



DONABATE COMMUNITY COLLEGE

Coláiste Pobail Domhnach Beathach

Coláiste Pobail
Domhnach Beathach

INTRODUCTION
SENIOR CYCLE PROGRAMMES

Inside this booklet you will find information on
all the Senior Programmes available in
Donabate Community College:

Programme	Pages
1. The Established Leaving Certificate	5-26
2. The Enhanced Leaving Certificate (LCVP)	27-30

Please read the enclosed information carefully and
choose the Senior Programme that would best
suit your son/daughter.

Guidance Counsellors

Ms K. Whelan

Ms M. O'Brien

What do Guidance Counsellors do?

Guidance Counsellors are professionally trained to undertake the following task within the school guidance programme.

Guidance Counsellors empower students to make decisions, solve problems, change behaviour and resolve issue in their lives in relation to Personal, Educational and Career Issues.

- Personal Counselling - This provides individual, group or class work to promote interpersonal communication skills, decision making, self-awareness and the ability to plan.
- Educational Guidance - This involves individual, group or class work to assist decision making in relation to choice of courses, subject and levels. It includes such topics as motivation and learning, study skills and examination techniques.
- Career Guidance - This involves individual, group and class work to assist decision making in relation to education and training courses, employment opportunities, job search skills work and other life roles.

The Established Leaving Certificate

INTRODUCTION

The Leaving Certificate is a strict academic programme which commences in 5th year. It is a two year programme. Leaving Certificate students need to be responsible for their own individual class work and commit themselves to a minimum of 2 to 3 hours daily study.

In the CAO system, your highest 6 grades will be used to calculate your points for entry purposes to courses offered in all Higher Education Institutes.

The Guidance Counsellor will be available to help all students with career choices. The Guidance Counsellor is also available to liaise with parents.

SUBJECT CHOICES FOR LEAVING CERTIFICATE

As a student entering Senior Cycle, you are coming to a cross roads in your life. You need to make decisions and plan your future. The first decision you will make is to choose subjects that you will study for the Leaving Certificate.

In Donabate Community College, all students take **SEVEN** subjects in the Leaving Certificate. **Irish, English & Maths are mandatory.**

You then choose **FOUR** other subjects from the options provided.

The following broad guidelines form the basis for choice:

- (i) Knowing your aptitudes and interests.
- (ii) Choosing the subjects you like and are good at.
- (iii) Informing yourself of Leaving Certificate Subject requirements for third level colleges or courses.

Your aptitudes are your strengths that you have in certain areas. You should look back at the results you have received in school and see if there is a pattern.

*Do you do well in languages or subjects like History and Geography?
Do you find Business or Science challenging or easy? Are you creative?
Do you like technical subjects?*

There is no such thing as an easy subject for the Leaving Cert.

Hard work over the next two years ensures students achieve their potential in their chosen subjects. Liking and enjoying a subject is a huge part of being able to keep the commitment and study needed.

If you already have a definite course or career in mind, you have to find out if there are essential subjects you must have for the Leaving Certificate to be eligible for that course.

Your subject choices needs to be very carefully made to ensure you are not ruling yourself out of a 3rd Level course you might be interested in later.

The webpage www.qualifax.ie has useful online information for all college courses.

REMEMBER you are the person who is studying these subjects and who is taking the Leaving Cert - it is your responsibility to make sure that the information you have is accurate and up to date.

Ask your teachers, parents and the Guidance Counsellor for help if you need it.

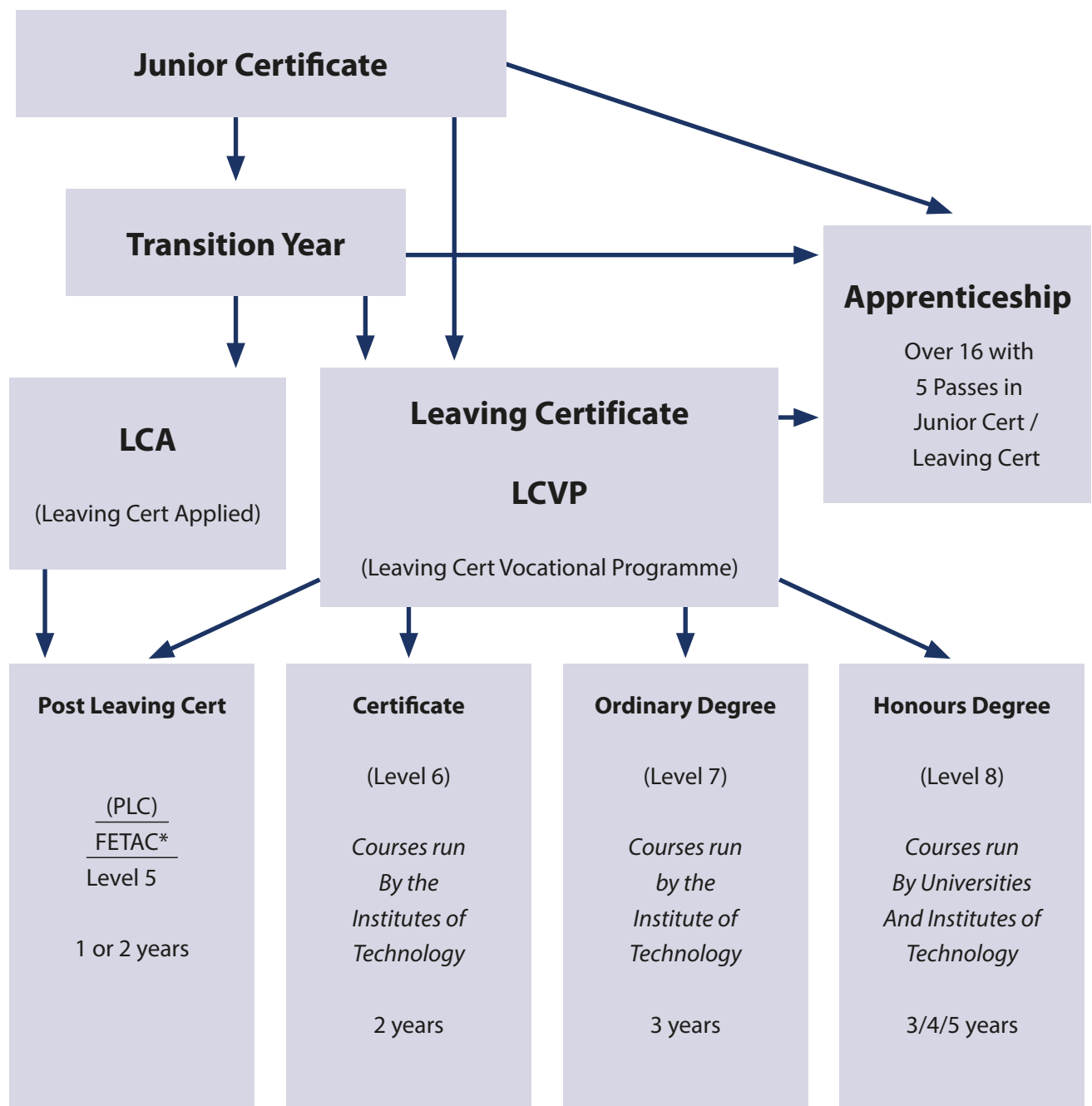
When you are deciding which subjects to take, remember that this decision will have long term consequences on what careers are open to you. Dropping Science subjects or a continental language will have an effect on the range of careers open to you at a later stage.

If a student is unsure of what career area they wish to pursue, I would advise them to keep all options open by taking a Science subject, a Business subject and a Foreign language from their four optional choices, bearing in mind ability, aptitude and subjects that you like.

A final point to note is that a pass in Ordinary Level Maths is essential to virtually all College courses. Up to 5000 students pick Foundation level Maths and a further 5000 fail Ordinary level Maths in the Leaving Cert. Whatever you do, don't neglect work in Maths during the Leaving Cert Programme.

CAREERS PROGRAMME

1. Students interest and liking of a subject are important factors in choosing a subject for Leaving Certificate Level.
2. Students must be aware of the subject requirements for different courses especially at University.
3. It is necessary that students understand what PLC, Certificate, Ordinary Degree and Honours Degrees programmes consist of and their duration.



Check Relevant College Prospectus for all courses as these can change yearly.
 * Minimum entry requirements for all courses should be checked by the students.

EXAMPLES OF ENTRY REQUIREMENTS

Foreign Language and Irish requirement:

To gain entry to the (NUI National University of Ireland Colleges (UCD), UCC, NUI MAYNOOTH, NUI GALWAY) or THE CADETS a student must obtain an **O6 in a Continental European Language and Irish.**

The NCAD (National College of Art and Design) requires a pass in Irish, English and a foreign language or Art. The faculty of Engineering at NUI Maynooth **DOES NOT** require a foreign language as part of Matriculation (Entry Requirements).

Maths:

This is an essential subject. Employers expect applicants to have numeracy skills.

The following are examples of courses that require HIGHER LEVEL MATHS.

Actuary Maths (DCU)	H3
Actuarial Finance (UCD)	H2
Theoretical Physics (TCD)	H3
Engineering Degrees (either in universities or inst. Of technology) Level 8	H4

English O6 is required by most employers.

The following are examples of courses that require HIGHER LEVEL ENGLISH

Journalism (DCU)	H4
Communication studies (DCU)	H4
Multimedia (DCU)	H4
English (TCD)	H4

Irish: Required for entry in all NUI Colleges.

Many jobs require O6 such as Cadets, Solicitor, Nursing, RTE.

The following courses require IRISH

Irish (TCD)	H5
Primary Teaching	H5

Students who like the accounts section of Business Studies or who like working with figures may find this subject appealing. It is recommended that you have studied Business Studies at Junior Certificate Level.

What accounting involves:

- **The recording of financial information**
- **The presentation of this financial information**
- **The interpretation and uses of this information**

What do you study?

- **You learn how to prepare Business Final Accounts, Cash Flow Statements, Published Accounts and Accounts from Incomplete Records**
- **You learn Management Accounting. This involves business day to day planning and planning for the future using Costings and Budgets**
- **Accounts of non-profit making organisations**
- **You learn to analyse and comment on financial records**

How do you benefit by studying Accounting?

You learn:

- **To collect information**
- **To record and analyse information**
- **To think logically and clearly**
- **To understand the importance of financial information for good decision-making. This can be for shareholders, creditors, employers, employees, customers or members of a voluntary organisation.**

You have an advantage when you go on to further study. Accounting is on the curriculum of many third level courses: the most obvious are Business courses but also Hotel Management, Hospital and School Administration, various Computer courses, Auctioneering, Advertising, Law and Engineering. You develop an ability to link Accounting with relevant computer applications.

Career options:

Banking Insurance Administration	Education Management Computer Industry	Auctioneering Law and Engineering Running Your Own Business
---	---	--

Requirements: You must be disciplined, hardworking and have a lot of love for the subject. It is recommended that you have studied **Art, Craft & Design** at Junior Certificate Level.

COURSE

1. **Design or Craftwork**
2. **Imaginative Composition or Still life**
3. **Life Drawing**
4. **History and Appreciation of Art**

Class time allotted: one double class and three single classes (5th and 6th year)

1. **Craft: 100 marks – 25% of the total marks 5 hours or Design 100 marks – 25% of the total marks 2.5 hours.**

Requirements: Observational and layout skills are necessary.

Being able to bring some idea from observational sketches through *Realisation*, thus producing a *Personal Creative Response* in the finished piece of work.

Design paper	Craftwork paper
Poster	Lino cutting
Calligraphy	Calligraphy
Lino Cutting	Poster Making
Book craft	Book craft
Puppetry	Fabric printing
Embroidery	Screen printing
Batik	Batik
Weaving	Puppetry
Pottery	Embroidery
Carving	Modelling
Art Metalwork	Carving
Screen Painting	Pottery
	Weaving
	Metalwork

Craft or Design is chosen and one question is answered on the day.

However, the paper is given to students **one week** before examination day.

New changes to Art Coursework will be introduced from 2016.

The Leaving Cert. course follows directly from Junior Cert Science, and deals with more topics in a lot more depth. The course includes 28 mandatory practical experiments which must be completed in the lab, as well as a written paper including questions on the experiments and examining the theory and applications of chemistry.

Leaving Cert. Chemistry is comprised of all the essential and relevant topics within general chemistry. The major topics involved include the following:

1. Atomic structure
2. Volumetric analysis
3. Organic chemistry
4. Water chemistry
5. Reaction mechanisms

There also is an option to be taken as part of the course which involves the study of atmospheric and industrial chemistry or the study of materials and electrochemistry. Experimental investigations are an essential part of the leaving certificate course. Each student must complete at least 28 experiments over the duration of the course. Experimental work is examined as part of the leaving cert exam and forms the basis for a minimum of three questions on the exam paper.

The Chemistry Departments aims are:

- To stimulate and sustain students' interest in, and enjoyment of, chemistry
- To provide a relevant course for those students who will complete their study of chemistry at this level
- To provide a foundation course in chemistry for those students who will continue their studies in chemistry or in related subjects
- To encourage an appreciation of the scientific, social, economic, environmental and technological aspects of chemistry and an understanding of the historical development of chemistry
- To illustrate generally how humanity has benefited from the study and practice of chemistry
- To develop an appreciation of scientific method and rational thought
- To develop skills in laboratory procedures and techniques, carried out with due regard for safety, together with the ability to assess the uses and limitations of these procedures
- To develop skills of observation, analysis, evaluation, communication and problem-solving.

Why do Chemistry?

Chemistry exists everywhere not just in laboratories but in every living thing on land and sea and in our bodies. Chemistry is an essential element in the study of careers including: Medicine, Dentistry, Veterinary Science, Physiotherapy, Nursing, Pharmacy and Medical Laboratory Technology.

The Leaving Certificate course is studied in much greater detail than the Junior Certificate Biology course with extra topics being added.

It has traditionally been the most popular science subject but like all Leaving Certificate subjects it is difficult. The work involves lots of theoretical learning by heart but is very interesting. The course also involves some practical work.

The course is divided into three units:

Unit 1: Biology - The Study of Life

1. The scientific method
2. The characteristics of life
3. Nutrition
4. General principles of ecology
5. A study of the ecosystem

Unit 2: The Cell

1. Cell structure
2. Cell metabolism (respiration – photosynthesis)
3. Cell continuity (mitosis – meiosis)
4. Cell diversity (tissue – organs – systems)
5. Genetics

Unit 3: The Organism

1. Diversity of Organisms (micro-organisms – the flowering plant – animals)
2. Plant Physiology – human physiology
3. Transport and nutrition in plants and animals
4. Breathing systems and excretion in plants and animals

It is important to remember that 70% of the course is based on the pure science of Biology and the remaining 30% is based on the current technological, political, social and economic aspects of Biology.

Students must be able to merge theory from the curriculum with developments in the modern world.

What is Business?

Business is concerned with understanding the environment in which it operates. As a Business student you are encouraged to show enterprise, initiative and self-reliance, which you may apply in further education and in your personal public life.

What do students study?

Students study many aspects of the business world

People	Consumers, producers, investors, interest groups and employers/employees industrial relations
Enterprise	Entrepreneur, Management of Business, Financial Management, Human Resources Management, Marketing Household
Environment	Types of business, Community Development, Governments and Business, International Business, EU, Role of Information Technology in Business

How do students benefit by studying Business?

Students learn to:

- Make informed business decisions
- Understand the structure and management of business
- Use established commercial principles and knowledge
- Understand and appreciate ethics in business.
- Practice Communication, Literacy, Numeracy, and Problem Solving Skills.
- Understand and discuss current affairs as they relate to business

Business is also a foundation for further studies.

Career Options

- Any business related career. The study of Finance and Management will enhance any career choice.
- Education
- Setting up one's own business.

This subject is a study of the construction industry in Ireland. It involves theoretical study and practical projects aimed at developing an understanding of knowledge/skills concerned with building methods and practices. Students will learn structural principles used in Ireland to create durable buildings, which offer shelter from the elements, provide comfort, warmth and all our living needs in a safe and regulated standard. Construction is mostly related to domestic dwellings but deals with broader aspects - such as town planning and new technologies.

The current construction studies course comprises three components:

- I. Written Examination (50%)**
- II. Project Work (25%)**
- III. Skills Test (25%)**

I. Written Examination

The written exam in June is a 3 hour exam to answer 5 questions from a choice of 10. Question one is a compulsory drawing question for all students.

Exam questions cover a range of topics from:

1. Sub structure (below ground)
2. Superstructure (above ground)
3. Internal Constructions (timber floors etc.)
4. Internal walls etc.
5. Services and external work (plumbing, electrical and waste disposal)
6. Processes (window, doors, stairs etc.)
7. Heat and thermal effects in buildings
8. Illumination and sound in buildings

Higher Level covers three more topics than Ordinary Level and requires a much greater knowledge of all topics.

II. Project Work

The project consists of an artefact and a folio, which details the research and manufacture of the artefact. This can be a model, a craft related or research style project. It takes approximately forty hours to complete. All work to be carried out during class time.

III. Skills Test

This is a four hour exam in May, whereby the students are given a working drawing. They have to interpret the drawing, mark out the wood, process and complete the artefact in the time given.

Overall the project work and skills test are common to all students. The only differentiation between ordinary and higher level is in the theory papers.

Requirements:

- Previous knowledge of Technical Graphics preferable - to Junior Cert Standard.
- Previous knowledge of Woodwork preferable - to Junior Cert Standard.

These two components make up to two thirds of the overall Construction Studies course content.

Students who have not achieved either of the above may take the course but will require the maximum effort during the two years to have any chance of even moderate success at the Leaving Cert Exam.

This subject is an ideal choice for any student considering a career in the Engineering, Science or Services (electrical, plumbing etc.) industries.

GEOGRAPHY

Geography is the study of the forces that create and change our landscape. It also involves study of the location and distribution of the inhabitants of the earth's landscape. By this definition it is a dynamic and demanding course which examines in detail those topics covered for the Junior Cert.

Students learn about the geographical patterns in the landscape and human environment and develop a positive attitude to environmental conservation.

The new syllabus is divided into three new parts.

CORE UNITS

All three core units must be taken by both Ordinary and Higher Level students.

Core Unit 1 Patterns and processes in the Physical Environmental

Core Unit 2 Regional Geography

Core Unit 3 The Geographical and Investigation Unit

Core Unit 1 Physical Geography

This section involves detailed study of the process which shapes the physical landscape and involves topics like Rivers, Glaciation and the Sea.

Core Unit 2 Regional Geography

A number of Western European countries will be studied in this section.

Primary, Secondary and Tertiary activities will be examined in each country.

Core Unit Geographical and Investigation Skills

This section focuses on developing geographical and investigation skills. This involves the study of Ordinance Survey maps and photographs and the completion of Field work. Field work is now a compulsory part of the core syllabus and a Field Work Report must be submitted to the Department of Education and Science before the Leaving Certificate Examinations.

Elective Units

One of the following must be taken by both Ordinary and Higher Level students

Effective Unit 4	Patterns and Processes in Economic Activities
Effective Unit 5	Patterns and Processes in the Human Environment

One topic must be chosen from either A and B

A **Patterns and Processes in Economic Activities**

This involves a study of topics like Agriculture, Industry and Service Industry.

B **Patterns and Processes in the Human Environment**

This deals with how humans interact with their human environment and involves topics like pollution.

Optional Unit

SECTION 3

One topic must be selected from the following list for higher level students

OPTIONAL UNITS

Higher Level Only Students take one of the following Units

Optional Unit 6	Global Interdependence
Optional Unit 7	Geogecology
Optional Unit 8	Culture and Identity
Optional Unit 9	The Atmosphere - Ocean Environment

The Exam format is that of short answer questions, multi part questions and essay style questions.

Only students who have been studying French to Junior Certificate and Transition Year may take the subject to Leaving Certificate.

French for the Leaving Certificate covers the four skills of

- **Reading**
- **Writing**
- **Speaking**
- **Listening**

An interest in language and travel is a decided advantage for this subject and as far as possible, class will be conducted through French. The exam demands a sound grasp of French grammar, a broad vocabulary to deal with both literal and journalistic comprehension and an ability to express oneself clearly and accurately in a range of written exercises, letters, notes, reports, resumes, expressions of views or options.

There will be a 15 minute oral exam and a 40 minute listening comprehension test.

- 1. In September 1995 a new syllabus for Senior Cycle French was introduced. The most dramatic change was in the increased importance, which is given to oral and aural French. The marks at Higher Level are increased to 45%.**
- 2. The syllabus puts an emphasis on French civilisation. Students are expected to have a broad knowledge of French political, educational and cultural life.**
- 3. It is important to remember also that French, unlike some other foreign Languages, may not be started at third level.**

Students are encouraged to look for penpals in France and if possible to go on an exchange to France. In class, tapes, DVD's, magazines and newspapers are used extensively to expose students to a wide range of authentic material.

Only students studying Spanish to Junior Certificate and Transition Year may take the subject to Leaving Certificate.

Four skills are examined

- **Listening**
- **Speaking**
- **Writing**
- **Reading**

As far as possible the classes are conducted through Spanish.

Students are encouraged to spend some time in Spain to improve their language skills as is the case with all modern languages.

There is a wide gap between the level of writing demanded at Junior Certificate and that required at Leaving Certificate.

A thorough knowledge of Spanish grammar is required, as is a broad range of vocabulary. Students must be able to deal with literary and journalistic comprehensions.

Oral - Higher Level 25% / Ordinary level 20%

The Oral exam itself is divided into three sections:

- (i) **General Questions** (Prepared prior to exam)
- (iii) **A Role Play** (Prepared prior to exam)

Listening Comprehension	(Higher Level)	20%
	(Ordinary Level)	25%

Written paper 55% of total marks.

At **Higher Level** there is a great emphasis on reading comprehension, both literary and journalistic style. Questions are asked in both English and Spanish. There is a question relating to grammar within the comprehension passage.

Another question requires the student to write on an abstract topic related to the comprehension theme. There is also a letter or other written passage.

At **Ordinary Level** there are three reading comprehension passages, again of literary and journalistic style, similar to those at Higher Level. There are fewer marks assigned to written Spanish at this level.

The study of History at Leaving Certificate aims to develop the skills of handling information and presenting it in a coherent manner.

Skills:

- **Location of information**
- **Evaluation of information**
- **Detection of bias**
- **Being able to see all aspects of a problem or situation**
- **Presentation of a coherent point of view**

The Course:

- **Research study (pre-submitted) 20%.**
- **A compulsory documents-based study on three designated case studies from a prescribed topic.**
- **Topics covered are from later/modern Irish, European and world History.**

The Value of Studying Leaving Certificate History

1. **Relevance to Modern Life:** Knowing history helps us to understand the roots of issues which affect our planet. History gives us context and a sense of perspective.
2. **Awareness of human behaviour:** History will give you insights into ways of life and ways of thinking which are different from our own. It will deepen your understanding of the human condition and human motivation.
3. **Concepts:** You will gain an understanding of concepts that are relevant to life today such as Democracy, Human Rights, Power, Authority, Conflict and Reconciliation.
4. **Career Relevance:** The study of history trains the mind to think independently, and to assemble, organise and present facts and opinions. These skills are valued at third level and in many careers.
5. **Communication Skills:** Historical writing develops your skill to organise ideas, express clear opinions and reach balanced conclusions.
6. **Research Skills:** You will study history through a variety of sources. You will learn how to handle different sources.
7. **Analytical Skills:** You will sharpen your critical thinking skills which will benefit you in any career and in life in general.

HOME ECONOMICS – SOCIAL AND SCIENTIFIC

Leaving Certificate Home Economics is essential for entry to B Ed in Home Economics, required for teaching Home Economics and is recommended for F-ilte Ireland courses e.g. Hotel and Tourism Management, Event Management, Professional Cookery, Receptionist, Bar Management etc. Home Economics also has links with Human Nutrition and Dietetics, Food Innovation, Health Promotion and Physical Education, Bioscience, Environmental Health, Nursing, Early Childcare Studies and Interior Design. The study of Home Economics compliments the study of Biology. Most of the work on the Junior Cert course forms the basis for Leaving Certificate Home Economics. Students are required to complete a Food Studies Journal in 5th Year which is based on five Cookery Assignments completed in class. This is submitted to the Department of Science at the beginning of 6th Year and is worth 20%

CORE STUDIES:

Food Studies – 45%

Topics:

- (i) **Nutrients**
- (ii) **Special Diets**
- (iii) **Food Industry and New methods of Foods Processing**
- (iv) **Legislation in relation to Food**

Resource Management and Consumers Studies - 25%

Topics:

- (i) **Money Management**
- (ii) **Housing**
- (iii) **Electrical Application**
- (iv) **Consumer Studies**

Social Studies – 10%

Topics:

- (i) **The Family**
- (ii) **Marriage**
- (iii) **Family Law**

Choose one from electives

Home Design and Management – 20%

Topics:

- (i) **Housing and provision of Houses**
- (ii) **Interior Design**
- (iii) **Energy Efficiency in the House**
- (iv) **Insulation**
- (v) **Ventilation**

Textiles Fashion and Design – 20%

Topics:

- (i) **Current Fashion Trends**
- (ii) **Textile Science**
- (iii) **Evaluation of Garment Design**
- (iv) **Textile Industry**

Social Studies – 20%

Topics:

- (i) **The Family and Social Change**
- (ii) **Education**
- (iii) **Work**
- (iv) **Reconciling Work and Family**
- (v) **Leisure**
- (vi) **Unemployment**
- (vii) **Poverty**
- (viii) **Government response to Social Problems**

ECONOMICS

What is Economics?

Economics is a social science which studies how scarce resources are allocated in an economy by consumers, businesses and the government. This involves making choices on how best to use the resources to maximize output.

What do you study:

The Leaving Certificate Economics Course is divided into two core areas:

Microeconomics: focuses on the individual firm and the impact of decisions on consumers.

Students will look at

- Economic concepts such as wealth, income, scarcity and opportunity cost
- Consumer behaviour such as satisfaction and spending patterns
- The factors that influence consumer demand and producer supply
- How sellers set the price of their goods and how consumers react to changes in price
- The different market structures and assess their application to the real-world

Macroeconomics: focuses on the economy as a whole and the role of the government in decision making

Students will look at

- The function of money in the economy
- The role of the Central Bank and European Central Bank
- The impact of inflation and interest rates on the economy
- The decision making role of the government in the economy
- The importance of international trade from an economic perspective
- The economic inequality that exists between different countries

Students learn to:

- Make informed business decisions by considering the impact of their choices
- Present and interpret data in a graphical format and analyse trends and changes
- Understand how economic variables impact business and government decision making
- Practice Communication, Literacy, Numeracy, Research and Problem Solving Skills

- **Develop an interest in everyday economics and learn how it relates to the community in which they live**
 - **Understand and discuss current affairs they relate to economics**
-

Career Options:

- **Economist**
- **Finance**
- **Politics e.g. Local Councillor, Journalist**
- **Banking**
- **Education**
- **TV & News Presenter**
- **Management**
- **Role in Developing Countries**

The Leaving Certificate course covers the following core topics:

- **Mechanics:** Study of forces, energy and motion (7 mandatory experiments)
- **Temperature and Heat:** Study of heat, heat quantities, heat transfer, temperature and thermometers (4 mandatory experiments)
- **Waves:** Study of wave nature of sound, vibrations in strings and air columns, characteristics of notes (3 mandatory experiments) wave behaviour of light. characteristics of notes (3 mandatory experiments)
- **Light:** study of mirrors, lenses, reflection, refraction and the wave nature of light (5 mandatory experiments)
- **Study of static electricity,** electric fields, capacitance, electric current and electromagnetism (5 mandatory experiments)
- **Modern physics:** Study of electrons and their properties; the nucleus, radioactivity and nuclear energy

In addition to the core material there are two options offered.

Option 1: Particle Physics- Extended study of Modern Physics

Option 2: Applied Electricity -Extended Study of Electricity

Leaving Certificate Physics is a very interesting and useful subject. The physics Syllabus does not require Higher Level Mathematics but a good grasp of ordinary level is acceptable.

Rearranging equations, graphs and scientific notation is used.

Students studying Physics should enjoy mathematical calculations, and memorisation of key formulae and equations is essential (for Higher Level).

Practical work is an integral part of the Physics course; students carry out the experiments and keep accounts of work done. This practical work will be assessed in the written exam paper.

This revised syllabus places particular emphasis on Science, Technology and society so that students may relate the various laws and principles to everyday life.

There are two parts to the paper. Section A examines the experiments (do 3 out of 4 questions) Section B examines the theory (do 5 out of 8 questions).

Technology education allows students to understand the technologies which they encounter in their daily life experience. Technology at Leaving Certificate level will allow students to develop the skill set required to face these encounters in a meaningful way. The Technology course is designed to allow students to gain an appreciation and understanding of the complex interface between technology and society whilst empowering them in terms of their own ability to control elements of their physical environment.

The Leaving Certificate syllabus has been developed to provide greater progression from the Junior Cycle, so study of Technology at Junior Certificate level is required.

The Course

The Technology course consists of core areas of study, which are mandatory for all students, and five optional areas of study from which students must take two.

Core Areas:

- **A Process of Design**
- **Project and Quality Management**
- **Materials and Production**
- **Communication and Graphic Media**
- **Information and Communications Technology**
- **Structures and Mechanisms**
- **Energy, Electricity and Electronics**

Optional Areas:

- **Electronics and Control**
- **Applied Control Systems**
- **Information and Communications Technology**
- **Manufacturing Systems**
- **Materials Technology**

The current assessment of Technology is made up of two parts, each with two components:

- I. **Written Examination (50%)**
 - Section A – Core**
 - Section B – Options**
- II. **Project Work - (50%)**
 - Artefact**
 - Report / Portfolio**

The written exam in June is a 2.5 hours Higher Level, and 2 hours Ordinary Level.

The project requires students to undertake a project based on a specified activity brief and within stated parameters. The project involves the design and production of an artefact and an accompanying report / portfolio. The report / portfolio should reflect all stages of the students work from design to realisation and the students own evaluation. This project, including the artefact and report / portfolio is normally due in March of the students Leaving Certificate year.

WHAT IS APPLIED MATHEMATICS?

Applied Maths is the application of mathematics to the real world and physical problems. The Applied Mathematics course at Leaving Certificate would be called 'Theoretical Mechanics' or 'Mathematical Physics' in third level education and it is one of many branches of the more general field of Applied Mathematics. Students are asked to solve problems regarding the behaviour of objects, such as computing the volume of fluid in a container, or finding the optimal angle to throw a projectile at so that it will travel as far as possible. As a result, Applied Maths is excellent for developing strong problem solving skills, which are very valuable for future employment. Applied Maths is very much a practice based subject and students can do well by practicing as often as possible and as many different questions as they can. There are 10 questions on the exam paper, each covering one of these topics in detail. However, the exam only requires the student to complete six questions.

WHY MIGHT YOU CHOOSE APPLIED MATHS?

- Students who are studying Leaving Cert. higher level Maths. This course also helps students studying Physics, due to some overlap in the course content.
- If you are considering a career in any area of Engineering, Science, Information Technology, Architecture or Education.
- There is overlap between some parts of the Leaving Cert Physics course and the Applied Maths course, such as Linear Motion, Newton's Laws, and Circular Motion. Thus it will also help you have a deeper understanding of these topics in Physics.
- As there is a high Maths content in the course it will also give you a better understanding of some parts of the Higher Level Maths course ñ especially Trigonometry, Calculus (Differentiation and Integration)
- It is a relatively short course with 10 topics which leaves plenty of time for revision and practice.
- If you are considering studying any kind of engineering in college, Applied Maths is very important - all engineering students have to study Applied Maths in first year in college and you will have a head start if you have the Leaving Cert course done.

COURSE CONTENT:

Kinematics

Circular Motion and SHM

Relative Velocity

Statics

Ballistics

Moments of inertia

Pulleys and Wedges

Hydrostatics

Our school has some of the best Engineering and Technology facilities any student or teacher could ask for. Along with having the latest and newest machinery the Engineering room is also equipped with an Interactive board, CNC machines and spacious design.

Leaving certificate engineering is the study of mechanical engineering and the students develop the skills and initiative in the planning, development and realization of technological projects in a safe manner.

WHY STUDY ENGINEERING?

This practical subject gives students hands-on experience working with tools and machinery. Students also undertake theoretical and background work for their final examinations which provides the students with useful skills for those considering working in the sector.

Engineering promotes an educational understanding of the materials and a knowledge of the processes associated with mechanical engineering. This is achieved through the development of skills and initiative in the planning, development and realization of technological projects in a safe manner.

You would really have to have done Junior certificate metalwork to have a good idea as to what is involved in engineering. There is a good mix of theory and practice involved in these subjects. Many students enjoy the practical aspect but are not too happy when it comes to the theory. You will have to present a project as part of the Leaving certificate examination, so talk to the teacher involved so that you know exactly the balance between the theory and practical aspect in this subject.

WHAT KIND OF STUDENT WOULD ENGINEERING SUIT ?

Each student should have an aptitude and interest for design and practical work. This subject follows up from Junior cert metalwork.

The Enhanced Leaving Certificate

(LCVP – LEAVING CERTIFICATE VOCATIONAL PREPARATION)

WHAT IS THE ENHANCED LEAVING CERTIFICATE (LCVP)?

This is a programme that is essentially the ‘traditional’ Established Leaving Certificate ENHANCED with two LINK MODULES which are designed to allow the student to have experiences and develop skills sets which will make them ready for Third Level education and the adult world of work.

The idea behind LCVP is to produce students at Leaving Certificate level who have reflected on their future and have a clear idea of their career paths and the best way of achieving their educational and career goals.

HOW DOES LCVP FIT INTO THE LEAVING CERTIFICATE TIMETABLE?

The Link Modules replace P.E. or Study Periods on the student’s timetable.
This does not affect a student’s ability to play team sports.

WHAT ARE THE LINK MODULES?

The LINK MODULES are entitled **The World of Work** and **Enterprise Education**.

Many of the lessons and activities, such as *visiting a manufacturing plant* or having a *local business person talk* to the class, are designed to stimulate the student’s appreciation of entrepreneurship and career focus.

Over the two years of LCVP, the student prepares a Portfolio including Curriculum Vitae, a Career Investigation, an Enterprise/Action Plan, a Summary Report plus 2 other items e.g. a popular choice is a recorded interview.

In addition, the student will organise one 3-day WORK PLACEMENT during a holiday period and must have it completed before starting back to school in 6th year.

These are all activities which every Leaving Certificate candidate will have to tackle in order to be ready to leave secondary school with confidence, knowing what to do after the exam to achieve their goals

In LCVP, students get the chance to do these activities in school time under the guidance of experienced teachers and have the chance to convert their efforts into Leaving Certificate Points for CAO.

WHAT SUBJECTS DOES AN LCVP STUDENT STUDY?

A typical LCVP student studies **7 subjects** PLUS LINK MODULES e.g.

English, Irish, Maths PLUS a modern European Language (Mandatory) PLUS Link Modules PLUS two other subjects (These fall into one of 16 Subject Groupings below)

Vocational Subject Groupings (VSGs)	
Specialist Groupings	
1	Construction Studies: Engineering; Design and Communication Graphics; Technology – Any Two
2	Physics and Construction Studies or Engineering or Technology or Design & Communication Graphics
3	Agricultural Science and Construction Studies or Engineering or Technology or Design & Communication Graphics
4	Agricultural Science and Chemistry or Physics or Physics/Chemistry
5	Home Economics; Agricultural Science; Biology - Any Two
6	Home Economics and Art – Design Option or Craft Option
7	Accounting; Business; Economics – Any Two
8	Physics and Chemistry
9	Biology and Chemistry or Physics or Physics/Chemistry
10	Biology and Agricultural Science
11	Art – Design Option or Craft Option and Design & Communication Graphics
Services Groupings	
12	Engineering or Technology or Construction Studies or Design & Communication Graphics and Accounting or Business or Economics
13	Home Economics and Accounting or Business or Economics
14	Agricultural Science and Accounting or Business or Economics
15	Art, Design or Craftwork Option and Accounting or Business or Economics
16	Music and Accounting or Business or Economics

It is strongly advised to choose your subjects for Leaving Certificate according to your interests and abilities.

Then if your subject choices fall into any ONE of the Vocational Subject Groupings above CONSIDER LCVP.

HOW IS LCVP CERTIFIED?

The student gets the same certificate as other Leaving Cert students but the certificate will include an additional statement of their LINK MODULES

Distinction:	80%-100%	66 CAO Points
Merit:	65%-79%	46 CAO Points
Pass:	50% - 64%	28 CAO Points

Students may count the points awarded towards their CAO points total instead of a subject which received a lower score.

IS LCVP AVAILABLE TO ALL 5TH YEARS?

LCVP is suited to students who wish to go on to further study and students who have done Transition Year and wish to convert some of their TY experiences into points for CAO, who meet the programme requirements.

PLACES ARE LIMITED

THE ENHANCED LEAVING CERTIFICATE – LCVP

Programme Requirements

Programme Requirements for students taking Leaving Certificate Examination:

- At least five Leaving Certificate subjects plus the link modules, one of which must be Irish.
- Two of the above subjects must be selected from one of the designated Vocational Subject Groupings
- Two Link Modules: **Preparation for the World of Work** and **Enterprise Education**
- A recognised course in a modern European Language other than Irish or English

Vocational Subject Groupings (VSGs)

Two subjects are selected from one of the **Vocational Subject Groupings**.

These subjects provide students with a focus for developing vocational skills and exploring their career options.

The Specialist Groupings consist of subjects which complement one another naturally.



DONABATE COMMUNITY COLLEGE

Portrane Road, Donabate, Co. Dublin.

Tel: 01 843 6726

Fax: 01 843 6730

Email: donabatecc@ddletb.ie

School Roll No.: 76104 O

Coláiste Pobail
Domhnach Beathach



etb

Bord Oideachais agus Oiliúna
Átha Cliath agus Dhún Laoghaire
Dublin and Dún Laoghaire
Education and Training Board