

Mulroy College

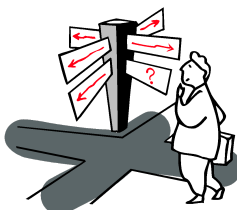


Subject Information for Senior Cycle 2024

Please read the following information on various optional Leaving Certificate Subjects.

If you have any queries please feel free to ask your teachers about subjects at Leaving Certificate.

If you have additional questions or concerns see Ms Catherine Crawford.



AGRICULTURAL SCIENCE

What is Agricultural Science?

Agricultural Science is the study of the science and technology underlying the principles and practices of agriculture. It aims to develop knowledge, skills and attitudes concerning the factors that affect the long-term well-being of agricultural resources, and places emphasis on the managed use of these resources.

Why choose Agricultural Science?

Students should choose Agricultural Science if they are interested in Food, Agriculture, Animals, Crops, Nutrition and the Environment, Farming, Horticulture or Science. Agricultural Science is accepted as a Science subject at all third level colleges in Ireland, although may not meet special course requirements if a specific Science subject is required.

What will I study?

The course consists of the study of a variety of aspects of agriculture under the following headings:

Soils	The general structure and function of plants
Farm crops—cereal and roots	
Structure and function of the animal body	Dairy, sheep, pig and beef
Genetics	Grassland management
Plant Science	Organic Farming Principles
The Scientific Method	

Differences between the Higher and Ordinary level courses

The content is similar but requires a much greater depth of understanding & analysis.

How will I be assessed

ASSESSMENT: Exam - 75% Coursework (SPA & IIS) - 25%

SPECIFIED PRACTICAL ACTIVITIES (SPA)

Over the two years of the course, each learner is required to complete and prepare reports on 24 specified practical activities.

INDIVIDUAL INVESTIGATIVE STUDY (IIS)

As well as the specified practical activities, each student is required to carry out an individual investigative study related to a topic in agricultural science, including any research that might be appropriate. The individual study is an investigative activity which is based on and draws from a thematic brief set annually by the State Examinations Commission at the commencement of the two year course. It is conducted over the two years of the course and facilitates study of particular areas in greater depth and which may be of local or regional agricultural significance. It enables students to see at a practical level how science underpins and supports agricultural practices, processes and research.

Agricultural Science is useful such careers as:

Agricultural, Engineering, Agricultural Inspector/Officer, Agricultural Sales, Animal breeder, Animal Trainer, Botanist, Biologist, Butter/Cheese-maker, Conservation, Creamery Manger, Dairy Scientist, Farmer, Farrier, Fish Farmer, Food Scientist & Food Safety Inspector, Forester, Forestry Inspector, Horticulturalist, Laboratory Technician, Seed Analyst, Veterinary Nurse & Surgeon, Zoologist.

ART

What is Art?

Art at Leaving Certificate is a two year course designed to allow students to develop competence in the visual arts disciplines. The syllabus is structured to combine art history, theory and appreciation with practical creative techniques and methods.

Why Choose Art?

A student who demonstrates an interest or ability in any aspect of Art, Craft or Design may choose the subject. Students will make art that explores different kinds of subject matter, topics and themes. Students will understand and use sensory elements, organisational principles, and expressive images to communicate their own ideas in works of art. Students will use a variety of material, processes, mediums and techniques, new and traditional, for creating and exhibiting works of art. Through the study of Art History and Appreciation students will reflect upon, interpret, and evaluate works of art, using the language of art criticism. Students will analyse the visual characteristics of the natural and built environment and explain the social, cultural, psychological and environmental dimensions of the visual arts.

Differences between the JC and LC

Junior Cert Art includes many of the same disciplines as Leaving Cert but the form of assessment is totally different. JC students experienced a number of art disciplines and learned a variety of art skills to improve both their competence in the physical aspect of the subject as well as attaining an appreciation for the aesthetics of each area. Junior Cert is a continually assessed project. In 3rd year, students begin CBA 2 which will run to December when students will be starting the Final SEC Assessment brief. Leaving Cert Art develops these skills further and new skills are introduced in all aspects of the curriculum. Students choose between still life and imaginative composition, study life drawing and choose from a range of crafts. There is more of an emphasis on Art History which makes up 30% of the overall mark.

What will I study? Still Life, Imaginative Composition, Design and Craftwork, Art History and Appreciation.

Differences between the Higher and Ordinary level courses

Students sit the same practical exams and are marked on their work. In Art History Ordinary level students are expected to answer questions factually whereas Higher level are expected to analyse. For both levels, theory (Art History) amounts to 30% of the exam so higher level English is beneficial to students who choose Higher Level Art. Both levels require a commitment on behalf of the student to develop their skills to a high standard and to maintain a consistent level through class work and homework.

How will I be assessed?

Assessment Area	Assessment Type	Mark (400)	%
Practical Coursework	Practical Exam	250	50
History and Appreciation of Art	Written	150	30
Invigilated Examination	Practical Exam	100	20

Art is useful in such careers as:

Animator, Art Teacher, Architect, Art Therapist, Automotive Designer, Blacksmith, Ceramicist, Computer Generated Imagery (CGI) Artist, Concept Artist for Video Games, Costume Designer, Courtroom/Police Sketch Artist, Curator, Fashion Designer, Filmmaker, Glassblower, Illustrator, Graphic Designer, Interior Designer, Make-up Artist, Photographer, Product Designer, Prop Maker, Set Designer, Scientific Illustrator, Tattoo Artist, Videographer, Video Editor, Web Designer, Art Archivist, Art Auctioneer, Art Appraiser, Art Conservator, Art Director, Printing and Publishing, Art Gallery Director...

Subject Requirement for 3rd Level?

Please see college websites or prospectus to verify specific requirements.

A portfolio of work is required for many Art and Design courses.

Portfolio Creation Classes are available in Mulroy College, contact The Art Department for more details.

BIOLOGY

Biology is the science of life. It is concerned with the characteristics and behaviours of organisms, how species and individuals come into existence, and the interactions they have with each other and with their environment.

Why Choose Biology?

Biology is the study of life. Through the study of Biology students employ the processes of science in their investigations and explore the diversity of life and the inter-relationship between organisms and their environment. Students develop an understanding and knowledge of the unit of life the cell whose structures and processes are shared by all living organisms and, in so doing, gain an insight into the uniqueness, function and role of organisms, including themselves. In addition, they become aware of the use by humans of other living organisms and their products to enhance human health and the human environment and make informed evaluations about contemporary biological issues.

It is intended that this syllabus will prove relevant to the lives of students and inspire in them an interest in and excitement about Biology. It should enable them as future citizens to discuss and make judgements on issues in Biology and Science that impact on their daily lives and on society. It should provide them with the knowledge, skills and understanding to pursue further education, training and employment in Biology-related fields.

Differences between the JC and LC:

The Leaving Certificate course is a continuation of what is studied in the Junior Certificate.

What will I study?

It is divided into 4 main areas:

Botany - study of plant life

Zoology - study of animal life

Physiology - study of functions of living creatures, including humans

Ecology - study of plants and animals in their environment.

A snapshot of the areas focused on in Biology include genetics, the environment, microbiology, how Biology is used in industry (e.g. Guinness), and a look at some conditions associated with the lungs, nervous system and so on.

Differences between the Higher and Ordinary level courses

Ordinary and Higher level Biology are divided on the basis of the material covered and the depth of detail studied. At Higher level, some topics are studied in more detail and the final exam reflects this, although much of the material is similar. You are expected to have a very good understanding of areas covered both at Higher and Ordinary level.

How will I be assessed?

Biology is assessed by examination only. However, the course covers at least 22 experiments which are carried out over 2 years. These are examined in the final exam and so can be prepared well in advance.

Biology is useful for such careers as:

Agriculture, Agricultural Research, Animal Breeder, Animal Trainer, Ambulance Driver, Audiologist, Biochemist, Biologist, Biology Teacher, Catering superintendent, Chiropodist, Conservation Work, Dental Craftsperson, Dairy Scientist, Dental Hygienist or Nurse, Dentist, Dietician, Doctor, Environmental Scientist, Farmer, Fisheries, Food Scientist, Forester, Forestry Inspector, Geneticist, Health Inspector, Horticulturalist, Microbiologist, Nurse, Pharmacist or Technician, Physiotherapist, Psychologist, Radiographer, Seed Analyst, Serological Assistant, Speech Therapist, Trout Farmer, Veterinary Surgeon or Nurse, Wild life Ranger, Zookeeper, Zoologist, Oceanographer.

Subject Requirement for 3rd Level?

It is needed as a matriculation subject for studying Medicine at TCD and Human Health and Disease. It is needed for Genetics for UCC. It is counted as a science subject in any course which has a science subject as a requirement.

Please see college website or prospectus to verify specific requirement

BUSINESS

What is Business?

The LC Business course is an enjoyable, informative course about the world of business and the people who are affected by how they are run.

Business equips the student with the knowledge of the role of business and the development of enterprise skills. It develops an understanding of the overall environment in which businesses operate in both Ireland and the wider world.

It enables students to make informed business decisions to critically evaluate business information and offer solutions to commercial problems using case studies.

Why Choose Business?

The LC course is based around successful businesses who treat their stakeholders (people affected by how a business is run) well. Examples include the *Body Shop*, *Ben & Jerry's* Ice-cream, *Virgin Atlantic*. The course, through the use of case studies and examples, shows the student that successful, profitable businesses can make money by treating employees, consumers and suppliers well.

Differences between the JC and LC

There are **some calculations** in LC Business. The course is mostly *Theory* and *Definitions* so all of the accounts, ledgers, etc. done in Junior Cycle Business are covered in "Accounting" NOT in Business. There is a *lot of overlap* in content between the JC and the LC. However, the topics are explored in greater depth at Leaving Certificate level.

Is it possible to take Business at Leaving Certificate if you didn't do Business Studies in the Junior Certificate. Yes. The Majority of students studying Business in Mulroy College take the Higher level paper for the Leaving Certificate.

What will I study?

Unit 1 People in Business - Those people affected by how a business is run, e.g. consumers & employees. How employees & consumers can deal with problems i.e. Legislation- both consumer and employment laws.

Unit 2 Enterprise - The people who come up with the idea of a business e.g. Richard Branson "Virgin Atlantic"

Unit 3 Managing 1-

Leadership	Plan
Motivation	Organise
Communications	Control

Unit 4 Managing 2 - Changing role of management, monitoring the success of a business, insurance, tax & sources of finance for a Business.

Unit 5 Business in Action - Getting a business started. *Marketing*- strategy, product, place, price, promotion. Expanding the business.

Unit 6 Domestic Environment (e.g. Private limited Company) Economy & business, Government & Business. Setting up business in your own community. Conflict between business & society e.g. Pollution.

Unit 7 International Environment - Ireland's relationship with the world, the European Union & global businesses.

Difference between Ordinary Level & Higher Level:

At *Ordinary level* you are required to recall and demonstrate a knowledge and understanding of the subject. **You do not** have to analyse situations, problems in great detail. At *Higher level*,

Students apply their business knowledge to address business problems as in the Applied Business Question.

How will I be assessed?**Ordinary Level Test - 2 $\frac{1}{2}$ hours (1 Paper)**

15 short questions-answer 10 (100 marks) 25%

8 Long Questions-answer 4 (75 marks each) 75%

Higher Level Test - 3 hours (1 paper)

10 short questions - answer 8 (80 marks) 20%

Applied Business Question - Case study about a business or entrepreneur. You have to apply business knowledge & relate it to case study. (80 marks) 20%

7 Long Questions - Answer 4 (60 marks each) 60%

Business is useful for such careers as:

Administration, Industry, Business, Accounting, Banking, Book-keeping, Clerical Work, Teacher, Barrister, Company Secretary, Hospital Administrator, Hotel Management, Insurance, Office Machine Operator, Purchasing Officer, Receptionist / Telephonist, Store Management, Typist, Stock broking, Sales, Marketing, Merchandising, Customs and Exercise, Taxation Law.

In recent years there has been an increase in the uptake of business related courses at third level.

CHEMISTRY

What is Chemistry?

- the science of matter;
- the branch of the natural sciences dealing with the composition of substances and their properties and reactions.

Why Choose Chemistry?

It gives the learner a good understanding of the structure and behaviour of atoms (elements)
the composition and properties of compounds
the reactions between substances with their accompanying energy exchange
the laws that unite these phenomena into a comprehensive system.

For example the understanding of atomic structure can:

- (i) help solve crime, e.g. hit-and-run accidents or forgery;
- (ii) analyse the soil for fertiliser requirements;
- (iii) make fireworks displays colourful;
- (iv) produce highly efficient, more economical, more environmentally friendly, lighting;
- (v) monitor the environment for pollutants;
- (vi) discover the composition of the sun and distant galaxies;

Students gain an understanding of chemical laws and theories. The inclusion of the applications of chemistry in the course emphasise the vocational aspects of the subject and enable students to see where it applies in the world of work.

Practical skills are developed by the 28 mandatory student experiments, e.g.: setting up and manipulating apparatus and making measurements and observations.

These experiments must be recorded by the students.

Differences between the JC and LC

A much deeper understanding of the behaviour of matter is expected. Mathematical calculations are an integral part of this course.

What will I study?

The syllabus has the following components:

• Pure chemistry	70%
• Applications of chemistry	22.5%
• Chemistry for citizens	7.5%

The core includes:

- Periodic Table and Atomic Structure
- Chemical Bonding
- Stoichiometry and Formulas and Equations
- Acids and Bases
- Volumetric Analysis
- Thermochemistry
- Organic Chemistry
- Rates of Reaction
- Chemical Equilibrium
- Water Chemistry.

Option 1A is additional Industrial Chemistry;

(It is recommended that students taking option 1A should visit a local chemical industry.)

Option 1B is Atmospheric Chemistry;

Option 2A is Materials,

Option 2B is Extraction of Metals and additional Electrochemistry.

Differences between the Higher and Ordinary level courses

Higher and Ordinary levels differ on the basis of the depth of detail studied.

How will I be assessed?

There is a 3 hour exam of 8 Questions, at the end of 6th Year

This exam consists of 2 sections:

Section A: All questions are based on the 28 mandatory experiments carried out throughout 5th and 6th Year

Section B: Long Questions based on theory and practical.

Chemistry is useful for such careers as:

Agriculture, Archaeologist, Architect, Brewing Technologist, Chemist, Chemistry Teacher, Dairy Scientist, Dental Craftsperson, Dental Hygienist, Dental Surgery Assistant, Dentist, **Dietician**, Doctor, Engineering, Especially Chemical Engineering, Food Science Technologist, Forestry Inspector, Fuel Technologist, Health Inspector, Industrial Chemist, Laboratory Assistant, **Medicine**, Medical Laboratory, **Pharmacist**, Pharmacy Technician, Physiotherapist, Pilot, Radiographer, Seed Analyst, Serological Assistant, Speech Cosmetic Science, Glass Technology, Quality control and Biotechnology, **Veterinary Surgeon** or Nurse. (For those careers in bold - **Chemistry is mandatory in some colleges/universities**).

Subject Requirement for 3rd Level?

It is needed for Dentistry, Medicine and Pharmacy in UCC, Human Nutrition and Dietetics in DIT, Pharmacy in TCD and Veterinary Medicine in UCD. It is counted as a science subject in most courses which have a science subject as a requirement.

Please see college website or prospectus to verify specific requirements.

Construction Studies

This is a 'hands- on' subject and involves working with tools and machinery. It involves designing, planning and building things. Construction Studies introduces students to the knowledge and skills associated with construction technology and construction materials and practices. This is achieved through theoretical study and integrated practical projects which provide a basis for the thorough exploration of materials and processes.

What will I study?

The course is essentially about the study of buildings and the built environment. The theoretical part of the course examines all parts of building from the planning stages to the completed building. The course is studied under the following main headings.

Planning and Design	Drawings and Documents
Site Preliminaries and Foundations	Walls, Partitions
Floors/ Roofs	Fireplaces
Windows and Doors	Stairs
Plastering and Painting	Plumbing and Heating
Services	Drainage

How will I be assessed?

The examination at higher and ordinary levels has three separate components

Section A: Three hour written paper worth 300 marks. The exam consists of 10 questions out of which five have to be attempted. Question 1 is a compulsory drawing question of a building detail.

Section B: 4 hour practical woodwork exam where the student makes a small item out of timber under exam conditions. The exam normally takes place in May. This accounts for 150 marks

Section C: Building Project where the student makes a building detail, a scale model of a building or a craft piece. The student also produces a portfolio to accompany the project that they make. Ideally this project must be completed by Christmas. This accounts for 150 marks.

It is recommended that a student taking Leaving Certificate Construction Studies has a general interest in buildings and the built environment.

Each student should have an aptitude and interest for design and practical work.

Possible Careers: The principal areas of employment are: working for contractors, subcontractors, consultants, state and semi-state bodies, Local Authorities and suppliers of building products and equipment.

DESIGN AND COMMUNICATION GRAPHICS

What is Design and Communication Graphics?

Design and Communication Graphics is the LC equivalent of Technical Graphics. This course makes a contribution to the student's cognitive and practical skills development. These skills include graphicacy/graphic communication, creative problem solving, spatial abilities/visualisation, design capabilities, computer graphics and CAD modelling.

The creative and decision-making capabilities of students in the activities associated with design are developed through three principal areas of study: design and communication graphics, plane and descriptive geometries and applied graphics. This programme is designed keep up with current developments. It is intended to develop the creative thinking and problem solving abilities of students.

Why Choose Design & Communication Graphics?

Design & Communication Graphics is a natural follow on subject from Technical Graphics. The course traditionally included instrument drawing but now also encompasses Information and Computer Technology(ICT) skills, 3D modelling using Solidworks and Sketching skills. It also compliments other subjects such as Engineering and Construction Studies.

Differences between the JC and LC

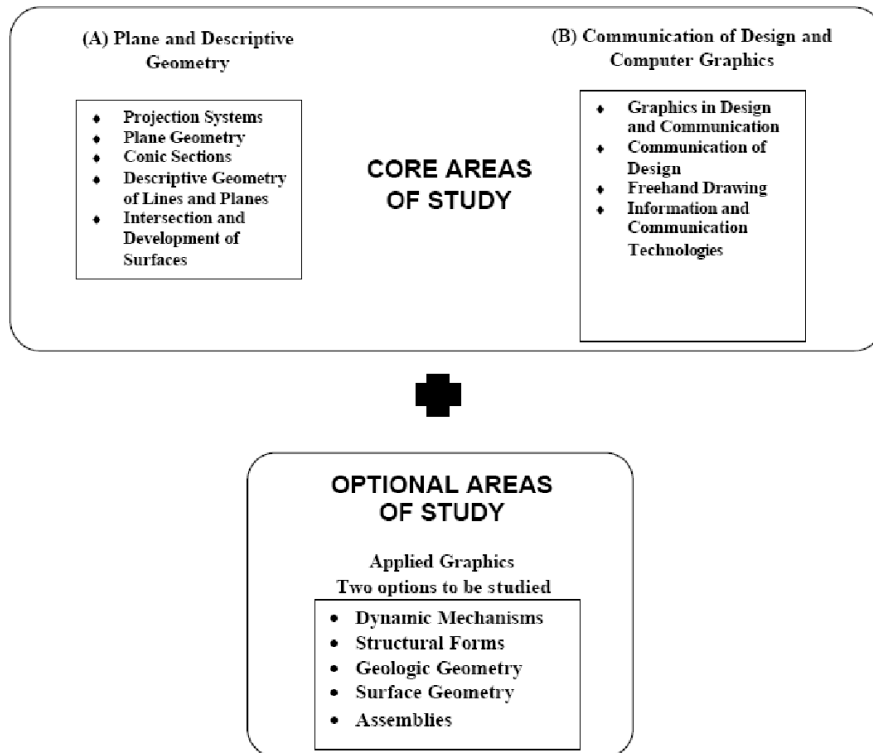
Like all subjects at LC level Design and Communication Graphics is more difficult than its Junior Cert equivalent. The Ordinary level LC course is broadly similar to the junior cert higher level course. The higher level course contains many new topics, and some familiar topics from the junior cert higher level course.

How will I be assessed?

The subject is assessed in two areas:

A terminal 3 hours instrument <u>exam</u> in the LC	60%
A student <u>Assignment</u> , which is a study of an object, this consists of a portfolio which includes 3D computer modelling , ICT and sketching skills . This assignment starts in October and finishes in February of 6 th year.	40%

What will I study?



Differences between the Higher and Ordinary level courses

The main difference between the Higher and Ordinary level course is the level of difficulty you are expected to study. Naturally the Higher level course covers topics in more detail than the Ordinary level course

Design & Communication Graphics is useful for such careers as:

All Engineering and Engineering Technician careers, Aircraft Technician, Architecture and Architectural Technologist, Army and Air Corps Apprenticeship, Cartographer, Construction Trades, Bricklayer, Carpenter, Fitter, Toolmaker, Industrial Designer, Maintenance and Service Personnel, Motor Mechanic, Technical Sales, Computer Aided Design (CAD) and Computer Aided Manufacture (CAM) Technicians, Structural Design, Printing, Town Planner, Draughtsperson, Industrial Engineer.

ENGINEERING

This course represents a study of a wide range of mechanical engineering materials, processes and technological applications. Students develop and acquire the manipulative skills and techniques necessary for practical resourcefulness, creativity and design realisation in the execution of work.

It aims to promote an educational knowledge of the materials; and understanding of the processes; ability in safely using the skills and equipment to achieve objectives through practical work; initiative in the planning and development of technological projects.

A strong emphasis is placed on problem solving, on research and on the design and manufacture of artefacts. Within this framework, skill in decision making is also developed.

Why choose Engineering?

A student who enjoys both the theory and practical side of machines, tools and project work will enjoy Engineering.

Differences between the JC and LC

Engineering is a continuation of the Metalwork course at JC level. Students further develop their knowledge and skills and are also introduced to a wide variety of new technologies.

What will I study?

1. Workshop Processes (Practical)

Health & Safety
Fabrication and Finishing of Metals
Benchwork
Heat Treatment of Metals
Machining
Plastics Processing
Technology
Project Design & Manufacture
Electronics

2. Materials and Technology (Theory)

Health And Safety	Materials Testing
Classification And Origin Of Metals	Plastics
Structure Of Metals	Joining Of Materials
Non-Ferrous Metals	Machining
Heat Treatment Of Metals	Metrology
Corrosion Of Metals	Manufacturing Processes
	Technology

Differences between Higher and Ordinary level courses

The topics above apply equally to Ordinary and Higher level. In general terms, the syllabus at Ordinary level consists of clearly defined content aimed at providing an overview of engineering technology and its applications. At Higher level, a more analytical, qualitative and quantitative treatment of topics is required.

How will I be assessed?

Theory: There is a theory paper in June.

Project: The student has approximately 14 weeks to design and make a model to a given design brief set by the Department of Education.

Practical: The student has to make an accuracy exercise in a 6 hour exam to a drawing issued by the Department of Education.

Engineering is useful for such careers as:

Mechanics, Aircraft Technician, Army/Air Corps Apprenticeships, Do-it-Yourself, Engineering workshop Teacher, Fitter, Industrial Operatives, Mechanical Production, Structural and Civil Engineer and Technician, Metallurgy, Motor Mechanic, Service and Maintenance Personnel, Technical Sales, Toolmaker, Turner, Welder, Engraving, Industrial Design

FRENCH

More than **220 million people** speak French on all the **five continents**. French is a major **language of international communication**. It is the **second most widely learned language after English** and the **sixth most widely spoken language in the world**. French is also the **second most widely taught language after English**, and is **taught on every continent**. The OIF, an international organisation of French-speaking countries, is made up of **77 member States and governments**.

- **Components of the Leaving Cert course:**

Four disciplines are examined in French.

Aural or Listening

Comprehension : reading texts in French and answering questions on the text in both French and English.

Writing : different tasks to write in French according to the level you choose.

Oral : a 12 minute oral interview in French.

- **Assessment timeframe at Senior Cycle:**

Oral exam assessed around Easter in 6th year.

Written and Aural exams in June.

- **Breakdown of percentage for the different components:**

Higher level:

Aural : 80 marks (20 %)

Comprehension : 120 marks (30 %)

Writing : 100 marks (25 %)

Oral : 100 marks (25%)

Ordinary level:

Aural : 100 marks (25 %)

Comprehension : 160 marks (40 %)

Writing : 60 marks (15 %)

Oral : 80 marks (20%)

- **Prior learning requirements:** You need to have studied French at Junior Cycle.
- **Differences between French at Junior Cycle and at Senior Cycle:** At Junior Cycle, you sit the exam at **Common level**. At Senior Cycle, you have to pick between **Higher or Ordinary level**.

- **College requirements:**

A third language is required by the NUI colleges like University College Dublin (UCD), Maynooth University, University of Galway, University College Cork (UCC) and RSCI - Royal College of Surgeons in Ireland

- **Career opportunities:**

- 1. Translation and Interpretation:**

- French language experts are in demand for translating written documents or providing interpretation services in various sectors, including business, diplomacy, and international organisations.

- 2. International Relations:**

- Graduates proficient in French find opportunities in diplomatic services, working for government agencies, or international NGOs where knowledge of the language and culture is crucial.

- 3. Education:**

- Teaching French at various educational levels, both domestically and internationally, is a rewarding career option. Language instructors are sought after in schools, language institutes, and online platforms.

- 4. Tourism and Hospitality:**

- The tourism industry values individuals who can communicate effectively with French-speaking tourists. Opportunities exist in travel agencies, hotels, and cultural exchange programs.

- 5. Multinational Corporations:**

- Many global companies operate in French-speaking regions. Language skills are an asset in roles such as international business development, marketing, and customer relations.

- 6. Media and Journalism:**

- French language skills are valuable in journalism and media. Opportunities include reporting, editing, and content creation for French-speaking audiences in print, digital, or broadcast media.

- 7. Cultural Institutions:**

- Working in museums, art galleries, or cultural centres allows individuals to combine their language skills with a passion for the arts and culture, facilitating communication with French-speaking audiences.

- 8. International Business and Trade:**

- Proficiency in French is an asset in international business, facilitating negotiations, communication, and relationship-building with French-speaking clients and partners.

- 9. Translation :**

- With the increasing demand for online content, professionals skilled in adapting digital content for French-speaking audiences are sought after in tech companies and content platforms.

- 10. Freelance Opportunities:**

- Freelance work in translation, writing, and editing for French-speaking clients provides flexibility and independence for language graduates.

German

"Germany is our largest non-English speaking export market. We export over twelve billion Euro worth of goods into the German market. If you look at last year when we were in the depth of an economic crisis, there was actually a twelve percent increase on the previous year, so Germany is a critically important market" Tony Donoghue, Head of Education Policy at Irish Business and Employers Confederation, (IBEC), Dublin

German is one of the foreign languages studied to Leaving Certificate in Mulroy College. A Third language is an entry requirement for many courses in the NUI Universities of Maynooth, Galway, Cork and UCD.

Why take German as a Leaving Certificate subject? Whatever plans you may have for the future, knowledge of German will increase your options. When you learn German you acquire a range of skills which can improve the quality of both your work and private life. You will find German useful in your personal life for travelling and in many careers both at home and abroad including tourism, catering, education, business, science, research and translation services.

"There is an absolute scarcity of German speaking workers. The Expert Group on Future Skills Needs, which I sit on, does analysis on this. They look at job sites, job websites. They speak to employers and they have identified a gap in German speakers". Tony Donoghue, Head of Education Policy at Irish Business and Employers Confederation, (IBEC), Dublin

Business: Knowing the language of your German business partners improves your relations and therefore your chances for effective communication and success.

The global career: Knowledge of German increases your job opportunities with German and foreign companies in your own country and abroad. Proficiency in German helps you to function productively for an employer with global business connections.

"Germany is the third largest market for Irish exports. We need to understand our customer. It a myth to think that all Germans speak English". Deirdre McPartlin, Manager in Enterprise Ireland for Germany, Switzerland, Austria.

Tourism and hospitality industry: Tourists from German-speaking countries travel wide and far, and are the world's biggest spenders when on holiday. They appreciate to be looked after by German-speaking staff and tour guides.

Science and Research: German is the second most commonly used scientific language. Germany is the third largest contributor to research and development and offers research fellowships to scientists from abroad.

Communication: Developments in media, information and communication technology require multilingual communicators. A wide range of important websites are in German and worldwide, Germany is ranked number 5 in terms of annual publication of new books. Knowledge of German therefore offers you extended access to information.

Cultural understanding: Learning German provides you with an insight into the way of life, and the hopes and dreams of people in German speaking countries, broadening your horizon.

"To be a real part of the culture, to enjoy the life and the social banter and to express yourself and broaden your horizons, the language is a vital component". Aubrey Dolan, Marketing Category Manager for Football Footwear at Adidas.

Travel: Make the most of your travels not only in German-speaking countries, but in many other European countries where German is widely spoken, especially in Eastern Europe.

Enjoyment of literature, music, art and philosophy: German is the language of Goethe, Kafka, Mozart, Bach and Beethoven. Indulge in reading and/or listening to their works in their original language.

Opportunities to study/work in Germany: Germany awards a generous number of scholarships and other support to study in Germany. Working holiday visas are available for young foreigners from a range of countries, and special visas are offered to skilled workers and professionals.

"I would not have had the career prospects if I did not move here. My mind has opened. I have seen other ways of living and when I move back to Ireland I hope to bring some of that back with me". Deirdre McPartlin, Manager in Enterprise Ireland for Germany, Switzerland, Austria.

Opportunities for exchange: A wide range of exchange programs exists for both school and university students between Germany and many countries in the world.

Subject Requirement for 3rd Level?

It is used in Business studies - Management and Entrepreneurship and Culinary Entrepreneurship in DIT, Business Studies and German, German and Law and German, Computer Science Linguistics and German in TCD, Business studies with a modern language - German in UL, Business studies with German in WIT, Commerce International - German in NUI Galway, European Business - German in DCU and International German in UCD.

German can be used for most courses with a language requirement.

Please see college website or prospectus to verify specific requirements.

GEOGRAPHY

What is Geography?

Geography is not just about maps and places. Senior Geography studies global patterns and processes and how humans interact with the earth. We look at the following geographic areas:

- Physical e.g. earthquakes, volcanoes, rivers, coasts and glaciations.
- Human e.g. population change, movement and settlement.
- Economic e.g. farming, forestry, manufacturing, tourism, development.
- Skills e.g. interpretation of maps and photos, graphing, sketching, statistics.

A wide range of issues are studied in each topic, which we hope will lead to a greater appreciation of the world around us and the interdependence of both the physical and human environment.

Why choose Geography?

Leaving Cert Geography complements other Leaving Certificate subjects such as English, Maths, Business, Biology, and History. It helps develop students' analytical skills and also their awareness of the world in which we live. Geography students develop study and research skills which they can employ in further study and the world of work. The Geographic field study is worth 20% of marks, offers students the chance to have some hands on experience, develop a range of skills and get out of the classroom. Leaving Certificate Geography is also an accessible subject for most students and builds on the work carried out in JC.

What are the differences between Junior and Leaving Certificate Geography?

Leaving Certificate Geography is not a continuation of the JC course but a more in-depth study of the topics and skills covered in the Junior cycle. Most of the topics and skills will be familiar to current students of geography. Students will revise these skills/topics and learn to present them in an alternate manner.

What will I study?

The Leaving Certificate Geography course is divided into different sections. The course has three Core Units that must be studied by all students.

Core Unit One - Physical Geography

Plate tectonics and the formation of the earth; Volcanoes and earthquakes; The rock cycle; Mountains and landforms; River features; Coastal features; Glacial features.

Core Unit Two - Regional Geography

Types of regions; Irish Regions e.g. The Greater Dublin Region; European Regions e.g. The Paris Basin; The EU and EU expansion; Non-European Regions e.g. India or Brazil.

Core Unit Three - Geographic Investigation and Skills

Interpretation of maps, photos, and satellite images; Weather map interpretation; drawing maps and sketching; River study; Study of traffic management; Study of population change.

There are two Elective Units, only one of which must be studied by all students.

Economic Processes

Development; Employment patterns; Patterns in industry e.g. farming, manufacturing

Or

Human Processes

Population change; Population movement; Settlement patterns.

Students who opt to study Higher Level must study one of the following areas:

Global Inter Dependence

Geoeology (Soils and Rain Forests or Deserts)

Culture and Identity

The Atmosphere/Ocean Environment

How will I be assessed?

The Leaving Certificate Examination is divided into two parts

A Geographic Field Study e.g. River processes

This is worth 20% of the total exam and is submitted in April of the exam year.

The Leaving Certificate Exam itself - worth 80% of the marks.

Higher Level and Ordinary Level get a separate exam.

The exam paper is divided into sections which cover the topics mentioned above. The first question on the exam paper is made up of a series of short answer questions. The remainder of the exam consists of longer answer questions.

Geography is useful for such careers as:

Civil Engineering, Construction, Urban and Regional Planning, Architecture, Meteorology, Climatology, Surveying, Mineralogy, Agriculture, Horticulture, Auctioneering, Forestry, Conservation work, Market Research, Statistical Analysis, Archaeology, Air Traffic Control, Anthropology, Cartography, Development Work, Geology, Teacher, Tourist Officer, International Driver, Naval Deck Cadet, Army Cadet, Pilot, Quantity Surveyor, Civil Service.

Subject Requirement for 3rd Level?

It may be used for Earth Sciences, Medicinal Chemistry, Pharmacy and Science in TCD.

Please see college website or prospectus to verify specific requirements.

HISTORY

What is History?

When we undertake to study history we are dealing with the experiences of human life in the past. Our study involves an investigation of evidence which has survived to this day in relation to events and individuals of the past. Students will become familiar with human experiences which are often very different to his/her own. The student of history will gain an insight into other ways of life and thinking. By coming into contact with past experiences the student will gain a valuable insight into the roots of his/her own identity as well as the traditions he/she has inherited.

Why Choose History?

By studying History the student will come to appreciate how the world and its people have evolved over the course of centuries. The syllabus allows the student to engage in an exploration of what historians believe happened over the course of time, and this exploration is based on the evidence available to us today. Therefore, the student will involve himself/herself in the study of a number of historical topics relating to Ireland, Europe and the wider world from the early nineteenth century to almost the present day. The syllabus places a great emphasis on developing certain skills which are particular to the work of the historian, for example, working with evidence and researching. The student will also learn the art of working with documents allowing him/her to develop an expertise in the evaluation of evidence. As a result the student can expect to develop a capacity to make reasoned judgements on our historical past.

Differences between the JC and LC

The content of the Junior Certificate syllabus is focused on very different aspects of history and is far removed from the content of the Leaving Certificate syllabus.

What will I study?

The History Department follows the Later Modern, 1815-1993, course of study and the syllabus comprises of two inter-linking parts as follows:

WORKING WITH EVIDENCE

Here there will be an introduction to history and the work of historians. This will form the basis of the students future work on topics for examination as well as the document based study and the research study. The student will engage in a document-based study of one of the syllabus topics as a means of developing the skill of working with evidence. The student will also undertake a research study of a significant historical subject or individual as a means of developing further his/her skills in working with evidence, and also as a means of developing his/her research skills.

TOPICS

Four sections are studied, two in Irish History and two in Modern European.

Differences between the Higher and Ordinary level courses

Both levels cover the same material. The Higher level requires the student to present answers in the form of analytical essays which show a detailed knowledge of the topic. The Ordinary Level students will be required to present answers in the form of shorter less analytical essays and paragraphs.

How will I be assessed?

20% of the marks go for the Research Study which is submitted in April of 6th Year. The Final Examination accounts for the remaining 80%.

History is useful for such careers as:

Politics, Journalism, Local Government Social Work, Sociology, Archaeology, Barrister, Civil Service, Guide, History Teacher, Law Clerk, Museum Work, researcher, Solicitor, Trade Union Official, Prison Service, Probation Officer, Garda, Tourism, Writer, Broadcaster, Librarianship, Genealogy.

HOME ECONOMICS (SOCIAL & SCIENTIFIC)

What is Home Economics?

Home Economics is a multi-disciplinary subject combining theory and practice in order to develop understanding and solve problems. It is concerned with the way individuals and families manage their resources to meet physical, emotional, intellectual, social and economic needs.

Why Choose Home Economics?

Because of its diversity, Home Economics is of interest to a wide variety of students. The range of careers that are linked to Home Economics is vast, so it is beneficial to many students.

Differences between JC and LC?

The LC course is a continuation on from JC. However motivated and hard working students may take up the subject in Senior cycle.

I didn't study Home Economics at JC. Can I still study it at LC?

Yes well motivated and hard-working students could study Home Economics at Leaving Certificate.

What will I study?

Food Studies	45%
Resource Management and Consumer Studies	25%
Social Studies	30%

Differences between the Higher and Ordinary level courses

The course material is for the most part common but there is some material which is required to be studied at Higher level only. Higher level students will be required to have a more in-depth knowledge of topics and to show a greater degree of practical and procedural skills.

How will I be assessed?

20% - Coursework - project work in cookery completed in class

80% - Final Written Examination.

Coursework - 20%

The Department of Education issues students with five assignments in September of 5th Year. Four of the five assignments must be completed by all students. The assignments involve research into different areas of the *Food Studies* course. The research undertaken by students is presented in a journal which is submitted in November of 6th Year. Students will take part in four cookery practicals as part of their research. Excellent way of building marks before the final terminal exam.

NOTE: As a key part of the course is carried out in 5th Year (as detailed above) it is important that any student opting for home economics must be prepared to work from the beginning of 5th Year to maximise their grade in this subject.

Home Economics is useful for such careers as:

Baking and Confectionary, Butchers, Catering, Chef, Cheesemakers, Child Care, Consumer Adviser, Demonstrator - food, wines, etc. Dietician, Environmental Designer, Environmental Health Officer, Home Management, Home Economics Teacher, Hotel Manager, Institutional Management, Managers, Technologists & Technicians in the Food Industry, Nursing, Occupational Therapist, Parenthood, Quality Controllers, Social Worker, Waitress, Sales, Solicitor, Trade Union Official.

Subject Requirement for 3rd Level?

It may be used for Food Innovation and Food science and Management in DIT, for Home Economics with Biology/ Economics /Irish/Religion, second level teaching in St. Angela's College Sligo and Veterinary Nursing in UCD.

Please see the college website or prospectus to verify specific requirements.

MUSIC

What is Music?

Music is an important part of everyone's life. Music constantly surrounds us in our lives, from playing in the background at a doctor's surgery to listening to a child singing out aloud.

Why study Music?

Music is an education for life. By sharing musical activities it helps develop personality skills and cooperative effort. Music provides a creative outlet, helps in employment opportunities and plays an important role in the social fabric of our society.

Students who enjoy music and wish to develop and stretch their musical knowledge and skills will like this course. Since the new Syllabus was introduced in 1999 many more students have opted for Music at LC. Good exam results are now within reach of more students. In a recent Chief Examiner's Report:

17.8% of students achieved an A1 or A2 grade at Higher level

74.1% achieved a B3 grade or higher

97.5% of students achieved honours (C3 grade or higher) and there was only a 0.1% failure rate.

Differences between JC and LC

It is not necessary to study Music at Junior Certificate to take it for the Leaving Certificate.

Music at LC is similar to the course at JC. It follows the same activities but with a greater level of choice to suit the individual student. It is essential that the student has a working knowledge of a musical instrument or a very keen interest in ICT.

What will I study?

The syllabus is structured into three Essential Activities: Listening, composing and performing.

Listening

Students are required to study four prescribed large scale pieces under such headings as historical context, style, form, texture, instrumental and compositional techniques (as well as production techniques, in the case of 'Bohemian Rhapsody' and the Sergeant Pepper album). They also learn how to compare and contrast music from different periods and musical styles. In addition, they learn to identify and describe the variety of styles and contexts of Irish traditional music today. Aural awareness (e.g., identification of instruments, as well as melody, rhythm and harmonic cadences) is taught in the context of the prescribed works as well as other instrumental and vocal/choral works.

Composing

The art of melody writing (composing a tune) is taught. Students are taught the rudiments of harmony and counterpoint in a variety of styles and contexts as the foundation for exam-type questions. As points of reference, composers and songwriters from Bach and Mozart to the Beatles are used, enabling students to compose using both guitar chords and more traditional forms of notation. components, the Higher Level

Performing

Music for performance may be chosen from any genre, be it, classical art music, traditional Irish, ethnic, folk, rock, jazz, stage musical or other modern popular repertoires. The music chosen must show diversity in style and technique. This is the option that the majority of students choose to allocate 50% of their marks to. The Performing Activity also includes one 'unprepared test' from a choice of sight reading/singing or melodic/rhythmic repetition. The syllabus also allows students, at both Ordinary and Higher level, who prefer ICT to performing to demonstrate as part or the entire performing requirement 'an ability to understand and to use micro-technology music-making systems using a computer program to compose their own music. Performing requirements vary for each student: three or four pieces, depending on one or two activities.

Differences between Higher and Ordinary level courses

Students taking a Higher Level Elective in Performing are required to perform either six or eight pieces, a further expansion of the Core Performing activity.

The Higher level includes Ordinary level requirements but Higher students need a greater depth of knowledge, understanding and skill. There is an additional Elective for Higher Level. Students can achieve 50% of their marks by studying a Higher level Elective in one of the 3 components.

Listening, Performing and Composing activities are assessed by means of three categories of examination - aural, written, and practical. (The practical exam takes place in March/April of the exam year.) Ordinary and Higher level students can gain up to 50% of their total marks in the activity that best suits their interests and abilities.

Music is useful for careers in:

Education	Music or Occupational Therapy
Performance	Speech and Language Therapy
Production	Theatrical Agent
Sound Engineering	Composer/ Arranger
Music research positions at regional and national institutions	
Music business careers in retail, recording and artistic promotion	
Entertainment - groups, orchestra, bands, Disc Jockey, Dancer.	

Subject Requirement for 3rd Level?

Required for Education, Religion and Music - second level teaching in Mater Dei Institute of Education. Can be used for Arts in NUI Maynooth, Music Applied in Dundalk IT and Music, Media and Performance Technology in UL. *Entry to College can often be subject to audition.*

Please see college website or prospectus to verify specific requirements.

PHYSICS

What is Physics?

An explanation of how the world works using physical theory and mathematical fact.

Why choose Physics?

Choose physics if you are interested in how things work in the physical world. Are you the sort of person who notices things around them and wonders why they happen?

Difference between JC and LC?

LC Physics covers most of the same topics as JC, but with more depth and more maths. You don't have to be doing higher maths to do physics, but a basic mathematical ability is required.

What will I study?

The Sections to be covered:

- Light
- Waves & sound
- Heat
- Mechanics
- Electricity
- Magnetism
- Nuclear Physics / Radioactivity
- Particle Physics (higher level only)

Mandatory experiments - 24 in Higher Level
 - 22 in Ordinary Level

Differences between Higher level and Ordinary level

The courses are basically the same, with some parts for higher level only (e.g. derivations). Ordinary level questions are, of course, easier! Higher & ordinary levels are taught together in the one class.

How will I be assessed?

There is one paper in the LC: Section A = 30%; Section B = 70%

Section A: Mandatory experiments - answer 3 questions from 4

Section B Answer any 5 long questions from 8

The long questions in section B will include:

- Definitions
- Knowledge
- Sums!

Physics is necessary for courses in:

Theoretical Physics in TCD and UCD. It fulfils the Laboratory Science subject requirement for many courses in the broad field of Science.

Physics is also useful for careers in:

Architecture, Astronomy, Bio-physicist, Computers, Doctor, Engineer - especially electrical and electronics at all levels, Geophysicist, Health Inspector, Marine Radio Operator, Medical Laboratory Technician, Metallurgist, Meteorologist, Naval Services, Nurse, Oceanographer, Optician, Patent Worker, Pharmacist, Physicist, Laboratory Technician, Pilot, Radiographer, Telecommunications, Apprenticeships, Scientific research, Heating and Ventilation technicians, Sound Engineer, and pure Maths courses.

Physics and Chemistry Combined

Subject Group: Science

These subjects demonstrate how to explore nature using carefully planned methods, and teach the basic methods and findings of scientific investigation.

What is Physics and Chemistry?

This course combines parts of both Leaving Cert Physics and Leaving Cert. Chemistry into a single course which is examined separately. It includes mandatory practical experiments which must be completed and written up, as well as a written examination on the theory and applications of both disciplines.

What kind of student might Physics and Chemistry suit?

Anyone considering a career in a scientific discipline, such as physics, chemistry, environmental science, or medicine.

Students who have an interest in both physics and chemistry, but don't have enough time to commit to both subjects separately. Biology students may fall into this category.

Subject Content

The syllabus consists of the following main topics:

- Mechanics including velocity, acceleration, mass, work, and energy
- Light - optics: the laws of reflection and refraction, mirrors and lenses
- Light - wave theory; electromagnetic spectrum and photoemission
- Introduction to static and current electricity
- Magnetism and electromagnetism
- Heat, temperature and kinetic theory
- Structure of the atom and the Periodic Table,
- Radioactivity
- Molecular theory; structure and shape of simple molecules
- Chemical bonding - ionic, covalent and metallic bonds
- Chemical reactions and chemical equations including relative atomic mass
- Introduction to thermochemistry and the First law of Thermodynamics
- Chemical reactions: acid-base theory; oxidation and reduction
- Electrochemistry and the activity series
- The chemistry of hydrogen, oxygen and chlorine
- Introduction to organic chemistry

Physics and Chemistry is an experimental and practical subject and practical work by students is regarded as an integral part of the course. A list of suitable experiments to be undertaken by students is included in each section of the syllabus.

Exam Structure

Leaving Certificate Physics and Chemistry is examined at two levels, Ordinary level and Higher level. Assessment is by terminal examination paper. Higher level candidates are expected to demonstrate a greater depth of understanding than are Ordinary level candidates. Records of practical work done by students should be kept and be available for inspection.

Third Level Entry Requirements

This subject is not an essential requirement for any courses in the CAO system.

Please see the college website or prospectus to verify specific requirements.

Leaving Certificate Physical Education

Since Sept 2022 senior students have been able to choose Physical Education as a Leaving Certificate exam subject.

What will the course involve?

Coursework – 20%

The physical activity project is completed in a digital format & has four sections:

1. Performance analysis
2. Identification of four performance goals
3. Evidence of ongoing training/practice and reflection
4. Concluding analysis.

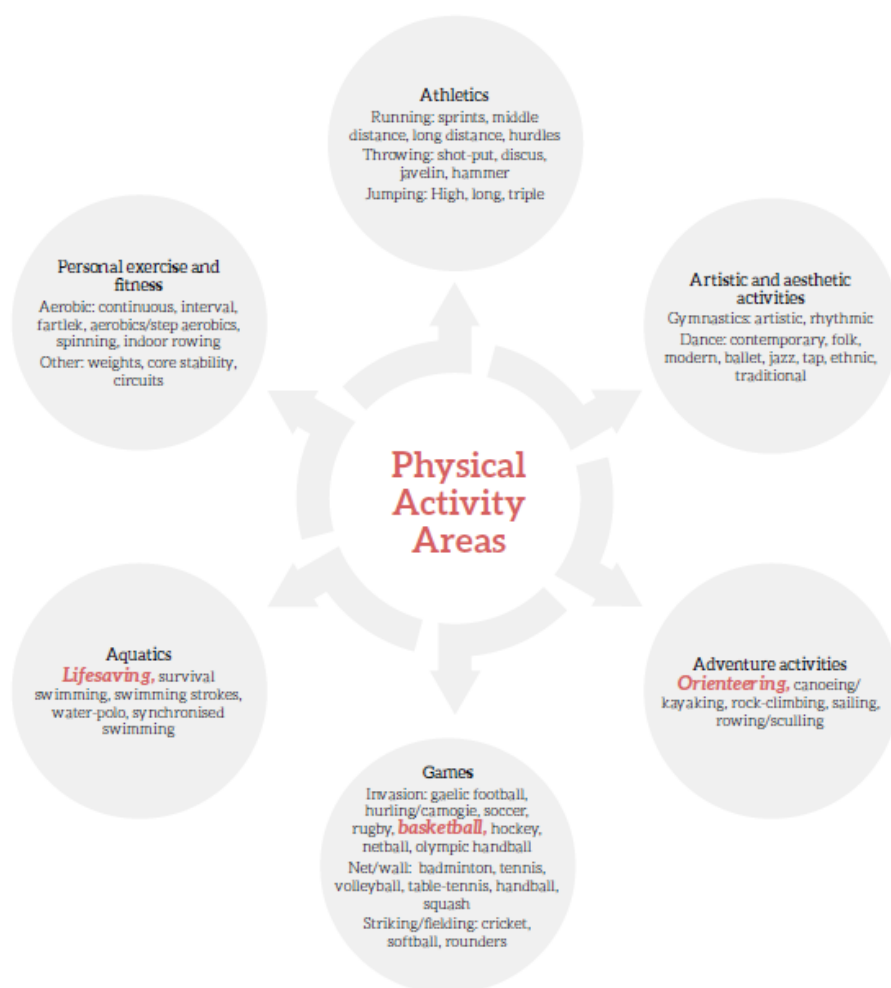
Written examination–50%

The written examination is based on the knowledge and understanding of the theoretical factors which affect participation and performance and includes the following topics:

STRAND 1 Towards optimum performance	STRAND 2 Contemporary issues in physical activity
<ol style="list-style-type: none">1. Learning and improving skill and technique2. Physical and psychological demands of performance3. Structures, strategies, roles and conventions4. Planning for optimum performance	<ol style="list-style-type: none">5. Promoting physical activity6. Ethics and fair play <p><i>In addition, two of the following topics will be prescribed each year:</i></p> <ol style="list-style-type: none">7. Physical activity and inclusion8. Technology, media and sport9. Gender and physical activity10. Business and enterprise in physical activity and sport

Performance assessment–30%

Learners choose one of the three selected physical activities being studied by their class in Leaving Certificate Physical Education for their performance assessment. Students need to be at a very high level of performance & fitness and should be training regularly with a club.



Technology

Leaving Certificate Technology provides students with knowledge and skills associated with technology education. Students apply their knowledge and skills creatively in a design-based approach to solving everyday technological problems, mindful of the impact on natural resources and on the environment.

Why Study Technology

Given the current accelerated advances in technology, this is a very cutting edge subject.

The subject aims to boost students' ability to apply knowledge and skills to evaluate technology.

Technology will help you to solve many technological problems you may experience in everyday life.

This subject teaches you to think about a problem and then use your knowledge and skills to design a solution to that problem. It will also teach you skills in the use of basic tools and equipment. You will also be able to identify many different types of materials and have a basic understanding of electronic circuits and gear systems.

Assessment

Technology is assessed at both Ordinary level and Higher level by means of an examination paper, a student project and a practical examination.

Workshop Processes: This section represents all the practical processes which may be applied in the school workshop. This section carries 300 marks in the exam at both levels, Ordinary & Higher. There will be 150 marks for a practical exam and 150 marks for assessment of workshop/laboratory work and projects.

Materials; Technology: This section represents the wider knowledge and technology as a whole.

In the written exam this section will carry 200 marks at Ordinary level and 300 marks at Higher level.

Core Elements

The Core is a broad general introduction to the nature of Technology that provides students with a consolidation, extension and refinement of the knowledge, skills and techniques acquired in the junior certificate.

It is intended that all elements in the core are learned in an integrative manner by means of a design and make approach in the context of safety and the impact of technology on society.

A Process of Design

Project & Quality Management

Materials and Production

Communication and Graphic Media

Information & Communications Technology

Structures and Mechanisms

Energy, Electricity and Electronics

The optional modules allow students to undertake a more in-depth study of specific elements within the core. Each student will study two options in addition to the core.

Students should have studied Tech Drawing, Wood Technology or Technology at junior cycle as this subject consolidates, extends and refines knowledge, skills and techniques acquired at Junior Cycle.

Career Possibilities

Technology gives students a basic understanding of the principles of engineering, design and project management. If you enjoyed the technology programme at Junior Cycle level, and like hands-on activity, this subject may develop an interest in a career in engineering or technology.

Notes:

It is strongly recommended and for many subjects it is essential that students select subjects that they have studied for the Junior Cycle.

Please discuss subject preference options with your teachers and guardians/parents.

