Hubbard's School
U-centric learning

SENIOR SCHOOL SUBJECT BROCHURE 2023

BIOLOGY

General Subject

WHAT WILL I BE STUDYING?

UNIT 1
CELLS AND MULTICELLULAR ORGANISMS

- Cells as the basis of life
- Multicellular organisms

UNIT 2
MAINTAINING THE INTERNAL ENVIRONMENT

- Homeostasis
- Infectious diseases

UNIT 4
HEREDITY AND THE CONTINUITY OF LIFE

- DNA, genes, and the continuity of life
- Continuity of life on Earth

UNIT 3
HEREDITY AND CONTINUITY OF LIFE

- Topic 1: Describing Biodiversity
- Topic 2: Ecosystem Dynamics

A ½ day compulsory excursion will be held partway through the year to Bunyaville Environmental Education Centre.

HOW WILL BIOLOGY BE USEFUL?

- A knowledge of biology helps us understand fundamental questions about living things. This includes questions such as
  - How does life begin?
  - How is life maintained?
  - How does life change?
- It provides a solid background for biological studies at a tertiary level, including many health sciences. It is also a suitable science for students who are interested in studying primary education.

WHAT IS THE BEST WAY TO STUDY BIOLOGY?

- **ATTEND ALL LESSONS.** Absences result in loss of continuity of the topic. In the case of unavoidable absences, make sure you find out what was covered by accessing the class blog.
- **DISCUSSION & PARTICIPATION.** Some biological issues require deep thought and discussion of nuances (especially when considering evolution). Although voluntary, participation in debate/class discussion will help you to develop clear and logical ideas.
- **USE MATRIX.** Invaluable resources (the class blog, the biology workbook, in class annotations, revision resources, additional worksheets, internal assessment resources) are available on Matrix.
- **HOMEWORK QUIZZES.** This course has been divided into 19 modules. Each module has an associated online quiz that can be accessed via Matrix. Quizzes will be unlocked at the completion of each module. The quizzes contain questions that have been mapped to the requirements of the QCAA Biology Syllabus Document. You are required to submit your answers to receive feedback on your understanding of course content.
- **BIOLOGY WORKBOOK.** A workbook has been developed by your teacher, which will enable you to track your learning throughout the course. You should ensure that your notes in the workbook are kept up to date.
- **PAST EXAM QUESTIONS:** Past papers from previous years (as well as other revision resources) are available on Matrix (solutions also provided).

HOW WILL I BE ASSESSED?

SUMMATIVE INTERNAL ASSESSMENT

Three internal assessments (IA) and one external assessment (EA).

- IA1: Data test x1 60min test **10%**
- IA2: Student Experiment **20%**
- IA3: Research Investigation *(Research based report on a broad claim from genetics and evolution)* **20%**

SUMMATIVE EXTERNAL ASSESSMENT

- Unit 3 & 4: Examination **50%**

  1 x 90 min exam *(multiple choice & short answer)*

  1 x 90 min exam *(short answer only)*

WHAT RESOURCES WILL I NEED?

TEXTBOOKS

- *Nelson QScience Biology Units 1&2*
- *Nelson QScience Biology Units 3&4*
- *Oxford Study Buddy QCE Biology Units 3 & 4*
- *Hubbard's Biology Workbook*

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CHEMISTRY

Senior External Subject

WHAT WILL I BE STUDYING?

UNIT 1
CHEMICAL FUNDAMENTALS – STRUCTURE,PROPERTIES AND REACTIONS

- Properties and structure of atoms
- Properties and structure of materials
- Chemical reactions – reactants, products, and energy change

UNIT 2
MOLECULAR INTERACTIONS AND REACTIONS

- Intermolecular forces and gases
- Aqueous solutions and acidity
- Rates of chemical reactions

UNIT 3
EQUILIBRIUM, ACIDS AND REDOX REACTIONS

- Chemical equilibrium systems
- Oxidation and reduction

UNIT 4
STRUCTURE, SYNTHESIS AND DESIGN

- Properties and structure of organic materials
- Chemical synthesis and design

By the conclusion of the course of study, candidates will:

- Apply understanding of, and describe and explain scientific concepts, theories, models and systems and their limitations.
- Analyse and interpret evidence and investigate phenomena
- Evaluation processes, claims and conclusions
- Communicate understandings, findings, arguments, and conclusions

HOW WILL CHEMISTRY BE USEFUL?

- Chemistry is central to understanding the phenomena of the reactions of matter.
- Understanding chemistry allows you to look at any everyday object and understand it on an atomic level.
- Mastering this subject will give you the tools to evaluate many claims about nutrition and health in your everyday life.
- Most university courses with a science pre-requisite will accept or require chemistry.
- Chemistry is intimately involved in extractive, refining and manufacturing industries, which provide our food, clothing and many of the articles we use daily.

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HOW WILL I BE ASSESSED?

SENIOR EXTERNAL EXAMINATION 1 50%

- IA1: Section 1 Data test
- IA2: Section 2 Extended response

SENIOR EXTERNAL EXAMINATION 2 50%

- Units 3 & 4 – Paper 1 Combination response
- Units 3 & 4 – Paper 2 Combination response

Assessment is based on the QCAA syllabus objectives.

WHAT IS THE BEST WAY TO STUDY CHEMISTRY?

- Undertake brief reading of the topic before classes to become familiar with some of the concepts and language
- Complete set homework. Practice problems that reflect the focus of lessons will be provided regularly.
- Participate in the practical component of the course and submit reports.

WHAT RESOURCES WILL I NEED? TEXTBOOKS

- *Chemistry Skills and Assessment Units 1 & 2*
- *Chemistry Skills and Assessment Units 3 & 4*
- *Chemistry for Queensland Units 1 & 2*
- *Chemistry for Queensland Units 3 & 4*
- *Study Buddy QCE Chemistry Units 3 & 4*

ENGLISH

General Subject

WHAT WILL I BE STUDYING?

- Students will be engaged in the study of a variety of text types and concepts such as reader positioning, representations, and intertextuality.
- Sample text types will be studied for meaning and then deconstructed to develop an understanding of literary conventions and devices.
- Students will be engaged in the reading and writing of creative, persuasive, and expository texts.

UNIT 1
PERSPECTIVES AND TEXTS

- Exploring connection between texts
- Responding to literary texts critically
- Creating analytical texts

UNIT 2
TEXTS AND CULTURE

- Exploring literary texts
- Using a literary text as a springboard for a creative response

UNIT 3
TEXTUAL CONNECTIONS

- Exploring connections between texts
- Examining different perspectives of the same concept in texts and shaping own perspectives
- Creating responses for public audiences and persuasive texts

UNIT 4
CLOSE STUDY OF LITERARY TEXTS

- Engaging with literary texts from diverse times and places
- Responding to literary texts creatively and critically
- Creating imaginative and analytical texts

HOW WILL I BE ASSESSED?

Three internal assessments (IA) and one external assessment (EA).

SUMMATIVE INTERNAL ASSESSMENT

- IA1: Extended response - written response for a public audience
- IA2: Extended response - persuasive spoken response
- IA3: Examination - imaginative written response

SUMMATIVE EXTERNAL ASSESSMENT

- EA: unseen analytical essay on a literacy text.

WHAT IS THE BEST WAY TO STUDY ENGLISH?

- Complete all required reading and viewings
- Engage in critical thinking and class discussions about texts and ask questions.
- Take responsibility for planning, drafting, and editingyour own work.
- Carefully follow provided checklists and guidelines

WHAT RESOURCES WILL I NEED?

READING AND VIEWING MATERIAL (provided)

- *Of Mice and Men by John Steinbeck*
- *Cliff's Notes: Of Mice and Men by Susan Van Kirk*
- *Hidden Figures, dir. by Theodore Melfi*
- *Poetry of Judith Wright & Oodgeroo Noonuccal*
- *Little Miss Sunshine, dir. by Jonathan Dayton &Valerie Farris*
- *Away, by Michael Gow*
- *Smoke Encrypted Whispers, by Sam Wagan Watson(poetry anthology)*
- *Macbeth, by William Shakespeare, Cliff's edition*
- *MacMillan Essential English, Units 3 & 4*
- *MacMillian English QCE, Units 3 & 4*

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GENERAL MATHS

General Subject

WHAT WILL I BE STUDYING?

UNIT 1
MONEY, MEASUREMENT AND RELATIONS

- Consumer arithmetic
- Shape and measurement
- Linear equations and their graphs

UNIT 2
APPLIED TRIGNOMETRY, ALGEBRA, MATRICES, AND UNIVARIATE DATA

- Applications of trigonometry
- Algebra and matrices
- Univariate data analysis

UNIT 3
BIVARIATE DATA, SEQUENCES AND CHANGE, AND EARTH GEOMETRY

- Bivariate data analysis
- Time series analysis
- Growth and decay in sequences
- Earth geometry and time zones

UNIT 4
INVESTING AND NETWORKING

- Loans, investments, and annuities
- Graphs and networks
- Networks and decision mathematics

HOW WILL I BE ASSESSED?

Three internal assessments (IA) and one external assessment (EA).

SUMMATIVE INTERNAL ASSESSMENT

- IA1: Problem-solving and modelling task
- IA2: Examination
- IA3: Examination

SUMMATIVE EXTERNAL ASSESSMENT

- EA: Examination

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HOW WILL GENERAL MATHS BE USEFUL?

- It incorporates a practical approach that equips learners for their needs as future citizens.
- Students will learn to ask appropriate questions, map out pathways, reason about complex solutions, set up models and communicate in different forms.
- They will experience the relevance of mathematics to their daily lives, communities,and cultural backgrounds.
- They will develop the ability to understand, analyse and act regarding social issues in their world.
- When students gain skill and self-assurance, when they understand the content and when they evaluate their success by using and transferring their knowledge, they develop a mathematical mindset.

WHAT RESOURCES WILL I NEED?

- You will be provided with a copy of the following textbooks:

  General Mathematics for Queensland Year 11 Units 1 & 2

  General Mathematics for Queensland Year 12 Units 3 & 4

  Oxford Study Buddy General Mathematics
- Past paper questions will be given as each topic is covered
- Your teacher is your best human resource

WHAT SHOULD I BRING TO CLASS?

- A scientific calculator—preferably the *Casio fx-82 AU PLUS II*

LITERATURE

General Subject

WHY STUDY LITERATURE?

Literature can help students become innovative and creative thinkers by teaching them to challenge popular ideas and interpretations, by helping them to develop an appreciation for the aesthetic use of language in various texts, and by teaching the students to analyse widespread perspectives and critically consider the evidence before them. The students will be exposed to popular poetry, plays, films, and short stories by authors such as Edgar Allan Poe, Robert Louis Stevenson, and Emily Brontë, specifically chosen to help inspire the students to grow into imaginative and analytical writers.

WHAT WILL I BE STUDYING?

UNIT 1
INTRODUCTION TO LITERARY STUDIES

- Receive and respond to literary texts
- Analyse textual choices and their effect on the reader
- Create analytical and imaginative texts

UNIT 2
INTERTEXTUALITY

- Analyse the connections between genre, concepts, and contexts in literary texts
- Analyse the relationship between style and structure in literary texts
- Expand on creating analytical and imaginative texts

UNIT 3
LITERATURE AND IDENTITY

- Examine the relationship between language, culture, and identity in literary texts
- Explore the use of language to represent ideas, events, and people in literary texts
- Further on creating analytical and imaginative texts

UNIT 4
INDEPENDENT EXPLORATIONS

- The dynamic nature of literary interpretation
- Close examination of style, structure, and subject matter
- Creating analytical and imaginative texts

HOW WILL I BE ASSESSED?

SUMMATIVE INTERNAL UNITS 3 & 4

Three internal assessments (IA) and one external assessment (EA).

- IA 1- examination 25%
- IA 2- Imaginative spoken response 25%
- IA 3- Imaginative written response 25%

SUMMATIVE EXTERNAL

- EA- Analytical written response 25%

WHAT IS THE BEST WAY TO STUDY LITERATURE?

- Complete all required reading and viewings
- Engage in critical thinking and class discussions about texts and ask questions
- Take responsibility for planning, drafting, and editing your own work
- Carefully follow provided checklists and guidelines

WHAT RESOURCES WILL I NEED?

You will be provided with the following texts:

- *The Tell-Tale Heart, by Edgar Allan Poe*
- *The Strange Case of Dr Jekyll and Mr Hyde, by Robert Louise Stevenson*
- *Black is the New White, by Nakkiah Lui*
- *Heart of Darkness, by Joseph Conrad*
- *Things Fall Apart, by Chinua Achebe*
- *Wuthering Heights, by Emily Brontë*
- *The Anthology of Colonial Australian Gothic Fiction, ed. by Ken Gelder and Rachael Weaver*
- *Selection of poetry by poets such as Kae Tempest, Pablo Neruda, Lionel Fogarty, Ellen Van Neerven, and Maya Angelou*
- *Selection of stories by Cate Kennedy, Maxine Beneba Clarke, and Ceridwen Dovey*

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MATH METHODS

General Subject

WHAT WILL I BE STUDYING?

UNIT 1
ALGEBRA, STATISTICS AND FUNCTIONS

- Functions and graphs
- Counting and probability
- Exponential functions
- Arithmetic and geometric series

UNIT 2
CALCULUS AND FURTHER FUNCTIONS

- Trigonometric functions
- Introduction to differential calculus
- Discrete random variables

UNIT 3
FURTHER CALCULUS

- The logarithmic function
- Further differentiation and applications
- Integrals

UNIT 4
FURTHER FUNCTIONS AND STATISTICS

- Further differentiation and applications
- Discrete random variables and binomial distribution
- Continuous random variables and the normal distribution
- Interval estimates for proportions

HOW WILL MATH METHODS BEUSEFUL?

- Students who undertake Mathematical Methods will see the connections between mathematics and other areas of the curriculum and apply their mathematical skills to real-world problems
- Calculus is essential for developing an understanding of the physical world.
- Statistics is used to describe and analyse phenomena involving uncertainty and variation.
- Both are the basis for developing effective models of the world and solving complex and abstract mathematical problems.

HOW WILL I BE ASSESSED?

FORMATIVE INTERNAL ASSESSMENT:

- Unit 1 & 2: 1 x 60 min examination (Tech free)
  1 x 60 min examination (Tech active)
- Unit 2: 1 x 45 min examination (Tech active
  Unit 2 calculus content only)

SUMMATIVE INTERNAL ASSESSMENT

- Unit 3: IA1 PSMT **20%**
  Problem solving and Modelling Task
  Respond to a mathematical problem involving differential calculus
- Unit 3: IA2 Exam **10%**
  1 x 60 min examination (Tech free)
  1 x 60 min examination (Tech active)
- Unit 4: IA3 Exam **20%**
  1 x 60 min examination (Tech free)
  1 x 60 min examination (Tech active)

SUMMATIVE EXTERNAL ASSESSMENT

- Unit 3 & 4: Exam **50%**
  1 x 90 min examination (Tech free)
  1 x 90 min examination (Tech active)

WHAT IS THE BEST WAY TO STUDY MATH METHODS?

- **ATTEND ALL LESSONS.** Absences result in loss of continuity of the topic. In the case of unavoidable absences, make sure you find out what was covered. If any difficulties, arrange for extra help immediately.
- **DO ALL HOMEWORK**. Online quizzes will be available on Matrix and will be assigned as homework to test your knowledge of different topics. You will receive immediate feedback. Seek help if you experience difficulty.
- **IN CLASS**. Take notes, copy worked examples and ask questions.
- **DO REGULAR REVISION**

WHAT RESOURCES WILL I NEED?

You will be provided with a copy of the textbooks:

- *Mathematical Methods Units 1 & 2 for Queensland*
- *Mathematical Methods Units 3 & 4 for Queensland*
- *Oxford Study Buddy QCE Mathematical Methods*
- All students must bring a graphics calculator. The Casio fx-CG50 AU is preferred.
- A scientific calculator is also recommended e.g., Casio fx-82 AU Plus II

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MODERN HISTORY

General Subject

WHY STUDY HISTORY?

Modern History can improve citizens' open and reasoned debate with the wider community, increase effective participation within society, enhance the democratic processes, and strengthen individual and social wellbeing.

Cooperative and competitive processes shape societies, and understanding these processes is central to explaining social behaviour and to evaluating the performance of a social system. The social sciences equip people with tools and strategies to improve social processes and their outcomes at the collective and individual levels.

Through social science subjects, students develop personally and socially useful ways to analyse the world around them. The goal is to improve the ability of a society and its members to anticipate, initiate and respond to profound social changes. Social systems from the local to the global scale all merit study. They are interdependent and they evolve together. Students can widen their horizons by exposure to different societies and by examining why some solutions can succeed and others fail.

WHAT WILL I BE STUDYING?

The Senior Modern History Program at Hubbard's is designed to be completed over one year rather the two years it takes to complete in mainstream high schools. Therefore, our syllabus focuses on the specific topics which form the content of exams set by the Queensland Curriculum and Assessment Authority.
75% of your marks for this subject come from an internal exam, while the remaining 25% comes from an external end of year exam.

UNIT 1
IDEAS IN THE MODERN WORLD

- Topic 6: Age of Imperialism
- Topic 1: Australian Frontier Wars (1788-1930s)

UNIT 2
MOVEMENTS IN THE MODERN WORLD

- South Africa and the anti-apartheid movement
- USA and the African American Civil Rights Movement.

UNIT 3
NATIONAL EXPERIENCES IN THE MODERN WORLD

- Germany: Rise of the Nazi State
- China; Mao and the Cultural Revolution

UNIT 4
INTERNATIONAL EXPERIENCES IN THE MODERN WORLD

- Cold War- Cuban Missile Crisis
- Australia and the Vietnam War

HOW WILL I BE ASSESSED?

SUMMATIVE INTERNAL ASSESSMENT UNITS 3 & 4

Three internal assessments (IA) and one external assessment (EA).

- IA 1- Examination essay **25%**
- IA 2- Independent source investigation **25%**
- IA 3- Investigative research **25%**

SUMMATIVE EXTERNAL ASSESSMENT

- Examination **25%**

SKILLS YOU WILL DEVELOP IN MODERN HISTORY

Modern History requires you to acquire and utilise many skills. Modern History students must develop the ability to locate, study and interpret written and visual material, to extract evidence and meaning. They must be adept at contextualization, analysis, problem-solving and critical thinking. Modern History students must be strong communicators, to express their findings clearly and effectively. Developing the ability to present a clear historical argument grounded in well-analysed source material is at the heart of what effective history is all about. The development of good skills in history are transferrable to any subject or occupation where it is required that you make sense of a variety of information sources and present your argument in written format.

WHAT RESOURCES WILL I NEED?

- Reading Material (provided)
- *Cambridge Senior Modern History for Queensland. Hoepper & Henessey et al(2019)*

PHILOSOPHY & REASON

General Subject

WHAT WILL I BE STUDYING?

CRITICAL REASONING

Critical Reasoning sets out to provide knowledge of widely used inductive reasoning processes. Students recognise and evaluate these and identify their associated fallacies and shortcomings. This is an intensely practical area, involving analysis of reasoning in written and oral form, with a wide range of subject matter. The knowledge and skills gained by students in this area equip them to analyse information rationally. These skills have wide application for students as activeparticipants in their society.

DEDUCTIVE LOGIC

Deductive logic introduces modern symbolic languagesas an effective system for the analysis and evaluation of propositions and arguments. The focus on deductive testing and proof strategies has immediate application to formal reasoning. Students are introduced to the methods of problem analysis, solution proposal and strategy choice. The course allows for experience with computer programming languages.

PHILOSOPHY

The study of Philosophy allows the candidate to recognise the relevance of various philosophies to different social, ethical, and religious positions, and to understand that decision making in these arenas is the product of both an acceptance of a particular bodyof beliefs, and of specific modes of reasoning. Study in this area is especially useful since it allows for the application of reasoning skills learned in the Critical Reasoning and Deductive Logic areas of study. The constant emphasis on the importance of consistency of reasoning, and of being able to justify positions, allows students to develop rational views on major issues which they may previously have viewed irrationally.

UNIT 1
FUNDAMENTALS OF REASON

The learning consists of the fundamental concepts, skills, knowledge and understanding of the discipline of philosophy. Specifically, this relates to the nature, structure, and evaluation of arguments. Students learn how to construct and evaluate arguments and to use arguments to evaluate claims.

UNIT 2
PHILOSOPHY OF RELIGION

Students will explore how the fundamentals of reason are foundational to philosophical inquiry. Through a study of arguments from two areas of philosophy, they will examine in detail how the fundamentals of reason are applied in philosophical thinking.

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UNIT 3
MORAL PHILOSOPHY AND SCHOOLS OF THOUGHT

Students will investigate how moral issues can be understood & engaged with through a rational framework. They will analyse and evaluate a range of ethical theories and understand their implications for classical and contemporary issues.

Students will also undertake an in-depth study of a school of thought (Stoicism) by exploring its relevance to modern society.

UNIT 4
SOCIAL AND POLITICAL PHILOSOPHY

Students will explore the nature of rights, including how rights might be sourced within concepts of natural law and human nature. Building on this, students then move to understand how societies can be constructed to ensure the survival of humanity within a thriving society.

HOW WILL I BE ASSESSED?

Three internal assessments (IA) and one external assessment (EA).

SUMMATIVE INTERNAL ASSESSMENT UNITS 3 & 4

- IA1: Examination 25%
- IA2: Extended response 25%
- IA3: Extended response 25%

SUMMATIVE EXTERNAL ASSESSMENT UNITS 3 & 4

- EA: Examination 25%

PRACTICE ONLY ASSESSMENT

Practice exams are given in May and August, with class tests in June. Exams in August provide a rehearsal for the exams at the end of the year.

HOW WILL P & R BE USEFUL?

PHILOSOPHY AND REASON MAY HELP WITH:

- **an improved ability to think clearly, analytically,and creatively.**
- **a critical, open-minded, and unprejudiced approachto the use of logical analysis.**
- **the ability to appreciate the processes of science andthe humanities by dealing directly with the underlying rational bases of such fields as natural and social science, mathematics, linguistics, law, andcomputing.**
- **an improved ability to interpret verbal informationand to express themselves clearly; and**
- **an improved understanding of the underlyingcultural, social, moral, and religious structures of the world.**

PHYSICS

Senior External Subject

WHAT WILL I BE STUDYING?

UNIT 1
THERMAL, NUCLEAR AND ELECTRICAL PHYSICS

- Heating processes
- Ionising radiation and nuclear reactions
- Electrical circuits

UNIT 2
LINEAR MOTION AND WAVES

- Linear motion and force
- Waves

UNIT3
GRAVITY AND ELECTROMAGNETISM

- Gravity and motion
- Electromagnetism

UNIT4
REVOLUTIONS IN MODERN PHYSICS

- Special relativity
- Quantum theory
- The Standard Model

HOW WILL PHYSICS BE USEFUL?

Physics provides opportunities for students to engage with classical and modern understandings of the universe. They will develop:

- Understanding that diverse natural phenomena may be explained, analysed, and predicted
- Understanding of the ways in which energy and matter interact in physical systems
- Investigative skills, including the design and conduct of investigation to explore phenomena and solve problems
- Ability to communicate using representations, modes, and genres appropriate to physics
- Appreciation of the wonder of physics and the significant contribution physics has made to contemporary society

HOW WILL I BE ASSESSED?

YOUR FINAL ASSESSMENT IS BASED ON THE EXTERNAL EXAM HELD IN OCTOBER/NOVEMBER:

- Examinations will be based on topics and subject matter from Units 3 & 4. Examinations require assumed knowledge from Units 1 & 2
- Two examinations each worth 50% of the final result

SEE 1

- This examination consists of two sections and assesses the syllabus objectives related to scientific investigations
- The examination is 3 hours plus 20 minutes perusal

SEE 2

- This examination consists of two papers and assesses the syllabus objectives related to knowledge, understanding, analysis and interpretation of evidence
- Each paper is 90 minutes plus 10 minutes perusal

PRACTICE ONLY ASSESSMENT:

- Practice exams held in March, June, and August

WHAT IS THE BEST WAY TO STUDY PHYSICS:

- **ATTEND ALL LESSONS.** Absences result in loss of continuity of the topic. In the case of unavoidable absences, make sure you find out what was covered.
- **DO ALL HOMEWORK**. If you experience difficulty seek help.
- **IN CLASS**. Take notes, copy worked examples and ask questions.
- **MATRIX** Details of lesson content and other resources are made available on the school's learning management system.

WHAT RESOURCES WILL I NEED?

You will be provided with a copy of the textbooks:

- *New Century Physics for Queensland Units 1&2 by Richard Walding*
- *New Century Physics for Queensland Units 3&4 by Richard Walding*
- *Oxford Study Buddy QCE Physics*
- *Hubbard's School Physics Worksheets*

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PSYCHOLOGY

General Subject

WHAT WILL I BE STUDYING?

UNIT 1
INDIVIDUAL DEVELOPMENT

- Psychological science A
- The role of the brain
- Cognitive development
- Human consciousness and sleep

UNIT 2
INDIVIDUAL BEHAVIOUR

- Intelligence
- Diagnosis
- Psychological disorders and treatments
- Emotion and motivation

UNIT 3
INDIVIDUAL THINKING

- Memory
- Localisation of function in the brain
- Learning
- Visual perception

UNIT 4
THE INFLUENCE OF OTHERS

- Social psychology
- Interpersonal processes
- Attitudes
- Cross-cultural psychology

HOW WILL I BE ASSESSED?

Three internal assessments (IA) and one external assessment (EA).

SUMMATIVE INTERNAL ASSESSMENT

- IA1: Data test **10%**
  60 minutes in class test
- IA2: Student experiment **20%**
  Scientific report on a modified memory experiment
- IA3: Research investigation **20%**
  Develop a research report based on a broad claim

SUMMATIVE EXTERNAL ASSESSMENT

- EA: Examination **50%**
  2 x 90-minute examinations

INTERNAL ASSESSMENT

- Unit 1 & 2: Formative internal examination2x 60-minute papers in class

HOW WILL PSYCHOLOGY BE USEFUL?

PSYCHOLOGY AIMS TO DEVELOP:

- skills for critical thinking and scientific reasoning.
- interest and appreciation for how this knowledge can be used to understand contemporary issues.
- appreciation of complex interactions, that influence human behaviour.
- ability to conduct a variety of field research and laboratory investigations, including analysis of results and interpretation of evidence; and
- ability to communicate psychological understandings, findings, arguments, and conclusions using appropriate representations, modes, and genres.

Psychology provides opportunities for students to engage with concepts that explain behaviours and underlying conditions – however because we sometimes personalise it we can react emotionally. Lessons are not therapy or treatment.

To create a safe space to have valuable conversations AND ensure that there are supports in place for those times it may be required. There will be several requirements:

A. Students are NOT to practice or use any of the theory being taught in real life (inside or outside of school). Except under supervision by their Psychology teacher. Students (and teachers) of Psychology are NOT psychologists.

B. Students of Psychology should not discuss material or real-life examples raised during the program outside the classroom.

C. During lesson time if a student does find it helpful to relate the theory to a real-life example, then instead of using the real names, we will all use “Jack” and “Jill”.

WHAT RESOURCES WILL I NEED?

TEXTBOOKS

Oxford Psychology for Queensland Units 3 & 4

Oxford Study Buddy Revision and Exam Guide QCE Psychology

V4/Nov22

SPECIALIST MATHS

General Subject

WHAT WILL I BE STUDYING?

UNIT 1 & 2

- Vectors in the plane
- Complex numbers 1
- Matrices
- Trigonometry and functions

UNIT 3

Topic 1: Proof by Mathematical Induction

Topic 2: Vectors & Matrices

Topic 3: Complex Numbers 2

UNIT 4

Topic 1: Integration and applications of integration

Topic 2: Rates of change and differential equations

Topic 3: Statistical inference

PREREQUISITES & COREQUISITES?

This subject has pre- and/or corequisites. Students are expected to:

- Have studied and passed Mathematical Methods in a previous year at Hubbard's.

  OR

- Be studying Specialist Mathematics and Mathematical Methods in the same year (that is, concurrently).

HOW WILL SPECIALIST MATHS BE USEFUL?

- Students who study Specialist Math will develop a very thorough grounding in mathematics for the purposes of science, engineering, mathematics, and computing at university.
- Specialist Mathematics scales extremely highly for the purposes of ATAR calculations. Students who enjoy and are good at mathematics (regardless of university aspirations) are encouraged to consider this subject.

WHAT IS THE BEST WAY TO STUDY SPECIALIST MATHS:

- **SELF MOTIVATION.** This is an advanced course in mathematics, and several the topics covered are revisited in first year university mathematics courses. Students are expected to take responsibility for their own learning.
- **USE MATRIX.** Invaluable resources are available on Matrix, including a workbook, annotations, and revision resources. You are encouraged to access Matrix regularly.
- **PAST EXAM QUESTIONS.** Past papers from previous years (as well as other revision resources) are available on Matrix (solutions also provided).
- **DO REGULAR REVISION**

HOW WILL I BE ASSESSED?

FORMATIVE INTERNAL ASSESSMENT:

- Unit 1 & 2: 120 min examination

SUMMATIVE INTERNAL ASSESSMENT

- Unit 3: IA1 PSMT **20%**
  Problem solving and Modelling Task
  Respond to a mathematical problem involving matrices.
- Unit 3: IA2 Exam **15%**
  1 x 60 min examination (Tech free)
  1 x 60 min examination (Tech active)
- Unit 4: IA3 Exam **20%**
  1 x 60 min examination (Tech free)
  1 x 60 min examination (Tech active)

SUMMATIVE EXTERNAL ASSESSMENT

- Unit 3 & 4: Exam **50%**
  1 x 90 min examination (Tech free)
  1 x 90 min examination (Tech active)

WHAT RESOURCES WILL I NEED?

You will be provided with a copy of the textbooks:

- *Jacaranda Maths Quest: Specialist Mathematics (11)*
- *Jacaranda Maths Quest: Specialist Mathematics (12)*
- *Oxford Study Buddy QCE Specialist Mathematics Units 3&4*
- *Hubbard's Specialist Mathematics Workbook*

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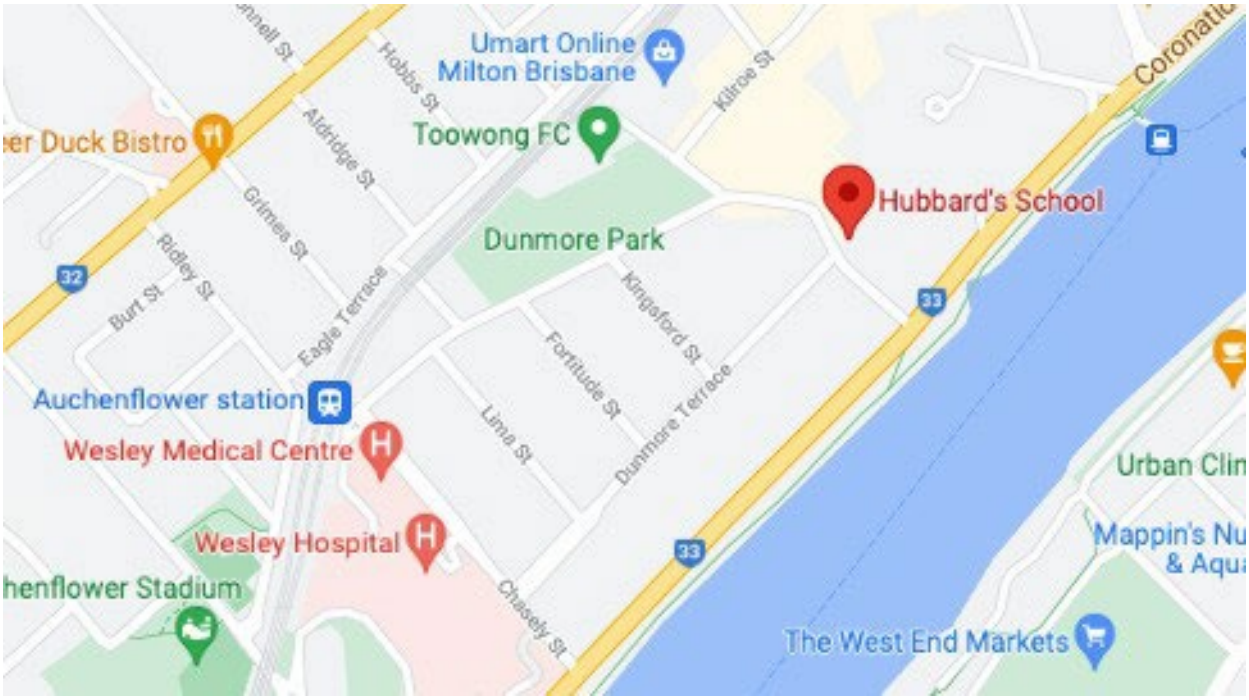
LOCATION



Level 1/15 Lang Parade, Milton Qld 4064PO
Box 1576, Milton Qld 4064

A short walk from bus stop, train station and ferry terminal.

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https://www.linkedin.com/company/hubbard's-school/

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