's aim(s), and the PICOT or PEO elements of the study.
- 2. Using a relevant Joanna Briggs Institute critical appraisal tool, appraise the validity and scientific rigor of the study, with reference to appropriate literature where necessary. In your appraisal you should consider the following components where relevant to the study design and the critical appraisal tool used:
- o Recruitment and sampling methods of study participants, including the study's inclusion and exclusion criteria
- o Randomisation of study participants (if relevant)
- o Allocation concealment (if relevant)
- o Similarity of groups at the start of the study
- o Blinding of participants, healthcare professionals and study investigators (if relevant)
- o All participants accounted for at the time of data analysis
- o Intention-to-treat analysis (if relevant)

- o Sufficiency of sample size
- o Any actual or potential confounding variables
- o Provide an overall summary judgement statement of the scientific rigor of the study based on your appraisal.
- 3. Using the National Statement on Ethical Conduct in Human Research (2018) critically appraise the study and describe the following ethical considerations:
- o Risk versus benefit and participant consent
- o Study design and conduct of research
- o Specific consideration to vulnerable populations as identified in Section 4 of the National Statement
- o Study approval by a governing human research ethics committee.
- o Your responses should address the ethical questions in Topic 4, lesson 4.
- 4. Based on the validity and scientific rigor of the study, discuss the possible application of the study to your topic of inquiry.
- 5. Reference your sources in APA format. The reference list is not included in the word count, but in-text citations are.
- 7. Attach a copy of your completed critical appraisal tool as an appendix following your reference list. The completed appraisal tool is not included in the word count.

You MUST use the Assessment 1 Template to submit this assignment. For more details, please access the Assessment Folder

Assessment 2

Single		60%	60% of Course Total Objectives being assessed:CO2, CO3, C		d:CO2, CO3, CO4	, CO6	
Title	Team work	Length	Duration	Due date (Adelaide Time)	Submit via	Re-Submission	Re-Marking
Assessment 2 (Part	No	2750 words	-	19 Jun 2023, 5:00 PM	learnonline	No	Yes

Further information on re-marking and re-submission is available in the academic policy, AB-68 P4 Re-marking and Re-submission Procedure

Assignment 2

Interpreting quantitative statistical techniques and summary presentation.

This assessment is divided into two parts, Part A is a 2000-word written assessment and Part B is an 8 to 10-minute word audio-visual presentation (equivalent to 750 words). Introduction

This assessment will assess your ability to critical appraise and synthesise research using relevant appraisal tools, interpret and apply study findings to an area of clinical practice, and your ability to clearly explain complex concepts in scientific knowledge in both written and verbal forms of communication when reporting unfamiliar problems.

By successfully completing this assessment, you will be able to meet the following course learning outcomes:

- CO 1 Differentiate major quantitative approaches to research in nursing, midwifery and healthcare;
- CO 2 Critically appraise and synthesise published quantitative research;
- CO 3 Identify the characteristics of major quantitative research designs;
- CO 4 Interpret the results of statistical techniques used in quantitative research;
- CO 5 Explain the ethical and scientific rigor in quantitative research; and
- CO 6 Discuss strategies for reporting quantitative research findings.

Part A: Written component

Task

- 1. Select three published quantitative research studies that are relevant to your topic of inquiry presented in Part A of assignment one.
- 2. Utilising relevant Joanna Briggs Institute's critical appraisal tools, provide an integrative synthesis appraising

the three studies, considering the topic, study designs, study aims, research questions, research hypotheses, and the outcomes (e.g., study's independent and dependent variables) being measured.

- 3. Critically appraise and describe the statistical techniques used for each study and provide any recommendations to statistical analyses approaches.
- 4. Present and report study results, including an interpretation of the effect size, the precision of the effect size and statistical significance. In your report, consider the clinical significance versus the statistical significance of results.
- 5. Reference your sources in UniSA APA 7 style guide. The reference list is not included in the word count, but in-text citations are.
- 6. Students must use the assessment 2 template provided
- 7. Attach a copy of your completed critical appraisal tools as an appendix following your reference list. The appraisal tools are not included in the word count.

Part B: Audiovisual presentation

Instructions

The purpose of your audiovisual presentation is to report a summary of your research findings and answer your research question presented in Part A of assignment one. Your intended audience should be to other healthcare professionals and policy decision-makers and therefore your findings should be presented using non-complex or complicated research terminology.

1. Prepare, record and upload a presentation, in which you:

Introduce yourself, your clinical practice setting and your topic of inquiry

Present your research question using the PICOT mnemonic

Provide a summary of your research findings that answers your research question and describes the application of research findings to your clinical context.

2. Reference your sources in APA 7 style guide.

For more details, please access the Assessment Folder

Feedback proformas

The feedback proforma is available on your course site.

Additional assessment requirements

There are no additional assessment requirements identified for this course.

Marking process

Marking and moderation in this course will be carried out in accordance with the processes set out in the UniSA Assessment Policy and Procedures (APP).

Penalties for late submission

Late Submission of Assessment

Late submission of assignments will result in a penalty. The penalty for late submissions will be:

- 1. a deduction of 10 marks per day or part day, for each day that the assignment is late up to a maximum of 5 days.
- 2. assignments more than 5 days late will not be marked and will be assigned a zero grade inclusive of non-graded pass work.

Example 1: If you submit a paper one and a half days late you will receive a penalty of 20 marks Your paper

will be marked and the 20 marks will be deducted from the mark which you would have obtained if your paper was submitted by the due date. A paper which was given a mark of 70/100 but was submitted 2 days late will receive a final mark of 50.

Example 2: A paper due 11.45pm on Monday and submitted after 11.45pm on Saturday will not be marked and assigned a zero grade. Considerations of unexpected or exceptional circumstances are as per Assessment Policies and Procedures Manual (APPM) Sections 7.7 c) Once an extension is granted, the extended due date is final and no further extensions will be granted.

Assessment Extension Request Policy

Extensions to assessment task will follow the University of South Australia <u>Assessment Policy and Procedures</u> (APP) - Extension to complete an assessment task.

All assessment extensions requests must be:

- submitted via the Learnonline site to the Course Coordinator
- lodged before the assessment item is due
- include a reason for the extension request plus supporting documentation for example, medical certificate.

Requests for an extension greater than 7 days will only be granted under extenuating circumstances and at the discretion of the Course Coordinator and relevant Program Coordinator and/or Program Director.

Late applications for an extension for an assignment will not be considered. The only exception to this is where the student can provide evidence of unexpected or exceptional circumstances as detailed in the APP, for example being unexpectedly hospitalised as evidenced by a medical certificate

Negotiable assessment methods

Re-marking

Re-marking will occur as per the Assessment Policy and Procedures (APP)

Exam Arrangements

This course does not have an exam.

Deferred Assessment or Examination

Deferred assessment or examination is available for this course.

Supplementary Assessment

Supplementary assessment or examination has not been approved for this course.

Special Consideration

Special consideration is available for this course.

Variations to assessment tasks

Details for which variation may be considered are discussed in the <u>Variations to Assessment Procedure</u> (http://i.unisa.edu.au/policies-and-procedures/codes/assessment-policies/). Variation to assessment in unexpected or exceptional circumstances should be discussed with your course coordinator as soon as possible.

More information about variation to assessment is available in the <u>Variations to Assessment Procedure</u> (http://i.unisa.edu.au/policies-and-procedures/codes/assessment-policies/).

Students with disabilities or medical conditions please refer to **Students with disabilities or medical conditions**.

Students with disabilities or medical conditions

Students with disabilities or medical conditions or students who are carers of a person with a disability may be entitled to a variation or modification to standard assessment arrangements. See the <u>Variations to Assessment Procedure</u> at: http://i.unisa.edu.au/policies-and-procedures/codes/assessment-policies/ and Policy C7 <u>Students with Disability</u> at: https://i.unisa.edu.au/policies-and-procedures/university-policies/corporate/c-7/

Students who require variations or modifications to standard assessment arrangements must first register for an Access Plan with the UniSA Access & Inclusion Service. It is important to contact the Access & Inclusion service early to ensure that appropriate support can be implemented or arranged in a timely manner.

Students who wish to apply for an Access Plan must book an appointment with a UniSA Access & Inclusion Advisor by contacting Campus Central or via the Online Booking System in the Student Portal. For more information about Access Plans please visit: https://i.unisa.edu.au/students/student-support-services/access-inclusion/

Once an Access Plan has been approved, students must advise their Course Coordinator as early as possible to ensure that appropriate supports can be implemented or arranged in a timely manner.

Students are advised there are also strict deadlines to finalise Access Plan arrangements prior to examinations. Further information is available at: http://i.unisa.edu.au/campus-central/Exams R/Before-the-Exam/Alternative-exam-arrangements/

Action from previous evaluations

At the completion of this course, you will be asked to complete the myCourseExperience questionnaire. This questionnaire asks for your opinions and evaluation of the course and your lecturer's teaching methods. It is important for you to complete these evaluations as modifications are regularly made to courses on the basis of student feedback.

Unplanned learnonline outages

The alteration to assessment due dates and communication strategy is designed to minimise the impact of major unplanned learnonline system service outages on students and staff. They should only be considered when an unplanned outage occurs within 3 days of an assessment activity.

Any implementation or revisions are at the discretion of the course coordinator.

Outage Duration	Alteration to due date	Alteration to examination	
Less than 1 hour	Nil impact	Nil impact	
Between 1 and 4 hours	consider extension	Nil impact	
Between 4 and 24 hours	24 hour extension	Consider when marking	
Longer than 24 hours	48 hour extension	Consider when marking	

Any changes to assessment activity will be communicated to you from your Course Coordinator via:

- Email
- SMS message

Course Calendar

Study Period 2 - 2023

Ott	day 1 61100 2 - 2025			
	Weeks	eeks Topic		Public Holidays
	13 - 19 February	Pre-teaching		
	20 - 26 February	Pre-teaching		
1	27 February - 5 March	Topic 1: Identifying a clinical problem and developing a research question and hypothesis		
2	06 - 12 March	Topic 1: Identifying a clinical problem and developing a research question and hypothesis		
3	13 - 19 March	Topic 2: Understanding different quantitative research designs		Adelaide Cup Day 13 Mar 2023
4	20 - 26 March	Topic 2: Understanding different quantitative research designs		
5	27 March - 2 April	Topic 3: Establishing scientific rigour and critical appraisal		
6	03 - 9 April	Topic 3: Establishing scientific rigour and critical appraisal		Good Friday 07 Apr 2023
	10 - 16 April	Mid-break		Easter Monday 10 Apr 2023
	17 - 23 April	Mid-break		
7	24 - 30 April	Topic 3: Establishing scientific rigour and critical appraisal		Anzac Day 25 Apr 2023
8	01 - 7 May	Topic 4: Ethical considerations in quantitative research designs	Assessment 1 (Part A and Part B) due 05 May 2023, 5:00 PM	
9	08 - 14 May	Topic 5: Statistical approaches to analysing, interpreting and reporting quantitative data		
10	15 - 21 May	Topic 5: Statistical approaches to analysing, interpreting and reporting quantitative data		
11	22 - 28 May	Topic 5: Statistical approaches to analysing, interpreting and reporting quantitative data		
12	29 May - 4 June	Topic 5: Statistical approaches to analysing, interpreting and reporting quantitative data		
13	05 - 11 June	Topic 5: Statistical approaches to analysing, interpreting and reporting quantitative data		

14	12 - 18 June	Swot-vac		Kings Birthday 12 Jun 2023
15	19 - 25 June		Assessment 2 (Part A & Part B) due 19 Jun 2023, 5:00 PM	
16	26 June - 2 July			