MONASH College

MONASH UNIVERSITY FOUNDATION YEAR

UNIT GUIDE FOR STUDIES IN SEMESTER 1 2026

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MONASH College

MONASH UNIVERSITY **FOUNDATION YEAR**

ENGLISH

UNIT 1

ACADEMIC SKILLS AND COMPOSITION

MUF0011

ENGLISH
UNIT 1

Unit Overview

English develops your language, research, organisational and study skills to prepare you for tertiary education in Australia. You will learn how to speak confidently, listen, understand and analyse ideas, and become a strong reader and writer of academic English.

STUDY AREA	NUMBER OF WEEKS
Academic Literacy Skills	3 weeks
Collaboration & Reflection	6 weeks
Argumentation	5 weeks
Scheduled course contact hours: 70 hours of formal class contact time; 30 hrs self-directed study of English	

Unit Assessment

Assessment Type	Weighting	Date	Study Area
Synthesis Assessment – In-class written task applying academic literacy skills.	**15%**	**Week 4**	**Study Area 1**
Individual Reflection - In-class written task	15%	**Week 5**	**Study Area 2**
Argumentative Essay Outline – An individual outline based upon material provided.	20%	**Week 8**	**Study Area 2**
Argumentative Essay Test –Timed Writing - An Individual essay based upon material provided.	30%	**Week 11**	**Study Area 3**
Group Presentation - A presentation based upon material provided	20%	**Week 14**	**Study Area 3**

*Dates are approximate for assessment tasks; subject to change.

SUBJECT UNIT 1

Unit Knowledge Outcomes

1. Strategies for comprehension, interpretation and communication of written and verbal information
2. Referencing techniques and conventions
3. Collection, organisation, analysis, synthesis and evaluation of information
4. Note-taking, paraphrasing, summarising and synthesis
5. Argument development
6. Conventions of academic writing
7. Feedback and reflection for learning
8. Academic integrity in an educational setting

Unit Skills and Behaviours Outcomes

1. Employ strategies for comprehending, interpreting and communicating written and verbal information
2. Practise collaborative learning via speaking, listening and co-operation
3. Apply critical thinking skills
4. Take responsibility for learning
5. Demonstrate articulate communication using English language
6. Read for gist and read for meaning
7. Analyse oral and written arguments
8. Present an argument in oral and written forms
9. Demonstrate academic note-taking, paraphrasing, synthesis and referencing
10. Apply academic integrity to academic conduct

Language Outcomes and Skills

Listening

1. Comprehend spoken texts including academic, multimedia and classroom genres.	Recognise multiple positions and perspectives Identify key information in spoken material Recognize content-related and general vocabulary to comprehend spoken English
2. Use note-taking strategies to record information from spoken and multimedia texts and show understanding.	Take effective notes from spoken and visual texts

Speaking

1. Effectively deliver a presentation, in English	Present ideas confidently in front of peers Use discussion skills to actively participate in group discussions Organise ideas when speaking to explain information or express a point of view Speak clearly, fluently and flexibly for communication Use content-related and general vocabulary accurately to convey ideas.
2. Effectively participate in group discussions about unit content, in English	

Language Outcomes and Skills

Reading

1. Use a range of reading strategies to comprehend written academic genres.	Identify main ideas, details and examples in written texts
	Recognise different perspectives
2. Identify key information, produce accurate notes and summaries from written and visual texts to demonstrate understanding	Identify links between course content and key information in written texts
	Recognise content-related and general vocabulary to comprehend written texts
	Take effective notes from written texts

Writing

1. Write, coherent and accurate texts following task instructions	Define, describe and explain key ideas including visual images
2. Produce coherent written texts that appropriately respond to timed tasks	Demonstrate ability to paraphrase information to summarise and explain
3. Support ideas by following academic conventions.	Logically sequence ideas to create a coherent line of argument
	Relate examples to theory in order to demonstrate understanding, evaluate and analyse ideas
	Demonstrate grammatical accuracy to clearly communicate ideas
	Reproduce written genre features to write extended responses
	Write short responses under timed conditions
	Use content-related and general vocabulary accurately to convey ideas
	Revise, edit and proofread work

Unit Prerequisites

Monash University Foundation Year English is a compulsory subject within the Foundation Year Programme. Students satisfactorily complete Unit MUF0011 English Unit 1 before proceeding to MUF0012 English Unit 2.

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Monash University Foundation Year
Monash College
750 Collins Street
Melbourne VIC 3000
monashcollege.edu.au

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MONASH UNIVERSITY **FOUNDATION YEAR**

ENGLISH

UNIT 2

Exploring Ideas

MUF0012

ENGLISH
UNIT 2

Unit Overview

This unit builds upon skills developed in English Unit 1: Academic Skills and Composition.
Students further develop language skills (writing, speaking, listening, and reading), research, organisational, argumentative, and study skills. In addition, they explore a range of concepts through reading and responding to texts and develop their understanding of academic writing conventions.

STUDY AREA	NUMBER OF WEEKS*
SA1: Literary Analysis	5
SA2: Research Paper	9
Scheduled course contact hours: 70 hours of formal class contact time; 30 hrs self-directed study of English	

Unit Assessment

Assessment Type	Weighting	Date**	Study Area
Literature Presentation - A group presentation based upon a chosen literary text (short story or poem).	**15%**	**Week 4**	**Study Area 1**
Research Paper Outline - An individual task that outlines the student's plan for the Research Paper.	**15%**	**Week 8**	**Study Area 2**
Viva Voce - An individual oral assessment that allows students to demonstrate their knowledge and understanding of their research task.	**20%**	**Week 11**	**Study Area 2**
Research Paper - An individually researched paper on a chosen topic that is informed by the work done for the Research Outline.	**20%**	**Week 12**	**Study Area 2**
Final Examination	**30%**	**Week 16**	**Study Area 2**

**Dates are approximate for assessment tasks; subject to change.

SUBJECT UNIT 2

Unit Knowledge Outcomes

1. Strategies for comprehension, interpretation and communication of written and verbal information
2. Methods to collect, organise, analyse, synthesise and evaluate information
3. Literary devices used in various texts
4. Importance of planning work and prioritising time
5. Drafting, editing and proofreading
6. Importance of feedback, reflection and self-evaluation to learning

Unit Skills and Behaviours Outcomes

1. Exploration of ideas in texts and by researching a challenging topic
2. Collaborative learning through speaking, listening and co-operation
3. Critical thinking skills, inquiry-based learning and reflective decision-making
4. Take responsibility for their learning by establishing goals, self- diagnosis and self-evaluation
5. Demonstrate articulate oral and written communication using the English language
6. Read for meaning
7. Plan, structure and revise their own writing.
8. Plan, prioritise and manage time
9. Employ ICT as a mode of research, communication and presentation

Language Outcomes and Skills

Listening

1. Comprehend spoken texts including academic, multi-media and literary genres	Identify multiple positions and perspectives Identify key information in spoken material Recognise content-related and general vocabulary to comprehend spoken English Take effective notes from spoken and visual texts
2. Use note-taking strategies to record information from spoken and multi-media texts and demonstrate understanding	

Speaking

1. Effectively deliver a prepared group presentation, in English	Present ideas confidently in front of peers Use discussion skills to actively participate in group discussion Organise ideas when speaking to explain content- related information or express a point of view Speak clearly, fluently and flexibly for communication Use content-related and general vocabulary accurately to convey ideas
2. Effectively present a prepared video reflection, in English	
3. Effectively participate in group discussions about unit content in English	

Language Outcomes and Skills

Reading

1. Integrate reading into writing practice	Identify main ideas, details and examples in written texts including literary and critical sources
2. Identify key information and produce accurate notes and summaries from texts to demonstrate understanding	Recognise different positions and perspectives Identify links between course content and key information in written texts Recognise academic, content- related and general vocabulary in written texts Take effective notes from written texts

Writing

1. Write coherent and accurate texts following task instructions	Compose texts including literary analysis and critical essays Define, describe and explain key content ideas
2. Support views with reference to evidence, and by following academic conventions	Paraphrase information for summary and explanation Logically sequence ideas to create coherent argument Relate examples to theory to demonstrate understanding, evaluation and analysis Demonstrate grammatical accuracy Reproduce written genre features following guidelines to write structured responses Write structured responses under timed conditions Use content-related and general vocabulary accurately Revise, edit and proofread work

Unit Prerequisites

Monash University Foundation Year English is a compulsory subject. Students must satisfactorily complete *MUF0011 English Unit 1* before proceeding to *MUF0012 English Unit 2*.

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MONASH UNIVERSITY **FOUNDATION YEAR**

ACCOUNTING

UNIT 1

FUNDAMENTALS OF ACCOUNTING

MUF0021

ACCOUNTING UNIT 1

Unit Overview

A brief summary of the unit content/concepts covered.

STUDY AREA	NUMBER OF WEEKS
Introduction to Accounting	4 weeks
Recording financial data	6 weeks
Reporting financial information	4 weeks

Unit Assessment

Assessment Type	Weighting	Date	Study Area
MCQ Quiz Study Area 1 Quiz consisting of 20 multiple choice questions (MCQs) focusing on Topic 1 and Topic 2.	**10%**	**Week 4**	**Study Area 1**
Skills and Application Test 1 Test consisting of structured questions focusing on Topic 3 (Journals) but will include questions based on content covered in earlier topics.	**25%**	**Week 8**	**Study Area 2**
Skills and Application Test 2 Test consisting of structured questions focusing on Topic 4 but may include questions based on content covered in earlier topics.	**25%**	**Week 11**	**Study Area 2**
Group Case Study Students in groups of 2 or 3 complete a series of financial reports and a written report.	**25%**	**Week 14**	**Study Area 3**
Topic Activities This will be assessed on a range of criteria including: • GenAI Quiz Development & Presentation • Engagement in class activities • Completion of online learning activities (pre-class, in-class and post-class) • Completion of online revision activities (by topic)	**15%**	**Ongoing**	**All study areas**

SUBJECT UNIT 1

Unit Knowledge Outcomes

1. Apply accounting assumptions and qualitative characteristics.
2. Identify and explain the stages of the accounting process.
3. Define and identify accounting elements and account names.
4. Explain the relationship between elements of the accounting equation.
5. Explain the role of source documents in the accounting process.
6. Explain the role of journals in the recording stage.
7. Explain the role of the General Ledger in the accounting process.
8. Explain the role and limitations of the Trial Balance.
9. Define and identify current and non-current assets and liabilities.
10. Explain the significance of Working Capital Ratio (WCR) and Inventory Turnover (ITO).
11. Define and identify operating, financing and investing activities.
12. Explain the difference between cash and profit.
13. Define Cost of Goods Sold, Gross Profit, Other Expenses and Net Profit.
14. Explain the significance of Net Profit Margin (NPM).

Unit Skills and Behaviours Outcomes

1. Calculate owner's equity using the accounting equation.
2. Apply the rules of double-entry accounting.
3. Record transactions into the appropriate special journal and total special journals.
4. Record appropriate transactions into the General Journal.
5. State the effect of transactions on the accounting equation
6. Post from journals to ledger accounts.
7. Balance asset and liability accounts.
8. Foot owner's equity, revenue and expense accounts.
9. Prepare a Trial Balance.
10. Prepare a classified and fully classified Balance Sheet.
11. Prepare a Cash Flow Statement.
12. Prepare an Income Statement.
13. Calculate Working Capital Ratio (WCR), Inventory Turnover (ITO), Net Profit Margin (NPM)

Language Outcomes and Skills

Listening

1. Listen to and mostly comprehend spoken texts used on the LMS and during class activities	Recognise main ideas, details and examples in spoken English
	Recognise a range of business and general vocabulary to comprehend spoken English
2. Use note-taking strategies to record information to show understanding	Take effective notes from spoken texts

Speaking

1. Communicate effectively in English during class activities	Use discussion skills to actively participate in group discussions
2. Participate effectively in the group during academic discussions of unit related content in English	Demonstrates the ability to organize ideas and present ideas confidently in front of a group
	Demonstrate the ability to ask for assistance and clarify meaning
	Use a range of business and general vocabulary accurately to convey ideas

Reading

1. Use a range of reading strategies to assist comprehension of written texts including industry case-studies, academic and multimedia genres.	Identify main ideas, details and examples in written and numeric texts
2. Identify key information and produce accurate notes and summaries from written texts to demonstrate an understanding	Navigate written and numeric texts through recognition of text features and structures
	Use strategies to infer meaning context
	Comprehend question structures and vocabulary in order to interpret exam and task questions
	Take effective notes from written texts

Language Outcomes and Skills

Writing

1. Demonstrate application of theories studied through reference to examples	Demonstrate the ability to define, describe and explain key content ideas including numeric and visual data Demonstrate the ability to logically structure ideas for effective communication Relate theory to practical examples in order to demonstrate understanding, evaluate and analyse both conceptual and numeric ideas
2. Produce short coherent written texts that appropriately respond to timed assessment questions	Write accurate short answer responses under timed conditions Use a range of business and general vocabulary accurately to convey ideas Revise, edit and proofread work

Unit Prerequisites

There are no prerequisites for Unit 1

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MONASH College

MONASH UNIVERSITY **FOUNDATION YEAR**

ACCOUNTING

UNIT 2

FINANCIAL ACCOUNTING

MUF0022

ACCOUNTING
UNIT 2

Unit Overview

A brief summary of the unit content/concepts covered.

STUDY AREA	NUMBER OF WEEKS
Accounting for Inventory	4 weeks
Balance Day Adjustments	6 weeks
Performance Evaluation	4 weeks

Unit Assessment

Assessment Type	Weighting	Date	Study Area
MCQ Quiz (Study Area 1) Quiz consisting of 20 multiple choice questions focusing on Study Area 1 Accounting for Inventory (Topics 1 & 2)	**10%**	**Week 4**	**Study Area 1**
Skills & Application Test 1 Test consisting of structured questions from Topic 1 through to Topic 4	**20%**	**Week 8**	**Study Area 1 & 2**
Consolidation Exercises (Paired) Consolidation questions covering BDAs	**20%**	**Week 11**	**Study Area 2**
Performance Evaluation Report (Group) Students in groups of 3 (or 4) analyse financial reports and create a written report.	**20%**	**Week 13**	**Study Area 3**
Performance Evaluation Oral (Individual) Questions to assess your ability to interpret financial information and evaluate business performance, and communicate your understanding effectively.	**15%**	**Week 14**	**Study Area 3**
Topic Activities This will be assessed on a range of criteria including: • GenAI Quiz Development & Presentation • Engagement in class activities • Completion of online learning activities (pre-class, in-class and post-class) • Completion of online revision activities (exercises by topic)	**15%**	**Ongoing**	**All study areas**

SUBJECT UNIT 2

Unit Knowledge Outcomes

1. Apply accounting assumptions and qualitative characteristics
2. Explain the role of the inventory card and its relationship to the Inventory account
3. Explain the application First In, First Out (FIFO)
4. Explain purchase and sales returns
5. Explain the purpose of depreciation of non-current assets
6. Explain the purpose of Balance Day Adjustments and their impact on financial reports
7. Define, identify and classify accrued and prepaid expenses and unearned revenue and interest revenue receivable
8. Analyse business performance using trends, variances and benchmarks
9. Explain profitability, efficiency, liquidity and stability
10. Explain possible causes for changes in performance indicators
11. Discuss strategies to improve business performance
12. Explain how non-financial information can assist analysis and decision-making
13. Discuss ethical considerations in relation to business decision-making.

Unit Skills and Behaviours Outcomes

1. Record transactions in inventory cards using the appropriate cost assignment method
2. Record inventory losses and gains
3. Record the use of inventory for advertising purposes
4. Prepare an Income Statement showing Gross Profit and Adjusted Gross Profit
5. Record purchase and sales returns
6. Report a sales return in the Income Statement
7. Record and report for depreciation
8. Record and report for accrued and prepaid expenses
9. Record and report for unearned revenue and interest revenue receivable
10. Prepare a Post-adjusted Trial Balance
11. Interpret accounting information from graphical representations
12. Calculate and interpret performance indicators

Language Outcomes and Skills

Listening

1. Listen to and mostly comprehend spoken texts used on the LMS and during class activities	Recognise main ideas, details and examples in spoken English
2. Use note-taking strategies to record information to show understanding	Recognise a range of business and general vocabulary to comprehend spoken English
	Take effective notes from spoken text

Speaking

1. Communicate effectively in English during class activities	Use discussion skills to actively participate in group discussions
2. Participate effectively in the group and individual academic discussions and assessments of unit related content in English	Demonstrates the ability to organize ideas and present ideas confidently in front of a group
	Uses language to communicate ideas in English in Oral assessment
	Demonstrate the ability to ask for assistance and clarify meaning
	Use a range of business and general vocabulary accurately to convey ideas

Reading

1. Use a range of reading strategies to assist comprehension of written texts including industry case-studies, academic and multimedia genres.	Identify main ideas, details and examples in written and numeric texts
2. Identify key information and produce accurate notes and summaries from written texts to demonstrate an understanding	Navigate written and numeric texts through recognition of text features and structures
	Use strategies to infer meaning context
	Comprehend question structures and vocabulary in order to interpret assessment and task questions
	Take effective notes from written texts

Language Outcomes and Skills

Writing

1. Demonstrate application of theories studied through reference to examples	Demonstrate the ability to define, describe and explain key content ideas including numeric and visual data Demonstrate the ability to logically structure ideas for effective communication Relate theory to practical examples in order to demonstrate understanding, evaluate and analyse both conceptual and numeric ideas
2. Produce short coherent written texts that appropriately respond to timed assessment questions	Write accurate short answer responses under timed conditions Use a range of business and general vocabulary accurately to convey ideas Revise, edit and proofread work

Unit Prerequisites

Students are required to complete Unit 1 Accounting prior to enrolling in Unit 2 Accounting.

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MONASH College

LEARNING INNOVATION

MONASH UNIVERSITY **FOUNDATION YEAR**

BIOLOGY

UNIT 1

THE BASIS FOR LIFE

MUF0031

BIOLOGY
UNIT 1

Learning Innovation

Monash University Foundation Year

Biology Unit 1 Overview

Biology is the study of living things, their structures and functions. It includes the study of how living things interact with each other and with their environment. The study of Biology provides the student with an understanding of the natural world and the role that humans play within it. It also provides the student with a scientific framework upon which to build hypothesis and design valid, controlled experiments.

STUDY AREA	NUMBER OF WEEKS
1: Cell Biology	7 weeks
2: Homeostasis in Humans	3 weeks
3: Human Immune system	4 weeks

Unit Assessment

Assessment Type	Weighting	Date	Study Area
Early progress test	5%	Week 1/2	
Practical assessment	20%	Weeks 3-6	Study Area 1
Skills and application Task 1	20%	Week 7	Study Area 1
Skills and application Task 2	25%	Week 14	Study Area 2 & 3
Research Task	20%	Weeks 8-12	Study Area 3
Engagement Activities	10%	Ongoing	All Study Areas

Biology Unit 1

Unit Knowledge Outcomes

1. Demonstrate an understanding and appropriate use of the language of Biology
2. Demonstrate an understanding of the scientific method and the features of a well-designed experiment
3. Demonstrate an understanding the structure and function of biological molecules, enzymes and energy systems
4. Compare and contrast different cells and relate cell structure to function
5. Demonstrate an understanding of homeostasis, negative feedback and the role of the nervous system and endocrine system
6. Demonstrate an understanding of pathogens and the immune system, immunity and autoimmune diseases

Unit Skills and Behaviours Outcomes

1. Work independently or as a team to achieve outcomes
2. Apply biological and general scientific knowledge to identify and analyse concepts
3. Present data or other scientific information using an appropriate format
4. Collect (in class practical activity) or present (virtual classes) record and analyse data and evaluate experimental design
5. Research, interpret and communicate information, relevant to a scientific concepts
6. Recognise the importance of ethics and safety in the laboratory. Comply with safety procedures, while in laboratory.

Language Outcomes and Skills

Listening

1. Comprehend instruction for all learning activities performed in class or online 2. Use note-taking skills from aural resources	Comprehend the main ideas, details and examples presented during class Demonstrate an ability to follow scientific concepts discussed in class Demonstrate an ability to follow instructions for classroom and laboratory activities performed in class or in Demonstrate an ability to follow laboratory safety instructions Identify links between course content and key information presented in audio-visual media Take effective notes from aural texts

Speaking

1. Effectively communicate scientific concepts to peers 2. Participate effectively in group work, including classroom and laboratory activities	Use discussion skills to actively discuss scientific concepts with peers, in English Speak clearly in English and present ideas confidently in front of a group Demonstrate an ability to ask for assistance as needed during experimental work performed in class or discussed online classroom and when working through course material Use a range of scientific and general vocabulary to accurately convey concepts

Reading

1. Comprehend written material provided, including online material, questions and laboratory instructions 2. Produce summaries from written text provided	Demonstrate ability to follow scientific explanations and instruction in worksheets and other learning activities. Comprehend key symbolic and numeric expressions Identify links between course content and key information in written texts Recognise a range of scientific and general vocabulary to comprehend written texts Comprehend laboratory procedures performed in class or discussed online in order to complete experiments in a safe manner Comprehend a range different style of scientific questions in order to complete tasks Read and answer questions under timed conditions Take effective notes from written texts

Writing

1. Demonstrate an ability to write short explanations for scientific concepts 2. Demonstrate an ability to write experimental reports using appropriate conventions	Write effective notes from written and aural texts Accurately record data collected during laboratory work or accurately present secondary data, when provided Demonstrate an ability to write experimental reports using appropriate conventions Use appropriate symbolic and numeric expressions to solve problems Demonstrate an ability to write short explanations to scientific concepts under timed conditions Use a range of scientific and general vocabulary to convey scientific concepts Revise, edit and proofread work

Unit 1 Biology Prerequisites

Unit 1 Biology can be completed without completing Unit 2 Biology. However, Unit 2 cannot be undertaken without first completing Unit 1. The two units can be undertaken concurrently.

Biology uses its own, specific language. The development and utilisation of this new language is enhanced daily in Biology. It is recommended that students commencing the course are already familiar with some scientific and biological terms and concepts. Some laboratory skills and skill using a light microscope would be advantageous.

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Learning Innovation
Monash University Foundation Year
Monash College
750 Collins Street
Docklands, VIC 3008
monashcollege.edu.au

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MONASH UNIVERSITY **FOUNDATION YEAR**

BIOLOGY

UNIT 2

THE BLUEPRINT FOR LIFE

MUF0032

BIOLOGY
UNIT 2

Monash University Foundation Year

Biology Unit 2 Overview

Biology is the study of living things, their structures and functions. The study of Biology provides the student with an understanding of the natural world and the role that humans play within it. It also provides the student with a scientific framework upon which to build hypotheses and conduct valid, controlled experiments.

In this unit, students will develop their understanding of cellular reproduction; Mendelian genetics; mutation and its role in variation within populations; the mechanisms of evolution including primate adaptations and human evolution.

STUDY AREA	NUMBER OF WEEKS
1. Genetics	6 weeks
2. Genetic engineering	3 weeks
3. Evolution	5 weeks

Unit Assessment

Assessment Type	Weighting	Date	Study Area
Early progress test	5%	Week 1/2	
Practical assessment 1	20%	Weeks 4–6	Study Area 1
Practical assessment 2	20%	Weeks 7–9	Study Area 2
Skills and Application Task 1	20%	Weeks 7/8	Study Area 1
Skills and Application Task 2	25%	Week 14	Study areas 2 and 3
Engagement Activities	10%	Ongoing	All Study Areas

Biology Unit 2

Unit Knowledge Outcomes

1. Demonstrate an understanding and appropriate use of the language of Biology
2. Compare and contrast sexual and asexual reproduction in terms of cellular processes and the effects on variation within a population
3. Demonstrate an understanding of the mechanisms of inheritance and the effect of mutation on variation within a population and survival of a species
4. Demonstrate an understanding of the processes of various biotechnologies and genetic engineering as well as the advantages, disadvantages and ethical concerns of their use
5. Demonstrate an understanding of the evidence and mechanisms of evolution
6. Demonstrate an understanding of primate evolution, including the strengths and weaknesses of the models of hominin evolution

Unit Skills and Behaviours Outcomes

1. Work independently or as a team to achieve outcomes
2. Apply biological and general scientific knowledge to identify and analyse concepts
3. Present data or other scientific information using an appropriate format
4. Collect, record and analyse data and evaluate experimental design
5. Research, interpret and communicate information accurately, relevant to a scientific concepts
6. Recognise the importance of ethics and safety in the laboratory and comply with safety procedures

Language Outcomes and Skills

Listening

1. Effectively communicate scientific concepts to peers	Comprehend the main ideas, details and examples presented during class presentations
2. Participate effectively in group work, including classroom and laboratory activities	Demonstrate an ability to follow scientific concepts discussed in class
	Demonstrate an ability to follow instructions for classroom and laboratory activities
	Demonstrate an ability to follow laboratory safety instructions
	Identify links between course content and key information presented in audio-visual media
	Take effective notes from aural texts

Speaking

1. Comprehend instructions for classroom and laboratory activities	Use discussion skills to actively discuss scientific concepts with peers in English
2. Use note-taking skills from aural resources	Speak clearly in English and present ideas confidently in front of a group
	Demonstrate an ability to ask for assistance as needed during experimental work and when working through course material
	Use a range of scientific and general vocabulary to accurately to convey concepts

Reading

1. Comprehend written material provided, including online material, questions and laboratory instructions	Demonstrate ability to follow scientific explanations
2. Produce summaries from written text provided	Comprehend key symbolic and numeric expressions
	Identify links between course content and key information in written texts
	Recognise a range of scientific and general vocabulary to comprehend written texts
	Comprehend laboratory procedures in order to complete experiments in a safe manner
	Comprehend a range different style of scientific questions in order to complete tasks
	Read and answer questions under timed conditions
	Take effective notes from written texts

Writing

1. Demonstrate an ability to write short explanations for scientific concepts	Write effective notes from written and aural texts
2. Demonstrate an ability to write experimental reports using appropriate conventions	Accurately record data collected during laboratory work
	Demonstrate an ability to write experimental reports using appropriate conventions
	Use appropriate symbolic and numeric expressions to solve problems
	Demonstrate an ability to write short explanations to scientific concepts under timed conditions
	Use a range of scientific and general vocabulary to convey scientific concepts
	Revise, edit and proofread work

Biology Unit 2 Prerequisites

Biology Unit 1 can be completed without completing Biology Unit 2.
However, Unit 2 cannot be undertaken without first completing Unit 1.
The two units can be undertaken concurrently.

Biology uses its own, specific language. The development and utilisation of this new language is enhanced daily in Biology. It is recommended that students commencing the course are already familiar with some scientific and biological terms and concepts. Some skill using a light microscope would be advantageous.

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Monash College
750 Collins Street
Docklands, VIC 3008
Monashcollege.edu.au

MONASH College

LEARNING INNOVATION

MONASH UNIVERSITY **FOUNDATION YEAR**

CHEMISTRY

UNIT 1 (2026)

CHEMISTRY AND THE NATURAL WORLD

MUF0041

CHEMISTRY UNIT 1

Learning Innovation

Monash University Foundation Year

Unit Overview

Unit 1 Chemistry examines the structure and properties of matter. It is concerned with the behavior and interaction of chemical substances and the changes that occur during chemical reactions. Unit1 Chemistry provides insights into natural phenomena at the molecular level, a framework of knowledge for the development of new materials and the means for the attainment of a sustainable environment for the future.

STUDY AREA	NUMBER OF WEEKS
Atomic Structure, the Periodic Table and Bonding	4 weeks
Quantitative Chemistry	5 weeks
Properties of Reactions	4 to 5 weeks

Scheduled Course Contact Hours: 5 hours per week over 14 weeks = 70 hours

Unit Assessment

Assessment Type	Weighting	Date	Study Area
Early Assessment Task	**5%**	**Week 3**	**Part of Study Area 1 (Atomic Theory and the Periodic Table)**
Skills and Application Task 1	**20%**	**Weeks 8 or 9**	**All of Study Area 2**
Summative Practical Assessment	**20%**	**Between Weeks 5 and 10**	**Study Area 2**
Ongoing Laboratory Activities	**20%**	**Between Weeks 2 and 13**	**All Study Areas**
Skills and Application Task 2	**25%**	**Weeks 13 or 14**	**Part of Study Area 1 (Bonding) and all of Study Area 3**
Engagement Activities	**10%**	**Ongoing**	**All Study Areas**

SUBJECT UNIT 1

Unit Knowledge Outcomes

1. Demonstrate an understanding of the language of Chemistry
2. Complete calculations relating to the mole, solutions, gases and stoichiometry
3. Demonstrate an understanding of atomic structure, the trends in the Periodic Table and bonding
4. Relate bonding to the properties of substances
5. Demonstrate an understanding of thermochemistry, rates and equilibrium concepts of reactions
6. Demonstrate an understanding of acids and bases, including theories, pH calculations and buffers

Unit Skills and Behaviours Outcomes

1. Work independently or as a team to achieve outcomes
2. Present data or other scientific information using an appropriate format
3. Apply chemical and general scientific knowledge to identify, analyse and solve problems using appropriate chemical models, equations and calculations
4. Collect, record and analyse data and evaluate experimental design
5. Research, interpret and communicate information accurately relevant to a scientific concept
6. Recognise the importance of green chemistry and safety in the laboratory and comply with safety procedures

Language Outcomes and Skills

Listening

1. Comprehend instructions for classroom and laboratory activities	Comprehend the main ideas, details and examples presented during class presentations
	Demonstrate an ability to follow scientific concepts discussed in class
	Demonstrate an ability to follow instructions for classroom and laboratory activities
	Demonstrate an ability to follow laboratory safety instructions
2. Use note-taking skills from aural texts	Identify links between course content and key information presented in audio-visual media
	Take effective notes from aural texts

Speaking

1. Effectively communicate scientific concepts to peers	Use discussion skills to actively discuss scientific concepts with peers in English
	Speak clearly in English and present ideas confidently in front of a group
2. Participate effectively in group work, including classroom and laboratory activities	Demonstrate an ability to ask for assistance as needed during experimental work and when working through course material
	Use a range of scientific and general vocabulary to accurately convey concepts

Language Outcomes and Skills

Reading

1. Comprehend written material provided, including online material, questions and laboratory instructions	Demonstrate ability to follow scientific explanation
	Comprehend key symbolic and numeric expressions
	Identify links between course content and key information in written texts
	Recognise a range of scientific and general vocabulary to comprehend written texts
	Comprehend laboratory procedures in order to complete experiments in a safe manner
	Comprehend a range different style of scientific questions in order to complete tasks
	Read and answer questions under timed conditions
	Take effective notes from written texts
2. Produce summaries from written text provided	

Writing

1. Demonstrate an ability to write short explanations for scientific concepts	Write effective notes from written and aural texts
	Accurately record data collected during laboratory work
	Demonstrate an ability to write experimental reports using appropriate conventions
	Use appropriate symbolic and numeric expressions to solve problems
	Demonstrate an ability to write short explanations to scientific concepts under timed conditions
	Use a range of scientific and general vocabulary to convey scientific concepts
	Revise, edit and proofread work
2. Demonstrate an ability to write experimental reports using appropriate conventions	

Unit Prerequisites

Before undertaking Chemistry Unit 1, it is recommended students have completed an appropriate Year 11 Chemistry or equivalent program. This includes a Year 11 knowledge of:

- Acids and bases
- Atomic structure
- Atomic number and mass number
- Calculation of relative atomic mass
- Combined gas equation
- Elements, compounds, mixtures
- Empirical and molecular formulas
- Gas behavior and gas laws
- Intermolecular forces
- Isotopes
- Metallic, iconic and covalent bonding
- Mole calculations
- Percentage composition
- pH
- Polarity
- Polymers and polymerisation
- Properties of water related to structure and bonding
- Redox reactions
- Solubility and precipitation
- Stoichiometry
- Systematic naming of simple organic compounds

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MONASH College

LEARNING INNOVATION

MONASH UNIVERSITY **FOUNDATION YEAR**

CHEMISTRY

UNIT 2 (2026)

CHEMISTRY AND THE CHANGING WORLD

MUF0042

CHEMISTRY UNIT 2

Learning Innovation

Monash University Foundation Year

Unit Overview

Unit 2 explores the area of Organic Chemistry and Energy and the impact of these on society and us. The development of new medicines and understanding their interaction with biological macromolecules along with the development of new sustainable polymers and energy sources are all very important areas of chemistry in a changing world. Unit 2 builds of the fundamental knowledge developed in Unit 1 to understand the world around us.

STUDY AREA	NUMBER OF WEEKS
Medicines Polymers and Us	5 to 6 weeks
Identifying Substances	3 weeks
Energy and Society	5 weeks

Scheduled Course Contact Hours: 5 hours per week over 14 weeks = 70 hours

Unit Assessment

Assessment Type	Weighting	Date	Study Area
Early Assessment Task	**5%**	**Week 4**	**Part of Study Area 1**
Research Project	**20%**	**Between weeks 4 and 8**	**Study Area 1**
Skills and Application Task 1	**20%**	**Between Weeks 9 and 10**	**All of Study Area 2**
Summative Practical Assessment	**20%**	**Between Weeks 11 and 12**	**Study Area 3**
Skills and Application Task 2	**25%**	**Weeks 13 or 14**	**All of Study Area 1 and all of Study Area 3**
Engagement Activities	**10%**	**Ongoing**	**All Study Areas**

CHEMISTRY UNIT 2

Unit Knowledge Outcomes

1. Demonstrate an understanding of the language of Chemistry
2. Describe the structure, bonding and reactions of a range of organic compounds including polymers and biological macromolecules
3. Demonstrate an understanding of techniques used to isolate and quantify organic compounds
4. Demonstrate an understanding of the techniques used to determine the structure of an organic compound
5. Demonstrate an understanding of the energy changes in chemical reactions and how this can be quantified
6. Demonstrate an understanding of the interconversion of chemical energy to electrical energy in electrochemical cells.

Unit Skills and Behaviours Outcomes

1. Work independently or as a team to achieve outcomes
2. Present data or other scientific information using an appropriate format
3. Apply chemical and general scientific knowledge to identify, analyse and solve problems using appropriate chemical models, equations and calculations
4. Collect, record and analyse data and evaluate experimental design
5. Research, interpret and communicate information accurately relevant to a scientific concept
6. Recognise the importance of Green Chemistry and safety in the laboratory and comply with safety procedures

Language Outcomes and Skills

Listening

1. Comprehend instructions for classroom and laboratory activities	Comprehend the main ideas, details and examples presented during class presentations
	Demonstrate an ability to follow scientific concepts discussed in class
	Demonstrate an ability to follow instructions for classroom and laboratory activities
	Demonstrate an ability to follow laboratory safety instructions
2. Use note-taking skills from aural texts	Identify links between course content and key information presented in audio-visual media
	Take effective notes from aural texts

Speaking

1. Effectively communicate scientific concepts to peers	Use discussion skills to actively discuss scientific concepts with peers in English
	Speak clearly in English and present ideas confidently in front of a group
2. Participate effectively in group work, including classroom and laboratory activities	Demonstrate an ability to ask for assistance as needed during experimental work and when working through course material
	Use a range of scientific and general vocabulary to accurately to convey concepts

Language Outcomes and Skills

Reading

1. Comprehend written material provided, including online material, questions and laboratory instructions	Demonstrate ability to follow scientific explanation
	Comprehend key symbolic and numeric expressions
	Identify links between course content and key information in written texts
	Recognise a range of scientific and general vocabulary to comprehend written texts
	Comprehend laboratory procedures in order to complete experiments in a safe manner
	Comprehend a range different style of scientific questions in order to complete tasks
	Read and answer questions under timed conditions
	Take effective notes from written texts
2. Produce summaries from written text provided	

Writing

1. Demonstrate an ability to write short explanations for scientific concepts	Write effective notes from written and aural texts
	Accurately record data collected during laboratory work
	Demonstrate an ability to write experimental reports using appropriate conventions
	Use appropriate symbolic and numeric expressions to solve problems
	Demonstrate an ability to write short explanations to scientific concepts under timed conditions
	Use a range of scientific and general vocabulary to convey scientific concepts
	Revise, edit and proofread work
2. Demonstrate an ability to write experimental reports using appropriate conventions	

Unit Prerequisites

MUF0042 Chemistry Unit 2: Chemistry and the Changing World can only be undertaken by students who have successfully completed MUF0041 Chemistry Unit 1: Chemistry and the Natural world.

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MONASH College

LEARNING INNOVATION

MONASH UNIVERSITY **FOUNDATION YEAR**

UNIT 1: Information and Communication Technology (ICT)

Introduction to Computing, Programming and digital systems

MUF0051

INFORMATION AND COMMUNICATION TECHNOLOGY UNIT 1

LEARNING INNOVATION

Monash University Foundation Year

Unit Overview

In this unit students will focus on processing data into information using digital systems to create information products.

In Study Area 1 students will collect primary data, use spreadsheet software to interrogate the data, then present their findings to an audience. In Study Area 2 students will be introduced to programming by creating applications using the Scratch programming environment. In Study Area 3 students will examine how elements of a digital system operate and how these individual components contribute to the effective functioning of a digital system.

The Unit assumes no prior knowledge of the study areas.

STUDY AREA	NUMBER OF WEEKS
Data to information	5 weeks
Programming	5 weeks
Digital systems	4 weeks

Unit Assessment

Assessment Type	Weighting	Date	Study Area
Data analysis test (Early Assessment Task) Data analysis task	10% 20%	Weeks 4 Week 5~6	**Data to information**
Programming Assessment	30%	Week 8~10	**Programming**
Group Video Project Digital Systems Test	10% 20%	Week 13~14 Week 13~14	**Digital systems**
Engagement Activities	10%	Week 1 to 14	**All**

UNIT 1: ICT

Unit Knowledge Outcomes

1. Survey questions types (and input controls) used to collect different types of data.
2. Design tools used to plan the appearance and/or functional of information products.
3. Software functions and techniques used to process data into information.
4. Conventions appropriate to particular information products.
5. Techniques used to evaluate the effectiveness of an information product.
6. Purpose and components of a visual programming environment.
7. Capabilities and functions of digital system components.
8. Advantages and disadvantages of using cloud computing and networks.
9. Advantages and disadvantages of incorporating generative artificial intelligence.

Unit Skills and Behaviours Outcomes

1. Construct relevant survey questions to collect a range of primary data.
2. Select appropriate design tools to plan particular information products.
3. Use correct software functions and techniques to produce the information required.
4. Incorporate suitable conventions to enhance the appearance of the information.
5. Apply techniques to evaluate the effectiveness of information products.
6. Apply computational thinking to develop an application using a programming language.
7. Work collaboratively and effectively to explain the function of digital system components.
8. Use feedback to reflect on their own learning and to develop strategies for improvement.
9. Use generative artificial intelligence to produce solutions to problems and check answers

Language Outcomes and Skills

Listening

Listen carefully to verbal instructions, class discussion and multimedia resources

Recognise links between verbal resources and the course content

Participate in discussions related to the concepts covered in class

Communicate in English when working in group situations

Provide constructive feedback to fellow students

Present findings of research projects to the class

Ask questions to clarify understanding

Speak clearly, using English fluently, focusing on correct pronunciation

Use a range of general and technical vocabulary accurately

Use online learning tools to develop accurate pronunciation

Speaking

Communicate effectively in English in various contexts and situations

Use vocabulary accurately and focusing on correct pronunciation

Participate in discussions related to the concepts covered in class

Communicate in English when working in group situations

Provide constructive feedback to fellow

Present findings of research projects to the class

Ask questions to clarify understanding

Speak clearly, using English fluently, focusing on correct pronunciation

Use a range of general and technical vocabulary accurately

Use online learning tools to develop accurate pronunciation

Language Outcomes and Skills

Reading

Interpret and understand written instructions and resources	Interpret and follow written instructions
	Follow sequential instructions within written tutorials
Use a range of resources to assist with the comprehension of written resources	Comprehend the context of written text
	Recognise technical vocabulary used in written resources
	Create notes that summarises written resources
	Respond to questions based upon written resources
	Use online learning tools to interpret the meaning of written text

Writing

Produce written responses that show evidence of an understanding of the content covered	Compose formulas and programming instructions in English using the correct syntax
	Create summary notes from spoken and written resources
	Give reasons to justify formats and conventions selected
	Construct appropriate survey questions to collect primary data
Complete evaluations that allow for reflection of completed tasks	Complete evaluations and/or reflections of completed tasks
	Develop sample test questions
	Participate in online conversations and discussions
	Compose written responses to structured questions

Unit Prerequisites

There are no specific prerequisites for entry to this course. However, it is recommended that students possess basic computing skills.

Data to information	No prerequisites required
Programming	No prerequisites required
Digital systems	No prerequisites required

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MONASH College

LEARNING INNOVATION

MONASH UNIVERSITY **FOUNDATION YEAR**

Information and Communication Technology (ICT)

UNIT 2

DATABASE, DATA SCIENCE AND PROGRAMMING

MUF0052

INFORMATION AND COMMUNICATION TECHNOLOGY UNIT 2

LEARNING INNOVATION

Monash University Foundation Year

Unit Overview

In Unit 2 ICT students will focus on how data is acquired, managed and manipulated to meet a particular need. Software solutions will be developed utilising analytical and problem-solving skills.

In Study Area 1 students will examine how database management systems are used to store and manipulate data. In Study Area 2 students will acquire data sets, from secondary sources, then manipulate the data and create a report. In Study Area 3 students will use a programming language (python) to create software solutions to specific problems.

The Unit assumes no prior knowledge of the study areas.

STUDY AREA	NUMBER OF WEEKS
Database management system	5 weeks
Data Science	3 weeks
Programming	6 weeks

Unit Assessments

Assessment Type	Weighting	Date	Study Area
A1: Database Management Test [EAT] A2: Database Management Systems Task	10% 20%	Week 4 Week 5~6	**Database management system**
A3: Data Science Task	25%	Week 8~9	**Data Science**
A4: Fundamental Programming Task A5: Extended Programming Assignment	15% 20%	Week 12 Week 13~14	**Programming**
A6: Engagement Activities	10%	Week 1 to 14	**All**

UNIT 2: ICT

Unit Knowledge Outcomes

1. Stages involved in the software development process.
2. Design tools used to represent software solutions.
3. Software types and functions used to manipulate data.
4. Techniques used to input and output data and information.
5. Characteristics and purposes of data types and data formats.
6. Functions and techniques used to validate data.
7. Functions and techniques used to test that a solution is working as expected.
8. Purpose of data science and techniques used to uncover findings within data sets.
9. Advantages and disadvantages of incorporating generative artificial intelligence.

Unit Skills and Behaviours Outcomes

1. Develop software solutions following the software development process.
2. Use appropriate design tools to plan a software solution.
3. Select appropriate data types and formats to store and display data.
4. Apply software functions and features to input, manipulate, output and validate data.
5. Apply computational thinking skills to develop instructions to solve problems.
6. Create and apply a test plan to confirm if a solution is working as expected.
7. Work collaboratively to interrogate data to confirm or refute a hypothesis.
8. Use a range of methods to communicate clearly in English.
9. Use generative artificial intelligence to produce solutions to problems and check answers.

Language Outcomes and Skills

Listening

Listen carefully to verbal instructions, class discussion and multimedia resources	Interpret and follow verbal instructions
	Follow sequential instructions within multimedia tutorials
	Comprehend the context of class discussions
Recognise links between verbal resources and the course content	Recognise technical vocabulary used in verbal and multimedia resources
	Respond to questions based upon verbal and multimedia resources
	Use online learning tools to develop listening skills
	Interpret and follow verbal instructions
	Follow sequential instructions within multimedia tutorials

Speaking

Communicate effectively in English in various contexts and situations	Participate in discussions related to the concepts covered in class
Use vocabulary accurately and focusing on correct pronunciation	Communicate in English when working in group situations Provide constructive feedback to fellow students
	Present findings of research projects to the class
	Ask questions to clarify understanding
	Speak clearly, using English fluently, focusing on correct pronunciation
	Use a range of general and technical vocabulary accurately

Language Outcomes and Skills

Reading

Interpret and understand written instructions and resources	Interpret and follow written instructions
	Follow sequential instructions within written tutorials
Use a range of resources to assist with the comprehension of written resources	Comprehend the context of written text
	Recognise technical vocabulary used in written resources
	Create notes that summarise written resources
	Respond to questions based upon written resources
	Use online learning tools to interpret the meaning of written texts

Writing

Produce written responses that show evidence of an understanding of the content covered	Compose queries and programming instructions in English using the correct syntax Create summary notes from spoken and written resources
	Give reasons to justify data types and formats selected
Complete evaluations that allow for reflection of completed tasks	Construct a data analysis report
	Complete evaluations and/or reflections of completed tasks Develop sample exam and test questions
	Participate in online conversations and discussions Compose written responses to structured questions

Unit Prerequisites

There are no specific prerequisites for entry to this course. However, it is recommended that students possess basic computing skills.

There are no prerequisites required for Unit 2 ICT.

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MONASH College

MONASH UNIVERSITY FOUNDATION YEAR

ECONOMICS

UNIT 1

Introduction to Microeconomics

MUF0061

ECONOMICS
UNIT 1

Monash University Foundation Year

Unit Overview

Economics studies choices that individuals, firms and governments make when allocating resources in an economy. This subject explores economic issues and their effects on our daily lives.

STUDY AREA	NUMBER OF WEEKS*
SA1: The Economic Way of Thinking	3 weeks
SA2: Markets in Action	6 weeks
SA3: Decision Making by Firms	5 weeks

*In-class lessons will also be utilised for assessments under test conditions, revision before assessments, and group collaboration.

Unit Assessment

Assessment Type	Weighting	Date**	Study Area
MCQ Quiz (Study Area 1) • 20 Multiple Choice Questions	10%	Week 4	The Economic Way of Thinking
Skills and Application Task (Study Area 2) • Multiple Choice Questions • Short Answer Questions	25%	Week 7	Markets in Action
Group Essay	25%	Week 10/11	Markets in Action
Skills and Application Task (Study Area 3) • Multiple Choice Questions • Short Answer Questions	25%	Week 14	Decision Making by Firms
Topic Activities	15%	Ongoing	All Study Areas

ECONOMICS UNIT 1

Unit Knowledge Outcomes

1. Explain key economic concepts and the relationship between them.
2. Explain and illustrate the operation of the market system.
3. Explain sources of market failure and reasons for government intervention in the market.
4. Describe the main characteristics of the four types of market structure and analyse the factors that affect the level of competition in each.
5. Evaluate perfect competition and monopoly in terms of efficiency

Unit Skills and Behaviours Outcomes

1. Appropriately apply and use economic concepts, theories, models and tools.
2. Use a range of sources to acquire economic information.
3. Research and communicate economic information
4. Interpret and analyse numerical data.
5. Construct diagrams and tables to represent economic data.
6. Think critically about economic issues and problems
7. Develop an awareness of how political, ethical, environmental, global and social factors may influence the outcomes of economic decision making.

Language Outcomes and Skills

Listening

1. Listen to and understand spoken texts including academic, multimedia and classroom genres	Recognise main ideas, details and examples in spoken texts
	Recognise features and structures of a variety of spoken texts
2. Use note-taking strategies to record information from spoken texts	Recognise the application of theory in practical examples
	Identify links between course content and key information in spoken texts
	Recognise a range of economic and general vocabulary to comprehend spoken English
	Take effective notes from spoken texts

Speaking

1. Participate effectively in teams during discussions of economic-related content	Use discussion skills to actively participate in group discussions
	Present ideas to peers
2. Communicate effectively during a prepared academic presentation	Demonstrate ability to organize ideas when speaking in order to explain or apply content-related information or express a point of view
	Demonstrate ability to rephrase ideas when speaking
	Demonstrate ability to ask for assistance and clarify meaning
	Speak clearly, using language fluently and flexibly for effective communication
	Use a range of economic and general vocabulary accurately to convey ideas

Language Outcomes and Skills

Reading

1. Use a range of reading strategies to assist comprehension of written texts including academic, multimedia and classroom genres	Identify main ideas, details and examples in written texts
	Navigate a text through recognition of text features and structures
2. Use note-taking strategies to record information from written texts	Recognise the application of theory in practical examples
	Use strategies to infer meaning from context
3. Identify and summarise key information from written texts	Identify link between course content and key information in written texts
	Comprehend question structures and vocabulary in order to interpret exam and task questions
	Recognise a range of economic and general vocabulary to comprehend written texts
	Take effective notes written texts

Writing

1. Produce short written texts that appropriately respond to assessment tasks	Demonstrate ability to define, describe and explain key content ideas including visual data
2. Demonstrate application of economic concepts through references to examples	Demonstrate ability to paraphrase information for the purposes of summary and explanation
3. Support statements with reference to literature and use of academic referencing conventions	Demonstrate ability to logically structure ideas for effective communication
	Relate theory to practical examples in order to demonstrate understanding, evaluate and analyse ideas
	Demonstrate grammatical accuracy in order to clearly communicate ideas
	Reproduce written genre features of appropriate template in order to write task responses
	Write accurate short answer responses under timed conditions
	Use a range of economic and general vocabulary accurately to convey ideas
	Revise, edit and proofread work

Unit Prerequisites

None

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MONASH College

MONASH UNIVERSITY FOUNDATION YEAR

ECONOMICS

UNIT 2

Introduction to Macroeconomics

MUF0062

ECONOMICS
UNIT 2

Monash University Foundation Year

Unit Overview

Macroeconomics considers the behaviour of the entire economy in terms of its output, income, employment and other indicators. This unit will introduce you to the macroeconomic goals of an economy, how the achievement of these goals is measured, and the models we use to analyse the causes and effects in the economy. You will learn about government policies that can help achieve goals. Finally, you will investigate how an economy's interactions with the rest of the world affect its performance.

STUDY AREA	NUMBER OF WEEKS*
SA1: Macroeconomic Models	3 – 4 weeks
SA2 Macroeconomic Goals	3 – 4 weeks
SA3: Macroeconomic Policies	2 - 3 weeks
SA4: International Economics	2 - 3 weeks

*In-class lessons will be used for assessments under test conditions, revision before assessments, and group collaboration for the Group Research Essay and discussion.

Unit Assessment

Assessment Type	Weighting	Date**	Study Area
MCQ Quiz (Study Area 1) • Multiple Choice Questions	10%	Week 4	Macroeconomic Models
Skills and Application Task (Study Area 2) • Multiple Choice Questions • Short Answer Questions	25%	Week 7/8	Macroeconomic Goals
Group Research Essay	20%	Week 12	Macroeconomic Policies
Research Essay Discussion	20 %	Week 13	Macroeconomic Policies
MCQ Quiz (Study Area 4) • Multiple Choice Questions	10%	Week 14	International Economics
Topic Activities	15%	Ongoing	All Study Areas

**Recommended dates for assessment tasks are based on a 14-week unit.

ECONOMICS UNIT 2

Unit Knowledge Outcomes

1. Explain and illustrate key macroeconomic models, and use them to demonstrate the impact of various factors on the achievement of macroeconomic goals.
2. Describe factors that may influence the achievement of macroeconomic goals.
3. Explain and evaluate key macroeconomic goals and their measurement.
4. Explain the nature and operation of monetary and fiscal policies used to manage the economy.
5. Evaluate the appropriateness of macroeconomic policies used to manage the economy.
6. Explain the impact of the external sector on the domestic economy and evaluate the issue of foreign debt.

Unit Skills and Behaviours Outcomes

1. Appropriately apply and use economic concepts, theories, models and tools.
2. Use a range of sources to acquire economic information.
3. Research and communicate economic information
4. Interpret and analyse numerical data.
5. Construct diagrams and tables to represent economic data.
6. Think critically about economic issues and problems
7. Develop an awareness of how political, ethical, environmental, global and social factors may influence the outcomes of economic decision-making.

Language Outcomes and Skills

Listening

1. Listen to and understand spoken texts including academic, multimedia and classroom genres	Recognise main ideas, details and examples in spoken texts
	Recognise features and structures of a variety of spoken texts
2. Use note-taking strategies to record information from spoken texts	Recognise the application of theory in practical examples
	Identify links between course content and key information in spoken texts
	Recognise a range of economic and general vocabulary to comprehend spoken English
	Take effective notes from spoken texts

Speaking

1. Participate effectively in teams during discussions of economic-related content	Use discussion skills to actively participate in group discussions
	Present ideas to peers
2. Communicate effectively during a prepared academic presentation	Demonstrate ability to organize ideas when speaking in order to explain or apply content-related information or express a point of view
	Demonstrate ability to rephrase ideas when speaking
	Demonstrate ability to ask for assistance and clarify meaning
	Speak clearly, using language fluently and flexibly for effective communication
	Use a range of economic and general vocabulary accurately to convey ideas

Language Outcomes and Skills

Reading

1. Use a range of reading strategies to assist comprehension of written texts including academic, multimedia and classroom genres	Identify main ideas, details and examples in written texts
	Navigate a text through recognition of text features and structures
2. Use note-taking strategies to record information from written texts	Recognise the application of theory in practical examples
	Use strategies to infer meaning from context
3. Identify and summarise key information from written texts	Identify link between course content and key information in written texts
	Comprehend question structures and vocabulary in order to interpret exam and task questions
	Recognise a range of economic and general vocabulary to comprehend written texts
	Take effective notes written texts

Writing

1. Produce short written texts that appropriately respond to assessment tasks	Demonstrate ability to define, describe and explain key content ideas including visual data
2. Demonstrate application of economic concepts through references to examples	Demonstrate ability to paraphrase information for the purposes of summary and explanation
3. Support statements with reference to literature and use of academic referencing conventions	Demonstrate ability to logically structure ideas for effective communication
	Relate theory to practical examples in order to demonstrate understanding, evaluate and analyse ideas
	Demonstrate grammatical accuracy in order to clearly communicate ideas
	Reproduce written genre features of appropriate template in order to write task responses
	Write accurate short answer responses under timed conditions
	Use a range of economic and general vocabulary accurately to convey ideas
	Revise, edit and proofread work

Unit Prerequisites

MUF0061 must be completed prior to MUF0062, or it must be studied concurrently.

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MONASH College

LEARNING INNOVATION

MONASH UNIVERSITY **FOUNDATION YEAR**

MATHEMATICS

UNIT 1

FUNCTIONS AND CALCULUS

MUF0091

MATHEMATICS
UNIT 1

Learning Innovation

Monash University Foundation Year

Unit Overview

This course explores the properties of a wide range of functions and their graphs, as well as the calculus process of differentiation. Applications of these properties and processes are an important part of this unit. In this course, students will develop the critical, logical and communicative skills to solve real world problems using higher order mathematical concepts.

STUDY AREA	NUMBER OF WEEKS*
Power Functions and Applications	5 weeks
Exponential, Logarithmic and Circular Functions	4 weeks
Introductory Calculus	4 weeks

*Weeks are indicative only

Scheduled Course Contact Hours: 5 hours per week over 14 weeks = 70 hours

Unit Assessment

Assessment Type	Weighting	Date*	Study Area
Progress Test – Short Answer questions – Time: 30 minutes (in class)	**5%**	**Week 3**	**Quadratic and Cubic Functions**
Study Area 1 Test – Multiple choice and problem based questions – Time: 60 minutes (in class)	**20%**	**Week 7**	**Power Functions and Applications**
Study Area 2 Test – Multiple choice and problem based questions – Time: 60 minutes (in class)	**20%**	**Week 10**	**Exponential, Logarithmic and Circular Functions**
Application Task (Group) – Applied modelling problems completed as a group – Time: 1 x in class collaboration session (up to 1 hour) – Take home task (to be completed within one week)	**20%**	**Week 13**	**Study Areas 1-3 (emphasis on Functions & Introductory Calculus)**
Study Area 3 Test – Multiple choice and problem based questions – Time: 60 minutes (in class)	**20%**	**Week 14**	**Introductory Calculus**
Ongoing Task: Portfolio – Students will participate in LMS activities, quizzes and reflections.	**15%**	**Ongoing**	

MATHEMATICS UNIT 1

Unit Knowledge Outcomes

1. Recognise power functions ($f(x)=x^n$ when n = -1, 1, 2, 3, 4, ½) their graphs and be familiar with their properties
2. Recognise exponential, logarithmic and trigonometric (excluding the graph of the tangent function) functions and be familiar with their properties
3. Solve polynomial, exponential, logarithmic and trigonometric equations (including equations with tangent), and applications in word problems
4. Identify the properties of inverse functions and be able to solve mathematical problems using these properties
5. Calculate average and instantaneous rates of change, including the use of the differentiation process for the functions relevant to this unit
6. Apply differentiation techniques in the solution of problems
7. Use differentiation for curve sketching and optimisation problems
8. Use problem solving strategies such as: partitioning problems into sub-problems to simplify and organise the investigation process, identifying and working on related problems, and checking validity of answers
9. Communicate arguments and strategies, when solving problems, using appropriate mathematical language
10. Use mathematical knowledge to solve problems set in 'real world' contexts
11. Apply knowledge in both routine and non-routine questions

Unit Skills and Behaviours Outcomes

1. Work independently, and as an effective member of a team, to solve mathematical problems
2. Communicate mathematical ideas using relevant vocabulary and symbols
3. Interpret mathematical information, and ascertain the reasonableness of solutions to problems
4. Demonstrate awareness of different ways of thinking and problem solving in contexts involving graphs and functions.
5. Demonstrate proficiency in the use of tools such as graphics calculators, spreadsheets and other technologies
6. Analyse mathematical situations in order to draw conclusions and make predictions
7. Collaborate and cooperate, challenge the reasoning and perspectives of others, and contribute mathematical learning to investigations involving a range and balance of situations from life-related to purely mathematical.

Language Outcomes and Skills

Listening

1. Listen to and mostly comprehend spoken English including mathematical reasoning, multimedia, classroom instructions and activities	Recognise features and structures of mathematical explanations Recognise a range of mathematical and general vocabulary to comprehend spoken English Utilise feedback to refine and improve communication of mathematical ideas

Speaking

1. Participate effectively in pairs or groups during mathematical discussions of unit related content in English 2. Perform effectively in English during mathematical explanations in front of peers	Use a range of mathematical and general vocabulary and notation accurately to convey ideas Use peer-to-peer discussion to develop skills in communicating mathematical concepts Demonstrate ability to precisely explain logical or sequential concepts

Reading

1. Use a range of reading strategies to assist comprehension of written mathematical texts 2. Interpret written text to further mathematical understanding 3. Demonstrate ability to extract key vocabulary and ideas from a written text.	Comprehend question structures and vocabulary in order to interpret exam and task questions Recognise a range of mathematical and general vocabulary and symbolic notation to comprehend written texts Utilise feedback to refine and improve communication of mathematical ideas

Writing

1. Demonstrate ability to precisely explain mathematical reasoning in short answer, and analysis form 2. Demonstrate ability to extract key mathematical ideas and vocabulary and articulate in written notes	Demonstrate ability to logically structure mathematical concepts and solutions to questions Use a range of mathematical and general vocabulary and notation accurately to convey ideas Relate theory to practical examples in order to demonstrate understanding

Unit Prerequisites

In order to succeed in this unit, it is recommended that students will have satisfactorily completed an appropriate Year 11 Mathematics or equivalent program. Background knowledge and skills in algebra, graph sketching, elementary functions such as polynomial and trigonometric functions, and introductory calculus are essential. It is not expected that time will be spent introducing background knowledge and skills, but it is instead assumed that the level of proficiency will allow for immediate application and development.

MUF0091 Unit 1: Functions and Differential Calculus and *MUF0092 Unit 2: Integral Calculus, Probability and Statistics* can be taken concurrently or sequentially. Monash University Foundation Year Mathematics is a pre-requisite/co-requisite for *Advanced Mathematics* (*MUF0101 Advanced Mathematics Unit 1: Essential Concepts/MUF0102 Advanced Mathematics Unit 2: Calculus with Applications*). *Mathematics* (MUF0091/MUF0092) cannot be studied in conjunction with *Fundamental Mathematics* (MUF0141/MUF0142).

MUF0091 may be taken sequentially with MUF0142 to create a unit sequence accepted by Monash University (selected faculties) as equivalent to a *Fundamental Mathematics Unit 1 and 2* sequence. To be eligible for this sequence, a student must achieve a MUF0091 score of at least 50%. The score obtained for MUF0091 will not be used in the calculation of the *Fundamental Mathematics* unit sequence score. The score obtained for MUF0142 will be used as the score for the MUF0091 and MUF0142 sequence. The score for MUF0091 will not be used in the *Fundamental Mathematics* sequence calculation or in the Foundation Year score calculation. This sequence satisfies the Foundation Year completion rules with a 7 unit score calculation.

Algebra	Simplification, expansion and factorisation of linear, quadratics and simple cubic expressions with integer coefficients, and familiarity with the use of the following formulae: $(a \pm b)^2, (a \pm b)^3, a^2 - b^2, a^3 \pm b^3$ Completing the square Solutions of linear, quadratic, and basic cubic equations Use of the general quadratic formula and interpretation of the discriminant to find the number of real solutions Understanding of the use of the null factor law
Graph Sketching	Finding the axial intercepts of lines and other functions Sketching lines and quadratics The equation of a straight line through two points; the equation of a straight line through one point and of given gradient
Indices	Index definitions and laws Basic understanding of logarithms
Geometry	Standard perimeter, area and volume formulae Similar figures and their properties Triangle properties
Functions	Basic function concepts and notations, including the meaning of absolute value (not necessary to know how to graph absolute value functions)
Trigonometry	Pythagoras' Theorem Elementary trigonometry of right-angled triangles The unit circle definitions of the trigonometric functions and some familiarity with the graphs of these functions

Additional resources have been provided for students to independently improve these skills during the course through the form of an adaptive task, online textbooks, and Foundations for Calculus workbooks.

Prescribed Resources

Text:
Nolan J et al. Maths Quest Foundation Mathematics, John Wiley & Sons, Milton, Queensland.
ISBN 9780730321224

Calculator:
TI-84 PLUS, Texas Instruments
*(or any variant of TI-83 to TI-86, including TI-Nspire CX (**NON**-CAS))*

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Learning Innovation Monash University Foundation Year
Monash College
750 Collins Street
Melbourne VIC 3000
monashcollege.edu.au

MONASH College

PROGRAM DEVELOPMENT
AND INNOVATION

MONASH UNIVERSITY **FOUNDATION YEAR**

MATHEMATICS

UNIT 2

INTEGRATION, PROBABILITY AND STATISTICS

MUF0092

MATHEMATICS
UNIT 2

Program Development and Innovation

Monash University Foundation Year

Unit Overview

Unit 2 explores the concepts within the study of Integration, Probability Theory, Probability Distributions and Statistics. This course is a continuation of calculus from Mathematics Unit 1, as well as exploration of probability and statistics. Applications of these concepts and processes are an integral part of this unit. In this course, students will gain valuable insights into the influence of data and develop mathematical skills that can be widely applied in areas of higher order thinking.

STUDY AREA	NUMBER OF WEEKS
Integration	3.5 weeks
Probability Theory and Probability Distributions	7 weeks
Statistics	2.5 weeks

[1]Weeks are indicative only

Unit Assessment

Assessment Type	Weighting	Date[1]	Study Area
Task 1: Integration Skills Test – Multiple choice and problem based questions – Time: 40 minutes (in class)	**14%**	**Week 4**	**Integration**
Task 2: Study Area 2 Test – Probability theory, discrete and binomial probability distributions – Multiple choice and problem based questions – Time: 50 minutes (in class)	**17%**	**Week 8**	**Probability Theory and Probability Distributions**
Task 3: Application Task – Applied problems (groups) Time: 1 week + one-hour session (in class)	**12%**	**Week10/11**	**Study Areas 1 &2 (emphasis on Continuous Probability Distributions)**
Task 4: Study Area 3 Test – Multiple choice and problem based questions – Time: 50 minutes (in class)	**17%**	**Week 13**	
Participation – Students will participate in LMS activities, group tasks, class discussion, classwork, and homework. – Feedback given through rubric (week 6) – Final participation mark given after Week 12	**10%**	**Ongoing**	**All Study Areas**
Final Examination – Time (90 minutes) – Multiple choice and problem based questions – Study Areas 1 and 3 will have approximately 25% weighting each and Study Area 2 approximately 50%	**30%**		**All Study Areas**

MATHEMATICS UNIT 2

Unit Knowledge Outcomes

1. Apply integration techniques in the solution of problems
2. Understand basic probability theory, identify specified strategies and techniques of probability calculations including Venn, Karnaugh, lattice and tree diagrams
3. Understand conditional probability and independent events
4. Use counting techniques (permutations/arrangements and combinations/selections) to calculate probabilities
5. Identify the properties of discrete and continuous random variables and understand the idea of a probability distribution
6. Recognise and identify the properties of the binomial and normal probability distributions
7. Be able to solve mathematical problems using probability concepts and probability distributions
8. Identify and apply specified methods for organising, displaying, summarising and analysing data sets
9. Graph and analyse bivariate data and create a model to predict data values
10. Use problem solving strategies such as: partitioning problems into sub-problems to simplify and organise the investigation process, identifying and working on related problems, and checking validity of answers
11. Communicate arguments and strategies, when solving problems, using appropriate mathematical language
12. Use mathematical knowledge to solve problems set in 'real world' contexts
13. Apply knowledge in both routine and non-routine questions

Unit Skills and Behaviours Outcomes

1. Work independently, and as an effective member of a team, to solve mathematical problems
2. Communicate mathematical ideas using relevant vocabulary and symbols
3. Interpret mathematical information, and ascertain the reasonableness of solutions to problems
4. Demonstrate awareness of different ways of thinking and problem solving in contexts involving graphs and functions.
5. Demonstrate proficiency in the use of tools such as graphics calculators, spreadsheets and other technologies
6. Analyse mathematical situations in order to draw conclusions and make predictions
7. Collaborate and cooperate, challenge the reasoning and perspectives of others, and contribute mathematical learning to investigations involving a range and balance of situations from life-related to purely mathematical.

Language Outcomes and Skills

Listening

1. Listen to and mostly comprehend spoken English including mathematical reasoning, multimedia, classroom instructions and activities

Recognise features and structures of mathematical explanations

Recognise a range of mathematical and general vocabulary to comprehend spoken English

Utilise feedback to refine and improve communication of mathematical ideas

Speaking

1. Participate effectively in pairs or groups during mathematical discussions of unit related content in English
2. Perform effectively in English during mathematical explanations in front of peers

Use a range of mathematical and general vocabulary and notation accurately to convey ideas

Use peer-to-peer discussion to develop skills in communicating mathematical concepts

Demonstrate ability to precisely explain logical or sequential concepts

Reading

1. Use a range of reading strategies to assist comprehension of written mathematical texts
2. Interpret written text to further mathematical understanding
3. Demonstrate ability to extract key vocabulary and ideas from a written text.

Comprehend question structures and vocabulary in order to interpret exam and task questions

Recognise a range of mathematical and general vocabulary and symbolic notation to comprehend written texts

Utilise feedback to refine and improve communication of mathematical ideas

Writing

1. Demonstrate ability to precisely explain mathematical reasoning in short answer, and analysis form
2. Demonstrate ability to extract key mathematical ideas and vocabulary and articulate in written notes

Demonstrate ability to logically structure mathematical concepts and solutions to questions

Use a range of mathematical and general vocabulary and notation accurately to convey ideas

Relate theory to practical examples in order to demonstrate understanding

Unit Prerequisites

In order to succeed in this unit, it is recommended that students will have satisfactorily completed an appropriate Year 11 Mathematics or equivalent program. Background knowledge and skills in algebra, graph sketching, elementary functions such as polynomial and trigonometric functions, and introductory calculus are essential.
Unit 1 and Unit 2 can be taken concurrently or sequentially. Mathematics (MUF0091/MUF0092) is a pre-requisite/co-requisite for Advanced Mathematics (MUF0141/MUF0142). Mathematics (MUF0091/MUF0092) cannot be studied in conjunction with Fundamental Mathematics (MUF0141/MUF0142).

ALGEBRA	Algebraic manipulation including the simplification of expressions; solving linear, quadratic and simple exponential equations; some familiarity with the laws of indices and logarithms; substituting into and transposing formulae; simultaneous equations
FUNCTIONS	Straight line functions and their graphs, simple polynomial, exponential, and circular function graphs
STATISTICS	Calculation of fundamental statistics (mean, mode, quartiles, range, interquartile range); organization of raw and grouped data into frequency tables; basic statistical graphs (bar charts, pie charts, stemplots, boxplots, scatterplots
CALCULUS	Calculation of basic derivative problems

Additional resources have been provided for students to independently improve these skills during the course through the form online textbooks and videos.

Prescribed Resources

Text:
Nolan J et al. Maths Quest Foundation Mathematics, John Wiley & Sons, Milton, Queensland.
ISBN 9780730321224

Calculator:
TI-84 PLUS, Texas Instruments
(or any variant of TI-83 to TI-86)

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MONASH College

LEARNING INNOVATION

MONASH UNIVERSITY **FOUNDATION YEAR**

ADVANCED MATHEMATICS

UNIT 1

ESSENTIAL CONCEPTS

MUF0101

ADVANCED MATHEMATICS UNIT 1

Learning Innovation

Monash University Foundation Year

Unit Overview

This course is the answer to 'why' and the key to gaining lifelong transferrable mathematical skills by applying higher order thinking skills and exploring sophisticated ideas for real world applications. Students will learn to explain, link essential mathematical concepts by applying elegant mathematical techniques. This will give students the opportunity to develop their literacy and ways of critical and creative thinking through mathematical discourse.

STUDY AREA	NUMBER OF WEEKS
Matrices and Vectors	5 weeks
Conics and Complex Numbers	4 – 5 weeks
Trigonometry	2 - 3 weeks

1 The weeks are indicative and may differ across Partner Locations

Unit Assessment

Assessment Type	Weighting	Date[1]	Study Area
Progress Test (Matrices) – Problem based questions – Time: 30 minutes (in class)	**5%**	**Week 3**	Matrices
Vectors Test – Multiple choice and problem based questions – Time: 60 minutes (in class)	**20%**	**Week 5**	**Vectors**
Language Task – Students will work in a group to provide a written and video response, and accompanying mathematical working, to explain a contextual problem.	**20%**	**Week 7**	**Matrices and Vectors Conics and Complex Numbers**
Conics and Complex Numbers Test – Multiple choice and problem based questions Time: 60 minutes (in class)	**20%**	**Week 10**	**Conics and Complex Numbers**
Trigonometry Test – Multiple choice and problem based questions – Time: 60 minutes (in class)	**20%**	**Week 13**	**Trigonometry**
Portfolio – Students will participate in a curated collection of LMS activities to demonstrate progressive learning skill development and achievement across the unit.	**15%**	**Ongoing**	**All Study Areas**

SUBJECT UNIT 1

Unit Knowledge Outcomes

1. Define and explain concepts and techniques related to conics, matrices, linear algebra, vectors, trigonometry and complex numbers.
2. Apply related mathematical concepts and techniques to solve problems involving conics, matrices, linear algebra, vectors, trigonometry and complex numbers including worded application problems
3. Communicate and explain strategies with reasoning when solving problems, using appropriate mathematical language.
4. Use mathematical knowledge to solve problems set in 'real world' contexts
5. Choose and use technology appropriately and efficiently

Unit Skills and Behaviours Outcomes

1. Demonstrate independent learning
2. Work as an effective member of a group, to solve mathematical problems
3. Communicate mathematical ideas using relevant vocabulary and symbols
4. Display awareness of different ways of thinking and problem solving
5. Apply critical thinking to mathematical information, and ascertain the reasonableness of solutions to problems
6. Demonstrate proficiency in the use of tools such as graphics calculators and other technologies

Language Outcomes and Skills

Listening

1. Listen to and mostly comprehend spoken English including mathematical reasoning, multimedia resources, classroom instructions and activities	Recognise features and structures of mathematical explanations Recognise a range of mathematical and general vocabulary to comprehend spoken English Utilise feedback to refine and improve communication of mathematical ideas

Speaking

1. Participate effectively in pairs or groups during mathematical discussions of unit related content in English 2. Perform effectively in English during mathematical explanations in front of peers	Use a range of mathematical and general vocabulary and notation accurately to convey ideas Use peer-to-peer discussion to develop skills in communicating mathematical concepts Demonstrate ability to precisely explain logical or sequential concepts

Reading

1. Use a range of reading strategies to assist comprehension of written mathematical texts	Comprehend question structures and vocabulary in order to interpret task questions Recognise a range of mathematical and general vocabulary and symbolic notation to comprehend written texts Utilise feedback to refine and improve communication of mathematical ideas

Writing

1. Demonstrate ability to precisely explain mathematical reasoning in short answer, and analysis form 2. Identify key information and produce accurate mathematical summary notes and glossaries from resources to demonstrate understanding	Demonstrate ability to logically structure mathematical concepts and solutions to questions Use a range of mathematical and general vocabulary and notation accurately to convey ideas Relate theory to practical examples in order to demonstrate understanding

Unit Prerequisites

Monash University Foundation Year Advanced Mathematics has been designed to prepare students who intend to undertake tertiary courses with a high mathematical content, or which use a considerable amount of mathematical reasoning. Advanced Mathematics may be a prerequisite subject for a number of Monash University destination degrees.

Students undertaking Advanced Mathematics Unit 1 must be concurrently studying *MUF0091 Mathematics Unit 1: Functions and Calculus*, or will have satisfactorily completed this unit previously.

Advanced Mathematics (MUF0101/MUF0102) cannot be studied in conjunction with Fundamental Mathematics (MUF0141/MUF0142).

While Unit 1 can be completed as a single unit, Unit 2 can only be undertaken upon satisfactory completion of Unit 1.

Prescribed Resources

Text:
Cambridge Senior Mathematics AC/VCE: Specialist Mathematics Units 3&4 (interactive textbook powered by HOTmaths, Second Edition), Cambridge Education Australia and New Zealand, Cambridge University Press. ISBN 9781009110570

Calculator:
TI-84 PLUS, Texas Instruments
(or any variant of TI-83 to TI-86 including TI-Nspire CX(**NON**-CAS))

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MONASH College

LEARNING INNOVATION

MONASH UNIVERSITY **FOUNDATION YEAR**

ADVANCED MATHEMATICS

UNIT 2

CALCULUS WITH APPLICATIONS

MUF0102

ADVANCED MATHEMATICS UNIT 2

Learning Innovation

Monash University Foundation Year

Unit Overview

Gaining critical problem solving skills is what this course is about.

Learning the language of mathematics, particularly involving calculus, sets a student up to tackle real world problems.

Exiting careers await those with these skills and strong mathematical knowledge.

STUDY AREA	NUMBER OF WEEKS
Calculus Techniques	4 weeks
Applications of Calculus & Differential Equations	5 weeks
Kinematics & Vector Calculus	4 weeks

Unit Assessment

Assessment Type	Weighting	Date	Study Area
Calculus Techniques Test – Multiple choice and problem based questions – Time: 50 minutes (in class)	**15%**	**Week 4**	**Calculus Techniques**
Calculus Application Task – Series of connected applied mathematical problems in groups – Students will provide a written response, and accompanying mathematical working, to a contextual problem. – Time: 1 week Take home Group Task	**15%**	**Week 7**	**Applications of Calculus**
Differential Equations Test – Multiple choice and problem based questions – Time: 50 minutes (in class)	**15%**	**Week 10**	**Differential Equations**
Kinematics and Vector Calculus Test – Multiple choice and problem based questions – Time: 50 minutes (in class)	**15%**	**Week 13**	**Kinematics and Vector Calculus**
Ongoing Task: Participation – Students will participate in LMS activities, group tasks, class discussion, classwork, and homework.	**10%**	**Ongoing**	**All**
Exam – Time: 90 minutes – Multiple choice and problem based questions	**30%**	**End of Unit**	**All**

ADVANCED MATHEMATICS UNIT 2

Unit Knowledge Outcomes

1. Define and explain concepts and techniques related to calculus and its applications.
2. Apply related mathematical concepts and techniques to solve problems involving calculus and its applications.
3. Communicate arguments and strategies, when solving problems, using appropriate mathematical language
4. Use mathematical knowledge to solve problems set in 'real world' contexts
5. Choose and use technology appropriately and efficiently

Unit Skills and Behaviours Outcomes

1. Demonstrate independent learning
2. Work as an effective member of a group, to solve mathematical problems
3. Communicate mathematical ideas using relevant vocabulary and symbols
4. Display awareness of different ways of thinking and problem solving
5. Apply critical thinking to mathematical information, and ascertain the reasonableness of solutions to problems
6. Demonstrate proficiency in the use of tools such as graphics calculators and other technologies

Language Outcomes and Skills

Listening

1. Listen to and mostly comprehend spoken English including mathematical reasoning, multimedia, classroom instructions and activities	Recognise features and structures of mathematical explanations Recognise a range of mathematical and general vocabulary to comprehend spoken English Utilise feedback to refine and improve communication of mathematical ideas

Speaking

1. Participate effectively in pairs or groups during mathematical discussions of unit related content in English 2. Perform effectively in English during mathematical explanations in front of peers	Use a range of mathematical and general vocabulary and notation accurately to convey ideas Use peer-to-peer discussion to develop skills in communicating mathematical concepts Demonstrate ability to precisely explain logical or sequential concepts

Reading

1. Use a range of reading strategies to assist comprehension of written mathematical texts	Comprehend question structures and vocabulary in order to interpret exam and task questions Recognise a range of mathematical and general vocabulary and symbolic notation to comprehend written texts Utilise feedback to refine and improve communication of mathematical ideas

Writing

1. Demonstrate ability to precisely explain mathematical reasoning in short answer, and analysis form 2. Identify key information and produce accurate mathematical summary notes and glossaries from resources to demonstrate understanding	Demonstrate ability to logically structure mathematical concepts and solutions to questions Use a range of mathematical and general vocabulary and notation accurately to convey ideas Relate theory to practical examples in order to demonstrate understanding

Unit Prerequisites

Each unit of Advanced Mathematics is designed to take **one** semester to complete.

MUF0102 Advanced Mathematics Unit 2: *Calculus with Applications* can only be undertaken upon satisfactory completion of MUF0101 Advanced Mathematics Unit 1: *Essential Concepts* and MUF0091 Mathematics Unit 1: *Functions and Calculus*.

Students undertaking Advanced Mathematics Unit 2: *Calculus with Applications* must be concurrently studying MUF0092 Mathematics Unit 2: *Integration*, *Probability & Statistics* or will have satisfactorily completed this unit previously.

Advanced Mathematics (MUF0101/MUF0102) cannot be studied in conjunction with Fundamental Mathematics (MUF0141/MUF0142).

Prescribed Resources

Text:
Cambridge Senior Mathematics AC/VCE: Specialist Mathematics Units 3&4 (interactive textbook powered by HOTmaths, Second Edition), Cambridge Education Australia and New Zealand, Cambridge University Press. ISBN 9781009110570

Calculator:
TI-84 PLUS, Texas Instruments
(or any variant of TI-83 to TI-86 including TI-Nspire CX(**NON**-CAS))

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MONASH College

PROGRAM DEVELOPMENT AND INNOVATION

MONASH UNIVERSITY **FOUNDATION YEAR**

MUSIC

UNIT 1

Developing Performance Technique and Music Language

MUFO111

MUSIC
UNIT 1

Program Development and Innovation

Marita Rosenberg

Curriculum and Learning Specialist - Subject
Program Development and Innovation
Monash University Foundation Year
subject@mufy.edu.au

Unit 1 Overview

Brief summary of the unit content/concepts covered.

STUDY AREA	NUMBER OF WEEKS
Preparing for Performance – developing performance technique	15 weeks
Music Language - theory and aural development	14 weeks
Performance	15 weeks

Unit Assessment

Assessment Type	Weighting	Date	Study Area
Task 1: Performance Technique Research Research and Presentation Performance of instrumental techniques. Research assignment.	20%	Week 8/9	Preparing for Performance
Task 2: Program Notes Presentation of a 750-word assignment, in the form of Program Notes and analysis.	15%	Week 10	Preparing for Performance and Music Language
Task 3: Technical Work - Scales, arpeggios, and exercises - Sight-reading/improvisation - Study/vocalise	15%	Week 12 Week 13	Preparing for Performance
Tasks 4 and 5: Theory and Aural - Theory assessment (written and practical) - Aural assessment (written and practical)	10% 10%	Week 7/14 Week 8/15	Music Language
Task 6: Final Examination - Performance of two selected works	30%	Week 16	Performance

SUBJECT UNIT 1

Unit Knowledge Outcomes

1. Perform technical works (scales, arpeggios and exercises) fluently and accurately.
2. Demonstrate a variety of music techniques and styles appropriate to the chosen periods or genre.
3. Demonstrate an understanding of music theory at a grade level commensurate with an individual's standard of performance and reflecting previous study of theory
4. Analyse rehearsals and performances and demonstrate the ability to be self –critical with a view to improving any areas which require further practice.
5. Use technology to record and play-back rehearsals and performances.
6. Develop an understanding of how to collect, organise, analyse, synthesise and evaluate information.
7. Develop both solo and ensemble performing skills.
8. Understand the value of feedback and self-reflection in informing the learning process.

Unit Skills and Behaviour Outcomes

1. Understand their own identity as a developing performing musician and realise the value and importance of their own interpretation of selected musical works.
2. Communicate as a performing musician, with a range of audiences, including peers, teachers and the wider community, to achieve confidence and fluency in performance.
3. Understand the importance and value of regular practice in terms of developing their instrumental performance skills.
4. Interact with other people – individually and in groups – in a variety of music making activities.
5. Research music history topics and present findings in essay form.
6. Recognise, identify and transcribe rhythm and pitch.
7. Understand the relationship between theoretical notation and sound.
8. Critically evaluate their own performances of music - both informal and formal - and make changes of interpretation where necessary.

Language Outcomes and Skills

Listening

1. Listen to and mostly comprehend spoken texts including academic, multi-media and classroom genres.	Recognise the difference between multiple positions and perspectives Identify links between course content and key information in spoken material
2. Use note-taking strategies to record information from spoken and multi-media texts and show understanding	Recognise a range of content-related and general vocabulary to comprehend spoken English. Take Effective notes from spoken and visual texts.

Speaking

1. Perform effectively in English during a prepared presentation	Present ideas confidently in front of peers Use discussion skills to actively participate in group discussions Communicate effectively with their specialist instrumental teacher to achieve a high standard of performance of selected technical work and pieces.
2. Participate effectively in groups during discussions of unit related content in English	Demonstrate ability to organise ideas when speaking in order to explain or apply content-related information or express a point of view Speak clearly, using language fluently and flexibly for effective communication Use a range of content-related and general vocabulary accurately to convey ideas

Reading

1. Use a range of reading strategies to comprehend written texts including textbook, media texts and academic genres.	Identify main ideas, details and examples in written texts Recognise the difference between multiple positions and perspectives Identify links between course content and key information in written texts Recognise a range of content-related and general vocabulary to comprehend written texts Take effective notes from written texts
2. Identify key information and produce accurate notes and summaries from written and visual texts to demonstrate understanding	

Writing

1. Write substantial, coherent and accurate texts following guidelines provided	Demonstrate ability to define, describe and explain key content ideas including visual images Demonstrate ability to paraphrase information for the purposes of summary and explanation Demonstrate ability to logically sequence ideas to create a coherent line of argument Relate examples to theory in order to demonstrate understanding, evaluate and analyse ideas Demonstrate grammatical accuracy in order to clearly communicate ideas Reproduce written genre features following guidelines in order to write extended responses Write short answer responses under timed conditions Use a range of content-related and general vocabulary accurately to convey ideas Revise, edit and proofread work
2. Produce short coherent written texts that appropriately respond to timed assessment tasks	
3. Support views with reference to literature, and by following academic conventions	

Unit Prerequisites

Before undertaking Monash University Foundation Year Music Unit 1, instrumentalists and vocalists need to demonstrate an above average level of musical ability on their instrument. Ideally, they'll have completed a minimum practical instrumental level of ABRSM Grade 6 or equivalent level in other programs, such as Trinity Guildhall, AMEB or the China music programs.

Sound production students and composers will need to submit a sample of their work.

It would be beneficial for vocalists to have prior choral experience and/or the ability to read music.

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MONASH College

PROGRAM DEVELOPMENT AND INNOVATION

MONASH UNIVERSITY **FOUNDATION YEAR**

MUSIC

UNIT 2

Developing Music Practice and Performance

MUFO112

MUSIC
UNIT 2

Program Development and Innovation

Marita Rosenberg

Curriculum and Learning Specialist - Subject
Program Development and Innovation
Monash University Foundation Year
subject@mufy.edu.au

Unit 2 Overview

Brief summary of the unit content/concepts covered.

STUDY AREA	NUMBER OF WEEKS
Film Music Composition	10 weeks
Preparing for Performance - developing performance technique	15 weeks
Music Language - theory and aural development	14 weeks
Performance	15 weeks

Unit Assessment

Assessment Type	Weighting	Date	Study Area
Task 1: Film Music Composition - Composition and Main Title Analysis	20%	Week 6 Week 12	Composition
Task 2: Program Notes Presentation of a 1050-word assignment, in the form of Program Notes and analysis.	15%	Week 11	Preparing for Performance Music Language
Task 3: Technical Work - Scales, arpeggios, and exercises - Sight-reading/improvisation - Study/vocalise	15%	Week 12 Week 13	Preparing for Performance
Tasks 4 and 5: Theory and Aural - Theory assessment (written and practical) - Aural assessment (written and practical)	10% 10%	Week 8/13 Week 9/14	Music Language
Task 6: Final Examination - Performance of three selected works.	30%	Week 16	Performance

SUBJECT UNIT 2

Unit Knowledge Outcomes

1. Perform exercises and technical works related to the selected solo performance works, fluently and accurately.
2. Perform the three selected solo works accurately, effectively and with an awareness of the differing styles and varying musical requirements.
3. Demonstrate an understanding of music theory at a grade level commensurate with an individual's standard of performance and reflecting previous study of theory
4. Analyse rehearsals and performances and demonstrate the ability to be self–critical with a view to improving any areas which require further practice.
5. Use technology to record and play-back rehearsals and performances.
6. Develop an understanding of how to collect, organise, analyse, synthesise and evaluate information and to present a written assignment of Program Notes, related to the three works selected for the Solo Performance program.
7. Perform the selected solo and ensemble repertoire in recitals and concerts, as well as in the final examination situation, in a musical manner, and with an understanding of the stylistic differences between the works.
8. Understand the value of feedback and self-reflection in informing the learning process.
9. Demonstrate an understanding of the structure of each selected piece and discuss the biographical and compositional information and other information relevant to the interpretation of each piece.

Unit Skills and Behaviour Outcomes

1. Understand their own identity as a developing performing musician and realise the value and importance of their own interpretation of selected musical works.
2. Communicate as a performing musician, with a range of audiences, including peers, teachers and the wider community, to achieve confidence and fluency in performance.
3. Understand the importance and value of regular practice in terms of developing their instrumental performance skills.
4. Interact with other people – individually and in groups – in a variety of music making activities.
5. Research music history topics and present findings in essay form.
6. Recognise, identify and transcribe rhythm and pitch.
7. Understand the relationship between theoretical notation and sound.
8. Critically evaluate their own performances of music - both informal and formal - and make changes of interpretation where necessary.

Language Outcomes and Skills

Listening

1. Listen to and mostly comprehend spoken texts including academic, multi-media and classroom genres.	Recognise the difference between multiple positions and perspectives Identify links between course content and key information in spoken material
2. Use note-taking strategies to record information from spoken and multi-media texts and show understanding	Recognise a range of content-related and general vocabulary to comprehend spoken English. Take Effective notes from spoken and visual texts.

Speaking

1. Perform effectively in English during a prepared presentation	Present ideas confidently in front of peers Use discussion skills to actively participate in group discussions Communicate effectively with their specialist instrumental teacher to achieve a high standard of performance of selected technical work and pieces.
2. Participate effectively in groups during discussions of unit related content in English	Demonstrate ability to organise ideas when speaking in order to explain or apply content-related information or express a point of view Speak clearly, using language fluently and flexibly for effective communication Use a range of content-related and general vocabulary accurately to convey ideas

Reading

1. Use a range of reading strategies to comprehend written texts including textbook, media texts and academic genres.	Identify main ideas, details and examples in written texts Recognise the difference between multiple positions and perspectives Identify links between course content and key information in written texts Recognise a range of content-related and general vocabulary to comprehend written texts Take effective notes from written texts
2. Identify key information and produce accurate notes and summaries from written and visual texts to demonstrate understanding	

Writing

1. Write substantial, coherent and accurate texts following guidelines provided	Demonstrate ability to define, describe and explain key content ideas including visual images Demonstrate ability to paraphrase information for the purposes of summary and explanation Demonstrate ability to logically sequence ideas to create a coherent line of argument Relate examples to theory in order to demonstrate understanding, evaluate and analyse ideas Demonstrate grammatical accuracy in order to clearly communicate ideas Reproduce written genre features following guidelines in order to write extended responses Write short answer responses under timed conditions Use a range of content-related and general vocabulary accurately to convey ideas Revise, edit and proofread work
2. Produce short coherent written texts that appropriately respond to timed assessment tasks	
3. Support views with reference to literature, and by following academic conventions	

Unit Prerequisites

As this Unit is seen as the second part of a two-part sequence of study, students should have completed the first Unit 'Developing Performance Technique and Music Language' before commencing Unit 2.

All performers should be able to demonstrate considerable progress in technical skills, gained in Unit 1, to support the solo performance requirements of this second unit. It is assumed that all students commencing this Unit will have a good working knowledge of the theory of music and some aural ability.

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MONASH College

MONASH UNIVERSITY **FOUNDATION YEAR**

PHYSICS

UNIT 1

Mechanics and Thermodynamics

MUF0121

PHYSICS
UNIT 1

Monash University Foundation Year

Physics Team

Unit Overview

Mechanics is the branch of physics concerned with the study of motion. This course examines how physical objects move and explores the principles underlying their motion.

Dynamics, a key area within mechanics, focuses on the forces and interactions that cause motion and change in physical systems. It provides the framework for understanding how objects respond to applied forces, making it essential for analyzing real-world phenomena such as vehicle movement, structural stability, and fluid flow.

Thermodynamics addresses heat, temperature, and their relationship to energy and work.

These three disciplines—mechanics, dynamics, and thermodynamics—are closely interconnected and have broad applications across science and engineering. A solid understanding of these topics is essential in fields such as sports, transportation, design, construction, and space exploration.

STUDY AREA	NUMBER OF WEEKS
Kinematics and Dynamics	5 weeks
Energy, Momentum and Circular Motion	4 weeks
Thermodynamics	3 weeks
Practical Investigation	1 week

Unit Assessment

Assessment Type	Weighting	Date	Study Area
Skills and Application Task 1	**10%**	**Week 4**	**Week 1 to Week 3**
Skills and Application Task 2	**20%**	**Week 9**	**Week 1 to Week 8**
Skills and Application Task 3	**20%**	**Week 14**	**All Study Areas**
Practical Report	**20%**	**Between weeks 3 and 12**	**All Study Areas**
Research Project	**20%**	**Week 13**	**Practical Investigation**
Engagement Activities	**10%**	**Ongoing**	**All Study Areas**

PHYSICS UNIT 1

Unit Knowledge Outcomes

1. Define a number of key physical quantities such as displacement, velocity, acceleration, work, momentum, impulse, power, energy, centripetal force and universal gravitation force.
2. Define key thermodynamic quantities such as heat and temperature.
3. State a number of key laws of classical mechanics such as Newton's Three Laws of Motion, work-energy relationship, energy and momentum conservation, uniform circular motion and Newton's law of universal gravitation
4. State key equations that govern thermal expansion, specific heat capacity and latent heat and the transfer of heat
5. Solve problems and give correct numerical answers, using a variety of techniques such as application of formulae, diagrams, graphical analysis and scale drawings
6. Apply physics concepts and equations to explain and understand various physical phenomena
7. Understand the role of physics as an experimental science and the need for measurements and data to test the validity of models or hypotheses
8. Organise data and apply information to complex situations
9. Use measuring instruments to analyse aspects of mechanics and thermodynamics
10. Design and perform appropriate experimental investigations
11. Write scientific reports of experimental investigations

Unit Skills and Behaviours Outcomes

1. Apply the principles of classical mechanics and thermodynamics when answering quantitative and qualitative questions
2. Show independence, enterprise and flexibility in selecting and using a variety of problem-solving methods
3. Measure and record experimental quantities accurately to the appropriate number of significant figures and give some estimate of the uncertainties
4. Plan and perform experimental investigations efficiently, paying attention to safety
5. Work independently to master new concepts making use of a variety of resources
6. Work with other students in teams assigned by the teacher
7. Communicate their understanding of physics in a clear and organised manner, using the key concepts and terms covered in this course
8. Use measuring instruments and technology to obtain relevant experimental data
9. Use spreadsheets to record and manipulate data and produce graphs and trend lines
10. Write an experimental report which includes a conclusion and an evaluation

Language Outcomes and Skills

Listening

1. Comprehend instructions for classroom and laboratory activities	Comprehend the main ideas, details and examples presented during class presentations
2. Use note-taking skills from aural texts	Demonstrate an ability to follow scientific concepts discussed in class
	Demonstrate an ability to follow instructions for classroom and laboratory activities
	Demonstrate an ability to follow laboratory safety instructions
	Identify links between course content and key information presented in audio-visual media
	Take effective notes from aural texts

Speaking

1. Effectively communicate scientific concepts to peers	Use discussion skills to actively discuss scientific concepts with peers in English
2. Participate effectively in group work, including classroom and laboratory activities	Speak clearly in English and present ideas confidently in front of a group
	Demonstrate an ability to ask for assistance as needed during experimental work and when working through course material
	Use a range of scientific and general vocabulary to accurately to convey concepts

Language Outcomes and Skills

Reading

1. Comprehend written material provided, including online material, questions and laboratory instructions	Demonstrate ability to follow scientific explanation
	Comprehend key symbolic and numeric expressions
2. Produce summaries from written text provided	Identify links between course content and key information in written texts
	Recognise a range of scientific and general vocabulary to comprehend written texts
	Comprehend laboratory procedures in order to complete experiments in a safe manner
	Comprehend a range different style of scientific questions in order to complete tasks
	Read and answer questions under timed conditions
	Take effective notes from written texts

Writing

1. Demonstrate an ability to write short explanations for scientific concepts	Write effective notes from written and aural texts
	Accurately record data collected during laboratory work
2. Demonstrate an ability to write experimental reports using appropriate conventions	Demonstrate an ability to write experimental reports using appropriate conventions
	Use appropriate symbolic and numeric expressions to solve problems
	Demonstrate an ability to write short explanations to scientific concepts under timed conditions
	Use a range of scientific and general vocabulary to convey scientific concepts
	Revise, edit and proofread work

Unit Prerequisites

MUF0121 Physics Unit 1: Mechanics and Thermodynamics and MUF0122 Physics Unit 2: Waves, Fields and Particles can be taken in either order or concurrently. However, it is recommended that students successfully complete MUF0121 Physics Unit 1: Mechanics and Thermodynamics prior to undertaking MUF0122 Physics Unit 2: Waves, Fields and Particles.

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MONASH College

MONASH UNIVERSITY **FOUNDATION YEAR**

PHYSICS

UNIT 2

Waves, Fields and Particles

MUF0122

PHYSICS
UNIT 2

Monash University Foundation Year

Physics Team

Unit Overview

Optics and Waves explore the nature of electromagnetic radiation, with particular emphasis on visible light. This section investigates the properties and behavior of waves, including reflection, refraction, and interference.

Electricity and Magnetism examine the principles of electric and magnetic fields and their interactions. This topic provides insight into how these forces operate and are applied in practical systems, forming the basis for technologies such as power generation, electrical circuits, and electromagnetic devices.

Modern Physics introduces concepts from particle and nuclear physics, focusing on the interaction of light and matter. It addresses the structure of atoms, quantum phenomena, and the principles underlying advanced technologies in energy and material science.

These areas of study are deeply interconnected and underpin many modern applications, including communications, power generation, material analysis, and medical imaging.

STUDY AREA	NUMBER OF WEEKS
Optics and Waves	5 weeks
Electricity and Magnetism	5 weeks
Modern Physics	3 weeks

Unit Assessment

Assessment Type	Weighting	Date	Study Area
Skills and Application Task 1	**10%**	**Week 4**	**Week 1 to Week 3**
Skills and Application Task 2	**20%**	**Week 9**	**Week 1 to Week 8**
Skills and Application Task 3	**20%**	**Week 14**	**All Study Areas**
Practical Report	**20%**	**Between weeks 3 and 12**	**All Study Areas**
Research Project	**20%**	**Between weeks 8 and 11**	**External Study Area**
Engagement Activities	**10%**	**Ongoing**	**All Study Areas**

PHYSICS UNIT 2

Unit Knowledge Outcomes

1. Define key concepts of Wave Theory including frequency, period, wavelength, phase and amplitude; and use these concepts in explanations of superposition, interference, and standing waves.

2. Define key concepts of Electricity and Magnetism including charge, current, voltage, power, electric and magnetic fields, and magnetic flux; and use these concepts in explanations of transformers, electric motors, generators, mass spectrometers and synchrotrons

3. Define key concepts of Modern Physics including sub-atomic particles (electrons, protons, neutrons and photons), the equivalence of mass and energy, energy levels, and de Broglie wavelength; and use these concepts in explanations of nuclear reactions, radioactivity, emission and absorption spectra and the photo-electric effect.

4. Solve problems and give correct numerical answers, using a variety of techniques such as application of formulae, diagrams, graphical analysis and scale drawings

5. Apply physics concepts and equations to explain and understand various physical phenomena

6. Understand the role of physics as an experimental science and the need for measurements and data to test the validity of models or hypotheses

7. Organise data and apply information to complex situations

8. Use measuring instruments to analyse aspects of kinematics, dynamics and statics

9. Design and perform appropriate experimental investigations

10. Write scientific reports of experimental investigations

Unit Skills and Behaviours Outcomes

1. Apply the principles of classical mechanics when answering quantitative and qualitative questions

2. Show independence, enterprise and flexibility in selecting and using a variety of problem-solving methods

3. Measure and record experimental quantities accurately to the appropriate number of significant figures and give some estimate of the uncertainties

4. Plan and perform experimental investigations efficiently, paying attention to safety

5. Work independently to master new concepts making use of a variety of resources

6. Work with other students in teams assigned by the teacher

7. Communicate their understanding of physics in a clear and organised manner, using the key concepts and terms covered in this course

8. Use measuring instruments and technology to obtain relevant experimental data

9. Use spreadsheets to record and manipulate data and produce graphs and trend lines

10. Write an experimental report which includes a conclusion and an evaluation

Language Outcomes and Skills

Listening

1. Comprehend instructions for classroom and laboratory activities	Comprehend the main ideas, details and examples presented during class presentations
2. Use note-taking skills from aural texts	Demonstrate an ability to follow scientific concepts discussed in class
	Demonstrate an ability to follow instructions for classroom and laboratory activities
	Demonstrate an ability to follow laboratory safety instructions
	Identify links between course content and key information presented in audio-visual media
	Take effective notes from aural texts

Speaking

1. Effectively communicate scientific concepts to peers	Use discussion skills to actively discuss scientific concepts with peers in English
2. Participate effectively in group work, including classroom and laboratory activities	Speak clearly in English and present ideas confidently in front of a group
	Demonstrate an ability to ask for assistance as needed during experimental work and when working through course material
	Use a range of scientific and general vocabulary to accurately to convey concepts

Language Outcomes and Skills

Reading

1. Comprehend written material provided, including online material, questions and laboratory instructions	Demonstrate ability to follow scientific explanation
	Comprehend key symbolic and numeric expressions
2. Produce summaries from written text provided	Identify links between course content and key information in written texts
	Recognise a range of scientific and general vocabulary to comprehend written texts
	Comprehend laboratory procedures in order to complete experiments in a safe manner
	Comprehend a range different style of scientific questions in order to complete tasks
	Read and answer questions under timed conditions
	Take effective notes from written texts

Writing

1. Demonstrate an ability to write short explanations for scientific concepts	Write effective notes from written and aural texts
	Accurately record data collected during laboratory work
2. Demonstrate an ability to write experimental reports using appropriate conventions	Demonstrate an ability to write experimental reports using appropriate conventions
	Use appropriate symbolic and numeric expressions to solve problems
	Demonstrate an ability to write short explanations to scientific concepts under timed conditions
	Use a range of scientific and general vocabulary to convey scientific concepts
	Revise, edit and proofread work

Unit Prerequisites

MUF0121 Physics Unit 1: Mechanics and Thermodynamics and MUF0122 Physics Unit 2: Waves, Fields and Particles can be taken in either order or concurrently. However, it is recommended that students successfully complete MUF0121 Physics Unit 1: Mechanics and Thermodynamics prior to undertaking MUF0122 Physics Unit 2: Waves, Fields and Particles.

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MONASH
College

LEARNING INNOVATION

MONASH UNIVERSITY FOUNDATION YEAR

GLOBAL STUDIES

UNIT 1

Nations, Economics and People

MUF0131

GLOBAL STUDIES
UNIT 1

Unit Overview

Brief summary of the unit content/concepts covered.

STUDY AREA	NUMBER OF WEEKS
Study Area 1: What is Globalisation?	3 Weeks
Study Area 2: Political Globalisation	3 Weeks
Study Area 3: Economic Globalisation	2 Weeks
Study Area 4: Social impact of globalization	2 Weeks

This course examines the process of globalisation specifically studying the relationships and interdependence between countries, economies and people in our modern world. This course is designed for students to gain and use the core academic skills of reading, thinking, writing and discussing an academic topic.

Assessment Type	Weighting	Date	Study Area
1. Early Assessment Task	10%	In-class during Week 3	Study Area 1
2. Guided Inquiry, Presentation and Debate	20%	In-class during Week 6	Study Area 2
3. Group Investigation and Student Led Seminar	25%	Beginning Week 11	All Study Areas
4. Socratic Seminar	15%	In-class during Week 13	Study Areas 3 and 4
5. Written Report	30%	Due Sunday end of Week 14 at 11:59pm	All Study Areas

GLOBAL STUDIES UNIT 1

Unit Knowledge Outcomes

1. Recall, explain and perform basic analysis of key elements of globalisation, with particular emphasis on political, economic and social globalisation.
2. Apply understanding of globalisation to key topics studied-global governance, economic globalisation and migration.
3. Consider and discuss tensions between globalisation and national sovereignty
4. Identify experiences of globalization relevant to their own lives, and situate these within wider trends.
5. Select and use evidence using a process of reasoning to build and support convincing arguments.
6. Write text responses using academic conventions and incorporating key content.
7. Begin to use and understand conventions of source referencing and acknowledgement appropriate to the university environment.
8. Develop critical thinking strategies by interpreting, analyzing and evaluating different elements of globalization.

Unit Skills and Behaviours Outcomes

1. Question their place and roles in a globalising world.
2. Read and develop inquiry techniques when processing information from text types Like websites, newspapers and textbooks.
3. Apply knowledge to work ethically with others, demonstrating cultural awareness.
4. Articulate and evaluate different perspectives on issues to form conclusions.
5. Communicate in a variety of forms, including academic writing and group discussions.
6. Use feedback to monitor and improve learning.

Language Outcomes and Skills

By the end of this unit, students will be able to:

Listening

1. Listen to and mostly comprehend spoken texts including academic, multi-media and classroom genres.

2. Listen to and mostly comprehend their peers during formal and informal group discussion

3. Use note-taking strategies to record information from spoken and multi-media texts and show understanding

Recognise main ideas, details and examples in speech

Recognise features and structures of a variety of spoken material

Apply critical thinking skills to differentiate between multiple positions and perspectives

Identify and infer implicit features of spoken English such as speaker's purpose, tone or opinion

Identify links between course content and key information in spoken material

Recognise a range of content-related and general vocabulary to comprehend spoken English

Take effective notes from spoken and visual texts

Listen to peers with the intention of being able to respond to questions and/or seek clarification

Speaking

1. Perform effectively in English during prepared seminars

2. Use English confidently in order to provide effective direction and feedback to peers during prepared seminars

3. Participate effectively in groups during discussions of unit related content in English

Use discussion skills to participate actively in Socratic Seminars, student-led seminars and other group/class discussions

Present ideas confidently in front of peers

Demonstrate ability to organise ideas when speaking in order to explain or apply content-related information and/or express a point of view

Demonstrate ability to rephrase ideas when speaking

Demonstrate ability to ask for assistance and clarify meaning

Speak clearly, using language fluently and flexibly for effective communication

Use a range of content-related and general vocabulary accurately to convey ideas

Reading

1. Use a range of reading strategies to comprehend written texts including textbook, media texts and academic genres.

2. Identify key information and produce accurate notes and summaries from written and visual texts to demonstrate understanding

3. Increase reading speed and confidence to work with larger written texts

Identify main ideas, details and examples in written texts

Identify audience and purpose of a written text

Navigate a text through recognition of text features and structures

Apply critical thinking skills to differentiate between multiple positions and perspectives

Use strategies to infer meaning from context

Identify links between course content and key information in written texts

Comprehend question structures and vocabulary in order to interpret assessment task questions

Recognise a range of content-related and general vocabulary to comprehend written texts

Take effective notes from written texts

Writing

1. Write substantial, coherent and accurate texts following guidelines provided

2. Produce short coherent written texts that appropriately respond to timed assessment tasks

3. Support views with reference to literature, and by following academic conventions

Demonstrate ability to define, describe and explain key concepts and ideas including visual images and audio texts

Demonstrate ability to paraphrase information for the purposes of summary and explanation

Demonstrate ability to logically sequence ideas to create a coherent line of argument

Demonstrate grammatical accuracy in order to clearly communicate ideas

Reproduce written genre features, following guidelines, in order to write extended responses

Write short and extended responses under timed conditions

Support views with reference to literature, and by following academic conventions

Use a range of content-related and general vocabulary accurately to convey ideas

Revise, edit and proofread work

Unit Prerequisites

English Unit 1 (MUF0011)

Global Studies Unit 1 and *Global Studies Unit* 2 can be taken sequentially (recommended) or concurrently. Students must pass Unit 1 prior to enrolling in Unit 2 or be concurrently enrolled.

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MONASH College

LEARNING INNOVATION

MONASH UNIVERSITY FOUNDATION YEAR

GLOBAL STUDIES

UNIT 2

CULTURE, RIGHTS AND REACTIONS

MUF0132

GLOBAL STUDIES
UNIT 2

Unit Overview

In this unit, students continue the examination of some of the recent history and key aspects of globalisation. They explore how and to what extent the apparent globalisation of the world is affecting governance, economics and peoples, with a particular emphasis on how it shapes cultures across the world and how it informs and is informed by a discourse of human rights. Students also examine how different nations, governing bodies, societies and cultures respond to globalisation. The course is designed to consolidate students skills of analysis, research and presentation of ideas within an Arts/Humanities framework.

STUDY AREA	NUMBER OF WEEKS
STUDY AREA 1: The Impact of Globalisation on Cultures	4 weeks
STUDY AREA 2: Global Concepts of Human Rights and Justice	5 weeks
STUDY AREA 3: Reactions to Globalisation	4 weeks

Scheduled course contact hours: 5 hours per week – 14 weeks = 70 hours.

Unit Assessment

Assessment Type	Weighting	Date	Study Area
1. Early Assessment Task	5%	In-class during Week 3	Study Area 1
2. Globalisation of Culture Group Presentation	15%	In-class during Week 5	Study Area 1
3. Extended Written Response	10%	Sunday end of Week 6 (11:59pm)	Study Area 1
4. Student-Led Seminar - Human Rights	30%	In-class during Weeks 9-10	Study Area 2
5. Socratic Seminar - Reactions to Globalisation	10%	In-class during Week 13	Study Area 3
6. Research Essay	30%	Sunday end of Week 14 (11:59pm)	Study Areas 1-3

GLOBAL STUDIES UNIT 2

Unit Knowledge Outcomes

By the end of this unit, students will be able to:

1. Recall, explain and analyse key elements of globalisation, with particular emphasis on cultural globalisation, human rights and reactions to globalisation
2. Understand the impact of globalisation on cultures and the way in which some cultures influence others
3. Apply an understanding of globalisation to the world around them, particularly in the contexts of evolving human rights discourses, identified trends in cultural globalisation including, but not limited to, 'Americanisation' and 'Westernisation', and anti-globalisation movements
4. Identify experiences of globalisation relevant to their own cultures and lives and situate these within wider trends
5. Conduct research to provide credible sources for a seminar presentation and extended responses
6. Evaluate texts critically and analyse data to draw conclusions
7. Select and use evidence to build and support convincing arguments
8. Develop understanding and knowledge to use conventions of source referencing and acknowledgement appropriate to the Arts/Humanities
9. Develop critical thinking strategies to consider different elements of globalisation

Unit Skills and Behaviours Outcomes

By the end of this unit, students will be able to:

1. Question their place and roles in a globalising world
2. Read and develop inquiry techniques when processing information from text types like websites, newspapers and textbooks
3. Read, view and listen critically to make informed conclusions
4. Articulate and evaluate different perspectives on issues to form conclusions
5. Apply knowledge to work ethically with others, demonstrating cultural awareness
6. Use communication skills in ways that allow for effective collaborative learning
7. Communicate in a variety of forms, including academic writing and group discussions
8. Use feedback to monitor and improve learning

Language Outcomes and Skills

By the end of this unit, students will be able to:

Listening

1. Listen to and mostly comprehend spoken texts including academic, multi-media and classroom genres.

2. Listen to and mostly comprehend their peers during formal and informal group discussion

3. Use note-taking strategies to record information from spoken and multi-media texts and show understanding

Recognise main ideas, details and examples in speech

Recognise features and structures of a variety of spoken material

Apply critical thinking skills to differentiate between multiple positions and perspectives

Identify and infer implicit features of spoken English such as speaker's purpose, tone or opinion

Identify links between course content and key information in spoken material

Recognise a range of content-related and general vocabulary to comprehend spoken English

Take effective notes from spoken and visual texts

Listen to peers with the intention of being able to respond to questions and/or seek clarification

Speaking

1. Perform effectively in English during prepared seminars

2. Use English confidently in order to provide effective direction and feedback to peers during prepared seminars

3. Participate effectively in groups during discussions of unit related content in English

Use discussion skills to participate actively in Socratic Seminars, student-led seminars and other group/class discussions

Present ideas confidently in front of peers

Demonstrate ability to organise ideas when speaking in order to explain or apply content-related information and/or express a point of view

Demonstrate ability to rephrase ideas when speaking

Demonstrate ability to ask for assistance and clarify meaning

Speak clearly, using language fluently and flexibly for effective communication

Use a range of content-related and general vocabulary accurately to convey ideas

Reading

1. Use a range of reading strategies to comprehend written texts including textbook, media texts and academic genres.

2. Identify key information and produce accurate notes and summaries from written and visual texts to demonstrate understanding

3. Increase reading speed and confidence to work with larger written texts

Identify main ideas, details and examples in written texts

Identify audience and purpose of a written text

Navigate a text through recognition of text features and structures

Apply critical thinking skills to differentiate between multiple positions and perspectives

Use strategies to infer meaning from context

Identify links between course content and key information in written texts

Comprehend question structures and vocabulary in order to interpret assessment task questions

Recognise a range of content-related and general vocabulary to comprehend written texts

Take effective notes from written texts

Writing

1. Write substantial, coherent and accurate texts following guidelines provided

2. Produce short coherent written texts that appropriately respond to timed assessment tasks

3. Support views with reference to literature, and by following academic conventions

Demonstrate ability to define, describe and explain key concepts and ideas including visual images and audio texts

Demonstrate ability to paraphrase information for the purposes of summary and explanation

Demonstrate ability to logically sequence ideas to create a coherent line of argument

Demonstrate grammatical accuracy in order to clearly communicate ideas

Reproduce written genre features, following guidelines, in order to write extended responses

Write short and extended responses under timed conditions

Support views with reference to literature, and by following academic conventions

Use a range of content-related and general vocabulary accurately to convey ideas

Revise, edit and proofread work

Unit Prerequisites

English Unit 1 (MUF0011)

Global Studies Unit 1 and *Global Studies Unit 2* can be taken sequentially(recommended) or concurrently. Students must pass Unit 1 prior to enrolling in Unit 2 or be concurrently enrolled.

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MONASH College

LEARNING INNOVATION

MONASH UNIVERSITY **FOUNDATION YEAR**

FUNDAMENTAL MATHEMATICS

UNIT 1

APPLICATIONS OF MATHEMATICS

MUF0141

FUNDAMENTAL MATHEMATICS UNIT 1

Learning Innovation
Monash University Foundation Year

Unit Overview

This course will give students the opportunity to develop mathematics skills which can be applied in their everyday lives.

There will be a focus on understanding the world through patterns and relationships, and development of financial skills.

STUDY AREA	NUMBER OF WEEKS
Graphs & Relations	5 weeks
Sequences & Series	3 weeks
Business Mathematics	5 weeks

Scheduled Course Contact Hours: 5 hours per week over 14 weeks = 70 hours

Unit Assessment

Assessment Type	Weighting	Date	Study Area
Progress Test – Problem based questions – Time: 30 minutes (in class)	**5%**	**Week 3**	**Graphs & Relations**
Graphs & Relations Test – Multiple choice and problem based questions – Time: 60 minutes (in class)	**20%**	**Week 5**	**Graphs & Relations**
Sequences & Series Test – Multiple choice and problem based questions – Time: 60 minutes (in class)	**20%**	**Week 9**	**Sequences & Series**
Business Mathematics Test – Multiple choice and problem based questions – Time: 60 minutes (in class)	**20%**	**Week 13**	**Business Mathematics**
Business Mathematics Group Application Task – Applied problems (groups)	**20%**	**Week 14**	**Business Mathematics**
Portfolio – A collection of selected LMS activities completed progressively throughout the course.	**15%**	**Ongoing**	**All**

FUNDAMENTAL MATHEMATICS UNIT 1

Unit Knowledge Outcomes

1. Define and explain concepts and techniques related to graphs and relations, sequences and series and business mathematics
2. Apply related mathematical concepts and techniques to solve problems involving graphs and relations, sequence and series and business mathematics including applications in word problems
3. Communicate arguments and strategies, when solving problems, using appropriate mathematical language
4. Use mathematical knowledge to solve problems set in 'real world' contexts
5. Choose and use technology appropriately and efficiently

Unit Skills and Behaviours Outcomes

1. Work independently, and as an effective member of a team, to solve mathematical problems
2. Communicate mathematical ideas using relevant vocabulary and symbols
3. Interpret mathematical information, and ascertain the reasonableness of solutions to problems
4. Demonstrate awareness of different ways of thinking and problem solving in contexts involving graphs and relations, sequences and series and business mathematics.
5. Demonstrate proficiency in the use of tools such as graphics calculators, spreadsheets and other technologies

Language Outcomes and Skills

Listening

1. Listen to and mostly comprehend spoken English including mathematical reasoning, multimedia, classroom instructions and activities	Recognise features and structures of mathematical explanations Recognise a range of mathematical and general vocabulary to comprehend spoken English Utilise feedback to refine and improve communication of mathematical ideas

Speaking

1. Participate effectively in pairs or groups during mathematical discussions of unit related content in English 2. Perform effectively in English during mathematical explanations in front of peers	Use a range of mathematical and general vocabulary and notation accurately to convey ideas Use peer-to-peer discussion to develop skills in communicating mathematical concepts Demonstrate ability to precisely explain logical or sequential concepts

Reading

1. Use a range of reading strategies to assist comprehension of written mathematical texts	Comprehend question structures and vocabulary in order to interpret exam and task questions Recognise a range of mathematical and general vocabulary and symbolic notation to comprehend written texts Utilise feedback to refine and improve communication of mathematical ideas

Writing

1. Demonstrate ability to precisely explain mathematical reasoning in short answer, and analysis form	Demonstrate ability to logically structure mathematical concepts and solutions to questions Use a range of mathematical and general vocabulary and notation accurately to convey ideas Relate theory to practical examples in order to demonstrate understanding

Unit Prerequisites

In order to succeed in this unit, it is recommended that students will have satisfactorily completed an appropriate Year 11 Mathematics or equivalent program.

Presumed knowledge for Unit 1 includes skill in estimation and calculation with number and in problem solving using basic algebra and graphs. Background knowledge and skills in number operations, and introductory algebra, are expected. It is not expected that time will be spent introducing this presumed knowledge and skills, but it is assumed that the level of proficiency will allow for immediate reinforcement through the application developed within the unit.

MUF0141 Fundamental Mathematics Unit 1: Applications of Mathematics and MUF0142 Fundamental Mathematics Unit 2: Data Analysis can be completed concurrently, or sequentially.

MUF0142 can only be undertaken upon satisfactory completion of MUF0141, or as a concurrent study.

Monash University Foundation Year Fundamental Mathematics (MUF0141/MUF0142) cannot be studied in conjunction with Mathematics (MUF0091/MUF0092) or Advanced Mathematics (MUF0101/MUF0102).

Prescribed Resources

Text:
Nolan J et al. Maths Quest Fundamental Mathematics, John Wiley & Sons, Milton, Queensland.
ISBN 9780730321217

Calculator:
TI-84 PLUS, Texas Instruments
(or any variant of TI-83 to TI-86, including TI-Nspire CX (**NON**-CAS))

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MONASH College

LEARNING INNOVATION

MONASH UNIVERSITY **FOUNDATION YEAR**

FUNDAMENTAL MATHEMATICS

UNIT 2

DATA ANALYSIS

MUF0142

FUNDAMENTAL MATHEMATICS UNIT 2

Learning Innovation
Monash University Foundation Year

Unit Overview

This course will give you the opportunity to develop mathematics skills which will be relevant for future study, and careers across a variety of sectors. There will be a focus on understanding the world through data, and using analysis to make data meaningful. There will be an opportunity to build on the skills learnt in Unit 1, and extend them into the study of probability and statistics.

STUDY AREA	NUMBER OF WEEKS
Univariate Data	3.5 weeks
Bivariate Data	6 weeks
Probability	3.5 weeks

Scheduled Course Contact Hours: 5 hours per week over 14 weeks = 70 hours

Unit Assessment

Assessment Type	Weighting	Date	Study Area
Univariate Data Test – Students will respond to a selection of multiple choice and problem based questions.	**17.5%**	**Week 4**	**Univariate Data**
Bivariate Data Group Application Task – Students will respond to a series of applied problems, in groups	**10%**	**Week 7**	**Bivariate Data**
Bivariate Data Test – Students will respond to a selection of multiple choice and problem based questions.	**15%**	**Week 10**	**Bivariate Data**
Probability Test – Students will respond to a selection of multiple choice and problem based questions.	**17.5%**	**Week 13**	**Probability**
Participation – Students will participate in Moodle activities, group tasks, class discussion, classwork, and homework.	**10%**	**Ongoing**	**All**
Exam – Students will respond to a selection of multiple choice and problem based questions.	**30%**	**End of Unit**	**All**

FUNDAMENTAL MATHEMATICS UNIT 2

Unit Knowledge Outcomes

At the end of this unit, students will be able to:

1. Define and explain concepts and techniques related to univariate and bivariate statistics, and probability
2. Identify and apply specified methods for organising, displaying and summarising datasets
3. Apply related mathematical concepts and techniques to solve problems involving univariate and bivariate statistics, and probability
4. Communicate arguments and strategies, when solving problems, using appropriate mathematical language
5. Use mathematical knowledge to solve problems set in 'real world' contexts
6. Choose and use technology appropriately and efficiently

Unit Skills and Behaviours Outcomes

At the end of this unit, students will be able to:

1. Work independently, and as an effective member of a team, to solve mathematical problems
2 .Communicate mathematical ideas using relevant vocabulary and symbols
3. Interpret mathematical information, and ascertain the reasonableness of solutions to problems
4. Demonstrate awareness of different ways of thinking and problem solving in contexts involving univariate and bivariate statistics, and probability
5. Demonstrate proficiency in the use of tools such as graphics calculators, spreadsheets and other technologies

Language Outcomes and Skills

Listening

1. Listen to and mostly comprehend spoken English including mathematical reasoning, multimedia, classroom instructions and activities	**Recognise features and structures of mathematical explanations** **Recognise a range of mathematical and general vocabulary to comprehend spoken English**

Speaking

1. Participate effectively in pairs or groups during mathematical discussions of unit related content in English	**Use a range of mathematical and general vocabulary and notation accurately to convey ideas**
2. Perform effectively in English during mathematical explanations in front of peers	**Use peer-to-peer discussion to develop skills in communicating mathematical concepts** **Demonstrate ability to precisely explain logical or sequential concepts**

Reading

1. Use a range of reading strategies to assist comprehension of written mathematical texts	**Comprehend question structures and vocabulary in order to interpret exam and task questions** **Recognise a range of mathematical and general vocabulary and symbolic notation to comprehend written texts**

Writing

1. Demonstrate ability to precisely explain mathematical reasoning in short answer, and analysis form	**Demonstrate ability to logically structure mathematical concepts and solutions to questions** **Use a range of mathematical and general vocabulary and notation accurately to convey ideas** **Relate theory to practical examples in order to demonstrate understanding**

Unit Prerequisites

In order to succeed in this unit, it is recommended that students will have satisfactorily completed an appropriate Year 11 Mathematics or equivalent program.

Background knowledge and skills in number operations, and introductory algebra, are expected. It is not expected that time will be spent introducing this presumed knowledge and skills, but it is assumed that the level of proficiency will allow for immediate reinforcement through the application developed within the unit.

MUF0142 Fundamental Mathematics Unit 2: Data Analysis can only be undertaken upon satisfactory completion of Unit 1 or as a concurrent study.

Monash University Foundation Year Fundamental Mathematics (MUF0141/MUF0142) cannot be studied in conjunction with Mathematics (MUF0091/MUF0092) or Advanced Mathematics (MUF0101/MUF0102).

Prescribed Resources

Text:
Nolan J et al. Maths Quest Fundamental Mathematics, John Wiley & Sons, Milton, Queensland.
ISBN 9780730321217

Calculator:
TI-84 PLUS, Texas Instruments
(or any variant of TI-83 to TI-86, including TI-Nspire CX (**NON**-CAS))

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MONASH College

LEARNING INNOVATION

MONASH UNIVERSITY **FOUNDATION YEAR**

CONTEMPORARY ISSUES

UNIT 1

Local, National, Global

MUF0151

CONTEMPORARY ISSUES UNIT 1

Unit Overview

Contemporary Issues acknowledges the reality that many current world issues will become the responsibility of younger generations. By exploring and analysing a selection of these issues at a Local, National, Global scale, students will be encouraged to see themselves as global citizens and to understand how they can have a positive impact on the world around them.

Students will complete one thematic module in this unit, as selected by the teaching team at their location provider. Currently there are two thematic modules for teaching teams to select from: Health and Sustainability.

The development of strong communication, collaboration and critical thinking skills will also be at the forefront of this unit.

Modules (one module selected by teacher per semester)	NUMBER OF WEEKS
Module: Contemporary Issues in Health	14 weeks
Module: Contemporary Issues in Sustainability	14 weeks

Unit Assessment

Assessment Type	Weighting	Date
A1 – Early Assessment Task	**10%**	**In-class Week 3**
AT 2 - Socratic Seminar 1	**15%**	**In-class Week 5**
AT 3 - Group Investigation and Student Led Seminar	**30%**	**In-class Beginning Week 9**
AT 4 - Written Report	**30%**	**Sunday end of Week 13 (11:59pm)**
AT 5 - Socratic Seminar 2	**15%**	**Week 14**

CONTEMPORARY ISSUES UNIT 1

Unit Knowledge Outcomes

By the end of this unit, students will be able to:

1. Recall, explain and analyse contemporary issues using the issues based learning framework of Local/National/Global.
2. Demonstrate critical thinking strategies by interpreting, analysing and evaluating a variety of contemporary issues and case studies in relation to the pillars of sustainability: political, social, economic and environmental aspects and implications.
3. Link the case studies covered in class to the idea of being a global citizen
4. Identify and articulate how contemporary issues in the world are connected to the personal experience of others as well as their own lives
5. Undertake real world investigations that connect to local communities.
6. Select, evaluate and use evidence using a process of reasoning to build and support convincing arguments
7. Write text responses using academic conventions and incorporating key content
8. Use and understand conventions of source referencing and acknowledgement appropriate to the university environment

Unit Skills and Behaviours Outcomes

By the end of this unit, students will be able to:

1. Demonstrate critical thinking techniques in order to read/view, evaluate and process information from a variety of texts, such as websites, newspapers, textbooks and videos
2. Identify and discuss the issues based on evidence from a range of sources
3. Apply knowledge to work respectfully and ethically with others, demonstrating cultural awareness
4. Articulate and evaluate different perspectives on issues to form conclusions
5. Ask questions and engage in discussion that allows for the demonstration of analysis, synthesis and evaluation
6. Communicate in a variety of forms, including academic writing, leading presentations and participation in group discussion
7. Use feedback to monitor and improve learning

Language Outcomes and Skills

By the end of this unit, students will be able to:

Listening

	Recognise main ideas, details and examples in speech
	Recognise features and structures of a variety of spoken material
1. Listen to and mostly comprehend spoken texts including academic, multi-media and classroom genres.	Apply critical thinking skills to differentiate between multiple positions and perspectives
	Identify and infer implicit features of spoken English such as speaker's purpose, tone or opinion
2. Listen to and mostly comprehend their peers during formal and informal group discussion	Identify links between course content and key information in spoken material
3. Use note-taking strategies to record information from spoken and multi-media texts and show understanding	Recognise a range of content-related and general vocabulary to comprehend spoken English
	Take effective notes from spoken and visual texts
	Listen to peers with the intention of being able to respond to questions and/or seek clarification

Speaking

1. Perform effectively in English during prepared seminars/presentations

2. Use English confidently in a series of short video responses to reading stimuli

3. Participate effectively in groups during discussions of unit related content in English

Use discussion skills to participate actively in Socratic Seminars and other group/class discussions

Present ideas confidently in front of peers

Demonstrate ability to organise ideas when speaking in order to explain or apply content- related information and/or express a point of view

Demonstrate ability to rephrase ideas when speaking

Demonstrate ability to ask for assistance and clarify meaning

Speak clearly, using language fluently and flexibly for effective communication

Use a range of content-related and general vocabulary accurately to convey ideas

Reading

1. Use a range of reading strategies to comprehend written texts including textbook, media texts and academic genres.

2. Identify key information and produce accurate notes and summaries from written and visual texts to demonstrate understanding

3. Increase reading speed and confidence to work with larger written texts

Identify main ideas, details and examples in written texts

Identify audience and purpose of a written text

Navigate a text through recognition of text features and structures

Apply critical thinking skills to differentiate between multiple positions and perspectives

Use strategies to infer meaning from context

Identify links between course content and key information in written texts

Comprehend question structures and vocabulary in order to interpret assessment task questions

Recognise a range of content-related and general vocabulary to comprehend written texts

Take effective notes from written texts

Writing

1. Write substantial, coherent and accurate texts following guidelines provided	Demonstrate ability to define, describe and explain key concepts and ideas including visual images and audio texts
2. Produce short coherent written texts that appropriately respond to timed assessment tasks	Demonstrate ability to paraphrase information for the purposes of summary and explanation
3. Support views with reference to literature, and by following academic conventions	Demonstrate ability to logically sequence ideas to create a coherent line of argument
	Demonstrate grammatical accuracy in order to clearly communicate ideas
	Reproduce written genre features, following guidelines, in order to write extended responses
	Write short and extended responses under timed conditions
	Use a range of content-related and general vocabulary accurately to convey ideas
	Revise, edit and proofread work

Unit Prerequisites

While *Contemporary Issues Unit 1: Local, National, Global* can be completed without completing *Contemporary Issues Unit 2: Causes, Consequences, Responses*, Unit 2 cannot be undertaken without completing Unit 1.

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MONASH College

LEARNING INNOVATION

MONASH UNIVERSITY FOUNDATION YEAR

CONTEMPORARY ISSUES

UNIT 2

Causes, Consequences, Responses

MUF0152

CONTEMPORARY ISSUES
UNIT 2

Learning Innovation

Unit Overview

Contemporary Issues Unit 2 aims to help students consolidate the skills of critical thinking and communication established in Unit 1, while building confidence in University style learning and assessment.

Students explore several theoretical ideas and then apply these ideas through an issues based learning framework of; Causes, Consequences and Responses, in relation to a range of Contemporary Issues and case studies.

Students will complete one thematic module in this unit, as selected by the teaching team at their location provider. Currently there are two thematic modules for teaching teams to select from: Conflict and Inequality.

The development of strong communication, collaboration and critical thinking skills will also be at the forefront of this unit.

Modules (one Module chosen by teacher per semester)	NUMBER OF WEEKS
Module: Contemporary Issues - Conflict	14 weeks
Module: Contemporary Issues - Inequality	14 weeks

Unit Assessment

Assessment Type	Weighting	Date
AT 1 – Early Assessment Task	**5%**	**Week 3**
AT 2 - Weekly Reading Task and Written Component	**25%**	**Weeks 3-6**
AT 3 - Group Investigation and Student Led Seminar	**30%**	**Weeks 9-10**
AT 4 - Essay	**30%**	**Week 13**
AT 5 - Socratic Seminar	**10%**	**Week 14**

Contemporary Issues Unit 2

Unit Knowledge Outcomes

By the end of this unit, students will be able to:

1. Recall, explain and analyse contemporary issues using the issues based learning framework of Causes/Consequences/Responses.
2. Demonstrate critical thinking strategies by interpreting, analysing and evaluating a variety of contemporary issues and case studies
3. Link the case studies covered in class to important theoretical ideas
4. Identify and articulate how contemporary issues in the world are connected to the personal experience of others as well as their own lives
5. Understand how to be critical consumers of media, especially in relation to the reporting and discussion of various contemporary issues and topics
6. Select, evaluate and use evidence using a process of reasoning to build and support convincing arguments
7. Write text responses using academic conventions and incorporating key content
8. Use and understand conventions of source referencing and acknowledgement appropriate to the university environment

Unit Skills and Behaviours Outcomes

By the end of this unit, students will be able to:

1. Demonstrate critical thinking techniques in order to read/view, evaluate and process information from a variety of texts, such as websites, newspapers, textbooks and videos
2. Identify and discuss the significance of bias within media reporting of key issues/events
3. Apply knowledge to work respectfully and ethically with others, demonstrating cultural awareness
4. Articulate and evaluate different perspectives on issues to form conclusions
5. Ask questions and engage in discussion that allows for the demonstration of analysis, synthesis and evaluation
6. Communicate in a variety of forms, including academic writing, leading presentations and participation in group discussion
7. Use feedback to monitor and improve learning

Language Outcomes and Skills

By the end of this unit, students will be able to:

Listening

	Identify main ideas, details and examples in speech
	Apply critical thinking skills to differentiate between multiple positions and perspectives
1. Listen to and comprehend spoken texts including academic, multi-media and classroom genres.	Identify and infer implicit features of spoken English such as speaker's purpose, tone or opinion
	Identify links between course content and key information in spoken material
2. Listen to and comprehend their peers during formal and informal group discussion	Recognise a range of content-related and general vocabulary to comprehend spoken English
3. Use note-taking strategies to record information from spoken and multimedia texts and demonstrate understanding	Take effective notes from spoken and visual texts
	Listen to peers with the intention of being able to respond to questions and/or seek clarification

Speaking

1. Perform effectively in English during prepared discussions

2. Use English confidently in a series of short video responses to reading stimuli

3. Participate effectively in groups during discussions of unit-related content in English

Use discussion skills to participate actively in weekly student-led discussions and other group/class discussions

Present ideas confidently in front of peers

Demonstrate ability to organise ideas when speaking in order to explain or apply content- related information and/or express a point of view

Demonstrate ability to rephrase ideas when speaking

Demonstrate ability to ask for assistance and clarify meaning

Speak clearly, using language fluently and flexibly for effective communication

Use a range of content-related and general vocabulary accurately to convey ideas

Reading

1. Use a range of reading strategies to comprehend written texts including textbook, media texts and academic genres.

2. Identify key information and produce accurate notes and summaries from written and visual texts to demonstrate understanding

3. Increase reading speed and confidence to work with larger written texts

Identify main ideas, details and examples in written texts

Identify audience and purpose of a written text

Identify gaps and silences within a

text Evaluate the validity and

reliability of a text

Apply critical thinking skills to differentiate between multiple positions and perspectives

Use strategies to infer meaning from context

Identify links between course content and key information in written texts

Comprehend question structures and vocabulary in order to interpret assessment task questions

Recognise a range of content-related and general vocabulary to comprehend written texts

Take effective notes from written texts

Writing

1. Write substantial, coherent and accurate texts following guidelines provided	Demonstrate ability to define, describe and explain key concepts and ideas including visual images and audio texts
2. Produce coherent written texts that appropriately respond to assessment guidelines	Demonstrate ability to paraphrase information for the purposes of summary and explanation
3. Support views with reference to literature, and by following academic conventions	Demonstrate ability to logically sequence and synthesise ideas to create a coherent line of argument
	Demonstrate grammatical accuracy in order to clearly communicate ideas
	Reproduce written genre features, following guidelines, in order to write extended responses
	Use a range of content-related and general vocabulary accurately to convey ideas
	Revise, edit and proofread work

Unit Prerequisites

While *Contemporary Issues Unit 1: Local, National, Global* can be completed without completing *Contemporary Issues Unit 2: Causes, Consequences, Responses*, Unit 2 cannot be undertaken without completing Unit 1.

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