



TERENURE COLLEGE

TRANSITION YEAR 2021

**LEAVING CERTIFICATE
SUBJECT CHOICE**

Transition Year

Subject Choice Information 2021

In order to gain entry to universities and colleges in the Republic of Ireland it is essential that you satisfy both the entry (matriculation) requirements of the university or college to which you are applying and the specific entrance requirements for the **faculty** that you wish to enter. In **choosing subjects for Leaving Certificate** it is essential that you make sure you have included all the possible entry requirements you might need.

Full details of entry requirements to any university or college in the Republic of Ireland can be found on the relevant **college website** or along with full course descriptions at www.qualifax.ie. Another very useful website is www.careersportal.ie.

I would ask you note the following (only subjects on offer in the college are mentioned and grades indicated are minimum grades):

Leaving Certificate Grading Scale

(Pre 2017)			Points at Higher Level	Points at Ordinary Level
H1 / O1	(A1)	90<100 %	100	56
H2 / O2	(B1/A2)	80<90 %	88	46
H3 / O3	(B3/B2)	70<80 %	77	37
H4 / O4	(C2/C1)	60<70 %	66	28
H5 / O5	(D1/C3)	50<60 %	56	20
H6 / O6	(D3/D2)	40<50 %	46	12
H7 / O7	(E)	30<40 %	33	0
H8 / O8	(F)	0<30 %		

Minimum Entry Requirements

National University of Ireland

Constituent Colleges of the **National University of Ireland**, NUI Colleges are:

- **University College Dublin**
- **University College Cork**
- **National University of Ireland, Galway**
- **Maynooth University**
- **Royal College of Surgeons in Ireland**
- **National College of Art and Design**
- **Shannon College of Hotel Management**
- **Institute of Public Administration**
- **St. Angela's College, Sligo**

Subjects required for matriculation for NUI Colleges

Leaving Certificate examination from 2017 onwards

Candidates must obtain a pass in at least six subjects selected according to college/faculty requirements with at least Grade H5 in two subjects on the Higher Course and at least Grade H7 (Higher Course) or O6 (Ordinary Course) in four subjects.

For entry to all degrees, **English, Irish**, and **four** other subjects in the Leaving Certificate are required.

A **third language** must be included among the other subjects for **Arts, Human Sciences, Law, Social Science, Commerce, Medicine and Health Sciences and some other degrees.**

For Commerce the subjects presented must include **Mathematics**, and for courses in the Sciences (i.e. Science and also Agriculture, Engineering, Food Science and Technology, Medicine, Dentistry and Health Sciences, Veterinary Medicine) **Mathematics and a Science subject.**

Trinity College Dublin and University of Limerick

- Six subjects with a minimum **Grade H5 at Higher Level in three subjects** and at least **Grade O6/H7** in **three other subjects.**
- They require a grade (**O6/H7**) in **English, Maths and another language.**

Dublin City University, DCU

- six subjects with a minimum **Grade H5 at Higher Level in two subjects** and at least **O6/H7** in four other subjects.
- a grade **O6/H7** in **Maths and English or Irish.**

Language Requirements

O6/H7 in Ordinary Level Irish is essential for entry to the NUI colleges. They also require a pass in a third language (e.g) French, Spanish for some faculties. Faculties that are excluded from the third language requirement include **Science, Engineering, Agriculture and Nursing.**

(If a student is has been exempted from the study of Irish and third language because of a Specific Learning Disability (SLD) affecting basic language skills then a form must be sent to NUI with evidence of disability).

Higher Level Irish

A **Higher H4 in Irish** is required for **Primary Teaching.**

Higher Level English

A **Higher H5 in English** is required for **Journalism in DCU and TUD. A Higher H5 for Communication Studies at DCU, Clinical Speech and Language Studies and English Literature at TCD.**

Science in UCD no longer has a third language as an entry requirement but you do need an **O2/H6** or better in a laboratory science subject for admission.

The vast majority of courses in DCU and require a O6/H7 in Irish or English.

Trinity requires a pass in English and a language other than English.

Exemptions from Irish and third language requirements are available on the basis of serious dyslexic conditions. Those born outside the Republic of Ireland are exempt from the Irish requirement for entry to the colleges of the National University of Ireland.

Higher Level Mathematics

For direct entry to an Honours Degree (level 8) course in **Engineering** the normal requirement is a **H4** or above in **Higher Level Maths.** Bonus points for Higher Level Maths are awarded by the seven Universities, DIT and RCSI for those who achieve a **H6** or above. **Students who receive a H6 grade or higher will be awarded an additional 25 points for their exam.** The six highest scores in a single sitting of the examination are then added to give an applicant's total points score.

Economics and Finance in UCD also require a Higher Level H5 whereas Actuarial and Financial Studies in UCD requires a Higher Level H2. A Higher Level H4 is also required for Management Science and Information Systems Studies and the Computer Science courses in Trinity. Higher Level H3 is required for entry to the B.Sc. Actuarial Maths and the Common Entry into Actuarial, Financial and Mathematical Sciences in DCU.

An **Ordinary Level O2 in Maths** is required for Commerce/Commerce International, Business and Law, Science, Computer Science, Archaeology and Geology, Sport and Exercise Management in UCD.

Biology, Chemistry, Physics

Many **Science** related courses, for example Engineering, Biotechnology and Physiotherapy have a Science entry requirement. Please check Admission Brochures and or www.qualifax.ie.

In general I would advise all students to choose at least one science subject.

Computer Science

From 2020 the new subject Computer Science will meet the requirement for a Lab Science subject for matriculation for **Science in UCD, Maynooth and DCU. While acceptable as a subject for general matriculation, it will not meet the requirement for a Lab Science subject for matriculation in Engineering in UCD.**

Medicine

- **Trinity** has a requirement of a Higher Level grade H3 and a grade H5 in two of these.
- **UCD** has a requirement of a grade O6 at Ordinary Level in a single **laboratory** science subject, however there is a possibility of “skipping” the pre-medical year in UCD if a student offers a H5 in Higher Level Chemistry and H5 in Biology or Physics.
- **UCC** has the requirement of a Higher Level H5 in Chemistry and also a Higher H5 in either Biology or Physics.

For students applying for Medicine in the UK they should choose two of these subjects. Current advice would be to choose **Chemistry and Biology.**

Veterinary Medicine in UCD requires a **Higher Level H5 in Chemistry.**

Pharmacy in Trinity also requires a Higher Level **H5 in Chemistry**

(along with a Higher Level H4 in one of Physics, Biology, Maths, Geography or Applied Maths, Agricultural Science).

For **Pharmacy** in UCC the requirement is a **Higher H5 in Chemistry and a Higher H4 in either Biology or Physics.**

Accounting, Business, Economics

While it is advisable for those who intend studying business, commerce or finance to choose at least one of these subjects they are not usually required for entry purposes.

Geography/Applied Maths.

There is a lot of confusion surrounding this. Geography is considered a Science subject for entry only to a **small group of Trinity College courses** including **Science, Pharmacy, Medicinal Chemistry and Earth Sciences.** Applied Mathematics may be used to meet the Laboratory Science requirement for **Science and Archeology and Geology** in UCD. **From 2014 Geography** may be used to meet the requirement for **Science and Archeology and Geology ONLY** in UCD.

Other Subjects

Subject Choice is all about balancing what you are good at and enjoy with what will get you the best possible points total. To assist you in this process you should consult not only your Guidance Counsellor but also subject teachers.

Keeping it simple

Most students will choose Maths, Irish, English, and French or Spanish. To keep options open students are strongly recommended to study a science subject. This narrows the effective choice down to only two subjects. To assist with the final choices consult the entry requirements, consult subject teachers, consider which subjects are most likely to yield maximum points and discuss these with me at the subject choice meeting. **Points count, so study as many higher level subjects as possible**

Finally: I have tried to present the “minefield” of Course Entry Requirements in a “user friendly” way. **It is very important to note that they do change, new courses are constantly being introduced and others discontinued. Especially with the New Leaving Certificate Grading Scale, it is essential for students and parents to research and consult the prospectus for each college carefully and check the entry requirements** to satisfy yourself that the information I have provided is correct.

Subject Choice Guidelines

When choosing from the list of subject options, it is important to remember that the Leaving Certificate is a general education, and the desirability of a balanced education cannot be overstressed. Most people will change their career several times in the course of their working lives. Therefore, a future career should not be the only determining factor in deciding which subjects to choose. Many factors have to be taken into account when deciding which subjects to take. These factors include:

- Your interest or liking for a subject.
- Your aptitude towards a subject.
- The value of a subject for your own personal development.
- Whether or not it is *necessary to keep options open*.
- *Points count* so will it be a subject you can get a good grade in.
- The relevance of a subject for a particular career.
- If a subject is an *essential requirement for courses at third level*.
- If a subject will be useful for a particular course.

Points Requirements

Points are calculated from your **best six subjects**. There are bonus points awarded for honours Maths. (A H6 or above in Higher Level Maths will be awarded an extra 25 points).

Subject Choice

Be informed!

In making a subject choice it is important to be **informed** about the subject and what is involved in it as much as possible. For more information on all Leaving Certificate subjects:

- Reflect on your experience of this subject at Junior Cert Level
- Reflect on what was taught in the transition year module.
- Talk to individual subject teachers
- Check out www.ncca.ie and check syllabus/curriculum
- Browse a current textbook
- Check out www.examinations.ie and look at previous exam papers
- Talk to a fifth year student who is taking the subject
- Talk to a sixth year student who is currently finishing this subject.
- Watch the teachers videos.

Physics

Physics has a very strong **Maths Component** and requires learning off many formulae. It develops understanding of many of the ordinary things that surround us including heat, light, electricity and magnetism. It uses Maths and equations to describe and predict phenomena. Physics develops an analytical way of thinking that is very useful in *all* science courses as well as computer courses. Engineering courses have a high physics component particularly electrical and electronic engineering, Some pharmaceutical courses will involve the study of physics for example, radiography and physiotherapy.

Chemistry

Chemistry is the study of the composition of matter and the changes they undergo. The scientific principles underpinning chemistry involve everything in everyday life, from the clothes we wear to the food we consume, the materials we use, the DVD we watch – absolutely everything around us, including everything we are made of. It is very useful for *all* science courses as well as engineering courses and all medical and pharmaceutical courses. Please note if a student is likely to study science or engineering or a medical course, it is highly unlikely that he will be able to avoid Chemistry or Physics at third level. Chemistry is seen as an important component in medicine, pharmacy and veterinary science. Indeed Chemistry is compulsory for Veterinary in UCD and Human Nutrition and Dietetics in DIT and will reduce a medicine degree by one year in RCSI and UCD. If applying for Medicine in the UK Chemistry is a must.

Biology

Biology is the science of all living things. It includes the study of the main systems in the human body, which is very useful in terms of general knowledge relating to health issues. It forms the knowledge base for many science based courses including Nursing, Medicine, Physiotherapy, Dentistry, Veterinary, Genetics, Environmental Science, Food Science and many other technology based courses. It would be a mistake to view Biology as an easier subject than Physics or Chemistry. Doing well in **Biology requires a good memory and a willingness to *learn off*.**

If you are sure that you will be doing some form of science/technology/engineering course it is recommended that you take two sciences.

Taking no science subject for the Leaving Certificate can rule out a large number of third level courses.

Business

Business is concerned with understanding the environment in which business operates. It covers areas such as consumers, producers, investors, employers, employees, industrial relations, entrepreneurial skills, management, human resources, marketing, and the different types of business. Students will learn to make informed business decisions, understand the structure of management, use commercial principles and knowledge, and appreciate the ethic of business. In addition students will practice communication, literacy, numeracy and problem solving skills. This subject is very similar to the Junior Cert business (without the bookkeeping component) and is very useful for careers/courses in Marketing, Commerce, Finance, Accounting, Actuarial Studies.

Accounting

The Leaving Certificate Accounting Course is the same syllabus for both Higher Level and Ordinary level. **The difference being not the type of questions being asked but the level of difficulty of the questions.** While it is a practical subject, more and more theory is being asked and cannot be ignored.

The double entry bookkeeping that was done in the ledger/record books in Junior Cert is **not** on the course.

At Leaving Certificate level analysis and interpretation of accounts is a core activity. It requires the student to think in an analytical, mathematical and logical manner. Although it is not an essential requirement for any business course, it can be useful for those wishing to pursue any third level business related course as most business courses will have an accounting component. It is also useful for careers/courses in banking, insurance and actuarial studies.

There are 12 different areas of accounting on the course (five of which are based on the Trading, Profit and Loss account and Balance sheet covered in Transition year)

1. Trading Profit and Loss Accounts (as done in Junior Cert and Transition year but with more adjustments)
2. Ratios/interpretation of accounts (as touched on in Junior Cert)
3. Budgeting
4. Costing
5. Cash flow Statements
6. Incomplete Records
7. Service firm/Club/farm accounts (As done in junior Certificate but with a Deeper Understanding required)
8. Control Accounts
9. Depreciation/revaluations
10. Correction of Errors and Suspense
11. Publish Accounts (another form of trading Profit and Loss accounts)
12. Tabular Statements

Economics

Economics is the study of how markets operate, international trade, inflation, national debt, unemployment, taxation, interest rates, government policy and the principles behind how a modern economy operates. There is no difficult leaving Cert Maths in Economics but students need to have the ability to think clearly and logically and be able to comprehend abstract ideas. A lot of material is represented graphically and theoretical aspects of the course are then related to current situations in the real economy. All business courses contain an economics component. Economics is useful for courses/careers in business, accounting, the civil service and banking. Economics also develops critical thinking and analytical skills that are useful in Journalism and Law.

History

One of the main skills developed during the study of History is acquiring a critical approach to information. You will learn to develop an informed opinion about issues. You will also learn to recognise the complexity of issues and the need for balance when dealing with controversial and important events. You will learn to see issues from a wide variety of perspective (e.g. Political, social, economic) and learn to support an argument, organise ideas, express clear opinion and reach balanced conclusions. Reading and essay writing are central to this subject.

There are five sections in Leaving Cert History.

- The Research Report
- The Documents based question
- Irish History 1912-1949
- Northern Irish History 1949-1992
- European History 1920-1945

The Research Report is worth 20% of LC and can be based on any topic of your choice. The Research Report is submitted to the State Examinations commission in April of your Leaving Certificate year.

The Documents Based Question tests your skill of comprehension and criticism on two contemporary original historical sources. The SEC prescribe the topic of study and for your LC year group the topic is The collapse of European colonial empires.

There are three specific case studies:

- British withdrawal from India 1948
- The Katanga (in Congo) Succession 1961
- Race relations/ riots in Paris in the 1980s

‘The pursuit of sovereignty and the impact of partition, 1912-1945’ covers the topics:

- 1916 /War of Independence to the Treaty,
- the role of W T Cosgrave and Eamon de Valera,
- Ireland during WWII.

‘Democracy and Dictatorship in Europe 1920 -1945’ covers the topics:

- Hitler and the NAZIs/ Mussolini/ Stalin in USSR
- Propaganda and the Nuremberg Rallies
- Life between the wars

‘Northern Ireland politics and society, 1945-1992’ covers the topics

- Civil Rights/ Provisional IRA/ British Army
- The Apprentice Boys of Derry and the start of ‘the Troubles’
- The Sunningdale Agreement and the collapse of the power sharing executive, 1974

The last three topics are examined by an essay question in the LC. There are four essay questions in each module and you have to write one essay for each module ie three essays.

History suits:

- ✓ those who are curious
- ✓ those who are interested in the news and current events (today’s news is tomorrows history)
- ✓ those who are good at English
- ✓ those who enjoy history documentaries/ films

What good is History? History teaches you.....

- to think critically and construct logical arguments
- to recognise bias and to ‘interrogate the evidence’
- to write in a structured way
- nearly everyone has an opinion on History – you will never be lonely

Career options for history graduates include Journalism, Law, Politics, Education Public Service – especially The Diplomatic Service.

Agricultural Science

Agricultural science looks at the science behind farming. Students study many areas including animal diseases, crops, farm machinery, animal production and genetics. It is currently the only leaving cert science subject with a coursework component. This project comprises 25% of the overall grade with the exam comprising the remaining 75%

Practical work is heavily encouraged and students undertake practical experience of agriculture through trips to the ploughing championship as well as farm walks at UCD Lyons estate. The subject also compliments students who study biology and geography as there is a substantial overlap between the these subject areas. This is an excellent subject for students who enjoy practical work and want to understand agriculture and its role in society better.

Geography

Geography is one of the optional subjects for the Leaving Cert but as you have all done it for the Junior Cert it is one that you are familiar with. The course builds upon the Junior Cert and assumes a good knowledge of the Junior Cert material but it is done in more detail. Some chapters are not done in the same way or left out altogether: for example, in the Junior Cert you had to learn about how the weather operated whereas for the Leaving Cert you only need to recognise the symbols on a weather chart and say what kind of weather will occur. Population and settlement are also left out.

The course is divided into several sections but the ones we do are as follows:

A. Physical

- Plate tectonics, Volcanoes and Earthquakes
- Rocks
- Folding and Faulting
- Weathering
- Karst regions
- Rivers, Seas, Glaciation and Mass Movement
- Maps & Aerial Photographs
- Weather charts

B. Regional

- What are regions?
- Ireland – Dublin & Western Region
- Paris Basin & Mezzogiorno
- South-west U.S.A.
- Regional changes

C. Economic

- How do we measure development?
- Levels of economic development
- The global economy
- The effect of the E.U. on Ireland
- The environment

D. Geocology (Higher Level Question)

- Soils
- Deserts

E. Fieldwork Project (20%)

Sections A-D have three questions each in the exam but only one from each section may be answered. Each question has three parts while the Higher Level Question is a long answer and there is only one of those to be done. There is also a short question section. The Fieldwork Project is carried out in September/October of Sixth Year which involves going out of the school to measure some things – usually in a good sized river. There are at least two attempts at writing it up afterwards and it is formally written up in May of Sixth Year.

Please be aware that doing geography as an extra subject in the Institute or elsewhere is not an option as the Project has to be done in your normal school and the Institute cannot verify it for the Examinations Commission.

Talk to the Fifth or Sixth Years and look at the books they are using. It would be a good idea to talk to the teachers who are teaching the Leaving Cert program as they can tell you more about it.

Home Economics

The Home Economics syllabus consist of a core and three electives

The core consists of three areas

Food studies – 45%

Resource Management and Consumer Studies – 25%

Social Studies – 10 %

One elective is also chosen – 20%

Home Design and Management elective or Social Studies elective chosen.

Food Studies

This area includes study of (1) Nutrients and food choices

(2) Diet and health (3) Preparation and processing of food-

Practical cookery classes held frequently to allow students to develop skills in the preparation, cooking and presentation of food.

Resource Management

This area includes study of (1) components of management, management of household financial resources, housing, household technology and a very short section on textiles.(2) Consumer studies – rights/responsibilities and consumer protection.

Social Studies

This area includes study of sociological factors affecting the individual and the family – family structure, marriage, marital breakdown, family protection.

Electives

Home Design and Management – House building and design, interior design, energy-efficiency, electricity, heating, lighting, ventilation and water.

Social Studies – Education, employment, poverty, leisure and social change.

Assessment

Written examination – 80%

Practical coursework journal – 20%

This journal is a written record of five practical cookery classes and investigation carried out on specific assignments set by the State Examinations Commission

Careers – Dietetics, food chemistry, food technology, food research, new product development, chef, catering industry, hotel and restaurant management, microbiologist, health promotion, health inspector, interior design, quality control.

Politics and Society

Structure

Politics and Society is organised in four strands, each structured around key concepts. These are:

Strand 1

Power and decision-making

Strand 2

Active citizenship

Strand 3

Human rights and responsibilities

Strand 4

Globalisation and localisation

Strand 1 addresses foundational concepts in the study of Politics and Society and should be studied first.

Strand 2 has a strong focus on some of the key skills relevant to Politics and Society: skills in coming to reflective and informed decisions through debating and discussing ideas with other people and skills in being an effective active citizen.

Strands 3 and 4 provide opportunities to apply the foundational concepts and skills of Politics and Society in increasing depth.

A number of features also permeate these strands. They are:

- the discussion of the local, national, European and global dimensions of the issues studied
- the exploration of the similarities and differences in social and political practices around the world
- the analysis and interpretation of qualitative and quantitative social and political research data
- the use of active, participatory, democratic and discursive practices in teaching and learning.

Politics and Society is characterised by an exploration of different ideas about the most appropriate means and ends of human participation in civic, social and political life. Learners take certain issues and look at them in their own local context, then also consider them in a broader context: through this they engage in comparative study. Over the course of their studies, learners will engage with a balance of national, European and wider-world contexts and with both qualitative and quantitative data. This means that many of the topics addressed in Politics and Society follow a common structure:

- Learners can begin to engage with a topic through exploring how it applies to their own lives or to a context that is meaningful to them.
- They can then explore this topic in more detail through applying a range of different arguments to their context
- in doing this they can develop their skills of discussion and debating and of analysing information; using these skills, they can come to conclusions
- they can compare their own context to another context at national, European or global level

- they can explore how various activists and thinkers have contributed to the development of some of these key ideas.

One of the features of Politics and Society is that learners will engage with the ideas of a range of thinkers, activists and writers on social and political issues. Those studying at Higher level will be able to identify some specific writers and the contribution these writers have made to social and political thought. The writers selected in the specification include women and men from Ireland, from Europe and from the wider world. Contemporary writers are included as well as more historical figures. It is not intended that these would be regarded as the definitive selection of great thinkers in the field. Rather it is intended that they would demonstrate some of the diversity of, and ongoing change in, thinking on social and political issues.

Religion

Religious Education explores issues of relevance in an informed and academic way, issues such as – meaning and values, the nature of morality, the development and diversity of beliefs, the principles of a just society and the implications of scientific progress. Religious Education offers deep insight into the evolution of religion since ancient times. This will inform your understanding of modern culture. Religious Education examines the Christian tradition as well as other traditions. This is particularly important for people who intend to travel to other cultures and to those who wish to understand and appreciate the richness of faith traditions in Ireland and abroad. Students who have studied R.E at Leaving Certificate level have learned to be critical thinkers, independent, objective, open-minded, balanced, informed and focused, yet aware of a variety of perspectives. In addition they also develop the skills of research, communication and to analyse issues, trends and problems in an unbiased manner. These skills are valued in a number of professions, including the fields of education, teaching (at both Primary and Post- Primary), Law, Journalism, Human Resources, administration, civil service and many others occupations.

Music

Music is normally only taken by those who have studied it at Junior Certificate level. In addition, it would be important to have developed a natural liking and aptitude towards music. The Leaving Certificate Music syllabus provides continuity and progression from Junior Certificate Music. The general aims and overall shape of both is broadly similar. In providing the musical knowledge, understanding, practical competencies and attitudes appropriate to their age, abilities and interests, the syllabus caters for the varying needs of all students including those who wish to pursue further studies in music.

The content of this syllabus involves a series of interrelated musical activities within each of the three core areas of musical experience - performing, composing and listening.

In performing, students may choose from a variety of individual and/or group performing activities.

In composing, students may select from a range of prescribed exercises or, at higher level, choose to present free composition in part fulfilment of the composing requirement.

The listening component spans different musical periods, styles and genres. Students study

- prescribed works
- Irish music
- aural skills
- a special study topic (a higher level specialism in listening)

Students may specialise in one of the three areas of musical experience. The structure of the syllabus allows them to undertake 50% of their work in the musical activity that best suits their interests and talents. The syllabus content allows for considerable diversity in the choice of teaching materials and approaches. All musical genres are encouraged.

Leaving Certificate Music is examined at two levels, Ordinary level and Higher level. The modes of assessment include

- a practical examination in individual and/or group performing
- a combined aural and written examination in composing and listening to music.

Higher level students whose specialist option is composing will also present samples of their work for assessment.

Design and Communication Graphics

Design and Communication Graphics provides students with the opportunity for visualizing and comprehending information presented verbally or graphically. Problem solving and creative thinking skills are developed through the analysis and solution of both 2- and 3-dimensional graphics. Graphics and design are communicated using freehand sketching skills, traditional draughting equipment and CAD.

The aims are:

to develop the practical and cognitive skills of;

- Graphic Communication
- Creative Problem Solving
- Spatial abilities / visualisation
- Design Capabilities
- Computer Graphics and CAD Modelling

There are three areas of study:

(A)

- Projection Systems
- Plane Geometry
- Conic Sections
- Descriptive Geometry of Lines and Planes
- Intersection and Development of Surfaces

(B)

- Graphics in Design and Communication
- Communication of Design
- Freehand Drawing
- Information and Communication Technologies

Optional Areas of Study (Any Two)

- Dynamic Mechanisms (Gears, Cams, and Linkages)
- Structural Forms
- Geologic Geometry (Mining, Earthworks for Roadways)
- Surface Geometry
- Assemblies

Assessment:

1. A student assignment / Design brief. (2009-Docking Station. 2010-Game Controllers. 2011 Sat Nav)

This accounts for 40% of the marks of which CAD form a significant and compulsory component.

2. A terminal exam paper (60% of the marks)

This is a three hour paper at higher level.

The software used is called Solidworks.

This is a 3D modelling package and is available to all students doing DCG for home use.

Construction Studies

Construction Studies introduces students to the knowledge and skills associated with construction technology and construction materials and practices. This is achieved through theoretical study and integrated practical projects which provide a basis for the thorough exploration of materials and processes. If you enjoyed woodwork up to third year or found the transition year module interesting, you will enjoy construction studies.

Content - Part I - Construction Theory and Drawing

- General principles
- Substructure
- Superstructure
- Internal construction
- Services and external works
- Heat and thermal effects in buildings
- Illumination in buildings
- Sound in buildings

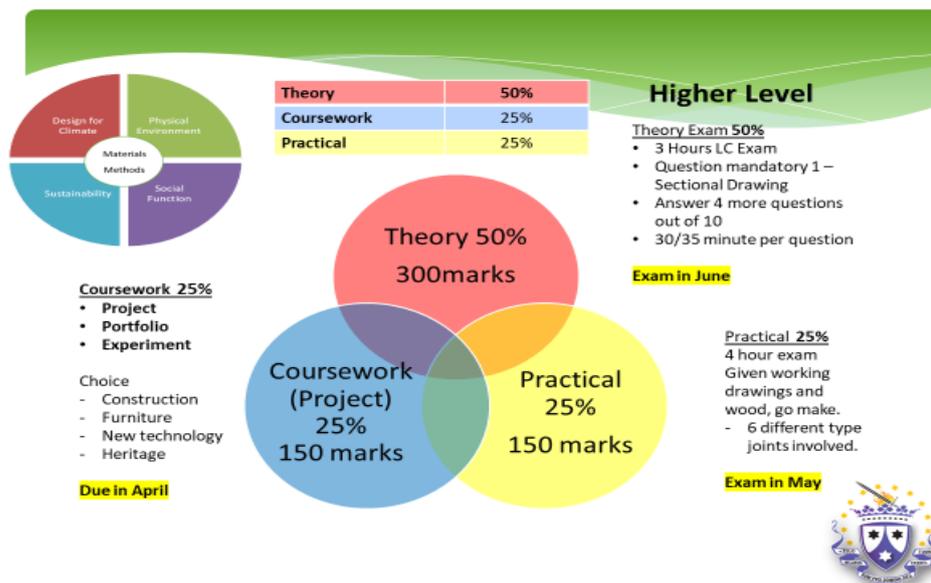
Part II - Practical Skills

- Tools
- Processes

Part III - Course Work and Projects

- Workshop/laboratory experiments
- Student projects

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



Art

Art is normally only taken by those who have studied it at Junior Certificate level. In addition, it would be important to have developed a natural liking and aptitude towards art. Although Art is not a necessary requirement for third level course it is highly recommended for those intending to do an Art course particularly those that require a portfolio. Art will lay a solid foundation for many third level courses including graphic design, advertising, architecture, and Industrial design. Preparation of a portfolio should not be left until 6th year. Art can be used to replace the basic requirement of a language in the National College of Art and Design. Art is useful for careers/courses in architecture, graphic design, photography, advertising, media production and areas of design such as painting, interior design, fashion design and graphic design.

All students, both Ordinary and Higher level, follow a common course. The practical work can include Life Sketching, Still Life, Imaginative Composition, Design and Craftwork.

The History of Art and Appreciation is a broad course covering Irish and European Art, and also Art Appreciation. It requires looking at artworks through the use of reproductions, slides and art galleries, reading books and writing essays on different subjects. It is assessed at two levels, Ordinary Level and Higher level

The standard and quality of work determine the difference in levels. The modes of assessment include:

- Three practical examinations carried out in May. These are;
 - Life Sketching
 - Still Life or Imaginative or Abstract Composition
 - Design or Craftwork

All three examinations have papers to help with the preparation of ideas, research, design and materials.

A written examination, involving some sketches, of Art History and Appreciation in June. Three questions are answered, one each on Irish, European and Appreciation of Art in two and half hours.

Mathematics

While honours Maths is a requirement for a number of courses, eg. Engineering, and the bonus points may seem a very attractive offer, the *need or offer of bonus points* at honours level does not make a student able to cope with honours maths. Those who score an A or B (and sometimes scoring a C grade) at honours Junior Certificate level should be able for honours at Leaving Certificate level – assuming the interest is there and a considerable effort is put in. Honours Maths is an essential requirement for all Engineering level 8 honours degrees. It is also a requirement for many Computer Science degrees. You can however be accepted onto a level 7 engineering ordinary degree in DIT and other IT's with ordinary level Maths. This level 7 degree can then be converted into a level 8 degree. Ordinary level Maths is an essential requirement for almost all courses. Failing ordinary level Maths greatly restricts entry into third level. In addition certain courses require a certain minimum grade in ordinary level Maths, for example Commerce in UCD requires a O3 or a H6 Maths.

Applied Maths

This subject **applies mathematics to solving practical problems**. Examples of these problems include, the relative velocity of ships at sea, the velocity and acceleration of bodies falling or being projected under gravity, the conservation of momentum and energy in collisions. Other problems include, equilibrium of forces on static bodies, pressure of fluids on immersed bodies, the motion of various types of pendulum, and the application of differential equations to more complex motion. Taking applied Maths for Leaving Certificate is a way to develop skills in applying maths to real life problems. This skill is useful for any later career where Maths is used, even slightly. These careers range from **Engineering and Science to Economics and Business**. If a student likes the practical end of maths and enjoys sudoku or other mathematical based entertainment, then Leaving Cert Applied Maths may be a good choice. However, although the principals of the courses are easily understood, readiness to do (and doodle with) many problems (and to spend the time that this takes) is a must. The outcome can be a lot of satisfaction and a very good grade in the subject, Applied Maths is particularly suitable for those students who study both Physics and Maths at honours level and intend to progress to a science/engineering/technology course. The entire course content is given below. The Higher level course includes the Ordinary level course treated in greater depth.

- Motion: displacement, velocity, relative velocity
- Newton's laws of motion; acceleration
- Straight line motion; inclined plane; connected particles
- Equilibrium under concurrent forces
- Centre of gravity
- Pressure in liquids; Archimedes' principle
- Projectiles; projectiles on inclined plane
- Angular velocity; uniform circular motion
- Conservation of momentum; direct collisions; oblique collisions
- Simple harmonic motion
- Rigid body motion; moments of inertia; angular momentum
- Differential equations:

Third Language

Over the last couple of years a number of courses have dropped their third language requirement, for example, Science and Engineering courses in UCD. In addition some colleges do not require any third language at all. However, since a large number of courses still require a third language it is strongly recommended for students take a third language for the Leaving Certificate. It quite often happens that students in transition year are under the assumption that they do not need a language but quite often (a) they change their minds in sixth year about the course they want and now wish to do a course that requires a language, (b) or they do not get the points for their first preference course but enough points for a course they would settle for – but cannot take up their place because they do not have a third language. Moreover the Minister for Research and Innovation, last year launched a guide which urges secondary school students to consider language and technology at third level for a potential career in the localisation sector (the process of adapting and personalising digital content, products and services to the needs of global users).

French

The three broad components of the syllabus are:

- Basic Communicative Proficiency
- Language Awareness
- Cultural Awareness
- Assessment is by means of a written examination at two levels, Ordinary level and Higher level. There is also an aural and an oral examination at both levels.

Spanish

No beginner students are allowed to start Spanish in 5th year. Only continuing students i.e. students who studied Spanish in 4th year are allowed to continue on with Spanish as it is not a beginners class and in fact a large number of students will have been away in Spain in 4th year, thus any beginner students would be completely lost.

- The aural is 20% of the course.
- The oral exam is 25% of the course.
- The written exam is 45% of the course.

The fifth year course is focussing mainly on the Spanish the students learnt in Spain and building on it. In addition they have aural, oral and written exams regularly throughout 5th year. The fifth year course is involved with revising the fourth year grammar covered and covering the 5 past tenses – *the preterite, the imperfect tense, the present perfect tense, acabar de tense* and the *pluperfect tense*. In the present and future they cover the present and present continuous, the near future, the future and the conditional. In addition to these tenses students learn the other parts of the leaving cert course grammar section. In sixth year there is a real focus on the translation area which is more challenging than the French course, but as a large majority of them have been away in 4th and 5th year it shouldn't be too difficult for them. There will also be a real emphasis on the oral and aural exams to bring up their level.

On the pass course, you must learn all aspects of the aforementioned tenses, grammar, oral and aural, but certainly to a lesser degree of detail.

At 5th and 6th year level, the students are in a mixed level class.

Computer Science – New Subject since 2018

Computer science is the study of computers and algorithmic processes.

Leaving Certificate Computer Science includes how programming and computational thinking can be applied to the solution of problems, and how computing technology impacts the world around us.

The specification is constructed into 3 strands, whose learning outcomes are interwoven. The 3 strands are:

- 1. Practices and principles**
- 2. Core concepts**
- 3. Computer science in practice**

Students will learn:

The practices and principles of computer science, such as computational thinking, computers and society, and creative design

How to analyse problems in computational terms and understand concepts such as abstraction, logic, algorithms, computer systems, data representation and evaluation

Programming languages and how to read, write, test and modify computer programs

The process of designing computational artefacts such as web pages, digital animations, simulations, games, apps and robotic systems

The ethical, historical, environmental and technological aspects of computer science, and how it impacts the social and economic development of society.

The role of programming in computer science is like that of practical work in the other subjects— it provides motivation, and a context within which ideas are brought to life. Students learn programming by solving problems through computational thinking processes and through practical applications such as applied learning tasks. The Leaving Certificate Computer Science specification is designed for all students. It applies to many aspects of students' lives and is therefore relevant to a wide range of student interests.

Structure of Assessment for Certification

There are two assessment components at each level, an end-of-course examination (70%) and coursework (30%).

Component	Percentage
End-of-course examination	
Computer-based assessment of learning outcomes	70
Coursework assessment	
One computational artefact with report	30

Leaving Certificate PE

In Leaving Certificate Physical Education, there are six physical activity areas:

- Adventure activities
- Artistic and aesthetic activities
- Athletics
- Aquatics
- Games
- Personal exercise and fitness.

Learners study three physical activities, each one chosen from a different physical activity area.

Assessment

<u>Assessment Component</u>	<u>Weighting</u>	<u>Level</u>
Physical Activity Project	20%	Higher and Ordinary
Performance Assessment	30%	Common Level
Written Exam	50%	Higher and Ordinary

Physical Activity Project – 20%

Learners may choose to complete the physical activity project in one of following roles:

- performer
- coach

The project should span an eight- to ten-week period and learners will be required to apply their learning from the specification to further develop their personal performance in their chosen role.

The physical activity project is completed in a digital format.

The four sections are:

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

Performance assessment–30%

Learners choose one of the three selected physical activities being studied by their class in Leaving Certificate Physical Education for their performance assessment. Learners are required to demonstrate the range of skills, techniques and/or compositional elements outlined for the physical activity in Physical Activity Areas in LCPE. Learners are required to demonstrate knowledge and understanding of the principles of play/performance, an understanding of the rules and conventions of the activity and adherence to safe practice before, during and after the performance. Learners are assessed in a variety of context including personal performance, fully competitive and/or conditioned practices.

Written Exam - 50%

<u>Introduction</u>	<u>Stand 1</u>	<u>Strand 2</u>
How the body moves	Learning and improving skill and technique	Promoting physical activity
	Analysing skill and technique	Ethics and fairplay
	Physical and psychological demands of performance	Physical activity participation
	Principles of training	Physical activity and inclusion
	Diet and nutrition	Technology, media and sport
	Analysing performance in sport	Gender and physical activity
	Safe practise in sport	Business and enterprise in physical activity
	Role of coach and official	
	Structures, strategies, roles and conventions	
	Planning for optimum performance	

The above descriptions are just a brief overview of subjects, you must **do your own research** to make your final decision. Watch the teachers videos and look at the “**Be Informed**” section on the second page of this handout.

