

Subject Choices – Donabate Community College

The following is provided to assist parents and pupils with the choice of subjects for the Leaving Certificate. When it comes to making Subject choices it is important to get advice and to choose wisely. There are a number of important aspects to this exercise. From the Leaving Cert subjects options available in our School you must choose your subjects with the following in mind

Note: In the event that too few pupils choose a subject for the class to be viable, or if the subject cannot be timetabled, the school reserves the right to withdraw the subject. If a class is too full, the school reserves the right to request some pupils to make a different choice. However, the school will always attempt to ensure that pupils' choices are met and the above events are very rare.

- 1) There are certain subjects that are essential for entry into particular courses, colleges, and careers.
- 2) Points for third –level courses are calculated on your best 6 subjects.
- 3) In terms of entry to third level colleges almost all subjects (besides Maths) count equally for points.
- 4) It is important to realise that choosing your subject options, you are not locked into specific careers or eliminated from others. You have to do Engineering in the Leaving Certificate to become an engineer.
- 5) The various third level colleges all give the subjects requirements necessary for entry into their colleges and courses in their prospectus. These prospectus for the various colleges will be supplied on request by the Guidance Department.
- 6) When deciding your subjects options never pick a subject under the fallacy that a subject is easy or a doss.
- 7) When deciding your subjects options never leave out a subject, because you believe it is only for swats/nerds/licks.

- 8) Pick subjects that you have enjoyed to date, subjects that you have got good results in to date, ask your subject Teacher for advice on the course content.
- 9) Never pick a subject because, your friends are doing that subject, be true to your interests in choosing your subjects options, and do not hesitate to ask for advice.
- 10) Subject choice should not depend on what teacher is teaching a certain Subject at Leaving Certificate level.

How to Choose Subjects

The most important criterion for choosing subjects should be that the pupil likes the subject and will work well at it. This is the best recipe for success in the Leaving Certificate. After that, parents and pupils should consider carefully whether any subject is **essential** as an entry requirement.

If a pupil is unsure of career choice (as many are), more career options may be available if the pupil chooses a balance between Sciences, Humanities, Business subjects, Languages and Sciences. It is always wise to keep options open.

The sort of criteria which should **not** be used in choosing subjects are who the teacher is likely to be, whether a pupil's friends are going to take the subject, whether an older brother or sister liked the subject or rumours about it. Pupils should disregard the type of league tables published in newspapers about which subject gets the most A grades. The differences are relatively small and, unless the pupil has an aptitude for the subject anyway.

It is usually essential to pass English, Irish, and Maths in the Leaving Certificate, if you wish to proceed to a course in the following Colleges: UCD, UCC, UCG and Maynooth .A pass in another language other than English is required by the following Colleges: TCD, UCD, UCG, and Maynooth

Irish is not needed as an entry requirement into the following Colleges: TCD, DCU, UL, or any of the Institutes of Technology.

A second language other than English is not needed for entry into courses in the following Colleges: DCU, UL, and the Institutes of Technology.

Bonus points for the Leaving Certificate Higher Level Mathematics will be awarded from 2012 onwards in all Colleges.

When you do settle on the career areas you might pursue after your Leaving Certificate, make sure you know the necessary requirements i.e. essential subjects and the minimum grade specified. The colleges adhere to a two-year rule as regards essential subjects and grades, so there is no possibility of any new requirements being introduced once you have started on your Leaving Certificate course.

The Curriculum for Transition year /5th and 6th Year.

1. All pupils take English, Irish and Mathematics and a language.
2. **Four/three** further subjects should be chosen, **Pick one Subject from each line.**

LIST OF SUBJECTS

Art	Geography	D.C.G.	Business	Chem	Home Ec			L1
Art	Biology	Geography	Engineering	Economics	History			L2
Music	Physics	Business	Biology	Technology	Accounting	History	Cons Studies	L3

3. Pupils may do higher or ordinary level papers in all subjects in the Leaving Certificate examination. Higher level papers require both a good standard and consistent work, level considerably above that needed in the Junior Certificate. Pupils should attempt the higher levels in as many subjects as they can realistically cope with, but avoid overloading themselves. It is possible to change from higher to ordinary level at any stage during the three-year course, but very difficult to change from ordinary level to higher level after the first term in Fifth Year.
4. There are three business subjects offered: - Accounting, Business and Economics. However, it is not normally recommended that a pupil choose all three subjects. Pupils who have not taken Business Studies in the Junior Certificate may start Business or Economics in Fifth Year.
5. The Leaving Certificate Economics course gives a good basic knowledge of everyday Economics. It tends to be quite academic and provides a suitable basis for further courses in Business Studies. The Business course is more practically based and is of more immediate relevance to students who are intending to commence a job following completion of the Leaving Certificate.
6. Construction Studies and Technical Drawing can best be taken by pupils who have achieved a reasonable degree of competence in Materials Technology (Wood) or Technical Graphics at Junior Certificate. However, any well motivated pupil should also be able to take up these subjects.

7. Always seek advice from the relevant teachers.

Remember!

- The number of courses and jobs which require specific subjects is quite small.
- It may be a mistake
- (a) Not to opt for a science subject (Practically all science, medical, paramedical and engineering courses require at least a laboratory science subject (Biology, Chemistry, Physics). Some courses at certificate level in I.T's do not.
- To keep all options in the above named areas open in all colleges, it is advisable to choose a second science subject.
- If interested in a specific area check out the admission requirements in the specific colleges:

(a) admission to the college

(b) admission to the specific course

- This may be the last opportunity to study a subject.
- All Leaving Certificate subjects are available at both higher and lower levels.

Essential subjects

A list of essential subjects is supplied in Appendix A

Parents' Meeting

Parents are invited to attend a meeting/Workshop at which they can ask questions and share problems with some of the staff. A meeting is arranged for parents.

If individual advice is required, arrange an appointment with the Guidance Counsellor.

In order to complete the planning of the timetable for next year, it will be essential for us to know each pupil's choice of subjects by 20th May **2011** and the return slip accompanying this document should be sent back to the office by that date.

Key points for Subject Choice for the Leaving Certificate

At this stage in your school career, you, with your parents, will have to choose the subjects you are going to take in the Leaving Certificate. It is important to consider the implications these choices may have on your future third level and career choices. There are twenty subjects on offer in the Leaving Certificate cycle in the school and you will be required to choose four of these. No students will be prevented from entry into any third level course by the options structure. Some, however, may have a difficulty with their 4th/5th subject choice. Any problems can be solved by discussions with the Pastoral Care/guidance department. What you have to do is choose subjects which will give you a good balance, or mix, in order to keep as many options open as possible for your future career choice. It is not recommended that students overspecialise, e.g. take all three Laboratory Sciences, or all three Languages, unless you are sure that these really are the areas you want to specialise in.

when you leave school and that they are course entry requirements. Very few young people of 15 or 16 years of age are sure of what they want to do after school, and may change their minds about possible future careers a number of times over the next couple of years. You can help yourself to make the wisest choice if you keep in mind that entry to many courses and careers from the Leaving Certificate depends, very often, on the standard of the results you achieve, rather than the subjects in which you achieve those standards. It would also help to ask yourself the following questions:

1. What subject am I most interested in?
2. Which subjects am I likely to be best at?
3. What subjects will I need?

The answers to numbers 1 and 2 will probably be quite closely linked. Generally, if you are interested in, and like something, it is easier to do well at it. To see what subject you will need, get a sheet of paper and list any career, third level course and career areas you are even slightly interested in, find out the entry requirements, and list them. This exercise has become increasingly important over the last few years. When you have done all that, remember it is important to make a balanced choice of subjects. This **could** include:

Irish

English

Mathematics

A Continental Language

B Science subject (Physics, Chemistry, Biology, Agric. Science)

C. And 2 other subjects

There are three hurdles to College entry.

1. Matriculation Requirements
2. Subject Requirements
3. Points

1. Matriculation Requirements

The Matriculation Requirement is the minimum academic qualification for entry that a College demands from an applicant. The following colleges require a minimum of a D3 at ordinary level in the following subjects:

N.U.I. English, Irish and a third language

TRINITY } English, Maths and another language

U.L. } Maths and English or Irish

D.C.U. Maths and English or Irish

I.T.s Maths and English or Irish

COLLEGES OF EDUCATION Maths and English and Irish (C3 at Higher level)

OTHERS Vary

2. Course Requirements/Subject Requirements

Beyond the matriculation requirements there are relatively few demands in terms of essential subjects for courses and jobs. However, particular courses may require grades, at certain levels, in particular subjects.

Some examples are:

- If you are considering going to any of the colleges of the National University of Ireland (UCD, UCC, NUI Galway, NUI Maynooth RCSI) a **third language** should be among your chosen subjects.

Please note: In recent years this requirement has been dropped for Engineering and Science

courses in NUI Maynooth and NUI Galway, for Engineering, Science and Agricultural Science

courses in UCD and for Engineering, Science and Food Science courses in UCC.

- If you are considering Medical, Paramedical, Nursing, Science or Engineering courses you should select a **science subject** (or two for some courses) **e.g.**

Medicine/Dentistry – TCD : Higher Level Grade B3 and Higher Level Grade C in two Laboratory sciences.

Medicine/Dentistry – UCC : Higher Level Grade C in Chemistry and Higher Level Grade C in either Physics or Biology.

Medicine – UCD : Ordinary Level D3 in any laboratory Science Subject (Higher Level C3 Chemistry for consideration for 5 year course only).

Medicine – Royal College of Surgeons : Higher Level Grade B3 in a laboratory science (Physics/Chemistry/Biology/Agric. Science) or Maths.

Pharmacy – TCD : Higher Level Grade C in Chemistry

Human Nutrition – TCD : Higher Level Grade C in Chemistry

Veterinary Medicine - UCD : Higher Level Grade C3 in Chemistry.

This is **not** an exhaustive list – please consult college website/prospectus.

3. Points

- Points are allocated to the **six best grades** of an applicant.
- These grades must be achieved in **one sitting of the Leaving Certificate** Examination.
- Entry to a course which is competitive will be granted to those holding the highest number of points.

- The number of points required for any course in any year is not pre-set by any college.
- The points level reflects (a) the results of the applicants for that year and (b) the number of available places for that year on that course.

Entry requirements for Third Level courses vary from course to course, so you must refer now to the

relevant literature or go to the university website. To make your choice of subjects easier, subject

departments have prepared the following notes on the subjects available. The information given is not

exhaustive and, naturally, the circumstances for each individual are different. If in doubt, please discuss with your tutor or one of the Guidance Counsellor/Pastoral Care/Subject teacher.

Some very important points before we go on to the individual subjects:

- Remember that the Leaving Certificate requires a great amount of hard work over two years. It is much easier to work hard if you have chosen, in so far as is possible, subjects which you like.
- The Leaving Certificate also requires a sense of purpose. It is easier to be motivated if you have a clear goal in your sight e.g. to be accepted for a particular course, to get a good job, etc.
- A good level of education can only improve your chances. To do well in the Leaving Certificate also requires some academic ability. Use what you have to its fullest.

These notes are given for your guidance and every effort has been made to see that they are up-to-date and correct at the time of writing. However, as changes may occur, **it is your responsibility** to check and satisfy yourself that these are the correct requirements for your course choices. Please check relevant college website / prospectus.

Leaving Certificate Optional Courses

Accounting

Success in the subject will require that a pupil has a good knowledge of basic Book-Keeping either from Junior Certificate Business Studies. This means thoroughly understanding Double Entry and how a transaction passes through Books of First Entry to the Ledger from which the Final Accounts and Balance Sheet may be prepared.

The syllabus is broadly the same for Ordinary Level and Higher Level. The two main elements are financial and management accounting. The main topics covered under management accounting are costing and budgeting. Topics in the financial section would include bank reconciliation, control accounts, errors, incomplete records, club accounts, manufacturing accounts, departmental accounts, tabular statements, cash flow statements, analysis and interpretation of accounts of P.L.C.s.

The subject is useful for those considering a career in the Business area or going on to study in this area at Third Level. Many professional exams have an Accounting element as part of the course.

It is obviously particularly relevant to those considering Accounting as a career - a qualification which many still regard as a good foundation for higher level careers in industry and commerce.

Applied Mathematics

Despite its name, Applied Mathematics is a theoretical subject. Sometimes called “Maths-Physics”, it is really a branch of Physics.

It is not a requirement for any third level course, but is advantageous for those who go on to study Physics or Engineering.

It is academically challenging, and is unsuitable for those whose Mathematics is weak.

Art

The course consists of three main areas - Art, Craft & Design, History of Art, Art appreciation.

The Art course consists of still life and life drawing, painting, 3D and work in other media, design and craft.

Crafts available include pottery and modelling, puppetry, textile crafts, batik, printing and calligraphy, ceramics, embroidery, graphic design.

The History of Art course covers both Irish and European Art movements and studies paintings, architecture and design, applied arts and crafts.

Assessment at Leaving Certificate is by a written paper in History of Art, and practical examinations in Life Drawing, Composition and Design/Crafts. As well as preparing for Leaving Certificate, students will be helped to prepare a portfolio for entry to Art College, though this will entail doing a considerable amount of work outside school. Portfolio preparation is not part of the Leaving Certificate course - it is mainly for students wishing to pursue a third level career in art or design.

There are many opportunities for talented and interested students in Degree, Diploma and Post-Leaving Certificate Courses.

Job opportunities exist in visual communications film and television, commercial art, craft businesses and in Art, Craft and Design teaching, Arts Administration and Architecture.

Biology

The syllabus introduced in 2002 has been developed in response to current knowledge and application of biology. Account has been taken of the need to include contemporary biological technologies such as DNA profiling and genetic screening. It aims to create in students an awareness of the application of biological knowledge to modern society and to develop an ability to make evaluations about contemporary biological issues.

The course covers a wide range of topics, including cell structure and diversity, metabolism, genetics and human and flowering plant anatomy and physiology. The general principles of ecology are studied, and one particular ecosystem is examined in detail.

An ecology field trip is arranged in the 5th Year. Particular emphasis is placed on the practical aspects of biology, and there are a number of mandatory activities that each student must carry out for themselves.

Business

The topics to be covered include:

- 1 People in business - consumers, investors, producers, employers, unions, etc.
- 2 Enterprise - entrepreneur: characteristics, skills, etc.
- 3 Managing - management skills, communication, finance, insurance, tax, accounts, etc.
- 4 Business in action - marketing, ownership, finance, business plans, etc.
- 5 Domestic environment - types of industry, business structures, etc.
- 6 International environments - foreign trade, trading blocs, E.U., etc.

In summary, it seems that it should provide a general overview of Business.

It would be therefore be of some value from a general educational point of view and particularly relevant to those intending to take a Business related course at third level or to those planning a career in Business.

Chemistry

There are many reasons to study Leaving Certificate Chemistry. Perhaps it is your favourite subject; perhaps it is part of a complementary combination of subjects or a means to an end. Chemistry is the branch of science that deals with what materials (solids, liquids and gases) are made of and the changes materials undergo. Born from the ancient science of alchemy, modern chemistry influences our lives arguably more than any other single technology. The obvious impact of chemistry is seen in the huge variety of materials we use every day. It is often described as 'the central science' and should be considered as complementary to both Biology and Physics.

The Leaving Certificate course is taught in a way that allows extensive experimentation so that you too can experience for the first time the wonder of discovering how substances interact. Laboratory expertise is developed throughout the two years and the balance between theory and practical work helps to make Chemistry both rewarding and enjoyable for those who take it.

Topics studied include: Atomic structure and Bonding, Periodic Table, Chemical calculations, Acids and Bases, Gases, Radioactivity, Environmental Chemistry, Rates of reaction, Equilibrium, Volumetric analysis, Organic Chemistry.

Many careers directly involve knowledge of Chemistry - for example Biotechnology, Medicine, Veterinary Medicine, Dentistry, Food Science, Engineering, Environmental Science, Forensic Science, Agricultural Science, Pharmacy, and Medicinal Chemistry. However, analytical, deductive and observational skills are also developed which are transferable to a wide range of careers.

Engineering

Subject Group: Practical

These subjects are 'hands- on' and involve working with tools and machinery on physical things like wood, metals and plastic. They may involve designing, planning and building things.

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.

Content

Workshop Processes

- Health and safety
- Benchwork
- Heat treatment of metals
- Plastics processing
- Fabrication and finishing of metals
- Machining
- Technology

Materials and Technology

- Health and safety
- Classification and origin of metals
- Structure of metals
- Iron and steel
- Non-ferrous metals
- Heat treatment of metals
- Corrosion of metals
- Materials testing

- Plastics
- Joining of materials
- Machining
- Metrology
- Manufacturing processes
- Technology

Assessment

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

Senior Cycle - Technology

Subject Group: Practical

These subjects are 'hands- on' and involve working with tools and machinery on physical things like wood, metals and plastic. They may involve designing, planning and building things.

Subject Content

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

Optional Modules

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. Reference should be made to the syllabus document for more detailed information.

Electronics and Control

- Electrical Measurement
- Components and Circuit Design
- Power Supplies and Safety
- Electric Motors
- Assembly of Pre-designed Circuits
- Logic Circuits
- Counters and Sensors

Applied Control Systems

- Robotics
- Robotic Control
- Control
- Programmable Devices
- Pneumatics

Information & Communication Technology

- Computer Architecture
- Data Communications
- Computer Networks
- Internet
- Multimedia Design

Manufacturing Systems

- Context of Manufacturing
- Quality Management
- Project management
- Concurrent Engineering
- Manufacturing Systems Design & Control

Materials Technology

- Classification of Materials
- Properties/Structure of Materials
- Structure of Materials
- Materials Processing
- Skills Development
- Quality Assurance
- Production Techniques

Comments:

Students do not need to have taken Technology at Junior Cert to qualify for this course.

It would however be an advantage if students had one of Tech Drawing, Wood Technology or Technology.

Construction Studies

We live in houses and use buildings every day of our lives. The relationship between people and their buildings and between buildings and the environment is most important for our wellbeing and for the health of planet earth. Construction Studies deals with the built environment, primarily focusing on the dwelling house. The technical aspects of construction are covered, as is the relationship of the consumer to buildings. Health, safety and environmental issues are addressed and an awareness of our architectural heritage is encouraged. The course aims to develop the pupils' ability to communicate ideas and by appropriate methods to encourage them to apply accurate observation and scientific investigation through the exploration of materials and processes.

While the subject is of special appeal to those interested in pursuing careers in engineering, architecture and the construction industry etc., it is also of immense practical value to the future home owner/occupier. The subject has a theoretical and practical content, including a major project which is undertaken by each pupil as part of her/his Leaving Certificate Examination. It is an advantage to have studied a technical subject in Junior Certificate.

Students are assessed in three ways for the Leaving Certificate:-

1. A practical woodwork examination in May of the final year (25%)
2. A project of the student's choice. This can be a craft project related to building or woodwork, an architectural model and written report, or a study of a historical building including a model etc. (25%)
3. A written theory paper (50%)

Design & Communication Graphics

Graphic communication is used in all areas of the modern world. Everything from mobile phones to road signs depends on graphic communication for manufacture and usage. Just as literacy and numeracy have been cornerstones of education and development, graphics is now considered an essential skill for interaction with our technological society.

This new subject aims to prepare pupils for encounters with a visual, spatial and technological world. It encourages a creative response from pupils, which makes it a very stimulating course. While the understanding of plane and solid geometry will still have a key role, much more emphasis will be placed on the communication of design ideas and the use of computer aided drafting and design.

The course will be assessed as follows:

1. A course assignment worth 40% of marks in the Leaving Certificate. Computer Aided Design (CAD) will be a significant and compulsory component.
2. A three hour terminal examination paper worth 60% of marks.

This promises to be an exciting, creative and challenging course. It will be of particular interest to pupils considering careers in architecture, design, engineering, graphics, advertising, trades and the built environment but will also appeal to pupils who want to broaden their educational experience. It is an advantage to have studied Technical Graphics for Junior Certificate.

Economics:

Some of the topics covered in the Leaving Certificate Economics course are:-

1. Markets. How they operate and how prices are determined
2. Competition. Perfect Competition and Monopoly. What are they? How do they affect consumers?
3. The Government and economy. What are the objectives of government economic policy and how do they affect the community?
4. Employment and Taxation.
5. Money, Inflation, Interest Rates and Exchange Rates. What causes changes in Interest Rates and Exchange Rates and how do these changes affect everybody?
6. Trade. Why is trade so important to Ireland? What influences the level of our exports and imports and how do changes in these affect the whole economy?

Benefits from the study of Economics

- A better understanding of current affairs
- A developed knowledge about how this country is governed
- To develop an understanding and an interpretation about our economy and the E.U.
- learn to think clearly and logically
- learn to present a reasoned opinion on economic matters
- Understanding of key concepts in economics

This will be to the advantage of the student who continues on to 3rd level for courses in Arts, Science, Engineering, Medicine and Business Studies. In Donabate Community College the course is taught at Leaving Certificate Higher Level but since the syllabus is common to both levels students are also prepared for the Ordinary Level Paper.

Geography

Geography is concerned with the study of people and their environment. It helps students develop an understanding of their physical and human environment. The syllabus is presented in the Year of core, elective, and optional units. Each unit is sub-divided into topics for study.

Core Units

Core unit 1 Patterns and processes in Physical Geography

Core unit 2 Regional Geography.

Core unit 3 this is a field study which is **compulsory for all students** and students must submit a report of an investigation. The date of the report is determined by the Department of Education & Science, usually April of 6th year.

Elective Units

There are two elective units consisting of
Elective unit 4 Economic activities **or**
Elective unit 5 Human environment

Optional Units

For those taking Higher Level, students must also take one Optional unit from a range of choices.

History

The new course for Leaving Certificate History is divided into fields of study from which students will study four topics - two from Irish history and two from the history of Europe and the wider world. The later modern fields of study are from 1815-1993. Political, social, economic and cultural history is all covered, making it very relevant to the world we live in today. Students gain a good understanding of the background to modern politics and of national and international events.

An enquiring mind is a trait of the good history student while the ability to develop arguments always backed up with solid evidence is an important outcome of the study of the subject. The skills developed in this course include essay writing, research, and analysis while the preparation of the research component also affords the opportunity to gain experience of independent study.

The course is designed to be taught at ordinary and higher level. There is a greater variety of assessment than in the old course:

- A research study for both ordinary and higher level students which will be completed and submitted before the Leaving Certificate examination. (20% of the final mark will be allocated to the R.SR).
- The exam paper at O.L and H.L has more variety of questions and also has a documents-based question. (The remaining 80% of the final mark will be allocated to the exam.)

Like most Arts subjects, history at university, either studied by it or combined with other subjects like politics, languages or economics leads on to a wide variety of careers in law, business, teaching, journalism or the civil service including foreign affairs.

Home Economics

The Home Economics course is divided into three core areas and three electives. The core areas are Food Studies, Resource Management & Consumer Studies and Social studies. Classes must also choose one of three electives; Home Design & Management, Textile, Fashion & Design or Social studies.

Practical work is viewed as an integral component of the new syllabus and students complete a practical journal which is worth 20% of their mark. There is a greater emphasis on student involvement in the learning process. The new course is a continuation of the Junior Certificate course. While not essential, it is beneficial to have studied this subject to Junior Certificate level.

Home Economics is an important subject for all young people. It is concerned with the way individuals and families manage their resources to meet physical, emotional, intellectual, social and economic needs.

It prepares students of both sexes for life in a consumer-oriented society and provides a good knowledge and skills-based learning foundation for those seeking employment in a wide range of careers.

Modern Languages

Modern languages are popular subject options in Transition Year. Three languages are taught: French, and Spanish, and pupils may study all three of these if they so wish. The great majority of pupils will sit the Leaving Certificate exams at higher level.

It is recommended that all students seriously consider taking a modern language in view of the requirement at NUI and many other third level colleges.

Since the introduction of the new Leaving Certificate exam papers in 1997, a great deal of extra emphasis has been laid on oral competence as well as the abilities to understand both the spoken and written language. Pupils develop also a high competence in letter writing.

They learn to describe and debate social topics of general interest to young people. Grammar is also not forgotten, but is part of an overall integrated approach.

Pupils are encouraged to avail themselves of the opportunities within the school to go on an exchange or to attend one of the increasingly popular residential courses in Ireland or abroad.

Music

The revised Leaving Certificate syllabus came into operation from September 1997. It is designed to be a continuation of the Junior Certificate. There is a continued emphasis on the integration of the three activity areas; performing composing and listening. Performing can be a group or individual activity and may be up to 50% of the assessment. Students will acquire a working knowledge of composing skills, i.e. melodic and harmonic composition including the addition of chord symbols and composing supportive bass and backing chords to a given time. The listening area includes a wide range of music from a Bach cantata to Bohemian Rhapsody by Queen. This syllabus emphasises the importance of active learning and provides a well-balanced musical experience. A further option now includes music technology.

Physics

Physics at Leaving Certificate is a mixture of practical work and theory. Why is the sky blue? Where does the earth's magnetic field come from? These are some of the questions that arise in Physics. There are about twenty compulsory experiments to be undertaken by the students themselves.

Topics: Mechanics, Heat and Temperature, Electricity and Magnetism, Electrostatics, Atomic Physics, Waves, Sound and Light, Nuclear Physics and Particle Physics.

Prerequisites: Good algebraic skills.

Career Prospects: Physics deals with the Laws of nature. It is of fundamental importance in technology and vital for courses in engineering and science. Some paramedical courses require knowledge of physics.

It is essential for Physics (HB) at T.C.D. and Electrical/Electronic Engineering (HC) at D.I.T. It is useful for careers in: Architecture, Astronomy, Biophysics, Computer Science, Engineering, Geophysics, Health Inspector, Medical Laboratory Science, Medicine, Metallurgy, Meteorology, Nursing, Oceanography, Optometry, Pharmacy, Physics, Photography, Pilot, Radiography, Science Technician, Telecommunications.

Religious Education

The RE syllabus supports the development of the inquiry, thinking, and problem solving skills central to the Leaving Cert programme. The course aims to explore issues such as meaning and value, the nature of morality, the development and diversity of belief, the principles of a just society, and the implications of scientific progress.

The **course** consists of three units:

Unit One

The Search for Meaning and Values

Unit Two - Any two of:

Christianity: Origins and Contemporary Expressions

World Religions

Moral Decision Making

Unit Three - Any one of:

Religion and Gender

Issues of Justice and Peace

Worship, Prayer and Ritual

The Bible: Literature and Sacred Text

Religion: The Irish Experience

Religion and Science

Assessment consists of two components

1. Coursework

2. Terminal written paper

Students' personal faith commitment and/or affiliation to a particular religious grouping will not be subject to assessment.

Possible future courses/careers: Arts, Law, Journalism, Education, and Social Work

APPENDIX A

Essential subjects

This may mean:

(a) A pass in the subject is all that is required

(b) A certain grade/level is often required.

(c) Combinations of certain subjects.

This is not an exhaustive list. It is very important to check matriculation requirements and/or any other specific subject or subject level requirement for the courses you are considering. The school does not take responsibility for the completion or accuracy of this list. It is the responsibility of the individual pupil to check essential requirements. This list is provided as a guideline only.

SCIENCE

1. B.Sc. in Applied Mathematical Sciences in D.C.U.

Higher Course Maths + Higher Course in Physics/Chemistry/Biology/Economics

2. Environmental Health, Analytical Science, Biotechnology, Applied Science and most Third Level Science Courses - a science subject essential.

3. Human Nutrition –

Medical Laboratory Science (DIT) Higher Course Chemistry essential.

4. Nursing –

A Science subject required - normally Biology (some courses require higher level). A modern language is required for the NUI system.

5. Occupational Therapy, Radiography (T.C.D.) – one science subject.

6. Pharmaceutical Technician - a science subject essential.

7. Pharmacy & Science (T.C.D.) –

Geography accepted as one of the two science subjects. Higher Course Chemistry will be required for Pharmacy.

8. Physics desirable for **Radiography, Meteorology, Naval Cadet, Ophthalmic Optics, and Engineering Courses.**

9. Science subject essential to study any of the following at N.U.I.: **Medicine, Architecture, Veterinary, Science, Agriculture, Food Science, Engineering, Radiography, Physiotherapy** –Medicine/Dentistry: UCC: Higher Course Chemistry + Higher Course Biology or Physics. Veterinary Medicine UCD: Higher Course Chemistry.

10. 2 Science subjects essential to study any of the following at Trinity College: Medicine, Dental Science, Pharmacy, Physiotherapy, Science.

11. Speech Therapy (T.C.D.) –

Higher Course Science or Maths.

12. The third language requirement for **UCD science courses** no longer applies.

13. The third language requirement for **Maynooth Engineering courses** no longer applies

MATHS

1. Accounting Technician - O.L. Accounting accepted instead of Maths in some courses.

2. Computer courses - increasingly degree courses require higher Mathematics.

3. Degrees in Engineering/Science

Most Engineering courses require Higher Course Maths. Some Maths courses, Check course entry requirements in individual colleges. Some UCD courses do not require usual NUI 3rd language requirements.

LANGUAGES

1. Applied Languages – Higher Course in languages to be studied.

2. Journalism – Higher Course English generally required.

3. The third language requirement for all science courses and some engineering courses in UCD no longer applies.

ALL OTHERS

1. Architecture - the usual NUI requirements and 1 science subject for UCD and DIT - Art and/or Technical Graphics desirable

2. Art at NCAD: The usual NUI requirements but either a modern language or Art, in addition to the usual portfolio requirement.

3. Business subjects are not essential for entry into any **Business College** but they do provide an excellent foundation for any business career. Marketing courses usually include a language component.

4. Defence Forces - Irish or English, + Mathematics or Applied Mathematics, + Continental language (3 C grades and 3 pass grades).

5. European Studies, Law and European Studies – Higher Course in French, German or Spanish.

6. Hotel and Tourism: increasingly courses require a continental language.

7. Primary Teaching - Higher Level 'C' Irish

Master chart of essential subjects by college: <http://www.skooool.ie/skooool/parents>

