COURSE PRESCRIPTIONS

The Course Prescriptions contain approved University of Auckland courses. Before selecting courses from this Calendar, students and potential students are advised to ascertain which courses are expected to be offered in this Academic Year and in which semester they are scheduled by referring to the Class Search on Student Services Online, or by contacting their Student Hub.

Where courses in the following Course Prescriptions are listed with an 'A' and a 'B' option, this means that, if they are offered, they will be taught over two semesters and students must enrol in both Part A and Part B in order to complete and, where successful, be credited with the course. Courses with no 'A' or 'B' designation are taught over one semester.

The Prescriptions are listed by faculty, in alpha-numeric order by subject title and should be read in conjunction with the relevant regulations.

Calculating a Grade Point Average

Grade Point Averages (GPA) are calculated using the following scale. Courses are weighted based on points value, and the exact formula may vary from programme-to-programme.

9 for A+	4 for B-
8 for A	3 for C+
7 for A-	2 for C
6 for B+	1 for C-
5 for B	0 for D+, D, D- or F

More details about GPAs are available online at https://uoa.custhelp.com/app/answers/detail/a_id/2454/.

Faculty Index

Index of Course Codes

This list indexes course codes alphabetically and shows the titles of the subjects related to them. The faculty column shows where the course prescription can be found.

Course Code	Title	Faculty
	Language Study Abroad	Arts and Education
ACADENG	Academic English Studies	Arts and Education
ACADINT	Academic Integrity	The University of Auckland
ACCTG	Accounting	Business and Economics
AEROSPCE	Aerospace Engineering	Engineering and Design
ANCIENT	Classical Studies and Ancient History	Arts and Education
ANTHRO	Anthropology	Arts and Education
ARCHDES	Architectural Design	Engineering and Design
ARCHDRC	Architectural Media and Fabrication	Engineering and Design
ARCHGEN	Architecture – General	Engineering and Design
ARCHHTC	Architectural History, Theory and Criticism	Engineering and Design
ARCHPRM	Architectural Professional Studies	Engineering and Design
ARCHTECH	Architectural Technology and Sustainability	Engineering and Design
ARTHIST	Art History	Arts and Education
ARTSCHOL	Arts Scholars	Arts and Education
ARTSGEN	Arts General	Arts and Education
ASIAN	Asian Studies	Arts and Education
ASTRO	Astrosciences	Science
AUDIOL	Audiology	Medical and Health Sciences
BIOENG	Bioengineering	Engineering and Design
BIOINF	Bioinformatics	Science
BIOMENG	Biomedical Engineering	Engineering and Design
BIOMED	Biomedical Science	Science
BIOSCI	Biological Sciences	Science
BIOSEC	Biosecurity and Conservation	Science
BIOTECH	Biotechnology	Science
BLTENV	Built Environment	Engineering and Design
BUSACT	Business Accounting	Business and Economics
BUSADMIN	Business Administration	Business and Economics
BUSAN	Business Analytics	Business and Economics
BUSDEV	Business Development	Business and Economics
BUSFIN	Business Finance	Business and Economics
BUSHRM	Business Human Resource Management	Business and Economics
BUSINESS	Business	Business and Economics
BUSINFO	Business Information Analytics	Business and Economics

Course Code	Title	Faculty
BUSINT	Business International	Business and Economics
BUSMAN	Business Management	Business and Economics
BUSMBA	Business MBA	Business and Economics
BUSMGT	Business Management	Business and Economics
BUSMKT	Business Marketing	Business and Economics
CAREER	Career	Arts and Education
CHEM	Chemistry	Science
CHEMMAT	Chemical and Materials Engineering	Engineering and Design
CHINESE	Chinese	Arts and Education
CIVIL	Civil Engineering	Engineering and Design
CLINED	Clinical Education	Medical and Health Sciences
CLINIMAG	Clinical Imaging	Medical and Health Sciences
COMENT	Commercialisation and Entrepreneurship	Business and Economics
COMLAW	Commercial Law	Business and Economics
COMLAW	Commercial Law	Law
COMMS	Communication	Arts and Education
COMPLIT	Comparative Literature	Arts and Education
COMPSCI	Computer Science	Science
COMPSYS	Computer Systems Engineering	Engineering and Design
COOKIS	Cook Islands Māori	Arts and Education
CREWRIT	Creative Writing	Arts and Education
CRIM	Criminology	Arts and Education
CTFOUND	UoA Foundation Studies	The University of Auckland
DANCE	Dance Studies	Arts and Education
DATASCI	Data Science	Science
DESIGN	Design	Engineering and Design
DEVELOP	Development Studies	Arts and Education
DIETETIC	Dietetics	Medical and Health Sciences
DIGIHLTH	Digital Health	Medical and Health Sciences
DISABLTY	Disability Studies	Arts and Education
DISMGT	Disaster Management	Engineering and Design
DRAMA	Drama	Arts and Education
EARTHSCI	Earth Sciences	Science
ECOLOG	Ecology	Science
ECON	Economics	Business and Economics
EDCURRM	Education Curriculum Māori	Arts and Education
EDCURRPK	Education Curriculum Pasifika	Arts and Education
EDCURSEC	Education Curriculum Secondary Diploma	Arts and Education
EDCURRIC	Education Curriculum Studies	Arts and Education
EDPRAC	Education Practice	Arts and Education

Course Code	Title	Faculty
EDPRACM	Education Practice Māori	Arts and Education
EDPRACPK	Education Practice Pasifika	Arts and Education
EDPROF	Education Professional	Arts and Education
EDPROFST	Education Professional Studies	Arts and Education
EDPROFM	Education Professional Studies Māori	Arts and Education
EDPROFPK	Education Professional Studies Pasifika	Arts and Education
EDPSYCH	Educational Psychology	Arts and Education
EDUC	Education	Arts and Education
EDUCM	Education Māori	Arts and Education
EDUCN	Education Studies	Arts and Education
EDUCSW	Education and Social Work	Arts and Education
ELECTENG	Electrical and Electronic Engineering	Engineering and Design
ENERGY	Energy	Engineering and Design
ENGGEN	Engineering General	Engineering and Design
ENGLACP	English for Academic Purposes	Arts and Education
ENGLISH	English	Arts and Education
ENGSCI	Engineering Science	Engineering and Design
ENGWRIT	English Writing	Arts and Education
ENV	Environment	Science
ENVCHG	Environmental Change	Science
ENVENG	Environmental Engineering	Engineering and Design
ENVMGT	Environmental Management	Science
ENVPHYS	Environmental Physics	Science
ENVSCI	Environmental Science	Science
EUROPEAN	European Studies	Arts and Education
EXERSCI	Exercise Sciences	Science
FINANCE	Finance	Business and Economics
FINEARTS	Fine Arts	Arts and Education
FOODSCI	Food Science	Science
FORENSIC	Forensic Science	Science
FOUNDST	Foundation Studies	The University of Auckland
FRENCH	French	Arts and Education
GENDER	Gender Studies	Arts and Education
GISCI	Geographic Information Science	Science
GEOG	Geography	Science
GEOPHYS	Geophysics	Science
GEOTHERM	Energy Technology	Engineering and Design
GERMAN	German	Arts and Education
GLMI	Global Management and Innovation	Business and Economics
GLOBAL	Global Studies	Arts and Education

Course Code	Title	Faculty
HEALTHED	Health Education	Arts and Education
HERCONS	Heritage Conservation	Engineering and Design
HIGHED	Higher Education	Arts and Education
HISTORY	History	Arts and Education
HLTHMGT	Health Management	Medical and Health Sciences
HLTHPSYC	Health Psychology	Medical and Health Sciences
HLTHSCI	Health Sciences	Medical and Health Sciences
HUMS	Humanities	Arts and Education
HUMSERV	Human Services	Arts and Education
INDIGEN	Indigenous Studies	Arts and Education
INFOGOV	Information Governance	Business and Economics
INFOMGMT	Information Management	Science
INFOSYS	Information Systems	Business and Economics
INNOVENT	Innovation and Entrepreneurship	Business and Economics
INTBUS	International Business	Business and Economics
INTERNSP	Internship	The University of Auckland
ITALIAN	Italian	Arts and Education
JUR	Juridical Science	Law
JAPANESE	Japanese	Arts and Education
KOREAN	Korean	Arts and Education
LANGTCHG	Language Teaching and Learning	Arts and Education
LATIN	Latin	Arts and Education
LATINAM	Latin American Studies	Arts and Education
LAW	Law	Law
LAWCOMM	Law Commercial	Law
LAWENVIR	Law Environmental	Law
LAWGENRL	Law General	Law
LAWHONS	Law Honours	Law
LAWPUBL	Law Public	Law
LDGOV	Leadership and Governance	Business and Economics
LINGUIST	Linguistics	Arts and Education
LOGICOMP	Logic and Computation	Arts and Education
MĀORI	Māori Studies	Arts and Education
MAORIDEV	Māori Development	Business and Economics
MAORIHTH	Māori Health	Medical and Health Sciences
MARINE	Marine Science	Science
MĀTAU	Mātauranga	Arts and Education
MATHS	Mathematics	Science
MBCHB	MBChB	Medical and Health Sciences
MECHENG	Mechanical Engineering	Engineering and Design

Course Code	Title	Faculty
MECHTRON	Mechatronics Engineering	Engineering and Design
MEDIA	Media and Screen Studies	Arts and Education
MEDIMAGE	Medical Imaging	Medical and Health Sciences
MEDICINE	Medicine	Medical and Health Sciences
MEDSCI	Medical Science	Medical and Health Sciences
MGMT	Management	Business and Economics
MKTG	Marketing	Business and Economics
MUS	Music	Arts and Education
MUSEUMS	Museums and Cultural Heritage	Arts and Education
NURSING	Nursing	Medical and Health Sciences
NURSPRAC	Nursing Practice	Medical and Health Sciences
OBSTGYN	Obstetrics and Gynaecology	Medical and Health Sciences
OPHTHAL	Ophthalmology	Medical and Health Sciences
OPSMGT	Operations and Supply Chain Management	Business and Economics
OPTOM	Optometry and Vision Science	Medical and Health Sciences
PACIFIC	Pacific Studies	Arts and Education
PAEDS	Paediatrics	Medical and Health Sciences
PHARMACY	Pharmacy	Medical and Health Sciences
PHARMCOL	Pharmacology	Medical and Health Sciences
PHIL	Philosophy	Arts and Education
PHYSED	Physical Education	Arts and Education
PHYSICS	Physics	Science
PHYSIOL	Physiology	Medical and Health Sciences
POLICY	Public Policy	Arts and Education
POLITICS	Politics and International Relations	Arts and Education
POLYMER	Polymer Engineering	Engineering and Design
POPLHLTH	Population Health	Medical and Health Sciences
POPLPRAC	Population Health Practice	Medical and Health Sciences
PROFCOUN	Professional Counselling	Arts and Education
PROFSUPV	Professional Supervision	Arts and Education
PROPERTY	Property	Business and Economics
PROPPRAC	Property Practice	Business and Economics
PSYCH	Psychology	Science
PSYCHOL	Psychology	Science
PSYCHIAT	Psychiatry	Medical and Health Sciences
PŪTAIAO	Pūtaiao	Science
REGDEV	Regional Development	Arts and Education, Science
RUSSIAN	Russian	Arts and Education
SAMOAN	Samoan	Arts and Education
SCIENT	Science Enterprise	Science

Course Code	Title	Faculty
SCIGEN	Science General	Science
SCIGEN	Science Scholars	Science
SCREEN	Screen Production	Arts and Education
SOCCHFAM	Social Work Child and Family Practice	Arts and Education
SOCCLEAD	Social and Community Leadership	Arts and Education
SOCHLTH	Social Work Health Practice	Arts and Education
SOCIOL	Sociology	Arts and Education
SOCJUS	Social Justice	Arts and Education
SOCWORK	Social Work	Arts and Education
SOCYOUTH	Social Work Youth Practice	Arts and Education
SOFTENG	Software Engineering	Engineering and Design
SPANISH	Spanish	Arts and Education
SPCHSCI	Speech Science	Science
SPORT	Sport Studies	Arts and Education
SPORTHPE	Sport, Health and Physical Education	Arts and Education
STATS	Statistics	Science
STRCTENG	Structural Engineering	Engineering and Design
SUSTAIN	Sustainability	Science
TDAIS	Artificial Intelligence and Society	Transdisciplinary (Engineering and Design)
TDDEM	Democracy in the 21st Century	Transdisciplinary (Arts and Education)
TDENVF	Our Environmental Futures: Te Taiao Tāngata	Transdisciplinary (Science)
TDFOOD	The Future of Food	Transdisciplinary (Science)
TDMIGR	Migration Futures	Transdisciplinary (Medical and Health Sciences)
TDMOANA	Tagata Moana, Tangata Whenua: Hawaiki Futures	Transdisciplinary (Arts and Education)
TFCARTS	Tertiary Foundation Certificate Arts General	Arts and Education
TFCBIO	Tertiary Foundation Certificate Biological Science	Science
TFCBUS	Tertiary Foundation Certificate Business	Business and Economics
TFCCAI	Tertiary Foundation Certificate Creative Arts	Arts and Education
TFCCHEM	Tertiary Foundation Certificate Chemistry	Science
TFCEDUC	Tertiary Foundation Certificate Education	Arts and Education
TFCENG	Tertiary Foundation Certificate English	Arts and Education
TFCENV	Tertiary Foundation Certificate Environmental Studies	Science
TFCHIST	Tertiary Foundation Certificate History	Arts and Education
TFCMAORI	Tertiary Foundation Certificate Māori	Arts and Education
TFCMATHS	Tertiary Foundation Certificate Mathematics	Science
TFCPAC	Tertiary Foundation Certificate Pacific Studies	Arts and Education
TFCPHYS	Tertiary Foundation Certificate Physics	Science
TFCSOCIO	Tertiary Foundation Certificate Sociology	Arts and Education
TFCSTATS	Tertiary Foundation Certificate Statistics	Science

Course Code	Title	Faculty
THEOLOGY	Theology	Arts and Education
THEOREL	Theological and Religious Studies	Arts and Education
TONGAN	Tongan	Arts and Education
TRANSLAT	Translation Studies	Arts and Education
URBDES	Urban Design	Engineering and Design
URBPLAN	Urban Planning	Engineering and Design
WINESCI	Wine Science	Science
YOUTHWRK	Youth Work	Arts and Education
WTR	Waipapa Taumata Rau	Arts and Education
WTRBUS	Waipapa Taumata Rau	Business and Economics
WTRENG	Waipapa Taumata Rau	Engineering and Design
WTRMHS	Waipapa Taumata Rau	Medical and Health Sciences
WTRSCI	Waipapa Taumata Rau	Science

THE UNIVERSITY OF AUCKLAND

Index of Subjects – Alphabetical List

The University of Auckland

Academic Integrity

ACADINT A01   **0 Points**
Academic Integrity Course
An online course designed to increase student knowledge of academic integrity, university rules relating to academic conduct, and the identification and consequences of academic misconduct. Students work through a series of modules, outlining scenarios that they may encounter while studying at university. Each scenario provides information on relevant rules, resources and expected behaviour.

Foundation Studies

Foundation Courses

FOUNDST 10F   **24 Points**
English for Academic Purposes
Develops skills for understanding, writing, reading and speaking English. Attention is paid to accuracy, grammatical structures, spelling, punctuation and word use. Tasks include group discussions and formal presentations, note-taking, extended reading and formal comprehension exercises, paragraph and note-form summaries and preparation of research reports.

FOUNDST 11F   **24 Points**
Accounting
Provides introduction to accounting methods and concepts. Topics include cash and accrual accounting, budgeting, cash flow, depreciation, assessment of performance, accounting systems, job costing, cost-volume-profit analysis, financial statements for sole traders, partnerships and companies.

FOUNDST 12F   **24 Points**
Art
Provides a practical knowledge of visual arts and understanding of arts in context. Through a number of practical assignments and the production of a portfolio, students develop ideas, observe, analyse, interpret and evaluate images.

FOUNDST 13F   **24 Points**
Biology
Develops an understanding of biology and the skills to apply biological knowledge to solve problems, design and perform experiments, and to interpret and present evidence. Topics include structure and function of the cell, responses of plants and animals to biotic and abiotic factors, genetics and evolution (primates and hominids).

FOUNDST 14F   **24 Points**
Chemistry
Provides science students with the skills and confidence to test their ideas experimentally. Topics include atomic theory, chemical bonding and shapes of molecules, chemistry of transition elements, metal hydroxides, halogens and selected ions, analysis of laboratory solutions and commercial products, energy involved in physical and chemical changes, Aqueous Chemistry, oxidation-reductions and applications, spectroscopic identification of organic compounds.

FOUNDST 15F   **24 Points**
Classical Studies
Gives an introduction to the history, literature, art, architecture and politics of ancient Greece (600-400BC) and Rome (753 BC to 14 AD). Develops vital skills for university level study, including critical thinking, analysis and writing argumentative essays.

FOUNDST 16F   **24 Points**
Economics
Covers a wide range of economic issues, from basic economic concepts and principles, to policy options available to governments, and probable consequences of economic decisions. Topics include relative scarcity and production possibilities, demand, supply and the market, market structures, including monopoly, externalities, public goods and government intervention, equity and efficiency, financial markets, aggregate demand and supply and the macroeconomic economy.

FOUNDST 17F   **24 Points**
Geography
Covers the formation of natural features and develops skills involved in interpreting topographic data. Analysis of cultural processes (urban growth, migration, development and sustainability), the study of human actions that modify natural processes, and analysis of the outcomes.

FOUNDST 18F   **24 Points**
Information Technology
Provides a broad knowledge of computer technology, common application software, programming, word processing, spreadsheets and databases. Topics include computer hardware, computer software, operating systems, business applications, problem solving techniques used for programming.

FOUNDST 19F   **24 Points**
Mathematics with Calculus
Provides a solid foundation for university subjects requiring a prior knowledge of Mathematics with Calculus. Topics include calculus, algebra, trigonometry, geometry.

FOUNDST 20F   **24 Points**
Mathematics with Statistics
Provides students with a broad range of mathematical knowledge and skills and is a prerequisite for many university courses. Topics include algebra and graphing functions, exponentials and logarithms, correlation and progression, probability and set theory, random variables and their distributions, time series, linear programming, mathematical modelling, numerical equation solving, binomial, poisson and normal distributions.

FOUNDST 21F   **24 Points**
Physics
Develops students' theoretical knowledge, problem-solving skills and experimental techniques. Topics include light, waves, kinematics, mechanics, electricity and magnetism, atomic and nuclear physics.

Internship

Postgraduate 700 Level Courses

INTERNSP 700   **15 Points**
Internship 1
Enables the development of practical knowledge and hands-on experience through a supervised internship.

INTERNSP 701   30 Points
Internship 2
Enables the development of practical knowledge and hands-on experience through a supervised internship.

INTERNSP 702   45 Points
Internship 3
Enables the development of practical knowledge and hands-on experience through a supervised internship.

INTERNSP 703   60 Points
Internship 4
Enables the development of practical knowledge and hands-on experience through a supervised internship.

University of Auckland Foundation Studies

Foundation Courses

CTFOUND 10F   40 Points
English for Academic Purposes
Develops language skills such as reading, writing, speaking, and listening. Builds academic vocabulary and correct use of grammar, making it easy to understand other subjects. Note-taking, critical thinking, research, and essay writing are covered. This course covers the language skills that will help students understand academic texts at university.

CTFOUND 11F   20 Points
Accounting
Accounting is the practice of communicating financial information in order to make effective decisions. This course focuses on how to record business transactions for a company, prepare and analyse the financial statements for a company. Management decision making, breakeven analysis, cash budgeting and spreadsheets are also covered.

CTFOUND 12F   20 Points
Art History
Discusses the analysis and interpretation of works of art within their cultural and historical context. Artists such as Donatello, Masaccio, Leonardo da Vinci, Michelangelo and Raphael (Renaissance) are studied. The modern period includes Cezanne, Picasso, Braque (Cubism) and Mondrian. A New Zealand artist, Colin McCahon, will also be studied. Encourages students to make connections to other artists. Develops skills in critical analysis, writing, presentation and independent research.

CTFOUND 13F   20 Points
Biology
Biology is the study of living things, their environments and their evolution. Understanding how living cells coordinate biochemical reactions, giving rise to what is called 'life'. By exploring biotechnology, students will discover how cellular and molecular biology are applied to practical human purposes. The wide diversity of living things on Earth: ecosystems, plants and animals, genetics and evolution over time will be studied. Provides opportunities for research, discussion, presenting and writing critically about current biology issues.

CTFOUND 14F   20 Points
Chemistry
Chemistry is the branch of science concerned with the substances of which matter is composed, the investigation of their properties and reactions, and the use of such reactions to form new substances. Theory is complemented by experiments in which students develop practical skills, such as the use of common laboratory equipment, powers of observation and the ability to communicate results and conclusions.

CTFOUND 15F   20 Points
Design
Strong focus on graphic and communication design. Considers graphic design theory and explores communication design solutions by producing a brand identity for an individually chosen project. Students will learn how to design a logo and poster, produce imagery, develop an understanding of building a design brand, interpret and read design works and learn how to use Photoshop.

CTFOUND 16F   20 Points
Economics
Economics is the study of scarcity; of how society chooses to use scarce resources to satisfy its unlimited wants. Explores what motivates consumers and producers, how the market works and how markets react to change. Increases students' understanding of what makes up an economy, how it works and why it is important for the individual and others. Uses economic theory to analyse real-life situations. Challenges students to think like an economist and practise decision making.

CTFOUND 17F   20 Points
Mathematics with Calculus
Calculus is a branch of mathematics that provides an understanding of the changes between values that are related by a function. Students will learn how to manipulate mathematical equations, read trigonometric functions, differentiate to get functions that show rates of change, and integrate to obtain formulas that describe things that are not visible. Logical thinking and reasoning, algorithmic processes and problem solving will also be studied.
Restriction: CTFOUND 18F

CTFOUND 18F   20 Points
Mathematics with Modelling
Modelling is a branch of mathematics where mathematical representations of the surrounding world are created in order to increase knowledge and predict the future. Students will learn how to manipulate mathematical equations, read trigonometric functions, create formulas for real-life situations and maximise profits and minimise costs. Logical thinking and reasoning, algorithmic processes and problem-solving will be covered.
Restriction: CTFOUND 18F

CTFOUND 19F   20 Points
Geography
Geography is the study of the Earth as the home of humankind. Geographical skills such as mapping, graphing and interpretation of data will be covered. Topics include tourism development as a cultural process, tectonic processes and global development. A contemporary geographic issue will be studied.

CTFOUND 20F   20 Points
Photography
Photography is the study of the camera, its capabilities and the ideas, theory and aesthetics around the photographic image as a piece of art. Students will be introduced to the history of photography, how the camera works, camera techniques and the language of composition. Students will study contemporary photographers.

CTFOUND 21F   20 Points
Physics
Physics provides explanations for why natural and man-made phenomena occur. Topics covered: translational motion, forces, momentum, rotational motion, simple harmonic motion, mechanical and electromagnetic waves, direct current electricity, capacitance, electromagnetism and alternating current theory. Different types of experimental techniques and the appropriate situations in which they should be used. Students will be shown how to develop a logical approach to problem-solving and experimental design.

CTFOUND 22F   20 Points
Statistics
Statistics is about collecting and analysing data from a small group to make intelligent and accurate conclusions about a larger group. The Problem, Plan, Data, Analysis, and Conclusion (PPDAC) cycle of inquiry will be used. Statistical knowledge aids in the proper methods to collect data, employ the correct analyses and effectively present the results. Key skills covered: gathering and displaying data, using statistical formulas and writing academic conclusions.

CTFOUND 23F   20 Points
Communication
Communications is about the distribution of ideas. Students will develop an awareness of the challenges they face as consumers and conveyors of big ideas in a variety of media. They will explore a range of oral and visual texts including social media and develop the skills to investigate and infer purpose and meaning.

CTFOUND 39F   20 Points
English for Academic Purposes
Further develops language, academic and critical thinking skills required for university level study.

CTFOUND 40F   10 Points
English for Academic Purposes
Note-taking, critical thinking, research and essay writing are covered. This course covers the language skills that will help students understand academic texts at university.

CTFOUND 41F   20 Points
Accounting
Accounting is the practice of communicating financial information in order to make effective decisions. This course focuses on how to record business transactions for a company, and prepare and analyse the financial statements for a company. Management decision making, breakeven analysis, cash budgeting and spreadsheets are also covered.

CTFOUND 42F   20 Points
Art History
Discusses the analysis and interpretation of works of art within their cultural and historical context. Artists such as Donatello, Masaccio, Leonardo da Vinci, Michelangelo and Raphael (Renaissance) are studied. The modern period includes Cezanne, Picasso, Braque (Cubism) and Mondrian. A New Zealand artist, Colin McCahon, will also be studied. Encourages students to make connections to other artists. Develops skills in critical analysis, writing, presentation and independent research.

CTFOUND 43F   20 Points
Biology
Biology is the study of living things, their environments and their evolution. Understanding how living cells coordinate biochemical reactions, giving rise to what is called 'life'. By exploring biotechnology, students will discover how cellular and molecular biology are applied to practical human purposes. The wide diversity of living things on Earth: ecosystems, plants and animals, genetics and evolution over time will be studied. Provides opportunities for research, discussion, presenting and writing critically about current biology issues.

CTFOUND 44F   20 Points
Chemistry
Chemistry is the branch of science concerned with the substances of which matter is composed, the investigation of their properties and reactions, and the use of such reactions to form new substances. Theory is complemented by experiments in which students develop practical skills, such as the use of common laboratory equipment, powers of observation and the ability to communicate results and conclusions.

CTFOUND 45F   20 Points
Design
Strong focus on graphic and communication design. Considers graphic design theory and explores communication design solutions by producing a brand identity for an individually chosen project. Students will learn how to design a logo and poster, produce imagery, develop an understanding of building a design brand, interpret and read design works and learn how to use Photoshop.

CTFOUND 46F   20 Points
Economics
Economics is the study of scarcity; of how society chooses to use scarce resources to satisfy its unlimited wants. Explores what motivates consumers and producers, how the market works, and how markets react to change. Increases students' understanding of what makes up an economy, how it works and why it is important for the individual and others. Uses economic theory to analyse real-life situations. Challenges students to think like an economist and practise decision making.

CTFOUND 47F   20 Points
Mathematics with Calculus
Calculus is a branch of mathematics that provides an understanding of the changes between values that are related by a function. Students will learn how to manipulate mathematical equations, read trigonometric functions, differentiate to get functions that show rates of change, and integrate to obtain formulas that describe things that are not visible. Logical thinking and reasoning, algorithmic processes and problem-solving will also be studied.

CTFOUND 48F   20 Points
Mathematics with Modelling
Modelling is a branch of mathematics where mathematical representations of the surrounding world are created in order to increase knowledge and predict the future. Students will learn how to manipulate mathematical equations, read trigonometric functions, create formulas for real-life situations and maximise profits and minimise costs. Logical thinking and reasoning, algorithmic processes and problem-solving will be covered.
Restriction: CTFOUND 17F

CTFOUND 49F   20 Points
Geography
Geography is the study of the Earth as the home of

humankind. Geographical skills such as mapping, graphing and interpretation of data will be covered. Topics include tourism development as a cultural process, tectonic processes and global development. A contemporary geographic issue will be studied.

CTFOUND 50F   20 Points
Photography
Photography is the study of the camera, its capabilities and the ideas, theory and aesthetics around the photographic image as a piece of art. Students will be introduced to the history of photography, how the camera works, camera techniques, and the language of composition. Students will study contemporary photographers.

CTFOUND 51F   20 Points
Physics
Physics provides explanations for why natural and man-made phenomena occur. Topics covered: translational motion, forces, momentum, rotational motion, simple harmonic motion, mechanical and electromagnetic waves, direct current electricity, capacitance, electromagnetism and alternating current theory. Different types of experimental techniques and the appropriate situations in which they should be used. Students will be shown how to develop a logical approach to problem-solving and experimental design.

CTFOUND 52F   20 Points
Statistics
Statistics is about collecting and analysing data from a small group to make intelligent and accurate conclusions about a larger group. The Problem, Plan, Data, Analysis, and Conclusion (PPDAC) cycle of inquiry will be used. Statistical knowledge aids in the proper methods to collect data, employ the correct analyses and effectively present the results. Key skills covered: gathering and displaying data, using statistical formulas and writing academic conclusions.