

Ratoath College



Senior Cycle Options Handbook

For entrants to Senior Cycle in
September 2020

Contents

Please read this booklet carefully to help you make an informed decision regarding selecting subjects for senior cycle.

	<u>Page</u>
1. Introduction to Senior Cycle Options	2
2. General Requirements for third level	3
3. QQI's (Post Leaving Certificate Courses - PLCs)	3
4. Senior Cycle Options	5
5. Established Leaving Certificate:	
A. Subject Choice	6
B. Languages	8
C. Science Group	9
D. Arts Group	14
E. Business Studies Group	20
F. Applied Science Group	24
G. Practical Group	25
H. Humanities	30
I. Physical Education	35
6. Leaving Certificate Applied (LCA)	37
7. Careers Information	41
8. Summary	43

1: Introduction to Senior Cycle Options

When choosing Options for Senior Cycle, students and parents should be advised of the following:

- **All Subjects, except for Higher Level Maths, are the same for calculation of points** for University/College entry. Points are calculated on your best 6 subjects.
- A four year trial offering **bonus points for Higher Level Maths** began in the 2014/5 3rd level academic year. Students can attain 25 bonus points once they achieve a grade of H6 at Higher Level. (See more information on new Grading System on P.43).
- **Higher Maths is very demanding.** The school requires that you have achieved a grade C higher minimum in the Junior Cert to take higher level at Leaving Cert.
- **When choosing subjects remember:**
 1. Choose subjects that you are **interested in and enjoy.**
 2. Pick subjects that you have an aptitude for and will therefore give you the **highest possible grades.**
 3. Choose subjects where you **have achieved good grades.**
 4. Choose subjects that meet the entry requirements of courses you may be interested in.
- Subjects such as Physics, Chemistry and Accounting require a high level of mathematical aptitude.
- It has also been noted that extremely good grades have been achieved in the Applied Sciences, Art, Exam Religion and Music. Students seeking high point's levels often overlook these.
- Ratoath College offers a wide variety of **Leaving Certificate subjects** including Economics, Religion, Classical Studies and Applied Maths. *The running of these subjects will be based on student demand.*
- **NB**
Do not pick a subject (or Senior Cycle Programme) solely because your friends are doing that subject or course. Follow your own interests when making your decision.

2: General Requirements for Third Level

There are **certain subjects that are essential for entry** into particular courses, colleges, and careers. It is the **student's responsibility** to research these. Particular attention should be paid to Science and Engineering courses at third level as these may require a science subject or Higher Level Maths

The requirement of a third language applies to study courses at certain Universities. It is important that students have fully researched, or talked to the Guidance Counsellor, about the implications of not studying a language before making a choice.

3: QQI's (Post Leaving Certificate Courses)

For some students, direct entry into a third level college may not be possible on completion of the Leaving Certificate. Another popular progression route is the PLC route. These are one year courses (some have a second year option) in a range of specialised areas and are available in schools and colleges of further education nationwide.

PLC courses offer a mixture of "hands-on" practical work, academic work and work experience and they help students develop vocational and technological skills in order to get a job or to go into further education and training. They are designed as a step towards skilled employment and, as such, they are closely linked to industry and its needs. Post Leaving Certificate courses adopt an integrated approach, focusing on technical knowledge, core skills and work experience. Almost 50% of the time spent on these courses is devoted to knowledge and skill training related to employment, with a further 25% on relevant work-based experience.

Over 90% of PLC courses are delivered by ETBs (Education Training Boards). At present, over 1,200 courses are on offer in some 229 centres. A wide range of disciplines are covered including business, electronics engineering, computing, catering, sport and leisure, theatre and stage, performance art, art craft and design, equestrian studies, multi-media

studies, journalism, tourism, marketing, childcare and community care, hairdressing and beauty care, applied science, horticulture etc.

The qualification you receive at the end of your training will depend on the type of course you have chosen. Many of the one-year PLC courses offer Further Education and Training Awards Council (FETAC) accreditation at Level 5 which can lead to further studies at third level, through a system known as the Higher Education Links Scheme. This scheme provides access to a reserved number of places on a variety of courses in educational institutions including universities and institutes of technology.

Other Career Routes

Other progression routes include apprenticeships, to a wide range of trades and crafts (such as electrician, joiner and mechanic) and Business Sectors (Insurance, Accounting, Auctioneering), as well as various courses offered by independent bodies such as Bord Iascaigh Mhara, Fáilte Ireland, Teagasc and the Defence Forces.

4: Senior Cycle Options

Ratoath College offers three different programmes to Senior Cycle students as outlined below, including two Leaving Certificate options that cater for the different interests and abilities of the students in our care.

1. Transition Year

This is an optional one-year programme for students who have completed the Junior Cert. (The application process has now concluded for Transition Year).

2. Established Leaving Certificate

A two-year programme for Leaving Cert. students.

3. Leaving Certificate Applied

A two-year Leaving Certificate programme aimed at preparing students for adult and working life.

What are my choices?

- **Students currently in 3rd year** can opt for 1 of the below:
 - a) TY
 - b) Established Leaving Cert
 - c) Leaving Cert Applied

- **Students currently in TY** can opt for 1 of the below:
 - a) Established Leaving Cert
 - b) Leaving Cert Applied

- Students who choose Established Leaving Cert must **choose 4 subjects**. Details of these subjects are outlined in detail below

5: Established Leaving Certificate

A: Subject Choice

At Leaving Cert. examination level, students study **seven** subjects. For state examinations, they study:

- Each student will study the **3 Core Subjects**:
 - Irish (unless exemption granted)
 - English
 - Maths
- Students can then choose **4 more Options**

Important

Selecting subjects can be difficult if you are unsure about any further education or careers steps you wish to take in the future. The process is made easier by the students completing their Eirquest Assessment, CAT 4 Assessment, meeting with a Guidance Counsellor and doing some independent research. If you are unsure about what you would like to do in the future, then one way to keep your opportunities for 3rd level study as varied as possible would be to make a choice similar to the below:

- Irish
- English
- Maths
- French/Italian
- One from Physics/Chemistry/Biology
- Any other 2 subjects

However, it is still vital that you choose the subjects that appeal to you the most whether it is for personal or academic purposes.

Choosing subjects for the Leaving Cert. programme is a simple exercise and a very important one. Base your choice on the following guidelines:

- **You must have a keen interest in the subject.**
E.g. If your talent is in the area of Science, choose one or two Science subjects. The same applies for subjects in the social studies, business studies and applied science groupings. (See Chart below)
- **You should choose subjects that give you the best chance of achieving high grades.**

Leaving Certificate Subjects

Leaving Certificate Subjects are grouped as follows:

(Please note that it is possible to choose more than one subject from each group area.)

<u>Language Group:</u> <i>Compulsory: Irish and English</i> Options: French, Italian	<u>Science Group:</u> <i>Compulsory: Mathematics</i> Options: Biology, Chemistry, Physics. Applied Maths
<u>Social Studies Group:</u> Art (including Crafts), Music	<u>Business Studies Group:</u> Accounting, Business, Economics
<u>Humanities</u> Geography, History Classical Studies, Religious Ed.	<u>Applied Science Group:</u> Social & Scientific (Home Ec.)
<u>Practical:</u> Architectural Technology (Construction), Design and Communication Graphics, Engineering	<u>Physical Education</u> <i>PE</i>

The following pages give a brief account of the type of courses provided in the subjects on offer in the school.

B: Languages

- Students should be aware that a modern language is required by Maynooth University, UCD, UCC, and NUI Galway. However, some faculties in Maynooth University and UCD, including Business, Engineering, Law and Science, no longer require a modern language.
- All NUI colleges require at least a pass grade in Irish.
- The language entry requirements for other universities and courses vary e.g. Trinity accept Irish as a modern language, while DCU, DIT and I.T. Blanchardstown accept English or Irish.
- The language requirements for third level can be confusing so consult your Guidance Counsellor for further information and assistance.

French

The current syllabus, which was examined for the first time in 1997, has divided the course into two broad categories: language and culture. Students study a variety of every day situations and topics which enhance and develop listening, reading, comprehension and writing skills in French. Students are also introduced to many aspects of French culture such as literature, cinema, art and music. The Leaving Cert. examination comprises three sections:

- Written
- Oral
- Aural

Italian

The course is divided into two broad categories: language and culture. Students build on the language skills developed in Junior Cycle Italian through the exploration of a variety of every day situations and topics which enhance the skills of listening, reading, comprehension and writing in Italian. Students are also introduced to many aspects of Italian culture such as literature, cinema, art and music. The Leaving Cert. examination comprises three sections:

- Written
- Oral
- Aural

C: Science Group

- Students should be aware that a Science subject is required for most science and medicine courses (NB To study Medicine you must have at least 1 science subject). You also require a science for most engineering, pharmaceutical and dietetics programmes.
- However, some science and engineering faculties (particularly in IT colleges) do not require a science subject and therefore students who find science difficult should consider other subject choices.
- Consult your Guidance Counsellor for further information and assistance.

Biology

Biology is the scientific exploration of the vast and diverse world of all living organisms from the smallest microorganisms to the most developed organisms - humans. It is an area of science that has expanded enormously within the last four decades revealing a wealth of knowledge about ourselves and about the millions of other organisms with whom we share this planet. Biology plays a crucial role in our everyday existence and is a vital component of the solutions to many problems facing our civilization from human health and disease to loss of biodiversity and the responsible management of our environment.

Advances in new technologies, such as genetic engineering and genomics have already had a great influence on our lives. We can now use genetics to identify and treat diseases, to catch criminals, to grow organs, to develop disease resistant plants.

Recognising the importance of biology in today's society the department of education and science introduced a revised biology syllabus in 2002. The fundamental philosophy of the new course is as follows:

“Biology is the study of life. Through the study of biology students employ the processes of science to explore the diversity of life and the inter-relationships between organisms and their environment. They are provided with the knowledge, skills and understanding to pursue further education, training and employment in biology-related fields, and to make judgments on contemporary issues in biology and science that impact on their daily lives and on society.”

DES 2001

The syllabus consists of approximately 70% biological knowledge, understanding and skills; the remaining 30% deals with the technological, political, social and economic aspects of biology.

The Biology course is a long and detailed one. It requires significant learning and as such is demanding of student time and effort. Ideally a student should have an honour at higher level science if they want to study honours biology.

Content of the revised syllabus:

Subject content is presented at Ordinary and Higher level in 3 units:

Unit 1: *Biology - The Study of Life* which includes The Scientific method, The Characteristics of Life, Nutrition and the General Principles of Ecology

Unit 2: *The Cell* which includes Cell Structure, Cell Metabolism, Cell Continuity, Cell Diversity and Genetics.

Unit 3: *The Organism* which includes the Diversity of Organisms, Organisation of the Vascular Structures, Transport and Nutrition, Breathing System and Excretion, Responses to Stimuli and Reproduction

Assessment

Leaving Certificate Biology is assessed by means of a terminal examination paper at each level. Students are required to keep a record of their practical work over the two years of the course.

Careers

Biology is a good foundation for careers in human biology, ecology, environmental biology, cell and molecular biology and in applied areas such as forestry, wildlife, food processing and biotechnology. Biology also is an excellent foundation for students planning to attend medical, dental, veterinary, chiropractic, physical therapy, physician's assistant, beautician or optometry schools.

Chemistry

Chemistry is a fascinating field of study. As it is fundamental to our world, chemistry plays a role in everyone's lives and touches almost every aspect of our existence in some way. Chemistry is essential for meeting our basic needs of food, clothing, shelter, health, energy, and clean air.

Chemical technologies enrich our quality of life in numerous ways by providing new solutions to problems in health, materials, and energy usage. Thus, studying chemistry is useful in preparing us for the real world.

Leaving Certificate Chemistry aims to stimulate and sustain students' interest in, and enjoyment of, chemistry. It aims to encourage an appreciation of the scientific, social, economic, environmental and technological aspects of chemistry and to give students an understanding of the historical development of chemistry. It also aims to outline how humanity has benefited from the study and practice of chemistry.

The inclusion of the applications of chemistry emphasises the vocational aspects of the subject and allows students to see where it applies in the world of work.

Content

The revised chemistry syllabus is practically and experimentally based. This is emphasised by the specification of mandatory experiments.

The revised syllabus has the following components:

- pure chemistry, 70%
- applications of chemistry, 22.5%
- chemistry for citizens, 7.5%

Subject content is presented under the headings:

1. Periodic Table and Atomic Structure
2. Chemical Bonding , Stoichiometry, Formulas and Equations
3. Acids and Bases and Volumetric Analysis
4. Thermochemistry
5. Organic Chemistry
6. Chemical Equilibrium
7. Environmental Chemistry: Water

The chemistry course also contains the following options:

1A: Additional Industrial Chemistry, 1B: Atmospheric Chemistry, 2A: Materials, 2B: Additional Electrochemistry and the Extraction of Metals

Ordinary level students must study one of Options 1A and 2A or one of Options 1B and 2B as outlined below. Higher level students must study, in its entirety, either Option 1 or Option 2.

Assessment

Leaving Certificate Chemistry is assessed by means of a terminal examination paper at each level. Students are required to keep a record of their practical work over the two years of the course.

Careers

You could use chemistry in most fields, but it's commonly seen in the sciences and in medicine. Chemists, physicists, biologists, and engineers study chemistry. Doctors, nurses, dentists, pharmacists, physical therapists, and veterinarians all need to study chemistry.

Physics

Physics explains how and why things in our world, and indeed, in our universe behave as they do. It is fundamentally concerned with energy and matter and the way energy can change from one form to another. It solves problems from the microscopic to the macroscopic – from the splitting of the atom to the expansion of the universe. The Physics senior cycle course encourages students to be inquisitive about the world around them and to explore the theories put forward by scientists on why things behave as they do. There is also a substantial practical element to the course (30% of the marks in the exam are given to experiment-related questions). The physics exam has become easier in recent years with the new log tables, which contain all the relevant formulae. The students were previously required to learn these formulae off by heart.

Benefits of studying Physics

Gain understanding how the technology around you works (mobile phones, televisions, radios, computers, contact lenses, x-rays)

Investigate the limits of space and the motions of the planets.

Physics helps to train your brain to think beyond boundaries.

Studying physics is an excellent aid for the real-life problem solving questions which have been recently introduced in the new Project Maths syllabus. The senior cycle physics has been simplified by providing formulae to the students which previously needed to be learn off by heart.

Relevant Careers

Astronomy (Astronauts to Telescope designers), Medicine (Doctors to Surgeons), Radiology (Medical Physicists to Radiographers), Architecture, Engineering (Mechanical to Electrical), Meteorology, Renewable Energy, Computer Programming, and Optometry.

Applied Maths

Applied Maths will is offered as an alternative to the LCVP Programme or the Career Guidance module and will be timetabled for a one double period per week. This subject is suitable for students who enjoy Maths and want to gain easy leaving cert points. When studying Junior Maths have you ever wondered what is the point of algebra, trigonometry or quadratic equations. Applied Mathematics will answer these questions by showing real life applications and used of the Maths you study. With the extra points now allocated to Higher Level Maths, Applied Maths will help you gain these extra points. Many topics overlap with Higher Level Maths and Physics. The course consists of 10 topics in total, including all the Higher Level topics. The examination consists of one paper and is 2.5 hours long. The exam paper contains 10 questions at Higher Level and 9 at Ordinary Level, with students answering 6 questions in both cases, spending about 25 minutes on each question.

Benefits of Applied Maths:

1. Improvement in Maths.
2. Improvement in Physics.
3. Opportunity to earn 100 points
4. Predictable paper.
5. Relatively short course. (Full ordinary course will be completed by Easter of 5th year. Full higher level course will be completed by Christmas of 6th year).

Relevant Careers: Sciences, Engineering, Architecture, Economics, Computer Programming, Astronomy, Mathematics, Actuary and many others.

D: Arts Group

Art **(Including Crafts)**

An aptitude for self-directed research skills, an appreciation for Art History and a sound understanding of the design process is essential for Senior Level Art.

Leaving Certificate art is made up of four units linked together and based on the everyday visual experience of the student's own environment. The practical work can include Life Sketching, Still Life, Imaginative Composition, Design and Craftwork. Students also study the History and Appreciation of Art, which covers Irish and European Art, and Art Appreciation. This syllabus is for students in the senior cycle of post-primary education and is assessed at Ordinary and Higher levels.

Throughout 5th year students work in a number of areas – Observational Drawing, Life Drawing, Batik, Calligraphy, Book craft, Poster design, Modelling, Pottery, etc, building on their abilities and discovering their strong points and what area they are most accomplished at.

Revision to Assessment Arrangements for Leaving Certificate Art

Revised arrangements have been put in place for students entering Leaving Certificate Art. The revision to the practical components include execution of the Imaginative Composition or Still Life component and the Craft or Design component as coursework in schools over an extended period of time. Project work begins in January and is completed by March. Both components will also be based on a single set of stimulus materials. The Life Sketching examination will be completed in May. History and Appreciation of Art examination will be completed in June.

Art Trips

A trip to Newgrange takes place in early 5th year and a gallery/museum trip in 6th year is compulsory for the course.

A senior art trip abroad took place in 2018 to Madrid. In 2019 to Italy. This is optional for senior cycle students. For the academic year 2019/2020.

Marking Scheme for elements of Art Exam

There is a wide breadth of choice in the exam structure for Leaving Cert Art and students should be aware that for both ordinary and higher level you will have four examination areas. 2/3 Practical, 1/3 Art History & Appreciation. A total of 400 marks are given overall as shown below:

Project Coursework 50%

Higher Level and Ordinary Level

1. Imaginative Composition or Still Life

and

2. Craftwork or Design

This brief together with the SEC Coursework Workbook should be handed to candidates in January. **200 marks** are assigned to the coursework component, i.e. 50% of the total marks for Art.

3. Life Sketching 12.5%

The examination will consist of two sketches of the model. The first sketch will be a pose of fifteen minutes. The second pose will be a more fully worked drawing of a thirty-minute pose. **50 marks** are assigned to this paper.

4. Art History 37.5%

There are three sections to this paper. Section 1 (Art in Ireland), Section 2 (European Art), Section 3 (Appreciation of Art). **150 marks** are assigned to this paper. All sections carry 50 marks.

Project Coursework - Classroom contact over 10-12 school weeks

A coursework component will be carried out over the course of ten school weeks, immediately following the Christmas holidays. 200 marks are assigned to the coursework component, i.e. 50% of the total marks in Art. The coursework consists of one work from section A and one work from section B including investigation and development for section A and section B in your coursework workbook.

Section A	Section B
A realised Imaginative Composition or Still Life	A realised Craftwork or Design

Section A

Imaginative Composition / Still Life

Imaginative Composition -A picture, sketch, painting, collage, mixed media.

Still life- A composition of still life objects which are brought in to the exam and arranged for observation using a variety of media.

Section B

Craftwork or Design (Craftwork is the area covered)

A selection of crafts are on offer such as Batik, Calligraphy, Lino Print, Book craft, Poster, Sculpture, etc. Throughout 5th year students work in a number of these areas building on their abilities and discovering their strong points and what area they are most accomplished at.

The Workbook

The workbook is used to help students develop their realised works.

- **The Initial Research Sheet** – research for all your coursework

Investigation of a chosen theme using a variety of relevant media and materials. Research and investigation will show possibilities and routes that students might take with their coursework.

- **Development Sheet 1 and 2 for each section**

Your coursework is not just a test of technical skills, but also an examination of the ideas that students will develop from investigating a chosen theme. Through investigation, students develop ideas and proposals for a realised work.

Process – The process of investigation and development is essential in order for students to be able to produce their best possible artwork.

Life Drawing: - 1hour in total - 50 marks

Two sketches of a model in a specific pose.

Study of the human figure, developing tone, proportion and movement, within the drawing to create a 3D illusion on a 2D surface. - two poses studied – **full standing pose** (15mins)(20) – choice of **full or half pose** given in more detail compared with the first pose.(30) Students may continue to work on their drawing during the model's rest periods and during the break between poses. Students are given the exam a number of weeks before hand so it is of benefit to them in practicing the poses for the exam.

History and Appreciation of Art: 2hrs 30mins

This is divided into three sections:

1. *Irish Art*
2. *European Art*
3. *General Appreciation*

Section 1 – Art in Ireland

- Candidates have a choice of approximately 7 questions.
- Must answer one question which can range from Newgrange to questions on the Early Irish art
- Sometimes photographs are provided and candidates are asked to identify various artefacts and then describe & discuss them.
- A choice of modern artists may also be studied.
- The questions require you to possibly – name, discuss, describe refer to function, form, style, materials, decoration etc – make sure you cover the bases

Section 2 – European Art

- Choice of 8/9 questions
- Romanesque or Gothic Sculpture and Architecture
- You may be lucky and one of your artists comes up – but it is quite possible that this will not happen – in this case - look at the ‘generic’ question which may ask you to look at a work of art which falls into a particular category – such as a portrait, a painting of a meal, a landscape, a still-life etc. You will definitely be able to do this if you think creatively.....
- You normally have to describe 2 works of art
- All of these questions are long questions and require you to cover all the points questioned so make sure you read the question & cover all parts of the question

Section 3 – Appreciation of Art

- You must answer one question out of 5
- There is usually a design question and here you have to bring your general knowledge/common sense to the question – you can be asked to talk about anything from chairs, to bags to kettles.
- There is often a question on a gallery or museum visit.
- For this section have the courage of your convictions – make sure your opinions are well-supported & well-illustrated

Students who have not studied Art at Junior Cert Level should consult an art teacher before choosing Leaving Cert Art.

Music

The Leaving Certificate Music syllabus is a relevant and enjoyable course.

What's new in the syllabus?

- The syllabus caters for all musical styles; traditional, ethnic, classical, jazz, rock, pop, etc.
- The structure of the syllabus has been changed to allow students to specialise in the activity that best suits their talents.

The course divides into three categories:

- Practical (including Computer Technology)
- Composition and Harmony
- Listening (Aural Work)

Students study four main works in detail and learn how to analyse and appreciate different genres of Music. Students develop their performance skills and learn how to use the music scoring computer programme 'Finale Notepad' to compose or score music. Music students also develop compositional skills, learning how to compose melodies and how to add a harmony and backing chords to a melody.

Students specialise in either Performance, Composition, or Listening which is worth 50% of the total Leaving Cert mark.

The Leaving Certificate Music syllabus aims to:

- Be vocationally relevant - preparing students for Music in the "real world".
- Dynamic and enjoyable
- Attractive to all students (male and female) of all ability levels

Encourage the development of musical creativity, sensitivity and potential through active involvement in performing, composing and listening to music.

Important: It is not compulsory for students to have studied Music at Junior Certificate level for them to take it up as a Leaving Certificate subject but students **must speak to teachers in the Music Department** prior to making a commitment to the subject.

E: Business Studies Group

Business

What is Business?

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

What do you study?

Anyone can choose Business as a senior cycle subject, even if you have not done it for junior cycle. Business at senior cycle covers the same topics dealt with in junior cycle, except it develops them to a deeper level. There are less accounts sections in senior cycle business, it more based on ratios, tax and insurance. Business is a real life enjoyable subject that informs students about key areas of employment in the future. It is also a very common modules in university/further education. You study about all aspects of the business world, learning about;

People

Consumers, Producers, Investors, Interest groups, Employers, Employees, Industrial Relations, etc.

Enterprise

Entrepreneurship, Management of Business, Financial Management, Human Resource Management, Marketing, Household, etc.

Marketing

Social Media, Advertising campaigns, personal selling and branding.

How do you benefit by studying business?

- You can make informed business decisions.
- You understand the structure and management of business.
- You will understand and appreciate ethics in business.
- You practice your Communication, Literacy, Numeracy and Problem Solving skills.
- You will be able to understand & discuss current affairs as they relate to business.
- After Arts degree, Business related courses are the most sought after courses on the CAO, having LC Business will open a lot of options in the CAO.

Accounting

What does Accounting involve?

- Preparing accounts for GAA clubs.
- Learning how to make a business successful and profitable.
- Learn how to prepare accounts up to government standard.
- How to manage cash in and out of a business.

What do you study?

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

How do you benefit by studying Accounting?

You learn:

- To collect information.
- To record and analyse information.
- To think logically and clearly.
- To manage your own money better
- To become a problem solver
- To develop the ability to link accounting with relevant computer applications.
- *Accounting modules in college based on OL LC accounting so having HL LC Accounting will put you at an insignificant advantage.*

You have an advantage when you go on to further study. Accounting is on the curriculum of many Third Level Courses, the most obvious being the Business Courses, Auctioneering, Advertising, Law and Engineering to name but a few.

A strong interest in Accounting from Junior Cert., plus a good mathematical ability, is essential. Prospective students should note that statistically Accounting provides one of the highest averages of A grades at Leaving Certificate level. 20% of accounting students scored A1's in Higher and Ordinary papers in 2015.

Economics

What is Economics?

“Economics studies how scarce resources are best distributed to satisfy our infinite needs and wants.”

You may not know it but economics is a subject with which you are already familiar. Each day the media keeps you in touch with a wide range of economic issues: unemployment & job creation; the EU; the euro; third world issues and taxation.

What do you study?

The study of economics is divided into two sections:

1. ***Microeconomics*** is the study of individual markets i.e buyers and sellers agree on a price. The price helps decide who gets the goods and services and what factors of production are employed.
2. ***Macroeconomics*** deals with matters affecting the wealth of the whole community called Gross National Product. You will study Banking, International Trade and Finance, the EU, the role of government in the economy etc.

How you benefit by studying Economics?

- You will understand the economic environment in which you live.
- You will understand the media reports on economic issues and have a better grasp of current affairs.
- You learn to collect, analyse and interpret information. This allows you to think clearly and logically – a major asset when you start job hunting.
- You will be able to evaluate the complex information about markets e.g. the financial markets and what they have to offer to you as a consumer.
- You will be able to participate more fully as a citizen of Ireland and the EU.
- You will have studied a subject which is a module in many courses at third level: Business, Accounting, Engineering, Politics, Social studies, Construction. This would put you at a significant advantage.

Links with other subjects

If you have studied Business Studies in the Junior Certificate then you will already be familiar with economics theory such as Inflation, Government Budget and Currency exchange.

Other Junior Certificate subjects which include some aspect of economics include:

- C.S.P.E., Geography, Home Economics, Maths and Religion. Economics also complements your study of other Leaving Certificate subjects including Business, Accounting, Geography, Maths, English, History to name but a few.
- Economics also has a strong link with the subjects of Geography and Business. This can be an advantage for students when they are covering certain sections of the course.

Relevance to Third Level

Economics can be taken as a separate subject to degree level in Commerce/Business courses and Arts/Humanities courses. Most Information Technology courses include an economics module. Many other non-business courses contain an economics module. Just read the relevant literature from the various colleges and you will be quite surprised at the number of courses which contain economics.

Career Opportunities

The study of economics fosters the development of clear and reasoned thinking – this is the quality which is valued very highly by prospective employers.

Economics is useful for careers in: Journalism, Politics, Administration, Accountancy, Financial Services, Engineering, Marketing and many others.

One may specialise in economics and work as a full-time economist in large corporations and agencies including Government Departments, Banks, stockbroking agencies and voluntary agencies.

Students in Economics gain the opportunity of visiting the Dail and liaising with the department of finance.

F: Applied Science Group

It is possible to do Social and Scientific as a Leaving Cert. subject without having done Home Economics at Junior Cert. Although Home Economics is not a laboratory science subject, it does satisfy the entrance requirement for many beauty therapy courses.

Home Economics **(Social and Scientific)**

This is a continuation of Junior Certificate Home Economics. The syllabus consists of a core and three electives. The core consists of three areas: Food Studies (45%), Resource Management and Consumer Studies (25%) and Social Studies (10%). There are three electives from which the teacher and the class group must choose one. The electives are extensions of content contained in the core and provide students with the opportunity to study certain topics in more depth. The elective must be chosen from Home Design and Management; Textiles, Fashion and Design; or Social Studies and is worth 20%.

Practical work is viewed as an integral component of the subject. Students are required to complete a food studies journal worth 20% of the overall Leaving Certificate grade. Students must carry out individual research on four assignments, prepare, make and serve a dish to meet the requirements of the assignments and keep a record of their food study class. This journal is assessed by the State Examinations Commission as part of the subject and is combined with the final written examination for the subject grade.

Career opportunities from Home Economics Social and Scientific include: Promotional and Educational opportunities; Food and Nutritional Sciences; Food Technology/Analysis; Environmental Health; Human Nutrition and Dietetics; Hotel Catering opportunities; Textile Studies/Interior Design; Marketing/Retailing/Advertising.

G: Practical Group

Architectural Technology **(Construction Studies)**

Architectural Technology gives students an opportunity to learn the basic principles of the construction & Engineering industry, from the design of a house to the planning permission stages right through to finishing stages such as plumbing & electrical etc.

It is examined in 3 sections;

50% written exam (theory exam)

25% Day test (4 hr exam where students must undertake a practical assignment)

25% Project (this begins at the start of 6th yr and can be anything from the study of ancient architecture to the manufacture of a piece of furniture)

Students will be introduced to architecture, design of buildings and the principle techniques and practices of building a house in Ireland.

Students will also be taught to accurately draw scale drawings of roofs, foundations, windows, doors etc.

Much of the 2 year course is 'hands on' where students will be drawing construction details, practising basic construction & design skills, in conjunction with the theory behind the associated topics.

This subject will develop the students' general education and prepare them to study the following courses at third level.

- Architecture
- Engineering (structural, civil)
- Quantity Surveying
- Construction Management/construction economics
- Building Services
- Property Economics, Auctioneering, estate agency
- Draughtsman
- All construction related trades.

While it is an advantage to have done Woodwork or Technical Graphics at Junior Cert, it is not essential in taking up Architectural Technology.

Design & Communication Graphics

(DCG)

DCG is a new subject and has replaced the old Technical Drawing course. The subject develops students' cognitive and practical skills. These skills include graphic communication, creative problem solving, spatial abilities/visualisation, design capabilities, computer graphics and CAD modelling.

The subject is examined in 2 sections;

- 1. 60% terminal written paper**
- 2. 40% CAD assignment/project**

The geometrical and technical strands of the subject provide students with a vital link between the academic and the technical subjects. The main emphasis will be on Projection Systems, Plane & Solid Geometry, Dynamic Mechanisms, Structural Forms, Geologic Geometry, Surface Geometry & Assemblies.

The course assignment will relate to a theme identified by the examining authority. It will be mainly a computer assignment but will also require the students to display their freehand sketching and design skills.

This subject will develop the students' general education and prepare them to study the following courses at third level:

- Architecture
- Graphic Design
- Engineering
- Draughtsman
- All trades

Results in DCG at Ratoath College are above the national average. 95% of students received an honour in their DCG exam in 2014.

While it is not essential to have studied Technical Graphics at Junior Cert level, it is necessary to have undertaken a technology subject at Junior Cycle (I.e. Materials Technology Wood or Metal Work or TG) in order to take DCG at Senior Cycle.

DCG Project Assignment – Student Profiles

Neil o Dowd 6th Year DCG Student, Received an A1

“For my leaving cert I designed a concept water bottle for BMW M Sport. I carried out a lot of research and incorporated a lot of BMWs key brand features into the design. I was able to model this design using solid works, produce working drawings and photorealistic views. I have found DCG a very rewarding subject, with interesting and challenging topics on the course”

Ciaran Phelan 6th Year DCG Student

“For my leaving cert I designed a concept water bottle for TAYTO. Brand Awareness was a key part of my design. I incorporated a simple, effective cap mechanism which is user friendly and cost effective to manufacture. I am delighted with my project and I have learned a lot of new skills as a result. I highly recommend DCG as a subject choice for Leaving Cert”

Engineering

Leaving Certificate Engineering is a subject that gives a student an opportunity to work with a range of metals and plastics in a safe workshop environment.

- Practical classes involve the safe use of lathes, drills, milling machines and computer controlled manufacturing systems. This runs in tandem with theory based classes analysing properties of materials, structures and the theory behind how machines work.
- The subject is closely related to Materials Technology Metal, the junior certificate subject. However, to peruse Leaving certificate engineering, it is not a requirement of the student to have completed it in the junior certificate.
- In final year, students analyse, design and manufacture their own artefact as part of the Leaving Certificate examination. Previous Projects have included model Golf buggies, Snowmobiles, Cranes and Lunar Roving Vehicles.

The subject is examined in 2 sections;

1. 50% Terminal written paper
2. 50% Practical project work.

One key advantage of Engineering is that the student can achieve 50% of their Leaving Cert grade before sitting the final exam. This suits students who are anxious about final written exams.

Careers

Engineering can be seen as an excellent base for students who wish to peruse careers in:

- | | |
|-------------------------------------|---------------|
| • Mechanic and Fitter Apprentices | Salaries 120k |
| • Environmental Engineering | Salaries 80k |
| • Biomedical Engineering | Salaries 75k |
| • Mechanical Engineering and design | Salaries 55k |

Previous students who recently completed the Engineering course in Ratoath College are now pursuing education in Nano Technology (DCU) , Environmental Engineering, (NUIG) Biomedical Engineering (UL), and apprenticeships in Mechanical fitting (SOLAS) with the intention of starting up their own garage businesses.

Previous students from Ratoath College who have finished their third level studies are now in employment such as Mechanical Engineers working for ESB, Service engineers working for OTIS passenger lifts, Sound and RIG engineers working with MCD Productions and the Jet engine service technicians for the Australian Air Corps. The possibilities are endless!

While it is an advantage to have completed Materials Technology Metal at Junior Cert level, it is not essential in taking up Engineering. It is also helpful if a student is competent at Art, ICT and Materials Technology (Wood).

Engineering Student Profile

“The leaving cert exams were a very busy time for me as I was aiming for high points. The fact that I had 50% of my Engineering marks achieved throughout the year took a lot of pressure off me for my final exam. I really enjoyed the two years of engineering as I got to work on CNC machines, worked with a lot of different materials and designed very interesting projects”

H: Humanities

Classical Studies

Classical Studies is concerned with the civilizations of ancient Greece and Rome in all their manifestations and with their continuing influence on the modern world. It includes history, literature, art and architecture, drama and philosophy. Classical Studies is generally enjoyed by pupils who like English, History, Art and storytelling in general. The fact that it has such a great variety of content contributes to its popularity among all kinds of students.

Content of the syllabus

Pupils will study 4 of 8 possible courses. The Four we do in Ratoath College are:

1. **The Age and Campaigns of Alexander the Great.** A study of how the young prince took the backward Greek kingdom of Macedonia and gave it the greatest army in the world, taking over most of the known world while destroying the previous superpower, The Persian Empire, all in the space of ten years.
2. **Greek Drama.** An in depth study of two of the most important plays of all time **Sophocles' 'Oedipus Rex'** and **Euripides', 'Medea'**. The ultimate examples of Greek Tragedy which set the scene for the development of Drama over the next two and a half thousand years.
3. **Roman Art and Architecture.** A look at the most remarkable physical relics from the Roman Empire. The most impressive public buildings and constructions, the most beautiful paintings and sculptures and furthermore a study of the planning and layout of Roman towns.
4. **Ancient Epic.** The reading and study of two of the most important pieces of literature in western civilization. **Homer's *The Odyssey*** ; The 10 year adventures of the Greek warrior on his way home from The Trojan War, and **'The Aeneid'** of **Virgil** the epic tale of the Trojan Aeneas and the foundation of Rome.

Assessment

Leaving Certificate Classical Studies is assessed by means of a terminal examination paper at each level dealing with the four chosen modules.

Careers

Classical Studies is a good foundation for careers in the arts in general as it combines many disciplines and areas such as art, architecture, literature, history, drama, philosophy, history, archaeology and sociology. Regarding specific careers relating to Classics, the fields of Archaeology and Education at both secondary and third level would be greatly assisted by a grounding in Classical Studies.

Geography

The Leaving Certificate Geography programme involves both fieldwork and a written exam. The fieldwork involves a river study, completed in October of 6th Year, and amounts to 20% of the overall Leaving Certificate result. Students will travel to Co Wicklow to study and examine the forces at work along the Glencree River.

The final exam combines short questions, map work and questions on topics such as natural disasters, plate tectonics and river studies. Students will also study population growth and distribution, migration and urban challenges facing people in the modern world.

These topics are relevant to events happening on a daily basis around the globe and students will examine these events as they occur. Students will be introduced to the concept of biomes by studying rainforests such as The Amazon.

They will also study world cultures including countries such as France, Brazil and Italy. The course is both interesting and relevant and with the right attitude students can excel in their Leaving Cert exam. Geography provides students with a well-rounded education and provides excellent job opportunities, especially in this ever changing world.

History

What will I learn about?

You will study **four modules** in Leaving Cert History covering some of the most exciting, interesting and engaging periods and people of the 20th Century, learning about the ideas and concepts that shape the world you live in today. Two of these modules cover Irish History, and the other two cover Europe and the wider world; including:

PERIODS AND EVENTS			
The Nazi Regime in Germany		The Russian Revolution and USSR	
Italy under Mussolini		Radio and Cinema in the 1930s	
The Moon Landing		The Vietnam War	
World War 2		The Cold War	
The Civil Rights Movement in the USA		The Civil Rights Movement in Ireland	
The Troubles in Northern Ireland		The 1916 Rising	
The War of Independence		The Civil War	
The Emergency		20 th Century American Popular Culture	
PEOPLE			
Adolf Hitler	Joseph Goebbels	Leni Riefenstahl	Bernadette Devlin
Benito Mussolini	Bing Crosby	Ronald Reagan	P.H. Pearse
V.I. Lenin	Charlie Chaplin	Marilyn Monroe	John Hume
Joseph Stalin	Martin Luther King	Eamon de Valera	Seamus Heaney
Winston Churchill	Lyndon B Johnson	Michael Collins	Ian Paisley

...and many, many more.

The Project

20% of the final grade for Leaving Cert History is for a project called **The Research Study Report (RSR)**. The project can be about anything or anyone from the any time in the past – a topic that **you choose**. The average national grade for the RSR is approx. 92%. **This means that before you sit the Leaving Cert History Exam, 20% of the marks, and 20% of the points, are already in the bag!**

Some important statistics about choosing History for the leaving certificate

- More people achieve a H5 or better in History than any other subject, other than Art and Music.
- History has the 4th lowest failure rate of any Leaving Cert subject.
- History is their best result for 66% of students who choose it for the Leaving Cert.

Sources: The SEC: www.examinations.ie

Religious Education

Religious Education for Leaving Certificate is fully recognised by CAO, UCAS and other entry bodies into third level education and merits the same points as other Leaving Certificate subjects. It places particular emphasis on the preparation of students for further education, employment, and for their role as active citizens. The focus is on the value of religious belief as well as diversity and mutual respect. It fosters a spirit of inquiry, critical thinking, problem solving and self-reliance.

Syllabus:

- Section A: The search for meaning and values (Modern and ancient approaches to the search for meaning, myths, Philosophy)
- Section C: World religions
- Section D: Moral decision-making.
Any one of the following (excluding the two sections designated for coursework).
- Section E: Religion and gender
- Section F: Issues of justice and peace
- Section G: Worship, prayer, and ritual
- Section H: The Bible: literature and sacred text
- Section I: Religion: the Irish experience
- Section J: Religion and science

Assessment:

20% of the grade in R.E. is awarded for Coursework project
80% is awarded for performance in the Leaving Cert Exam

Why study Religious Education?

- You studied it for the JC so you have a good base knowledge to begin with.
- Introduction to Philosophy – would I like to study this in college? This also has relevance for psychology, social care, social studies and other such lines of study.
- Engage in meaningful dialogue with people of other world views.
- Understand the variety of religious traditions in Ireland and globally
- R.E. explores issues of relevance in an informed and academic way. (Morality – death penalty, cloning, euthanasia, war)
- R.E. offers deep insight into the evolution of religion since ancient times. This will inform your understanding of modern culture

Some of the skills you will learn on this course include:

- Analysis of topics
- Engagement in extended research – including using computers, libraries, surveys, interviews, media, drawing conclusions
- Critical thinking – questioning the authority of different sources, distinguishing fact from bias
- Reflection on your learning and its effect on your ideas, attitudes and experience
- Ability to interpret, contrast and evaluate different opinions/approaches to a topic
- Ability to develop counter-arguments

Studying R.E. does not limit you to studying theology at college. The philosophy on the LC course has strong links with 1st year college philosophy which is found on many humanities, arts and psychology courses.

The skills that you learn in R.E. help you adapt to a huge range of college choices as well as careers – in many ways the skills you learn are as important as the content.

I: Physical Education

Aim

The aim of Leaving Certificate Physical Education is to develop the learner's capacity to become an informed, skilled, self-directed and reflective performer in physical education and physical activity in senior cycle and in their future life.

Objectives

The objectives of Leaving Certificate Physical Education are to develop the learner's

- Performance in physical activity
- Ability to reflect on performance in physical activity
- Knowledge and understanding of the factors which influence performance and participation in physical activity
- Appreciation of the benefits of physical activity for lifelong health and wellbeing
- Capacity to undertake different roles in physical activities
- Understanding of the principles underlying ethical participation in physical activity
- Understanding of the role of physical activity and sport in the social and cultural life of Ireland.

Assessment

Assessment Component	Weighting	Level
Physical Activity Project	20%	Higher & Ordinary
Performance Assessment	30%	Higher & Ordinary
Written Examination	50%	Common Level

Structure

The specification is presented in two strands:

STRAND1

Towards optimum performance

- 1. Learning and improving skill and technique
- 2. Physical and psychological demands of performance
- 3. Structures, strategies, roles and conventions
- 4. Planning for optimum performance

STRAND 2

Contemporary issues in physical activity

- 5. Promoting physical activity
- 6. Ethics and fair play

In addition, two of the following topics will be prescribed each year:

- 7. Physical activity and inclusion
- 8. Technology, media and sport
- 9. Gender and physical activity
- 10. Business and enterprise in physical activity and sport

6: Leaving Cert Applied **(LCA)**

What is the LCA?

The Leaving Certificate Applied is a two-year Leaving Certificate, available to students who wish to follow a practical or vocationally orientated programme.

The word “applied” is used because the programme is designed to allow the students to apply the learning and experiences they gain over the two years of the programme to practical educational tasks, at school, in the workplace and in the wider community.

What is different about the LCA?

The Leaving Certificate Applied is different in a number of ways:

- It is distinct from the established leaving cert and is a self contained programme made up of a number of courses
- It is a practical programme that makes wide use of active and student centred learning methodologies
- It includes seven assessed student tasks that bring together the different learning experiences that the students have gained from the courses they have taken
- It uses a unique system of assessment. The students’ work is assessed over the two years of the programme and they gain credits as they go along. Practicals, interviews and terminal written papers are among the different forms of assessment used. The students’ communication, problem solving and practical skills are also assessed.

LCA course outline

The programme is divided into three main highlighted in the table below.

- Each of the courses mentioned are designed on a modular basis.
- A module is of thirty hours duration.
- Students must take a **total of 44 modules** over the two-year programme.

1. Vocational Preparation	No. of Modules
• Vocational Preparation & Guidance	8
• English and Communication	4
2. Vocational Education	No. of Modules
• Vocational Specialism's (Office Administration and Engineering or Craft and Design)	8 (4 x 2)
• Mathematical Applications	4
• Introduction to Information and Communication Technology	2
3. General Education	No. of Modules
• Social Education	6
• Languages:	
Gaeilge	2
Modern European Language	2
	(4)
• Arts Education (Dance, Drama, Music, Visual Arts)	2
• Leisure and Recreation (including Physical Education)	2
4. Elective Modules	No. of Modules
• Graphics and Construction	2
Hotel, Catering and Tourism	2
	(4)
Total	44

As students complete their LCA course work they collect credits. In other words the LCA adopts a continual assessment approach.

It is possible to collect a total of 200 credits. The maximum mark is made up of the following 3 elements:

1. Satisfactory completion of Modules	62 Credits	(31%)
<i>(See table above for modules)</i>		
2. 7 Student tasks	70 Credits	(35%)
<i>(Tasks are completed in various subjects. Students must submit a report and sit an interview with an external examiner for each task)</i>		
3. Final examinations	68 Credits	(34%)
<i>(Written exams conducted along with the Established Leaving Cert.)</i>		
<u>Total</u>	<u>200 credits</u>	<u>(100%)</u>

Results

Based on these credits, the Leaving Certificate is then awarded at 3 levels:

Pass	120 - 139 credits	(60-69 %)
Merit	140 - 169 credits	(70-84 %)
Distinction	170 - 200 credits	(85-100 %)

***Please note that attendance is hugely important.
An average attendance of 90% is necessary before exam grades can be awarded***

What are students' options upon completing the LCA programme?

There are a number of options available to students including the following:

- **Further Education:**
Graduates of the Leaving Certificate Applied do not have direct access to Higher Education through the Central Applications Office (CAO).
However, graduates of the Leaving Certificate Applied who progress to an appropriate further education award (i.e. a Post Leaving Cert qualification) can become eligible for admission to some third level courses in the Institutes of Technology and

following that to some degree courses in the Institutes of Technology and in the Universities.

E.g. Nursing

A student who completes the LCA can apply to complete a 'Pre Nursing' PLC course in Dunboyne College of Further Education. If a student achieves the required grades then they are then eligible to study General Nursing in DCU.

- Training:
LCA graduates will be sufficiently prepared to take up an apprenticeship with FAS
- Careers:
The programme places particular emphasis on preparation for the world of work. This Leaving Certificate is generating a good degree of interest among employers, who regard Leaving Certificate Applied students as being eligible to apply for many career vacancies in their organisations

7: Careers Information

Useful Websites and Email Addresses

- www.qualifax.ie
 - Database of all Post Leaving Cert and 3rd level courses in Ireland
- www.careersportal.com
 - Excellent careers website featuring videos of people currently working in selected careers
- Contacts for any queries you may have
 - Dball.rth@lmetb.ie
 - Greilly.rth@lmetb.ie
 - Bbrennan.rth@lmetb.ie

Leaving Certificate CAO Points System

The Department of Education and Skills will introduce a new Leaving Certificate grading scale in 2017, therefore current 3rd years and TY students will be affected by these changes. The new scale has 8 grades, the highest grade is a Grade 1, and the lowest grade is a Grade 8.

- Points are awarded based on the **highest 6 grades**
- Maximum points = 600
- Student who undertake Higher Level Maths will be eligible to achieve 625 points

Grade	Points	Grade	Points	Higher Maths Incl. Bonus
H1	= 100	O1	= 56	H1 = 125
H2	= 88	O2	= 46	H2 = 113
H3	= 77	O3	= 37	H3 = 102
H4	= 66	O4	= 28	H4 = 91
H5	= 56	O5	= 20	H5 = 81
H6	= 46	O6	= 12	H6 = 71
H7	= 37	O7	= 0	H7 = 0
H8	= 0	O8	= 0	H8 = 0

Examples of subject combinations for 3rd Level Courses

Arts:

- Subjects required for Maynooth University:
 - English
 - Irish
 - Third Language
 - Any 3 other subjects

Computer Engineer:

- Subjects required for Engineering in I.T. Blanchardstown:
 - Irish or English
 - Maths
 - 4 other subjects

Medicine:

- Subjects required for Trinity College:
 - Maths
 - English
 - Irish (or another language)
 - Chemistry
 - Biology or Physics
 - Any other subject

Sports Scientist:

- Subjects required for Sports Science and Health at DCU:
 - Maths
 - English or Irish
 - 1 Science subject
 - Any 3 other subjects

8: Summary

Hopefully after reading this booklet, you are ready to take the next step and choose which Senior Cycle Module you wish to pursue. Below is a summary of the selection process:

Senior Cycle Options

Step 1

- **Students in 3rd year** can opt for 1 of the below:
 - a) TY
 - b) Established Leaving Cert (with LCVP or Applied Maths or Career Guidance)
 - c) Leaving Cert Applied
- **Students in TY** can opt for 1 of the below:
 - a) Established Leaving Cert (with LCVP or Applied Maths or Career Guidance)
 - b) Leaving Cert Applied

Step 2

- **Students who choose to take LCA must do the following:**
 - fill out the relevant **application form**
 - indicate what **subjects** they would like to take if they were to do the Established Leaving Certificate
- **Students who choose Established Leaving Cert must do the following:**
 - Choose **4 subjects**
 - Indicate whether they would like to study either **LCVP or Applied Maths or Career Guidance*** in (*Career Guidance in 5th Year is followed by study in 6th Year)

Step 3

- **Return Application Form by 9.00am on Friday 24th January**

Good luck to all our students in the decision making process!

Notes: