

Coláiste Muire

Information and Advice on Leaving Certificate Subject



**FOR
FIFTH YEAR
STUDENTS**



Agricultural Science as a Leaving Certificate option

- Ag. Science is a subject that overlaps significantly (30 - 40%) with Biology as well as aspects of physical Geography.
- The core areas of study are Soil Science, Animal and Crop Production, Genetics, Animal and Plant Physiology.
- It is accepted as a science subject for third level entry.
- Ag science has a project element worth 25% which is teacher assessed and monitored externally by the State Exams Commission. Irrespective of doing Higher or Ordinary level, students generally score very highly in this project section as it is done over a period of a year and a half prior to the written exam.
- Being from an agricultural background, though helpful in certain practical aspects of the subject, it is not essential as it is a science based subject.
- Ag science is gaining in popularity every year with 8000 students sitting the subject in 2014. It offers students an option of considering an agri. /food related, animal science or veterinary science course at third level where employment opportunities are increasing in a rapidly expanding sector.

Choosing the right subjects for you!

Your choice of subjects for the Leaving Certificate may have implications when it comes to choosing your specific career area but it should not be viewed as the ordeal it is perceived to be.

Your decision may be simplified by considering the following:

- Beyond the essential core subjects English, Irish and Mathematics the number of courses and jobs which require specific subjects is in fact relatively small.

There are some exceptions

- A third language is required to gain entry to some NUI courses (UCC, UCD, NUI Galway and NUI Maynooth) including teacher training courses affiliated to the NUI.
- A Science degree normally requires one subject from the science or in some cases the applied science group.
- Note that for direct entry into most third level engineering degree courses one needs Higher Level Maths.

Things to Consider

To maximise your points :

- Identify the subjects you like best, you will obviously work harder at these
- Identify the subjects you are already good at. It is helpful to choose subjects in which you can get high grades.
- Having the essential subjects for the job/course of your choice by:
 - (a) Read through this booklet. List the subjects essential for or recommended for the various careers you have in mind. (see pages 10-12 for faculty requirements for Cork colleges)
 - (b) It is very important that you consult individual College Prospecti and your Guidance Counsellor about subject choice if you have a specific career area in mind

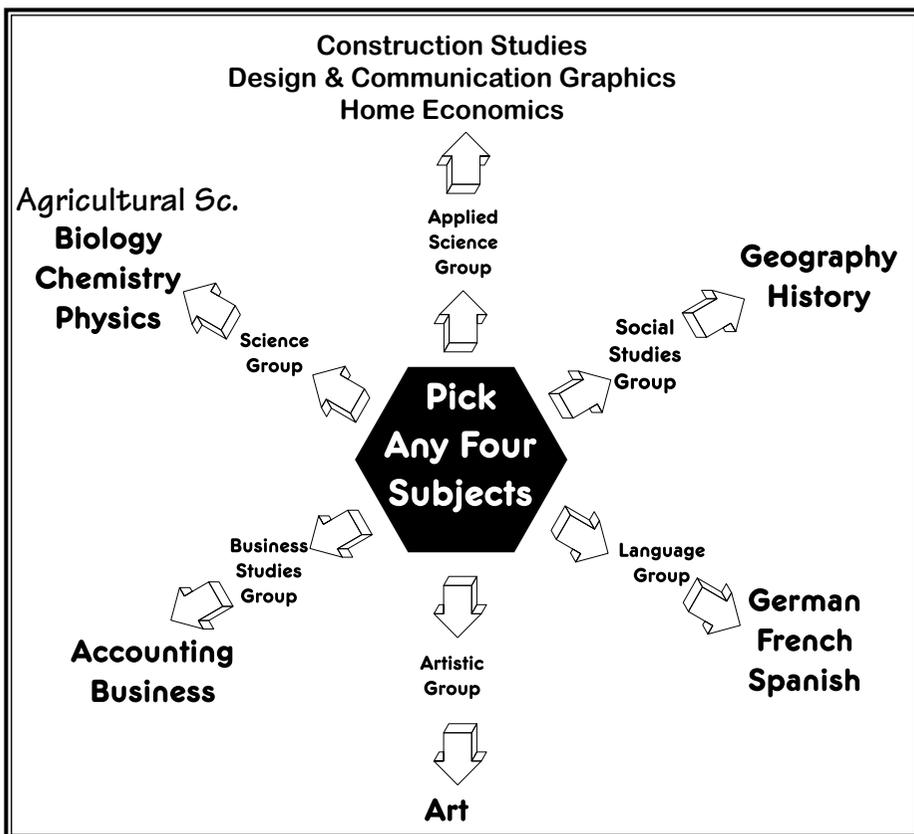
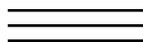
**IF
YOU ARE
UNSURE OF YOUR
CHOICE OF CAREER
AREA CHOOSE
ONE SUBJECT
FROM FIVE
OF THE GROUPS
ON PAGE 2.**

ALL LEAVING CERTIFICATE STUDENTS

TAKE A CORE GROUP OF SUBJECT WHICH ARE



Irish, English, Maths,
Physical Education (PE),
Computers, Religion.



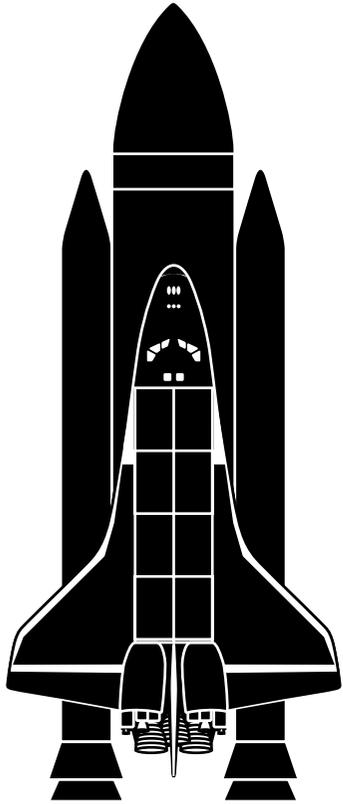
Students at Coláiste Muire also have the opportunity of taking an additional Leaving Certificate subject LCVP if they take Biology, Home Economics and a foreign language.

The Points Scale

- In Leaving Certificate, students are awarded “points” for each individual grade they achieve.
- 25 Bonus Points will be awarded for H1 – H6 in Maths.

Higher	%	Points	Ordinary	%	Points
H1	90 – 100%	100	O1	90 – 100%	56
H2	80 – 90%	88	O2	80 – 90%	46
H3	70 – 80%	77	O3	70 – 80%	37
H4	60 – 70%	66	O4	60 – 70%	28
H5	50 – 60%	56	O5	50 – 60%	20
H6	40 – 50%	46	O6	40 – 50%	12
H7	30 – 40%	37	O7	30 – 40%	0
H8	0 – 30%	0	O8		0

LCVP	Dist 66	Merit 46	Pass 28
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PHYSICS

Physics is a laboratory science and is concerned with the study of everyday things in our world: radios, clocks, pendulums, children's swings, nuclear reactors, space travel to mention but a few.

The applications of Physics are found in every aspect of modern living, optics, engineering, architecture, design, graphics, medicine, communications and computers.

Physics is essential for careers in:

Electronic Engineering (Higher level C and Hon Maths at UCC)
Theoretical Physics (TCD)

Physics is useful for careers in:

Electronics, Engineering
Architecture, Physiotherapy
Radiography, Medicine
Dentistry, Computing
Veterinary Science, Electrician,
Pilot, Heating and Ventilation
Technician, Instrumentation.

The Leaving Certificate Course involves the study of energy in its various forms, light, electricity, sound etc. and the ways of measuring energy.

Mandatory experiments are also a part of the course which gives the student hands on experience of the use of measurements to explore various aspects of physics and its application.



The syllabus is structured around a number of key geographical concepts.

The main areas are:

Physical
Social, Economic
Regional
Fieldwork - 20%
Ordnance Survey Maps and
Aerial Photograph Analysis

Geography is useful for careers in:

Civil Engineering Tourism
Surveying Climate Change
Earth Science Pollution
Town Planning
Architecture
Marine Careers
Meteorology
Civil Service
Airline Pilots
Environmental Studies

Geography

Geography is one of the most interesting, intellectually challenging and relevant subjects for understanding the nature of the world today and the processes of change which are operating in both physical and human landscapes. It gives a broad view of the relationship between the environment, technology and society. It is about the earth and how we live in it.

Geography makes an important contribution towards enabling young people to function more effectively as members of society and this is the intention of the Leaving Certificate syllabus. It helps the student to develop an understanding of the physical, social and economic processes which change this environment.

N.B. Geography fulfills one of the Science subject requirements for Science and Pharmacy courses in TCD.

The study of history is indispensable to a person developing understanding of the human condition and human motivation. In encountering the past experiences of his/her own community, the history student gains valuable insights into the roots of his/her own identity and inherited traditions.

In the new syllabus students study 2 topics relating to Irish history and 2 relating to Europe and the wider world from 1815-1993. There is a strong emphasis on enquiry, evidence, exploration and the links between them.

Each student will complete a research study which is presubmitted and will account for 20% of the total marks. The individual topics will be chosen by the student and foster independent learning and research skills.

Present 5th year students have used the words rewarding and enlightening to describe the new history course - high praise indeed!

HISTORY



Daniel O'Connell



Czar Nicholas II



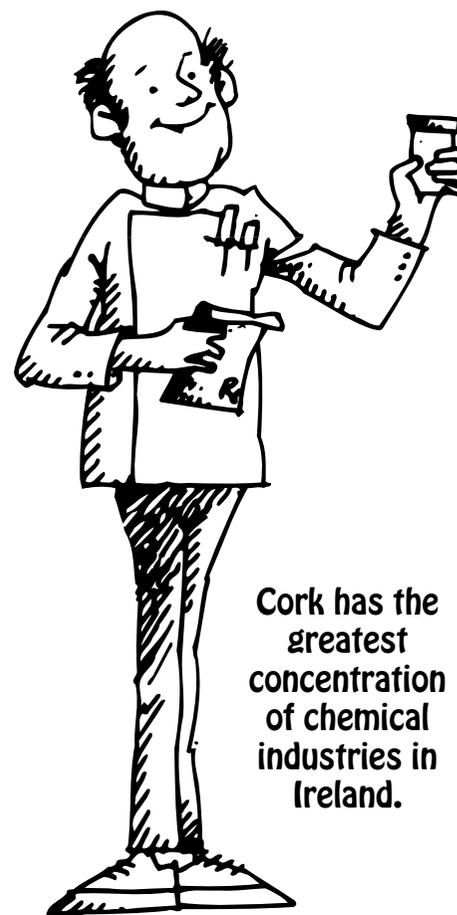
Parnell



Karl Marx

History is useful for careers in:
Law, Journalism, Tourism,
Politics, Teaching, Civil Service,
Broadcasting.

Students who like reading,
analysing and have some
interest in world affairs would
benefit greatly from the study
of History.



Cork has the
greatest
concentration
of chemical
industries in
Ireland.

Chemistry for careers in:
Chemical Engineering,
Pharmacy, Science, Civil
Engineering, Med. Lab Science,
Medicine, Food Process
Engineering, Nursing,
Health Care Services,
Food Process Engineering,
Material Science.

Chemistry

Chemistry is the science of solids, liquids and gases and what they do when they react with each other and how these reactions can be used for the benefit of society. It helps us to understand the world we live in and is a very exciting subject. Medicine, Pharmacology, Engineering Agriculture, Food Technology and Electronics depend on the knowledge that chemistry provides.

Chemistry is Essential for:
Medicine (UCC) -In UCC course
Higher C in chemistry plus
higher C in either Physics or
Biology is required. Dentistry
(UCC). Human Nutrition (DIT)
Med Lab Science (DIT).
Veterinary Medicine UCD all
require Higher C in Chemistry.

The Chemistry Leaving Certificate course changed in 2002. All students must perform about 25 practicals themselves. The examination will have three long questions based solely on these experiments. The theory component has become more focused on applied chemistry, e.g. how an internal combustion engine works.

Biology



Biology is the study of life. This interesting and exciting subject is a laboratory science involving both theory and practical work.

For the consistent student, results show that high grades are reasonably attainable. Memory work is important.

NOTE:
To do Medicine/Dentistry in UCC., two science subjects are required, one of which could be Biology. A laboratory science subject is also required for the degree in nursing. Useful for a career in Beauty & Health.

The two year biology syllabus, is a course designed to give students an introduction to all the various aspects of life on planet earth. The course encourages students to make wise choices regarding diet, medicine intake and exercise. It promotes mature attitudes to body issues and urges students to take responsibility for personal health.

Other topics covered include:

- Cell Biology
- Ecology
- Biochemistry
- Genetics & Evolution
- DNA and Molecular Biology
- Diversity of organisms
- Plant anatomy and physiology
- Human anatomy and physiology
- 22 mandatory lab experiments
- Emphasis on Contemporary issues relating to each unit, e.g. medical concerns, hygiene, recent developments in DNA profiling, stem cell research, emerging viruses etc.

Biology is useful for careers in:
 Environmental Agriculture, Biological and Chemical Sciences, Beauty Therapy, Nursing, Food Science, Medical Laboratory Science, Veterinary Medicine, Dentistry, Marine Biology, Health and Safety areas, Childcare, Horticulture Earth Science, Biochemical engineering

German



Germany is one of Ireland most significant partners on mainland Europe, both in terms of trade and investment. But there is still a shortage of Irish people with a fluency in German across a range of professional and clerical positions, including marketing,

accountancy, electronics and software engineering.

The Leaving Certificate German course, (both ordinary and higher) is structured to meet the demands of the Leaving Certificate Examination paper.

Important aspects of the Leaving Certificate course is the development of the students knowledge and accuracy in reading, writing and listening comprehension in German. Students will read German newspapers, passages by German authors, translating, analysing, and giving their opinions on same.

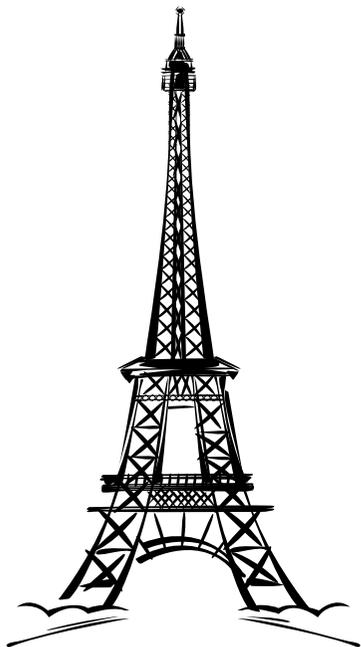
A much greater emphasis has been put on aural(listening) and oral (spoken) German in more recent years. To assist the student in developing fluency in spoken German, they will listen to CDs and answer questions on everyday topics. Students are expected to be able to discuss these topics and others for example family, friends, and their hopes for the future in their Leaving Certificate examination.

Classes are small & student friendly. Individual attention is assured!

PROGRAMMES with German as a major part include:

- | | |
|--------------------------------|----------------------------------|
| Batchelor of arts | BA Language & Cultural Studies |
| B Comm (European) with German | BA Arts & music |
| BCL Law and German | BA Drama & Theatre Studies |
| BA European Studies | Software Development With German |

As the course is very broad independent learning outside the classroom is encouraged. Students wishing to work in EU would benefit very much by having German as a language.



French

The Leaving Certificate course is organised and taught along thematic lines. It develops phrases, which were introduced at Junior Cycle, such as family, hobbies, school, holidays etc. The Leaving Cert. French syllabus aims to aid the student to be able to use the language in a large variety of possible situations. Classroom activities seek to expose the student to French in lots of different ways.

The Leaving Certificate examination in French consists of three components:

- Oral Examination
- Aural Examination
- Written examination (Reading and Writing)

It should be noted that the revised syllabus (1998) contains a strong emphasis on the acquisition of oral and aural skills at Senior Cycle. Students need to find opportunities to listen to/speak and read French outside of the classroom situation. Student autonomy in language acquisition is encouraged and expected by the Department.

French is useful for careers in:

- IT
- Call Centres (Tele-services)
- Tourism, Teaching
- Marketing /Business
- Journalism
- Secretarial Work/Travel Agency

French is essential for:

- Law and French (UCC)
- Commerce and French(UCC)
- European Studies French
- Language and Cultural Studies with French

N.B: It is essential for all students entering any of the NUI Colleges to meet Matriculation requirements which are Maths, Irish, English, and a continental language in most cases.

LCVP

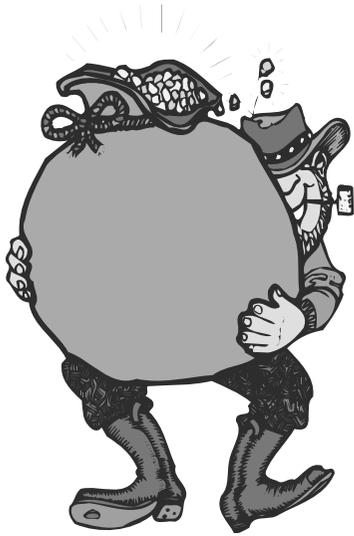
Leaving Certificate Vocational Program

This programme aims to balance the virtues of the traditionally academic Leaving Certificate with the development of skills and qualities which will prove relevant to the lives of students on leaving school. It provides a skill base for further education, the world of work or the business of making a living. It is a very worthwhile programme both for the student personally and academically. The content of LCVP has common ground with the needs of the business community. At practical level, the student who has taken Home Economics with Biology or Business and a foreign language will have an opportunity to link these subjects with three Link Modules which are:

- Enterprise Education • Preparation for Work • Work Experience



- The LCVP Leaving Certificate examination consists of building up a portfolio which accounts for 60% of overall result and will be covered in 5th year.
- A written exam in early May of 6th year will accounts for another 40% of the overall grade.
- One of the many advantages in taking this subject is that it is recognised by both the Institutes of Technology and Universities, who award 66 points for a distinction, 46 for a merit and 28 for pass.



Business

Business provides an excellent foundation of anyone thinking of a business career though it is not an essential subject for any particular course. It develops in students a critical understanding of the changing business environment and prepares them for participation in adult and working life.

Business is useful for Careers in:
Business,
Banking
Administration
Marketing
Purchasing
Hotel/Retail Trade
Merchandising
Insurance

Business is concerned with how organisations are formed, financed and run. It also looks at the services involved in business such as banking, transport, taxation and semistate bodies. It focuses on the importance of Enterprise and Management skills and concentrates on people in business.

Topics covered will be:
People in Business
Enterprise
Social Responsibility

The Business syllabus is a natural progression from Business Studies at Junior Certificate level. It has replaced the former Business Organisation syllabus and will be examined for the first time in June 1999.



Spanish is useful for careers in:
Commerce with Spanish
European Studies Spanish
Telesales, Journalism, Industry
Computing

- It is also worth noting that as Spanish is not as widely taught as French and German in Irish schools, the points for various business courses with Spanish are significantly lower than for those with French or German.
- Many Irish choose to holiday in Spain and increasingly people are travelling to south and central America where Spanish is spoken in over 20 countries. A knowledge of Spanish can really enhance the tourist's experience of their holidays.
- Results in Leaving Certificate Spanish are uniformly high and many student go on to study the subject at University or use it in the working life.

Spanish

The Leaving Certificate Spanish course develops further many of the aims, themes, and grammar points of the Junior Cycle syllabus. At the end of their secondary school life, students are expected to have developed a communicative competence in Spanish, be able to understand authentic language resources (e.g. newspaper articles, literary extracts etc.), and have developed a high level of cultural awareness as regards Spain and the rest of the Spanish-speaking world. There are three components to the Leaving Certificate Examination;

- Oral (worth 25% at HL, 20% at OL)
- Aural (worth 20% at HL, 25% at OL)
- Written (worth 55% at both levels)

Obviously, there is a strong emphasis on the acquisition of oral and aural skills and students are encouraged and advised to seek out as many opportunities as possible where they can help to develop these essential skills.



N.B. An art portfolio needs to be prepared to gain entry to our colleges and many architecture courses and this should be completed under the guidance and help of the Art teacher.

ART

Art is a very important subject at the core of developing a student's visual appreciation and awareness, while continuing to improve their creativity and encourage individuality.

It is highly recommended that students have studied art at Junior Cycle as the skills learned are further developed at senior cycle.

As well as the practical component incorporating drawing and craft, there is also a theoretical component in Art History. An interest in art history and a good command of the English language is helpful with the theory element.

Art is useful for careers in:

- Printing
- Publishing
- Architecture
- Advertising
- Fashion
- Photography
- Marketing
- Teaching
- Television and Theatre
- Web Design
- Curating
- Interior Design

CONSTRUCTION STUDIES



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

Exam Structure

The examination at higher and ordinary levels has three separate components.

Section A Three hour written paper worth 300 marks.

Section B Four hour practical woodwork exam.

Section C Building Project where the student makes a building detail, a scale model of a building or craft piece.

Points to note:

- 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.
- Junior Certificate Woodwork and/or Technical Graphics would be desirable subjects to have taken at Junior Certificate though not compulsory.



Home Economics

(Social & Scientific)

Home Economics is useful for careers in:

Nutrition
Nursing
Teaching
Food Science
Child Care
Hotel and Catering
Science
Social Science

N.B. While it is still recommended for teacher training in Home Economics, it is not a requirement for entry into St. Angela's College for Home Economics.

Home Economics (Social and Scientific) covers topics such as food constituents, microbiology, food preservation, consumerism and social issues, the family and the home. The course is divided into three sections:

- **Food/Nutrition:**
 There is an in-depth study of food, chemistry, food preservation, microbiology and physiology. During 5th year students will do a lot of practical work that relates to the food area and will complete a Food Evaluation Journal which will be worth 20% of the Leaving Cert Exam.
- **Home:**
 Everything to do with a modern household - from building/buying a house, interior design and finance, but to mention a few.
- **Society:**
 This is an introduction to basic Sociology. it includes the study of relationships, attitudes, behavioural problems/patterns, social groupings and social problems.

OTHER ENTRY REQUIREMENTS

Teagasc - Agriculture and Food Development Authority
 Leaving Certificate with a pass in five subjects for most courses. English, Irish and Maths requirements differ in some courses.

Solas Apprenticeships

Minimum entry requirements set out by Solas: Grade D in any five subjects in the Junior Cert. In practice many employers will look for leaving cert standard of education.

Garda Siochana

Leaving Cert with a pass in five subjects to include Irish, English and Maths. (Foundation level Irish and Maths is acceptable.)

Defence Forces

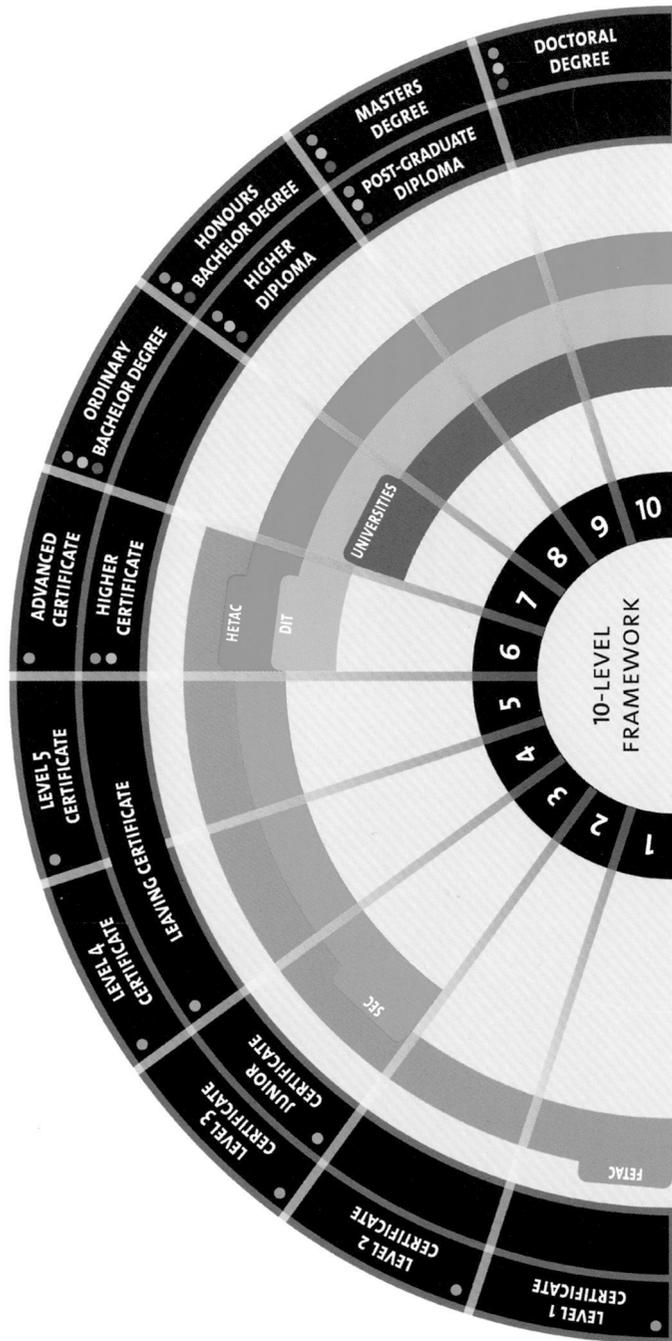
Cadetship: L.C. grade C3 in three higher level papers and grade D3 in three ordinary/higher level papers. Students must pass English and or/Irish, Maths and a modern language.

Recruits: Students need to obtain specific grades in at least five subjects in Junior Cert, which must include English and or/Irish, Maths and two other specific subjects(depending on the apprenticeship).

Colleges of Further Education

For most courses a pass leaving cert is required though not for all courses.

While every effort has been made to ensure the accuracy of the information contained in this document, no responsibility can be taken for any errors or omissions. Students with specific enquiries should always check with their Guidance Counsellor



KEY
 ● FETAC - Further Education and Training Awards Council
 ● SEC - State Examinations Commission (Dept. of Education & Science)
 ● HEAC - Higher Education and Training Awards Council
 ● DIT - Dublin Institute of Technology
 ● Universities

National Framework of Qualifications

INITIAL MAJOR AWARD-TYPES AND AWARDING BODIES

Design & Communications



Course Outline

Assessment of the new course is via

- A Terminal Written Exam (worth 60% of total assessment) examined in one paper of 3-hour duration (instead of the current system of two papers of 6 hour duration). Students are expected to answer:

1) • 3 of 4 short questions in section A of the paper & 2 of 3 long questions in section B, all questions are taken from the Core Syllabus of Plane & Descriptive Geometry

2) • 2 of 5 questions from an Applied Graphics Syllabus (section C of paper)

The syllabus content is outlined below.

Plane & Descriptive Geometry

Projection Systems

Plane Geometry

Conic Sections

Descriptive Geometry Intersections

Developments of Surfaces

Applied Graphics

Dynamic Mechanisms

Structural Forms

Geologic Geometry

Surface Geometry

Assemblies

- Project Work (worth 40% of total assessment) of approximately 40 hours duration submitted on disk and as hardcopy to the Department of Education before the State Examinations commences. The project will focus on modes of design communication with emphasis on Elements of design.

Communication graphics

Use of information and communication technologies in design.

Some examples of modes of communication are a computer parametric modelling package, use of digital media, freehand drawing etc. The terminal exam focuses on the understanding of geometry through graphics using problem solving and lateral thought whilst the assignment develops creative and individual design strategies. Further information can be obtained from Ms. Gallagher D11 or www.t4.ie

Careers

Skills and abilities developed through Design & Communications Graphics are beneficial to many careers and courses particularly in the field of engineering, architecture, design and technology, manufacturing/production technology, industrial/interior design, carpentry etc.

} Core

} Options