



St. Columba's College

Leaving Certificate

Subject Choice

Information Booklet

2020 / 2021

Introduction

The purpose of this booklet is to provide pupils with the necessary information to choose the subjects for the Leaving Certificate which suit their needs and interests. Choosing subjects to study in the Leaving Certificate isn't easy, and pupils must consider their possible future careers when doing so. Consultation with teachers, parents, pupils and guidance staff is essential. PUPILS SHOULD READ THIS BOOKLET FULLY! One should never choose a subject without knowing what one will be studying. It is important to note that some future careers require certain subjects at leaving certificate (*e.g. medicine requires a strong knowledge of chemistry*).

St Columba's ensures that each pupil is informed about the subjects available to him / her. However, pupils must take a certain level of responsibility for their career development also and should speak to their teachers and parents about these choices. There are many factors which must be considered when choosing subjects, most notably whether you like the subject or not and, of course, your ability in the subject. As mentioned earlier, one should consider their possible or preferred future career when making these choices also. Research into college courses which may lead to these careers will reveal the essential subjects required.

We pride ourselves here in St. Columba's on our academic excellence. Our results in the Leaving Certificate have been amongst the highest in the country. In 2019, our pupils achieved an average points score of 474 per candidate. A staggering 53% of candidates achieved 500 points or more. 81% of candidates achieved 400 points or more. 97% of pupils achieved over 300 points or more.. Over the past five years, pupils have achieved an average of 463 points, giving an indication of consistently high scores. We believe that informed subjects choices are crucial to this success.

The remainder of this booklet will try to explain the process involved in making subject choices in St. Columba's and will provide detailed information on each subject available in the school, both compulsory and optional.

Michael O'Shaughnessy, Head of Careers

Subject Choice Process in St. Columba's College

In general pupils study seven subjects for Leaving Certificate. English, Mathematics and Irish (unless exempt) are compulsory. The remaining subjects on offer (see page 4) are organised into blocks based on pupil preferences. Much work goes into the development of these blocks in order to best suit the requirements of the pupils. In order to derive maximum benefit from the process it is important that pupils give some thought to their strengths, abilities and, where known, future career and university aspirations in advance of making their subject choices.

In addition to the seven main subject groupings pupils also choose one Q-set subject. This subject occurs for a double period each week over either one (non exam) or two years. This provides an opportunity for some pupils to study an extra subject for Leaving certificate or University matriculation purposes, while others opt to pursue an area of interest outside the core of examined subjects.

In January all pupils for the upcoming Form V will be given a complete list of the available optional subjects (excluding Q-Set) and asked to rank them in order of preference. It is very important that any subject which might be important/essential to future university courses is given a high ranking as these initial preferences help determine the contents of the subsequent blocks of subjects from which the pupils make their final choices.

Based on these initial preferences the available subjects are then organised into blocks. These blocks are arranged to best meet the preferences of the majority of pupils. In recent years we have been able to completely satisfy over 95% of pupil wishes, and consistently satisfy the first and second preferences of almost all pupils.

In February these final block choices, including Q-set which forms an additional block, will be issued to all pupils entering Form V in September 2020. Pupils then choose one subject in each block. These final choices are then signed off by the pupils and their parents. The entire process must be completed by the end of February in order to facilitate the development of the timetable for the coming year.

Mary Singleton, Registrar and Director of Studies

Subjects in St. Columba's

Compulsory Subjects in Leaving Certificate:

- English
- Irish (*Unless exempt based on a number of criteria*)
- Mathematics

Optional Subjects available in St. Columba's College (5 Periods per Week):

- Applied Mathematics
- Art
- Biology
- Business
- Chemistry
- Classical Studies
- Computer Science
- Design and Communication Graphics
- Economics
- French
- Geography
- History
- Music
- Physics
- Spanish

Subjects available in Q – Set (2 Periods per Week):

- Agricultural Science
- Design *
- Geology *
- History of Art **
- Physical Education *

** These subjects are not examined in the Leaving Certificate*

*** History of Art is compulsory for pupils studying Art*

English

No of Sets in 2019 / 2020: 4

No of Periods per Week: 5

Department Staff: Mr. J. Girdham, Mr. L Canning, Mr E Jameson & Ms. J. Morley

Brief Summary of Course Content

English is a compulsory subject at Leaving Certificate in St Columba's.

There are two papers in the terminal exam - Paper I (Language, 2 hours 50 minutes) includes a major composition (100 marks), a comprehension section (50) and a short set composition task (50). Paper II (Literature, 3 hours 20 minutes) has three sections:- The Single Text (60, almost always a Shakespeare tragedy such as *Hamlet*, *Macbeth*, *King Lear*, *Othello*); The Comparative Mode (70, an essay comparing three texts - in the current Fifth Form, *Room*, *The Great Gatsby* and *The Playboy of the Western World*); Poetry (50 - answer on one of eight set Higher Level poets, and 20 - an unseen poem).

The literature texts are almost completely covered in Fifth Form, apart from some poems. In Sixth Form these texts are revised in considerably more detail. Language work continues throughout Fifth and Fourth Forms

The sets are divided largely at random, with a rough mixtures of abilities. Each set is taught by the same teacher for two years, with some swopping between teachers during the revision period before the final exam.

Possible Career Areas for which this Subject is Useful/ Essential

English is an essential subject in almost all professions. There are many careers which stem directly from studying English in third level. Career opportunities are abundant to an individual with a degree in English because skills gained from this area of study can be easily applied to many career areas. Individuals possessing the ability to think clearly and critically, to analyse and interpret data, and communicate results are in great demand by employers. Examples include: journalist, novelist, acting, film or stage direction, law, teacher, PR and much more.

Gaeilge

Líonna sraitheanna i 2019 / 2020 2

Líonna ranganna i gcaitheamh na seachtaine:

5

Foireann na Roinne: Iníon Maybury, Iníon Lynch,

Achoimre ar Ábhar an Chúrsa

Leanann an Coláiste siollabas na hArdteistiméireachta mar atá leagtha amach ag an Roinn Oideachais agus Scileanna. Cuirtear béim faoi leith ar labhairt na teanga beo agus ar chumas cumarsáide na ndaltaí in ócáidí cainte éagsúla. Is fiú 40% den toradh iomlán an béalscrúdú. Baintear úsáid as dlúthdhioscaí, físeáin, nuachtáin, chlár theilifíse agus neart ábhar teagaisc fóirsteanach eile atá bunaithe ar bhlianta fada de thaithí ghairmiúil sa Choláiste. Tá dhá pháipéar sa scrúdú scríofa. Scrúdaíonn an chéad pháipéar scileanna ceapadóireachta. Scrúdaíonn an dara ceann scileanna léamhthuisceana agus eolas an dalta ar phrós agus filíocht atá leagtha síos ag an Roinn Oideachais.

- **Ardleibhéal 1** – *(do dhaltaí a bheadh go flúirseach sa teanga agus a bheadh ar lorg na ngrád is airde)*
- **Gnáthleibhéal** – *(do dhaltaí a mbeadh ar intinn acu dul i mbun an ghnáthleibhéil)*

Sa chéad dá shraith (*i. an tArdleibhéal*) ní úsáidtear ach an Ghaeilge amháin sa rang. Sa dara sraith (*i. an Gnáthleibhéal*), úsáidtear meascán den Ghaeilge agus den Bhéarla.

Comparáid Thorthaí an Choláiste leis na Céatadáin Náisiúnta

Bíonn torthaí an Choláiste san Ardteistiméireacht ag an Ardleibhéal níos airde ná meántorthaí na tíre i gcoitinne. Tugtar thíos anseo na céatadáin do na gráid a fuarthas H1 no H2 don bhliain 2018 i gcomparáid leis an mheán náisiúnta:

- H1 nó H2 - 12% (12% - meán náisiúnta)

Gairmeacha Beatha gur féidir a chleachtadh le Cáilíocht san Ábhar Seo

Bunscolaíocht^[1] Oideachas (*ag an dara agus tríú leibhéal*), Teileacumarsáid, Iriseoireacht, Státseirbhís, polaitíocht, dlí

Irish

Number of sets in 2018 / 2019: 2

No. of Periods per Week: 5

Department Staff: Ms Maybury, Ms Lynch

Brief Summary of Course Content

The College follows the Leaving Certificate syllabus as laid out by the Department of Education and Skills. Particular emphasis is placed on the spoken language and on developing effective communication skills in diverse speech-events. The oral examination is worth 40% of the overall result. Wide use is made of CD's, films, newspapers, TV programmes along with a number of helpful techniques that have been established over many years of professional teaching practice at the College. There are two papers in the written exam. The first paper tests creative writing skills. The second one tests reading comprehension skills and the pupil's knowledge of prescribed prose and poetry. There are usually between 5 to 10 pupils in each set in the 5th & 6th years:

- **Higher level** – (*for pupils who are fluent in Irish and who want the highest grades in this subject*)
- **Ordinary level** – (*for those pupils who are taking the subject at ordinary level*)

In the first set (*i.e. the Higher level*), Irish is spoken exclusively in the classroom. In the second set (*i.e. the Ordinary level*), both English and Irish are used.

Comparison of Results with the National Figures

The College results in this subject for the Leaving Certificate Higher Level are consistently above the national average. Below is given a comparison of H1 and H2, grades as percentages of the national average for the year 2018:

- H1 or H2 - 12% (12% - national average)

Possible Career Areas for which this Subject is Useful/ Essential

Primary Education**, Education (*secondary & third level*), Telecommunications, Journalism, Civil Service, Politics, Law

- A 'C' grade at Higher Level is required for those wishing to become primary school teachers.

Mathematics

No of Sets in 2019 / 2020: 5 (3 Higher Level, 2 Ordinary) **No of Periods per Week:** 5

Department Staff: Mr. D. Higgins, Dr. M. Singleton, Ms. J. Robinson, Ms. J. Harkin, Mr. E McDonald

Brief Summary of Course Content

The Leaving Certificate Mathematics course builds on the foundation of the Junior Certificate syllabus. The final examination is offered at both higher and ordinary level. The topics covered are the same for both levels, but the depth of treatment is significantly different. The ordinary level course is much more manageable for those who are less mathematically minded. At higher level, pupils will find mathematics a demanding yet satisfying course to undertake. A solid background in mathematics is essential, as there is a large syllabus to cover meaning we move at a quick pace.

The main topics are:

- Algebra
- Trigonometry
- Calculus
- Coordinate and Circle Geometry
- Probability and Statistics
- Geometry

Comparison of Results with National Figures

In 2019, 54% of our pupils sat the higher level course, compared with 37% nationally. In our current Form V 80% are aiming for higher level. In 2019, 13% of all our pupils achieved an H1 or H2 grade in Higher Level (compared with just 6% nationally).

Possible Career Areas for which this Subject is Useful/ Essential

A good mathematical ability is essential in nearly all professions. Traditionally, university courses such as engineering and architecture require higher level mathematics for entry but mathematics can be used in a huge variety of careers, from science, criminology, financial to actuary. For more information on careers in maths, visit: www.mathscareers.org.uk

Art

No of Sets in 2019 / 2020: 1

No of Periods per Week: 7 (2 for Art History)

Department Staff: Ms. Derarca Cullen & Ms. Lynn Murphy.

Brief Summary of Course Content

Art is around us every day from the design of the shoes we are wearing on our feet to the architectural design of the building in which we sit. The Form V Art Programme brings together practical Art with Art History. This curriculum necessitates us to draw on our own experiences of life and to visually respond to the world around us. Visits to Galleries and Museums are an integral part of studying this subject. The course is broken into two main sections; the **Practical Art Course**, *comprising a chosen craft, a still-life painting/drawing and two life drawings* and the **History of Art Course** (*See Q-Set History of Art*).

Section 1: Practical Art Section (62.7% of overall marks)

1. ***Craft-*** During Form V all crafts are explored and in Form VI pupils choose one craft which they enjoy and feel most confident in. Available crafts include clay modelling, batik, poster design, pottery, block printing. Personal interpretation of a chosen theme forms the basis for the work produced for assessment at Leaving Cert. Drawing skills are developed, and a mature and personal artistic style is encouraged. This section of the course accounts for **25%**.
2. ***Still- Life/ Imaginative Composition-*** This involves personal interpretation of a chosen theme in order to assemble a still life or compose a strong imaginative composition based on the development work done in their workbook. This aspect of the course develops observational drawing and composition skills worked from a primary source, and aims to enhance ability for using various drawing/painting media. This section of the course accounts for **25%**.
3. ***Life Drawing-*** covers elements and principles such as perspective, proportion, composition and scale in order to draw the human figure. Observational and drawing skills are developed and the use of various media is encouraged. This section of the course is examined in 1 hour (one 15 minute drawing, and one 30 min drawing). It accounts for **12.7%**.

The remaining **37.3%** of the mark is awarded for the study of Art History. (*See Q-Set Art History*).

How is your work presented for Leaving Certificate?

Pupils carry out 50% of their Art for Assessment during the Hilary Term in Form VI. During this 10 week period pupils choose a theme from a list provided by the department of Education. This theme is developed and researched in a their Coursework Booklet. The concepts and ideas from this booklet are the basis for two art works which pupils must create. They must choose to make one finished Craftwork and one finished Still Life Composition or Imaginative Composition. This work is held by the school and marked by a visiting examiner in The month of June.

The Life Drawing exam takes place early in the Trinity term and is stored with the Coursework booklet to be assessed in June.

The Art History Exam takes place in June with all of the other written examinations.

Pupils receive one Leaving Certificate result with comprises all 4 components of the course.

Comparison of Results with National Figures

The Leaving Certificate results achieved by our pupils compare very favourably with national statistics In June 2019 all candidates sat the exam at Higher Level.

Higher Level H1 - 38% (2.5% Nationally)

Higher Level H2 - 38% (11.5% Nationally)

Possible Career Areas for which this Subject is Useful/ Essential

The list is endless! Architect, Industrial Design, Web Design, Graphic Artist, Poster Designer, Book Illustrator, Calligrapher, Advertising, Display Design, Cartoonist, Animator, Camera Operator, Fashion Photographer, Fashion Stylist, Makeup Artist, Special Effects, Stage Design, Photographer, Photojournalist, Forensic Photographer, Fine Artist, Ceramicist, Stained Glass Maker, Jeweller, Tattoo Artist, Printmaker, Sculptor, Textiles, Wood Craft, Educator, Art Therapist, Film Director, Film Editor, Film Set Constructor, Art Historian, Art Critic, Antiques Specialist, Restoration, Gallery Curator.....

Applied Mathematics

No of Sets in 2019 / 2020: 1

No of Periods per Week: 5

Department Staff: Ms J. Harkin

Brief Summary of Course Content

Applied Mathematics is a beautiful and challenging subject. It can be the most satisfying subject on the Leaving Certificate. It serves students well because it gives them a skill – to solve real life problems using mathematics as the tool – which they can later apply to any other field such as medicine, architecture, economics, pharmacy, engineering, design, technology, business and actuarial studies.

Applied Mathematics or Mathematical Physics studies the application of Mathematics to problems in STATICS (Bodies at rest) and DYNAMICS (Bodies in Motion).

In particular, it is an ideal subject choice for those intending to study Engineering, Architecture, Physics or Mathematics at 3rd level and particularly appeals to the abler student who enjoys solving challenging and complex problems.

Applied Mathematics complements the Honours Leaving Certificate courses in Mathematics and Physics. Students taking the subject find that their grades in Mathematics and Physics improve and that their time studying Applied Maths is enjoyable, motivating and intellectually stimulating.

The course is taught at Honours Level over two years, for five periods a week, and covers a wide and interesting range of topics including:

- Vectors
- Accelerated Linear Motion
- Projectiles on a Horizontal and Inclined Plane
- Relative Motion
- Forces (Newton's Laws, Normal Reactions, Friction)
- Connected Particles
- Work, Power, Energy, Gravity
- Impacts and Collisions (Direct & Oblique)
- Motion in a Horizontal and Vertical Circle
- Simple Harmonic Motion
- Statics and Hydrostatics
- Moments of Inertia
- Differential Equations and Mathematical Modelling

Comparison of Results with National Figures

The results are consistently good. In 2019 25% of SCC pupils obtained a H1 or H2 grade at higher level.

Possible Career Areas for which this Subject is Useful/ Essential

Applied Maths is a real advantage in courses such as Engineering, Science or Architecture. As with Physics, Applied Maths is useful in all forms of engineering, medicine, dentistry, but in general, many science based careers use Applied Maths. The problem solving skills developed through studying Applied Maths are useful across a broad range of other disciplines also.

Biology

No of Sets in 2019 / 2020: 3

No of Periods per Week: 5

Department Staff: Ms. G Mullane & Mr. H. Jones

Brief Summary of Course Content

Biology is a fascinating, popular and useful subject. In St. Columba's we aim to enthuse, inform and raise awareness about all aspects of the living world – and about the functioning of our own bodies. In so doing we also aim to prepare pupils for their certificate exams to as high a level as possible, and to prepare them for their roles as decision-making, responsible and interested members of society. The course is divided into three units. Unit 1 looks at living things and how they interact and feed. Unit 2 looks closely at the cell, its structure, function and biochemistry. Unit 3 looks at the organism and extensive study of both animal and plant physiology is carried out. The course content is broad, challenging yet interesting and rewarding. As part of the course of study, there are also 24 mandatory laboratory investigations to be carried out.

Comparison of Results with National Figures

Biology is continually the most popular of the non-compulsory subjects at Leaving Certificate in SCC, and all pupils are prepared initially for the Higher Level examination (over each of the past 6 years only one or two pupils in each cohort have sat the examination at Ordinary Level). There is a proud tradition in Biology in SCC and, last year, years for example, 55% of Biology candidates in SCC have achieved an H1 or H2 grade (compared with a national average of 19%).

Possible Career Areas for which this Subject is Useful / Essential

Biology is a broad subject and pupils will find it particularly useful no matter what area of study is pursued at higher education. Biology is useful for any course of study especially in the area of science, engineering or medicine:

- Research / Laboratory Work
- Further Education
- Teaching
- Zoology
- Environmental Careers

- Medical / Drug Research
- Microbiologist
- Veterinary Medicine
- Doctors / Nurse
- Much more.....

Business

No of Sets in 2019 / 2020: 2

No of Periods per Week: 5

Department Staff: Mr. P. McCarthy & Ms. L Carey

Brief Summary of Course Content

The Leaving Certificate course involves the study of topics such as industrial relations, taxation and insurance, sources of finance, marketing, contract law and the role of the EU in the business world. The course is divided into a number of modules including:

- Consumerism:
- World of Work:
- Finance
- Insurance
- Advertising
- Marketing
- Enterprise

Comparison of Results with National Figures

The vast majority of pupils take the Higher Level paper in the Leaving Certificate examination. Those few who opt for Ordinary Level receive the same level of tuition as Higher Level pupils. The Leaving Certificate results achieved by our pupils compare very favourably with national statistics, with our performance invariably higher in terms of the top grades. In 2019 the Leaving Certificate Results were as follows:

- Higher Level H1 or H2: 54% as compared with 16% nationally

Possible Career Areas for which this Subject is Useful/ Essential

Any career requires an understanding of the principles of business. Whether employer, employee or consumer, a pupil will benefit greatly from studying this course. It gives information which is practical and relevant to everyone's daily life.

Chemistry

No of Sets in 2019 / 2020: 1

No of Periods per Week: 5

Department Staff: Dr L Rice

Brief Summary of Course Content

Chemistry is a vibrant, practical and relevant subject to choose to study. From the moment we are born, we are surrounded by chemistry; from the air we breathe, to the food we eat, the clothes we wear and the technology that we find ourselves surrounded by.

Chemistry is the study of matter, what substances are made of, how they interact and the important roles they play in the lives of living things. Besides gaining a fundamental understanding of core chemistry concepts, the course offers hands-on experience in a wide range of practical techniques while placing an emphasis on the ability to problem solve, both skills which are transferable to other areas of study within the Leaving Certificate and further third level courses.

The following topics are covered in the leaving certificate course:

Atomic Structure	Volumetric Analysis	Environmental Chemistry
Periodic Table	Fuels	Atmospheric Chemistry
Bonding	Rates of Reaction	Industrial Chemistry
Stoichiometry (calculations)	Organic Chemistry	Equilibrium

Chemistry is essential for those intending to study medicine or indeed any science course at university. Mathematical ability is not essential but it is helpful in some sections of the course. Success depends on working from the start and not allowing oneself to become lost. We start from absolute scratch, so it is possible to start the subject if you have not studied it in form IV providing you are willing to work hard.

Comparison of Results with National Figures

Pupils generally sit the Leaving Certificate at Higher Level. The results have been consistently excellent, well above the national average. In 2019 the results were as follows (national figures shown in brackets):

- Higher Level H1 - 29% (11%)
- Higher Level H2 - 29% (16%)

Possible Career Areas for which this Subject is Useful/ Essential

Any science area, industry, pharmaceuticals, fire service, teaching, health and safety, dentistry, veterinary science, physiotherapy, nursing and medical – those who do chemistry have a good versatile brain which is adaptable to go into any work environment. **Chemistry is essential for pupils who wish to study medicine in Ireland or the UK.** (Pupils who do not study chemistry are required to complete an additional year for some medicine courses).

Classical Studies

No of Sets in 2019 / 2020: 1

No of Periods per Week: 5

Department Staff: Mr. P. McCarthy

Brief Summary of Course Content

The student of Classical Studies does not study the classical languages and so is enabled to engage in a more thorough and wide-ranging exploration of the non-linguistic areas of classical civilisation. This exploration consists of the study of ancient literary, historical, dramatic and philosophical works (in translation) for the Leaving Certificate and also an exploration of various aspects of classical art, architecture, archaeology, sociology, mythology and legend in the junior school.

The topics studied for Leaving Certificate in St. Columba's include:

- Epic Poetry (*Aeneid* and *Odyssey*)
- Alexander the Great
- Greek Drama (*Oedipus the King*, *Prometheus Bound* and *Medea*)
- Philosophy (Plato's *Republic*)

The Leaving Certificate exam is a 3 hour exam. From 2011 pupils have had to answer 6 questions instead of the previous 8, making the exam much more reasonable and fair.

Comparison of Results with National Figures

Our results compare very favourably with the national average: 2019 Leaving Certificate

H1 H2 or H3 grade : 45% as compared with 41% nationally

Nationally, in terms of the numbers who sit the Leaving Certificate Exams, Classical Studies is a minority subject. In St Columba's College it has full subject status, the course is taught fully and properly and this is evidenced in the examination results.

Possible Career Areas for which this Subject is Useful/ Essential

As well as the intrinsic value of developing the mind the subject can be studied as part of an Arts degree. It is very useful for those interested in English and History. Those opting to study law will also find it of use. All prospective employers are impressed by candidates who have studied the ancient world.

Computer Science

No of Sets in 2020 / 2021: 1

No of Periods per Week: 5

We are hoping to include the Computer Science Leaving Certificate course in our choice of subjects for the first time in the 2020-2021 academic year. Please find below some information on why it might be a useful course to undertake and the structure of the course.

Reasons to study Computer Science

Technology plays a vital role in every facet of society. Few developments in recent times rival computer technology for the pace of its progress or the breadth of its application. Computer Scientists are people who conceptualise ideas, design, develop and apply the software and hardware for programmes that we use every day.

Studying Computer Science will help you develop computational thinking skills, improve your ability problem solving creatively, understand computer systems, design your own systems and be able to give a computer a set of instructions with the use of different programming languages.

There is a vast range and variety of roles available in the computer science and IT sector. There is also a high demand for people with a background in computer science.

You do not need any prior knowledge of Computer Science to complete this course

Who should take this course?

- Anyone who has an interest in working in the IT sector where there is a vast variety of jobs on offer

- Those wanting to do engineering
- Anyone who is creative
- Anyone wanting to improve their problem-solving skills
- Anyone interested in learning to code

Structure

Strand 1: Practices and principles	Strand 2: Core concepts	Strand 3: Computer science in practice
<ul style="list-style-type: none"> ▶ Computers and society ▶ Computational thinking ▶ Design and development 	<ul style="list-style-type: none"> ▶ Abstraction ▶ Algorithms ▶ Computer systems ▶ Data ▶ Evaluation/Testing 	<ul style="list-style-type: none"> ▶ Applied learning task 1 <ul style="list-style-type: none"> - Interactive information systems ▶ Applied learning task 2 - Analytics ▶ Applied learning task 3 <ul style="list-style-type: none"> - Modelling and simulation ▶ Applied learning task 4 <ul style="list-style-type: none"> - Embedded systems

Assessment

The Leaving Cert exam at the end of the course – 70%

Coursework – Create an innovative computational artefact and report on the work and process involved – 30%. Marked by the SEC

The Exam

The exam will be computer based and will likely comprise questions of varied format and type. The questions will assess both the core concepts and the computer practices and principles.

The examination will assess:

- Knowledge and recall of facts
- Principles and methods relating to computer science

- Application of knowledge and understanding of the principles and concepts of computer science, including abstraction, logic, algorithms and data representation, and how to analyse problems in computational terms
- Ability to write code and to compile, test and debug program code
- Ability to evaluate computer systems that solve problems, making reasoned Judgements about these and presenting conclusions
- Problem solving based on integration, analysis and evaluation of qualitative and quantitative information and data, using knowledge gained from all three strands
- Understanding of the ethical, historical, environmental and technological aspects of Computer Science, and of how computer science contributes to the social and economic development of society.

Coursework

The coursework assessment will require students to demonstrate proficiency in course content and skills that are not easily assessed by the end-of-course examination. The assessment will require students to create an innovative computational artefact, and to report on the work and process involved. It is anticipated that student work for both components will be submitted electronically and will be marked by the State Examinations Commission (SEC).

The coursework assessment will use practical situations to assess how students design data structures and develop algorithms, integrate ideas, test hypotheses, and explore alternative approaches. It will be similar to the structure of the strand 3 applied learning tasks that students complete during the two years of the course. However, the coursework assessment must be carried out individually. Students will not be permitted to work in groups for the coursework assessment. In January of the second year of the course, the State Examinations Commission (SEC) will set a task in which students are required to generate a computational artefact in response to a brief set out by the SEC. The time-period for completion of the coursework will be set out in the brief. A period of 6-8 weeks is anticipated, after which the completed task is submitted, electronically, to the SEC for marking. The date for submission will be set by the SEC each year.

DESIGN AND COMMUNICATION GRAPHICS

No of Sets in 2019 / 2020: 1

No of Periods per Week: 5

Department Staff: Mr B Redmond

DCG is the follow-on subject from Junior Certificate Technical Graphics. The subject was first examined in June 2009 having replaced Technical Drawing.

Leaving Certificate Design and Communication Graphics involve problem solving and creative thinking. These skills are developed through solving problems in both 2-D and 3-D graphics. Graphics and design are communicated using a variety of media, including computer-aided design (CAD). The main areas of study are: Plane and Descriptive Geometry, Communication of Design and Computer Graphics, and Applied Graphics.

Design and Communication Graphics is assessed at two levels, Ordinary level and Higher level, by means of two assessment components: a student assignment, of which CAD forms a significant and compulsory element, and an examination paper.

What will I learn in DCG?

Some of the things you will learn include:

- How to produce drawings using drawing equipment, freehand sketches and computers
- How to read and interpret drawings and diagrams
- Creative problem solving
- Computer graphics and CAD modelling
- Design capabilities

Will DCG have anything to do with other subjects I will be studying?

Yes, the problem solving and geometry you will learn in DCG will prove very useful in Mathematics.

What is the DCG examination like?

Design and Communication Graphics is assessed at both Ordinary level and Higher level by means of a 3 hour terminal exam (60%) and a student project (40%) that includes a compulsory CAD element.

The student project:

40% of the total marks awarded in the Leaving certificate are for the project. The project is completed in class time under the supervision of the teacher. The emphasis of the project is on Elements of Design, Communication Graphics, Use of ICT in Design.

How will DCG be useful to me?

Design and Communication Graphics helps you to think in a more logical and creative way. You will be able to communicate information using diagrams and sketches. You will have learned how to present information in a neat and organised fashion. This subject will be of use to you if you want to progress into career areas such as architecture, all engineering codes, trades people and quantity surveying. This subject will develop your problem solving skills through the completion of the student assignment.

Skills developed during the course:

These skills include graphic communication, creative problem solving, spatial abilities / visualisation, design capabilities, computer graphics and CAD modelling. The creative and decision-making capabilities of students are developed within the activities associated with design. It is intended to develop the creative thinking and problem solving abilities of students through project work.

Course structure:

- Compulsory core elements (including Computer Aided Design (CAD/ICT))
- Five options (two to be studied)

Economics

No of Sets in 2019 / 2020: 2

No of Periods per Week: 5

Department Staff: Ms. L Carey

Brief Summary of Course Content

Why do we buy Coke over 'cola flavoured' carbonated water? How will YOU fare in the Ireland of the future? Ever wondered why the price of oil bounces up and down?

If these questions interest you and you want to be stimulated and challenged, then economics is the subject for you.

Economics is the study of how people manage limited resources such as money to meet their goals. By understanding the reasons why people spend their money in certain ways, economists can try to introduce incentives to change their behaviours. Economics is divided into two broad categories:

Microeconomics considers how individual people decide what goods they are willing to buy or not buy based on maximising their personal 'utility' (getting as much benefit as possible from their money), and how firms and businesses will try to take advantage of consumers' habits to maximise profit.

Macroeconomics then considers how governments handle the economy as a whole, and how they select policies which meet their goals, such as stable economic growth (avoiding recessions), minimising the national debt, and encouraging employment. How the government handles issues such as fiscal policy (how much money flows in the economy), international trade, and banking all have implications for economics stability and growth.

In class, we will explore the economic theories and then apply them to current world issues, with a focus on Ireland in particular. It is a subject that keeps itself fresh and interesting and is very rewarding as a result.

It is recommended that pupils should be interested in current affairs. It would be important to be listening to the news and reading the daily papers.

Comparison of Results with National Figures

In 2019, 32% of pupils achieved a H1 or H2 grade in the Leaving Certificate (compared to just 18% nationally).

Possible Career Areas for which this Subject is Useful/ Essential

Economics is useful in a wide range of career areas including but not exclusively:

- Teaching and Lecturing
- Journalism
- Media Studies
- Politics
- Business enterprises.
- International Studies
- International Relations.
- Law

French

No of Sets in 2019 / 2020: 2

No of Periods per Week: 5

Department Staff: Mr M. O'Shaughnessy, Mrs C de Frein, Mr T. Clark, Ms A. Kilfeather

Brief Summary of Course Content

The study of a Modern Language for Leaving Certificate is obligatory and pupils may choose between French and Spanish. The examination can be taken either at Higher Level or Ordinary. Typically, we have two sets, the top one exclusively Higher and the second a mixture of Ordinary and Higher. Class sizes range from ten to seventeen pupils.

TEACHING

The Leaving Certificate course begins in the Fifth Form and pupils are assessed on their progress at end of term exams. Assessment is made by means of prep, class work, class tests, effort marks and term exams. All exams at all levels include an oral and aural component. Our teaching centres on developing the four main skills: listening, speaking, reading and writing. Lessons are conducted predominantly in the target language, but with an understanding of each pupil's specific needs. We aim to involve linguists as much as possible in the learning process, thus maximising their enthusiasm and confidence. All topics studied are firmly rooted in the contemporary culture of the language in question and we expect students to be able to communicate successfully with native speakers within a short period of time. High expectations are also set regarding accuracy of the written language. ICT is fully integrated into the curriculum, serving both to consolidate material covered and give a fresh perspective. Five lessons of forty-five minutes a week are given and, in the Sixth Form, pupils have a weekly oral class with our French assistante from January.

THE LEAVING CERTIFICATE EXAM

Below is an outline of the components:

- | | | |
|--|------------------|------------|
| ● <i>Oral Examination</i> | <i>15 mins</i> | <i>25%</i> |
| ● <i>Listening Comprehension</i> | <i>40 mins</i> | <i>20%</i> |
| ● <i>Reading Comprehension & Writing Paper</i> | <i>2h 30mins</i> | <i>30%</i> |
| | <i>25%</i> | |

The senior course is however not just about exams. We also aim to give pupils a cultural appreciation of the Francophone world and an understanding of contemporary society and politics. We regularly take pupils

to see the latest French films at the IFI, TCD or the Mermaid Theatre in Bray and study songs, poetry and short pieces of literature. Our aim is to give pupils an abiding and life-long interest in all things French.

Comparison of Results with National Figures

Our results are consistently above national figures, with about double the percentage of As. Here are our results from 2019:

- Higher Level H1-2 – 36% (13% Nationally)

Possible Career Areas for which this Subject is Useful / Essential

Speaking a foreign language such as French is a very useful tool for any business career that has an international dimension, for example working for a multinational company, be it accountancy, banking or retail. It is a huge asset for any post in the European Union. Other areas: translating, international law, teaching / lecturing, tourism industry.

Geography

No of Sets in 2019/2020: 2

No of Periods per Week: 5

Department Staff: Mr. S. Duffy, Mr. P. Stevenson

Geography is the subject which holds the key to our future. Michael Palin

Brief Summary of Course Content

Geography has strong links with other subjects such as biology, maths, history, geology, environmental science, economics, and business studies. It develops a range of enquiry, scientific and analytical skills, and encourages more independent approaches to learning through your own research.

Who is it for?

Geography is for YOU if you are interested in issues of current relevance and concern like natural hazards, physical Geography, globalisation, poverty, inequality and sustainable development.

Brief Summary of Course Content

The coursework consists of core modules, elective modules and an optional module. There is also a series of coursework activities, which are undertaken in the Trinity Term of Form V in the Burren, Co. Clare. This means you will be able to complete 20% of the course in class in form V. The department will also be running expeditions abroad.

Core Material:

- Physical Geography- hazards, plate tectonics, landslides etc.
- OS maps, Aerial and Satellite photos & Weather charts
- Regional Geography –Ireland, Southern Italy, Paris Basin, USA
- Elective topic– Economic Geography (Developmental issues)
- Option topic – Geo-ecology
- Fieldwork – Burren Expedition

Results Analysis:

All of our pupils took Geography at higher level in 2019 (100% compared to 83% nationally). Our 2018 cohort continued the trend of achieving excellent grades. 46% of our pupils achieved a H1 or H2 grade compared to 14% nationally:

- H1: 27% (national 3.1%)
- H2: 19% (national 10.8%)
- H3: 23% (national 17%)
- H4: 23% (national 19%)

University & Career Prospects

It's **highly valued** by universities and employers. Top universities named Geography as one of the eight facilitating subjects. Many students move on to higher education to do Geography or related subjects. Geography leads on to many career opportunities and is in demand in such areas as marketing, tourism, agriculture, outdoor leisure, human resources, oceanography, travel, economics, environmental science, engineering, teaching, anthropology, development studies, earth studies and many, many more.

Weekly commitment

You can expect to have five lessons per week, with private study, research and background reading expected of you.

Coursework

Primary and secondary research for the coursework section is a core aspect of Leaving Certificate Geography and counts for a total of 20% of the overall mark. Pupils must be willing to work independently and in groups and will be assessed on their fieldwork experience by writing up their results in a structured form. It is useful to have 20% of your course done to a very good standard before sitting the main Leaving Certificate exam.

Assessment

Leaving Certificate- Written Examination in June of VI form (80%) and a written section for their coursework completed in form V (20%).

Further information contact:

Mr. S. Duffy

History

No of Sets in 2019/2020: 2

No of Periods per Week: 5

Department Staff: Mr. Barry Finn & Miss Emma Duggan

Brief Summary of Course Content

In the course we study modern European, US and Irish history and 20% of the course is coursework in which each pupil prepares work on a subject of their choice well in advance of the final examination.

The Leaving Certificate course consists of five modules. In the Fifth Form we study *'Dictatorship and Democracy in Europe, 1920-1945'* which essentially consists of studying the fascist regimes of Mussolini and Hitler, Stalin's totalitarian state, the Second World War and Britain in the inter-war period. This is a popular and interesting part of the course. It is sometimes possible to visit relevant places of historical interest: e.g. this year we visited the British Museum in London as well as the Cabinet War Rooms and the Churchill Museum. We then look at *The History of the United States 1945-1989* which covers topics such as American foreign policy, the civil rights movement and the U.S. economy during the period.

At the end of the Fifth Form we begin work on the *Research Study Report*; pupils undertake to write a report on an area of independent research and topics have ranged from the historical importance of Anna Parnell to the Battle of Stalingrad. Essentially students can choose any historical topic they wish (within very broad parameters) and produce an essay of 1500-1800 words reporting on the results of that research. Students have performed very well on this module, generally securing in the range of 97-100% in a module which is worth 20%. In the Sixth Form we will study a course on Modern Irish history – *Sovereignty and Partition - 1912 - 1949*. Finally we study a document-based module of modern Irish history which examines very limited aspects of Irish history in depth with a view to developing document analysis skills (it is referred to as the DBQ – or *Documents-based question*)

Comparison of Results with National Figures

The overwhelming majority of students sit the final examination at Higher Level (100% compared with 75% nationally in 2019). Again, the results have been consistently excellent in recent years (55% achieving H1 or H2 grade compared with 17% nationally in 2019).

Possible Career Areas for which this Subject is Useful/ Essential

Employers tend to see those with a history education as independent thinkers, open-minded and objective, disciplined good communicators, able to analyse issues and problems and able to put together logical arguments. History training imparts vital transferable skills. Typically historians are to be found in the law, teaching, museums, journalism and the media, business, commerce, finance, sales and marketing, the armed forces, diplomacy, the Civil service and the Church.

Music

No of Sets in 2019 / 2020: 1

No of Periods per Week: 5

Department Staff: Mrs. Geraldine Malone Brady

Brief Summary of Course Content

The Leaving Cert Music course is divided into THREE sections - *Performance*, *Listening* and *Composition*.

The *Performance* counts for 50% of the overall mark and takes place in March. Each student must perform FOUR pieces or songs on their instrument or voice, and these account for 25%. We also do the *Music Technology* option which involves knowing your way around a very straightforward music computer programme. This counts for 25%, and it is possible to score full marks in this section. Performance is an integral part of music making, both for enjoyment, and academic success. There are many opportunities for performance in the College with informal soirees and larger concerts held at regular intervals throughout the term.

The *Listening* consists of the study of FOUR Set Works, which for next year will be by Mozart, Berlioz, Deane and The Beatles. There is also an Irish Listening question and essay. The *Composition* consists of wiring a melody and a harmony question, both of which are quite straightforward.

This course is very suitable and enjoyable for anyone who likes music and who has reached a reasonable standard of performance in their instrument (approx Grade 5). It is a chance for these students to reach a high standard of musicianship, and to score highly in this subject.

Comparison of Results with National Figures

Our results have been extremely high in recent years; in 2019, 100% of our students scored a H1 or H2 at Higher Level. National figures show 34% scoring H1 or H2s.

Possible Career Areas for which this Subject is Useful/ Essential

A degree in Music can lead to a career in Performance, Teaching, and other music associated areas such as Arts Administration. Music can also be taken as a module subject in a General Arts Degree.

Physics

No of Sets in 2019/2020: 1

No of Periods per Week: 5

Department Staff: Dr. Mary Singleton

Brief Summary of Course Content

Physics is the study of the physical world in which we live and the forces and interactions which govern it. Physics is all around you and the aim of the course is to explain and understand things which you observe in everyday life. The subject is practically based with a large number of mandatory pupil experiments. There is a new and increasing emphasis on understanding and developing an appreciation for the influence of science and technology in the modern world.

We start from scratch in form V so it is not necessary to have taken physics in form IV. It is an advantage from the point of view that the pupils are familiar with the jargon and will have the basic concepts fresh in their minds, however long term it makes no difference. It is a 2 year course covering the topics of optics, mechanics, heat, sound, static electricity, current electricity, magnetism, semiconductors, radioactivity, nuclear physics and particle physics. Almost all of these topics have been touched on in junior cert science; the leaving cert course is simply a more in depth study. Experiments form the backbone of the course and are, to a large extent, performed by the pupils in small groups (usually 2 or 3 per group). In form V and the first term of form VI an experiment is performed almost every week during the double class. Questions based on these experiments form a significant part of the final exam. We normally complete two thirds of the course in the form V, aiming to finish the course by February of the leaving cert year, thus leaving plenty of time for revision.

Comparison of Results with National Figures

The results are consistently good. In 2019 50% of our pupils obtained H1 or H2 at higher level compared with 22% nationally. 93% our candidates took the higher level paper as compared with 83% nationally. Of course this takes lots of hard work throughout the two years!

Possible Career Areas for which this Subject is Useful/ Essential

Physics is a very helpful course for a whole range of careers and university courses and is essential for many. All forms of engineering, medicine, dentistry, as well as many science based careers use physics. All university engineering courses, medicine, dentistry and many science courses will require you to study physics for at least the first year, so clearly you are at an advantage if you have studied it in school. In the case of engineering courses it is essential in most cases. Employers view a background in physics as an indication of strong academic ability and high intellect.

Spanish

No of Sets in 2019 / 2020: 2

No of Periods per Week: 5

Department Staff: Ms. A. Kilfeather & Mr. M. O'Shaughnessy

Brief Summary of Course Content

The Leaving Certificate Programme starts in Form V. All areas of the syllabus are covered (i.e. Speaking, Reading, Writing, Oral etc) These areas are enhanced by means of CDs, DVDs, TV footage, radio extracts and authentic Spanish reading materials (newspapers & short stories). ICT is fully integrated into the course. The majority of the lessons are conducted in Spanish and whilst the programme is pretty intense, there is always an opportunity to dip into Spanish history, culture, arts and literature. Pupils are expected to have completed at least a year's study of Spanish by the beginning of Form V.

Below is a breakdown of the Leaving Certificate components:

● <i>Oral Examination</i>	<i>15 mins</i>	<i>25%</i>
● <i>Listening Comprehension</i>	<i>40 mins</i>	<i>20%</i>
● <i>Reading Comprehension & Writing Paper</i>	<i>2h 30mins</i>	<i>35%</i>
<i>25%</i>		

Comparison of Results with National Figures

The results for Spanish in the Leaving Certificate are consistently higher than national averages. In 2019

- H1-H2 33% (17% nationally)

Possible Career Areas for which this Subject is Useful/ Essential

While a competence in Spanish can allow for many specific language careers (such as journalism, politics, translation, teaching, hospitality etc), an ability to speak Spanish is of huge benefit to any industry that is involved in importing or exporting. A large world population is Spanish speaking, so any business needing a foothold in that market must be able to speak the local language. Other career areas where Spanish would be useful include:

Telecommunications, International Business, International Law, Politics, Banking, Retail Industries, Education / Lecturing, Tourism

Q – Set: Geology

No of Sets in 2019 / 2020: 1

No of Periods per Week: 2

Department Staff: Dr. Tom de Brit

Brief Summary of Course Content

Geology (or ‘Earth Science’) is the scientific study of planet Earth. It involves trying to work out the events occurring over the past 4,600 million years – largely from looking at clues contained in the rocks and fossils laid down through time. Different areas of Geology involve aspects of Chemistry (e.g. igneous rocks), Physics (e.g. structural geology) and Biology (e.g. palaeontology), but Geology is very much an old-established science in its own right. In Forms V and VI pupils can take Geology as a ‘Q Set’ option. In effect this means a 2 year course involving just 2 lessons per week (1 x double period). The subject is examined in the Easter holiday of Form VI (i.e. well before the Leaving Certificate proper), in a three hour exam held in Trinity College. Over the past five years 80% of SCC candidates have achieved an A or B grade in the exam. The course is broken into the following sections and includes Geology field trips:

- The Structure of Planet Earth
- The Earth in Space
- Geological Time
- Plate Tectonics
- Minerals
- Igneous Rocks
- Weathering
- Sedimentary Rocks
- Metamorphic rocks
- Structural Geology
- Palaeontology
- Fossil fuels

- Stratigraphy of Ireland

Geology is not assessed as part of the established Leaving Certificate, but CAO points accrued from the completion of the course can be put towards a place in Trinity College, UCAS and many international colleges.

Possible Career Areas for which this Subject is Useful / Essential

Traditionally, geological jobs have been in the oil industry, mining / mineral exploration, engineering, hydrology, academic jobs, and in Geological Survey departments around the world. However, geology can open the doors to professions in all areas of science, geography and archaeology.

Q - Set: Recreational Art

No of periods per week :2

This is a non-examination Art class for those who have an interest in Art and would like to develop that interest but do not intend presenting Art as a subject for leaving certificate.

Q – Set: Art History.

No of Sets in 2019 / 2020: 1

No of Periods per Week: 2

Department Staff: Ms. Derarca Cullen & Ms. Lynn Murphy.

Important

History of Art must be selected at Q-Set by individuals choosing Art as one of their elective subjects as it contributes to 37.3% of the overall mark for in Leaving Certificate Art. It is also available to pupils to study as a non examination subject.

Brief Summary of Course Content

There are three Sub-Sections: *Irish Art, European Art and Art Appreciation.*

In Form V we begin the course by studying aspects of *Irish Art*. We study the art of pre-Christian Ireland examining such aspects as Newgrange, the art of the Bronze Age and the Iron Age. We also look at aspects of Christian art; illuminated manuscripts, Christian metal-work, stone crosses etc. in addition to regular essay practice we attempt to visit significant sites such as Newgrange, The Book of Kells and the National Museum in Dublin.

In the Hilary and Trinity terms we begin our study of *European Art*. The syllabus includes aspects of Proto Renaissance art, and the early Renaissance (we explore the work of painters such as Giotto, Masaccio, Botticelli etc and sculptors such as Ghiberti and Donatello). We end the year by looking at the artists of the High Renaissance; Leonardo, Michelangelo and Raphael. Pupils are encouraged to visit museums and galleries both at home and abroad in order to complement their studies. We are lucky enough to have important and relevant works of art in our National Gallery in Dublin which pupils visit with the College.

In Form VI we begin exploring Georgian architecture. We are fortunate to be able to organise expeditions to such places as the Casino at Marino and Castletown House. Our study of European art resumes with an examination of the work of some of the Baroque Masters including Bernini, Caravaggio, Vermeer. The final aspect of the course is entitled '*Appreciation*' where students look critically at such diverse subjects as product design, interior design, poster design etc. Pupils are required to critically analyse the setting up of an art or craft exhibition and this requires visiting to various types of exhibits from painting to ceramics. The examination contains an extremely large choice and students can essentially specialise in their favourite topics. The exam for this section of the course takes place in June with all the other written exams.

Q-Set: Agricultural Science

No of Sets in 2019 / 2020: 1

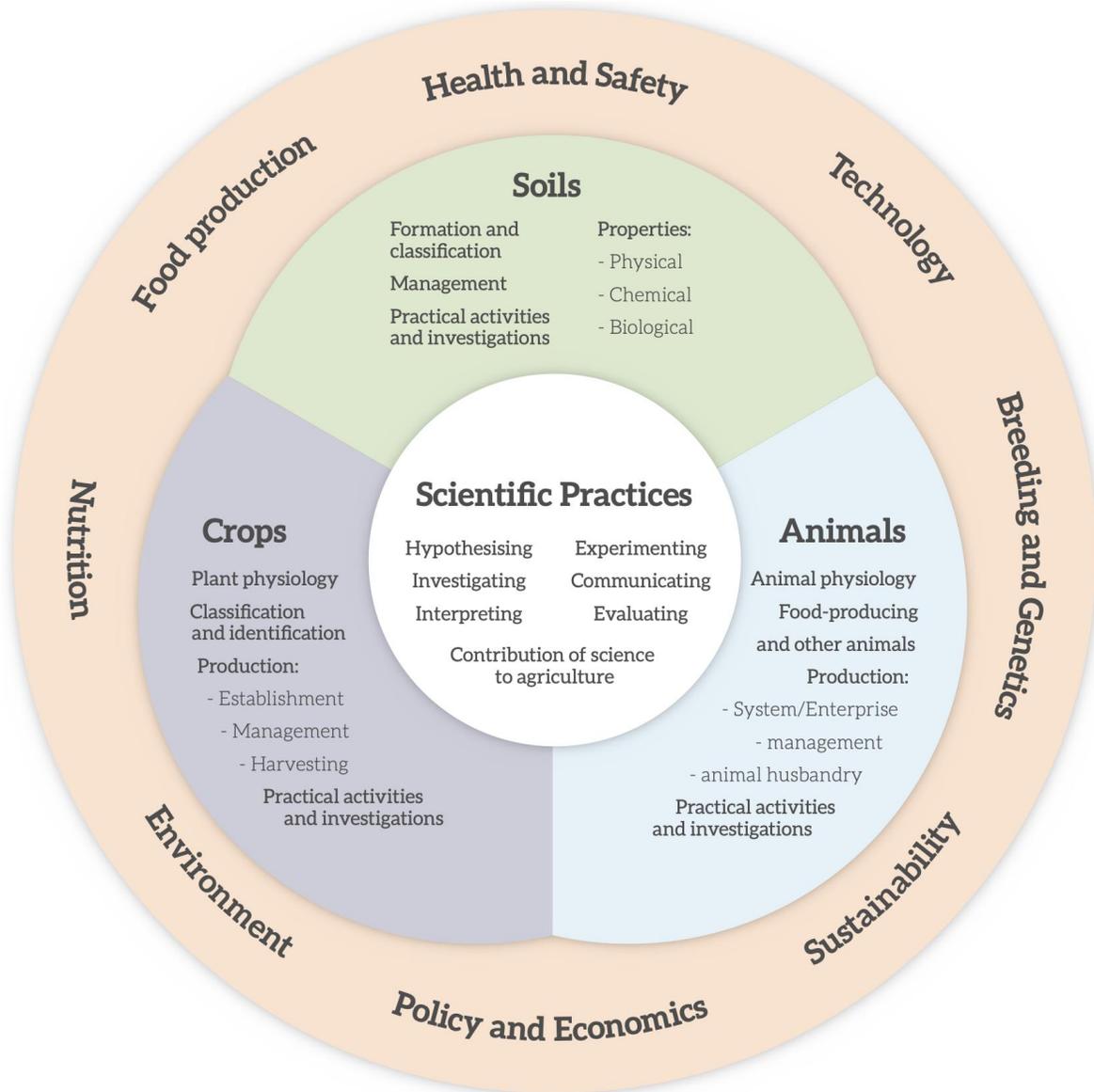
No of Periods per Week: 2

Department Staff: Mr. H. Jones

Brief Summary of Course Content

The revised Leaving Certificate Agricultural Science specification is designed to provide pupils with the necessary skills, practical experience and knowledge in a range of agricultural and scientific principles.

The broad course has four strands: Scientific Practice, Animal Production, Crop Production & Soils. Each of these strands is explored using eight cross cutting themes: Health & Safety, Technology, Breeding & Genetics, Food Production, Sustainability, Environment, Policy & Economics & Nutrition.



The course is typically aimed at pupils with an interest in Agriculture and Horticulture or those who wish to pursue a career in Veterinary Medicine. An agricultural background is not a necessity, and the course covers a wide variety of topics.

The subject is based on the principles and practices of Irish farms and deals in detail with *Sheep Management and Production*, *Beef Production*, *Dairy Farm Management*, *Pig Production*, *Grassland Management and Tillage Crop Growth & Harvesting*. Additional topics include *Forestry*, *Soil Science and Farm Safety*. It also covers *Animal Biology and Taxonomy*, *Plant Biology and Classification* as well as *Soil Science*.

As well as being classroom and lab orientated, a number of field trips and excursions to farms, universities and laboratories will allow those undertaking the course see the practical applications of their learning.

Over the course of the two years pupils must carry out a project on a named animal enterprise, centred around one of the cross cutting themes. The project involves research, experimental design and data analysis and accounts for 25% of the course. The project builds on the skills developed in Junior Cycle Science two CBAs.

Comparison of Results with National Figures

The vast majority of pupils sit Agricultural Science in St. Columba's sit the exam at Higher Level. The exam results have been consistently good over the past number of years. In 2019, 100% of pupils sat the exam at Higher Level (85% nationally) . Last year 17% of our pupils achieved a H1 or H2 grade, compared with 14% nationally.

Possible Career Areas for which this Subject is Useful / Essential

Pupils completing a course in Agricultural Science may wish to pursue further scientific study at university. Courses such as Veterinary Medicine, Medicine, Horticulture, Equine Science, Zoology or General Science are complemented by the topics covered in the course. Obviously, pupils may wish to study areas of agriculture such as agri-business or farm management at third level also.

Q-Set :Design

No of Sets in 2019 / 2020: 1

No of Periods per Week: 2

Department Staff: Mr. B. Redmond

Brief Summary of Course Content

The course is based on the Leaving Certificate syllabus which comprises three fundamental areas of study:

- Plane and Descriptive Geometry
- Communication of Design and Computer Graphics
- Applied Graphics.

The core areas of study (Part One) comprise *Plane and Descriptive Geometry* and *Communication of Design and Computer Graphics*. *Plane and Descriptive Geometry* provides students with knowledge of essential graphic principles while *Communication of Design and Computer Graphics* introduces students to the use of graphics in a wide variety of design situations. It also encourages the development of the critical skills of design analysis and creative problem solving through the exploration of a variety of design problems and situations.

The optional areas of study (Part Two) are offered within *Applied Graphics* where students are introduced to graphic applications in the fields of engineering, science and the human environment. These optional areas of study are:

- Dynamic Mechanisms
- Structural Forms
- Assemblies
- Geologic Geometry
- Surface Geometry

Students are required to study the core and two optional areas within *Applied Graphics*. Essentially, Design & Communication Graphics comprises computer aided design (CAD), freehand drawing and designing objects.

Possible Career Areas for which this Subject is Useful / Essential

The course is of general use in everyday life but directly related to careers in architecture, engineering, landscaping and all construction trades as well as design & manufacture careers.

Q – Set: Physical Education

No of Sets in 2019 / 2020: 1

No of Periods per Week: 2

Department Staff: Ms. S.J. Johnson

Brief Summary of Course Content

Physical Education (PE) at St. Columba's College aims to educate young people in and through the use of the body and its movements. It aims to develop physical competence so that pupils are able to move efficiently and safely and understand what they are doing. Developed in accordance with the Leaving Certificate Physical Education Curriculum, St.Columba's seeks to advance the social, emotional, intellectual and physical development of the child through an appropriate range of physical activities delivered through a spectrum of teaching styles. In Q – Set, Physical Education takes place during a double lesson each week and is mainly practically based with occasional classroom lessons on theoretical aspects such as health related fitness and drugs in sport. A wide variety of sports are covered in practical lessons incorporating all areas of activity including:

- Invasion, Net & Fielding Games
- Aquatics
- Athletics

Full use is made of the school's excellent facilities, which include a large sports hall, 4 full size grass playing fields, two full size synthetic playing fields, 6 tennis courts, grass tennis court a weights room, 15 metre outdoor pool and dance studio.

Possible Career Areas for which this Subject is Useful / Essential

Physical Education can provide opportunities and resources for a range of careers including but not exclusively:

- Professional Sports
- Gym Instructor
- Sports Coach
- Physiotherapy
- Medicine
- Dietician
- Sports Management