MOATE COMMUNITY SCHOOL

SENIOR CYCLE
SUBJECT OPTIONS 2023

INTRODUCTION

When it comes to making Subject Choices it is important that you choose your subjects carefully as this will affect your future career path.

At this stage you have favourite subject areas and you may have some career ideas. Choosing a good balance of subjects now will leave options open for the future. Focus on subjects that you are good at and that you enjoy and then spend some time considering what you might need.

In making your subject choice there are a number of factors to consider-**aptitude, interest and also whether the subject is useful and necessary for third level.**

Choose subjects that you have enjoyed to date and in which you have achieved good results. The subjects you enjoy will not only be less difficult to study but are often an indicator of future study/career areas. Do not forget to consider your Junior Cert results as well as your aptitude test report when considering your choices.

It is important to realise that in choosing your subject options you do not become locked into specific careers or excluded from others. For example, to study accounting or business at third level it is not always necessary to take these subjects at Leaving Certificate. Nor do you have to study engineering to become an engineer. However, if you like those subjects areas and are considering a career that links with them, then why not choose one or other.

There are some subjects that are essential for entry into particular courses, colleges and careers. Such information is available on **www.qualifax.ie**, **www.careersportal.ie** and from the Guidance Counsellors in Moate Community School.

Never choose a subject in the false belief that it is easy; that it is a ‘doss' subject, because your friends are choosing it or because of a particular teacher. Be true to your own interests.

Where to get relevant information? The principal source of information will be your Guidance Counsellors and teachers. Students who are already studying a particular subject can give helpful insights into what it is really like to study that subject.

Senior Cycle Subject Options- Core and Options at MCS

Core	Options	Options
English	Modern Foreign Language- French or Spanish	Physics
Irish	Accounting	Art
Maths	Business	Construction Studies
Religion	Economics	Design & Communication Graphics
Guidance	LCVP- Leaving Certificate Vocational Programme	Engineering
	Agricultural Science	Home Economics
	Applied Maths	Music
	Biology	Physical Education
	Chemistry	Geography
	Computer Science	History

For your information:

To access higher education, universities, Dublin Technical University, Institutes of Technology and Teacher training Colleges etc. student applicants must meet the **College, Faculty/course entry requirements and points in their Leaving Certificate.**
This information for any CAO course of interest to a student can be found on:

1. www.qualifax.ie
2. www.careersportal.ie

COLLEGE REQUIREMENTS

1. Minimum Entry Requirements:

All HEIs (Higher Education Institutes) have general entry requirements common to all of their courses. For example, the NUI- National Universities of Ireland require 6 subjects including English, Irish and a Modern Foreign Language 2H5 & 4O6/H7.
Note: Requirements can change from year to year therefore, it is important for students to check the college prospectuses for the most up-to-date information.

2. Course/Faculty (Specific) Requirements:

Certain courses will look for specific entry requirements, for example:

- Primary Teaching H4 Irish
- Level 8 Engineering Degrees H4 Maths or H5 Applied Maths
- Journalism & Communications HL English
- Veterinary/Dentistry/ Dietetics/ some Medicine courses require Chemistry
- Theoretical Physics in Trinity College- H3 Physics and H3 Maths
- Architecture UCD/ Biotechnology NUIG require a third language
- Post Primary Teaching Gaeilge with French, German or Spanish at DCU requires a H3 in all these language areas for entry. Students will choose Irish and one European language to study in this course.

Note: There are other requirements for different courses. Requirements can change; therefore, it is important to check the college websites/prospectuses for the most up-to-date information.

3. Points Requirements:

Every course has cut-off points determined each year by the demand of Leaving Certificate applicants. Places are awarded on courses based on the applicant's results in descending order from the top result until all places are filled. The points of the last applicants to gain a place are the points for the particular year and these are released by the CAO office.

CORE SUBJECTS

These subjects are compulsory, some or all of these are required for entry into third level depending on what a student aspires to study there.

English

Higher level English will enhance answers in all other subjects but it is not a general entry requirement for most courses apart from courses such as journalism where a specific grade entry requirement is needed.

Irish

Higher Level Irish is a necessity for entry into Primary Teaching, students must have a H4. With the exception of courses where Irish is studied and a HL grade required OL Irish will suffice for entry into college.

Maths

Higher level Maths in a necessity for entry into University Engineering and other STEM-related courses, see www.qualifax.ie. Ordinary level maths is acceptable for level 6 and 7 courses in the Institutes of Technology.

Language Exemption:

For students who have a language exemption it is important that they apply for it on www.nui.ie in sixth year. Failure to do so may mean a student is not accepted into their course of choice in NUI institutes such as UCC, UCD, Maynooth University, NUIG, NCAD and RCSI. Primary Teaching courses for example will not accept students with an Irish exemption as the H4 in a mandatory requirement for entry into such courses.

BUSINESS SUBJECTS OFFERED AT MCS
Accounting, Business and LCVP

Accounting

Subject Overview:

- To introduce students to the business environment and provide them with the understanding and knowledge of this ever-changing area.
- To make students aware of the use of figures, computations and statistics in the business world.
- To enhance numeracy skills.
- To introduce students to the world of accountancy and business with a view to future career and professional life.

Content:

The course is divided into eleven sections:

1. The concept of accounting.
2. The regulatory framework of accounting (higher level)
3. Accounting records
4. Sole Traders
5. Company Accounting
6. Specialised accounts
7. Incomplete records
8. Cash Flow statements
9. Financial statements
10. Management accounting
11. Budgeting

Recommendation:

As a subject it provides students with specific business knowledge which should be especially useful after school. The subject suits students who are numerical and quick thinking.

Assessment:

Accountancy is assessed by means of a terminal written examination at ordinary and higher level.

Career Related Areas:

An excellent foundation for commerce and business or commerce related courses and accounting as a single subject, Auctioneer, Auditor, Clerical Work, Insurance and Financial Services, Business Law, Quantity Surveyor etc.

Business

Subject Overview:

The aim of this subject is to introduce students to all aspects of the business world. It deals with the process involved in setting up a business and product development. Management skills are also studied in detail. Foreign trade, technology and competition within markets are also covered.

Content:

The course is divided into seven sections:

1. People in Business.
2. Enterprise.
3. Management, Communications.
4. Finance, Insurance, Taxation, Human Resource Management, the role of Management, Monitoring a Business
5. Identifying opportunities, Marketing, Start up and Expansion
6. Business Sectors, Structure of Business, Community, Development, Business, Government and Workers, Social and Ethical Responsibilities of Business.
7. International Business.

Recommendation:
Student needs to be interested in what is happening in the business world on a national and international level and in how business operates.

Assessment:
Assessment is by means of a terminal written examination paper at both Ordinary and Higher levels.

Career Related Areas:
Useful for all Business and Commerce, Management, Marketing, Event Management, Leisure and Hotel Management and Sport Management, Administration, Advertising, Insurance, Enterprise HR/PR and Teaching to name some areas.

SCIENCE / MATHS SUBJECTS OFFERED AT MCS

Agricultural Science

Subject Overview:

Agricultural Science involves the study of the science and technology underlying the principles and practices of Agriculture.

Content:

The course covers the following topics:

- Soil Science - Physical, Chemical and Biological Properties
- Soil and Nutrient Management
- Plant and Animal Physiology
- Grassland Management
- Farm Crops
- Principles of Genetics
- Management of Dairy, Beef, Sheep and Pigs
- Agriculture and the Environment
- Agriculture and Technology
- Animal Pests and Diseases
- Farm buildings and Farm Safety
- Microbiology

Recommendation:

Students should have the ability to work independently and be interested in agriculture and in the environment. They should enjoy gaining practical experience and carrying out investigations. Students need to be innovative and motivated with regards to the preparation of an individual investigative study.

Assessment:

The exam consists of:

- A Terminal Exam 75%
- Individual Investigative Study 25%

Career related areas:

Ag. Science can be used as a lab-science subject in a number of science based courses, check www.qualifax.ie website for details, Agricultural Science, Agri-Business, Agriculture and the Environment, Environmental Science, Forestry, Veterinary Nursing, Agricultural Engineering, Health Control and Consumer Protection, Organic Farming, Applied Science-Animal Care, Agriculture Advisor, Animal Nutritionist, Farm Manager, Teaching, Horse Breeding, Food Science, Horticulture, Rural Community Resource Worker and so on.

Applied Mathematics

Subject Overview:

This is the study of practical applications of maths to the real world. It is typically associated with Engineering and Physics but also finds uses on Economics, Business, Chemistry and Medicine. The Applied Maths course at Leaving Certificate is called Theoretical Mechanics or Mathematical Physics in third level education and is one of the many branches of the more general field of Applied Mathematics.

Content:

The course essentially covers the mathematics behind the behaviour of objects when placed in various situations such as being thrown as projectiles, bounced off walls or other objects, immersed in fluids or swung on a rope. The subject tends to avoid theory-heavy questions which are found on the Maths paper, instead offering practical problems with numerical solutions. The applied maths project is worth 20% and is completed over a few weeks in 6th year. It is a report on a modelling project with a maximum of 900 words excluding references and images. The aim is to model a real-life situation using maths. Students will start off with a simple model and look to re-evaluate it 2/3 times, trying to make it more accurate each time followed by reflecting on the reliability of their work compared to real life results.

Applied Maths is excellent for developing strong problem-solving skills which are valuable for a wide range of future employment skills.

Assessment: 20% to a project and 80% to the final written exam.

Career Related Areas:

Engineering, Science, Information Technology, Business, Environmental Studies, Finance, Architecture or Education. *It also facilitates the study of* higher-level *Maths or Physics*.

Biology

Subject Overview:

Biology is the study of life. Through studying Biology students use the processes of science to explore the diversity of life and the inter-relationships between organisms and their environment.

Content:

The Course covers 3 main topics:

1. The Study of Life

- The Scientific Method
- The Characteristics of Life
- Nutrition
- General Principals of Ecology
- A Study of an Ecosystem

2. The Cell

- Cell Structure
- Cell Metabolism
- Cell Continuity
- Cell Diversity
- Genetics

3. The Organism

- Diversity of Organisms
- Organisation and the Vascular Structures
- Transport and Nutrition
- Breathing System and Excretion Responses to Stimuli
- Reproduction and Growth

Recommendation:

The study of biology requires a good understanding, memory and application of material learned.

Assessment:

Assessed is by means of terminal examination.
There are 23 mandatory experiments. Students are required to keep a record of these experiments. The course includes an ecology study which involves a field trip.

Career Related Areas:

Medicine, Nursing, Dentistry, Genetics, Radiography, Veterinary Science, Physiotherapy, Podiatry, Speech and Language Therapy, Optometry, Occupational Therapy, Sports Science, Environmental Science, Med-lab Science, Food Science, Forensic Science, Beauty Therapy, Science Teaching and/or Scientific Research. Check out www.qualifax.ie for specific course entry requirements.

Chemistry

Subject Overview:

Chemistry is often described as the 'central science'. The course provides a foundation for those who wish to continue the subject and other sciences at 3rd level. It consists of approximately 70% pure chemistry while 30% deals with the social and applied aspects of chemistry.

Content:

- Periodic Table and Atomic Structure
- Chemical Bonding
- Stoichiometry, Formulas and Equations
- Volumetric Analysis
- Fuels and Heats of Reactions
- Rates of Reaction
- Organic Chemistry
- Chemical Equilibrium
- Environmental Chemistry: Water
- Industrial Chemistry
- Atmospheric Chemistry

Recommendation:

The study of chemistry has been identified by FORFAS as a matter of great importance to the further development of our economy, given the number of pharmaceutical and fine-chemical companies based in Ireland. Abstract reasoning is important, and a good level of maths competency is needed for the study of chemistry. Students taking the subject should have an aptitude and interest in laboratory work.

Assessment:

Assessed is by means of terminal examination. There are 28 mandatory experiments and students are required to keep records of these in a laboratory copy.

Career Related Areas:

Medicine, Pharmacy, Veterinary Medicine, Dentistry, Forensic Science, General Science, Biochemistry, Biotechnology, Food Science, Dietetics and Engineering. Check out www.qualifax.ie for specific course entry requirements.

Computer Science

Subject Overview:

- Computational thinking.
- How to analyse problems in computational terms.
- Programming languages and how to read, write, test and modify computer programs.
- Creative design.
- Design computation artefacts such as web pages, digital animations, simulations, games, apps and robotic systems.
- The ethical, historical, environmental and technological aspects of Computer Science.

Content:

Strand 1 – Practices and Principals

- Computers & Society
- Computational Thinking
- Design & Development

Strand 2 – Core Concepts

- Abstraction
- Algorithms
- Computer Systems
- Data
- Evaluating/Testing

Strand 3 – Computer Science in Practice

- Applied Learning Task 1: Interactive Information Systems
- Applied Learning Task 2: Data Analytics
- Applied Learning Task 3: Modelling & Simulation
- Applied Learning Task 4: Embedded Systems

Recommendation:

In Computer Science there is a strong emphasis on problem-solving. Key skills such as personal effectiveness, communication, critical thinking and so on are developed through programming concepts using languages such as Python and Java Script. Students will also learn about the ethical and social impact of computing technologies, artificial intelligence, big data and more on humans and society.

Assessment:
Students will complete 70% of the subject through the May examination, 1.5hr Theory Exam (pen & paper) and 1hr Coding exam (python programming language) which will be done on computer.

30% of marks will be available for a practical project. This will be done over an eight-week period in schools.

Career Related Areas:

The study of Computer Science at Leaving Certificate has become highly relevant to almost all aspects of modern life, and to every career choice. This subject will teach young people flexible, solution-oriented thinking. This subject gives school leavers a foundation in what is an essential skill for the modern workplace.
Careers include Software Application Developer, Computer Systems Analyst, Software Systems Developer, Web Designer, Network Systems Administrator, Database Administrator. Careers in this field are projected to grow by 12% through 2024.

Physics

Subject Overview:

The subject aims to give students an understanding of the fundamental principles of physics. Science, technology and society is an integral part of the syllabus so that students can be aware of the principles of the applications of physics in the everyday world.

Content:

- Mechanics
- Temperature
- Heat
- Waves
- Vibrations and Sound
- Light
- Electricity
- Modern Physics
  Option 1: Particle Physics (HL only)
  Option 2: Applied Physics (HL only)

Recommendation:

Physics is key for anyone interested in technology or in STEM-related careers such as Engineering. Physicists play a vital role in the development of many new technologies and the laws of physics find application in almost every branch of science and engineering, for example the laws of physics apply to the speed of switching circuits in a computer, the pumping action of the heart or the stresses on a bridge. It is required to study Theoretical Physics in Trinity College.

Assessment:

Assessed by means of a terminal examination. There are 24 mandatory experiments. Students are required to keep a record of this work.

Career Related Areas:

Civil and Structural Engineering, Electronic engineering, Computer engineering, Mechanics, Electrician, Applied Physics, Mathematical and Computer Science, Architecture, Optician, Radiography and so on.

HUMANITIES / SOCIAL SUBJECTS OFFERED AT MCS

Geography

Leaving Certificate Geography will help students develop an understanding of the changing relationships between the physical and human worlds. Through their study of geography, students will develop geographical skills that will help them to make informed judgements about issues at local, national and international levels. It may be studied at Ordinary or Higher level. The course is divided into core, elective and optional units of study.

Syllabus Structure:

Leaving Certificate Geography syllabus has a core, elective, and option structure.

Three Core Units:

UNIT 1: Patterns and Processes in the Physical Environment
UNIT 2: Regional Geography
UNIT 3: Geographical Investigation & Skills

Two Elective Units: **One** to be studied

Elective Unit 4: Patterns & Processes in Economic Geography*
or
Elective Unit 5: Patterns & Processes in the Human Environment

Four Optional Units - **One** to be studied **(Higher level students only)**

Optional Unit 6: Global Interdependence
or
Optional Unit 7: Geo-ecology
or
Option Unit 8: Culture & Identity
or
Optional Unit 9: The Atmosphere- Ocean Environment

Higher Level: Students study all core units, one elective & one option.
Ordinary Level: Students study all core units & one elective

Recommendation:
Geography careers offer opportunities to develop solutions to some of the most pressing issues for modern society, including climate change, natural disasters, overpopulation, urban expansion, and multicultural integration. Geography is concerned with the study of people in their Environment. Students develop an understanding of the complex relationships between the human and physical worlds. Through their studies, students develop an awareness of local, national and international issues which are of ever greater importance in our world.

Assessment:
Leaving Certificate Geography is assessed at Higher and Ordinary Level and has two components: Examination Paper: 80% Geographical Investigation (Field Study): 20%- This Field Study element is fully completed and submitted under teacher guidance prior to the Leaving Cert written Examination.

Career Related Areas:

Career opportunities in Geography include: Cartographer, Commercial / Residential Surveyor, Environmental Consultant Geographical Information Systems Officer, Secondary School Teacher, Town Planner, https://www.prospects.ac.uk/job-profiles/astronomerInternational Aid/Development Worker, Landscape Architect, Logistics and Distribution Manager, Market Researcher, Nature Conservation Officer, Political Risk Analyst. Sustainability Consultant, Tourism Officer, Transport Planner, Defense Forces, Environmental Science, Geology, Heritage Studies, Environmental Management, Sociology, Surveying, Transportation Management, Urban Planner, Development and so on.

History

Subject Overview:

The study of history involves an investigation of the surviving evidence relating to human life in the past. The leaving Certificate History Curriculum focuses on Modern Ireland, Europe and the wider world from 1870-1970. Through its focus on the evaluation of evidence, it develops skills in critical thinking, independent learning, analysis and editing skills. All the aforementioned skills are pivotal to many undergraduate courses at third level.

Content:

- Four topics are studied- 2 Irish and 2 European.
- 3 topics are studied in essay format at higher level and short question and paragraph format for ordinary level.
- The 4th topic is prescribed for study by the SEC *(State Examination Commission)*

Recommendation:

History embraces the world of politics, economics, philosophy and religion. Students who have a thirst for knowledge, have an ability to express themselves accurately and can support their arguments/ points of view with relevant information, excel in the subject. History helps to develop critical reasoning and analytical skills, including their capacity for solving problems and thinking creatively. Student will learn to define and research an appropriate topic for study. They will also learn to research local historical data from a variety of primary and/or secondary sources. In this regard, they learn to select, record, evaluate and collate data, presenting their findings in a well-structured, logical format.

Assessment:

The research study report/project	20%
Written examination	80%

Careers:

History is useful and beneficial for career paths such as Law, Politics, Media and Heritage Studies. Other relevant careers/jobs include Primary Teacher, History Teacher, Archaeologist, Archivist, Researcher, Librarian, Broadcaster, Journalist, and Genealogist and so on.

Home Economics

Subject Overview:

The Leaving Certificate Home Economics syllabus provides students with the skills, knowledge and understanding necessary for managing their personal lives, educational needs and future work. The subject has an applied approach involving theory and practice. It includes the management of resources (material and human) to meet the emotional, intellectual, physical, social and economic needs of the individual and family units.

Content:

The Home Economics syllabus is based on three core areas (compulsory to both higher and ordinary levels) and one elective option.

Core Areas

- Food Studies
- Resource Management & Consumer Studies
- Social Studies

Elective areas (one to be chosen)

- Home, Design and Management
- Textiles, Fashion and Design
- Social Studies

The elective area allows students to undertake a more detailed study of one area.

Recommendation:

Home Economics covers a wide range of social issues. It is a relevant and topical subject. The variety of topics covered provides an interesting and rich fund of knowledge and skills invaluable for self-development and for life. It is suited to students with a strong attention to detail who is organised and good at planning.

Assessment:

Leaving Certificate Home Economics is assessed in two ways.

A terminal written examination (80%)

Assignment work (20%).

Career Related Areas:

Useful in careers in Hotel, Catering and Management, Social Studies, Food Science, Sociology and Health Science and Physiology, Secondary Teaching, Textiles and Design, Food and Product Development and Innovation, Sports Science, Beautician, chef, Occupational Therapy and so on.

Physical Education

PE is by now well established as a senior cycle exam subject. All components of the subject will be assessed externally. The subject has already been rolled out nationally for Leaving Certificate students for examination in 2022 and the 2023 cohort will be the second group to complete the programme at MCS.

***Subject overview*:**

The specification indicates that the assessment of Physical Education will have three elements:

(1) A written examination

(2) A physical activity project

(3) Performance assessment.

Content:

Strand 1: 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

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 and sport

Assessment:

1. A final written examination worth 50% of the marks
2. The **Physical Activity Project** to be completed under the supervision of the class teacher, worth 20% of the subject.
3. **Performance Assessment** is to be completed under the supervision of the class teacher worth 30% of final subject mark.

Career Links:
The study of Physical Education at Leaving Certificate has become extremely relevant to all aspects of modern-day life. Students who are thinking of specialising in the following areas: Sports, PE Teaching, Physiotherapy, Health and Nutrition, Sport Science, Business, Sport & Recreation, Coaching, Training, Performance Analysis, Personal Trainer, Sports and Recreation Management, Research, Corporate Fitness Instructor and many more.

PRACTICAL SUBJECTS OFFERED AT MCS

Construction Studies

***Subject Overview*:**

Construction Studies provides students with the knowledge and skills associated with construction technology, materials and practices. The subject includes in-depth study of theory and integrated practical projects.

Content:

The syllabus is divided into three sections:

Part I: 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 & Projects

- Workshop / laboratory experiments
- Student projects

Recommendation:
This subject is enjoyable for those students with an interest in buildings, the built environment and its sustainability. Students with an interest and aptitude for design and practical work thrive in this subject area.

Assessment:
Construction Studies is assessed at both Ordinary and Higher levels in three components:

	Written Exam	Practical Test	Project
Higher &Ordinary Levels	50%	25%	25%

Career Related Areas:
Useful for careers such as Joinery, Furniture Design, Woodwork Teaching, Manufacturing Engineering. Trade Apprenticeships, Renewable Energy Consultant, Town Planner, Estate Agent, Quantity Surveyor, Interior Design and so on.

Design and Communication Graphics (DCG)

Subject Overview:

Design and Communication Graphics is a subject which makes a unique contribution to the students' cognitive and practical skills development. Students are given the opportunity to visualise and comprehend 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.

Content:

Design and Communication Graphics is divided into CORE plus OPTIONS. All elements of the CORE must be studied. Any two OPTIONS must be studied.

CORE: A Plane and Descriptive Geometry

- Projection systems
- Plane Geometry
- Conic Sections
- Descriptive geometry of lines and planes
- Intersection and development of surfaces

CORE: B Communication of Design and Computer Graphics

- Graphics in design and communication
- Communication of design
- Freehand drawing
- Information and communication technologies

OPTIONS: (Choose any two)

- Dynamic Mechanisms
- Structural Forms
- Geologic Geometry
- Surface Geometry
- Projection of transition piece

Recommendation:
In DCG there is a great emphasis on comprehension, analysis and problem-solving. You need to understand what must be done, analyse how you are going to approach it and then proceed to resolve the problem. If you are considering studying a technical course in future, then DCG is a key element.

Assessment:
Design and Communication Graphics (DCG) is assessed at Higher and Ordinary Levels as follows:

3 hour written examination – 60%
Student Assignment - 40% (a project to be completed in the January of Leaving Certificate year incorporating CAD-computer aided design)

Career Related Areas:
DCG is useful for careers such as Architecture, Industrial and Product Design & Innovation, Civil, Mechanical, Electronics and Mechatronics Engineering, Draughtsmanship and Games Design, Cartography, Town Planning Construction, Computers & ICT, Web Design, Animation, Manufacturing, Production Technology.

Engineering

Subject Overview:

Engineering includes a study of a wide range of mechanical engineering materials, processes and technological applications. It develops a student's manipulative skills and techniques necessary for practical resourcefulness, creativity and design realisation in the execution of work. It aims to promote a knowledge of materials; an understanding of processes; ability to safely use the skills and tools to achieve objectives through practical work; initiative in the planning and development of technological projects.

Content:

1. Workshop Processes

- Bench work
- Heat Treatment of metals
- Plastics processing
- Fabrication and finishing of metals
- Machining
- Technology
- Safety and Health

2. Materials and Technology

- Safety and Health
- Classification and origin of metals
- Structure of metals
- Iron and Steel
- Non-ferrous metals
- Heat Treatment of metals
- Corrosion of metals
- Materials testing
- Plastics
- Joining of materials
- Machining
- Metrology
- Manufacturing processes
- Technology

Recommendation:
Students develop skills and initiative in the planning, development and realisation of technological projects in a safe manner. There are two main areas of study: workshop processes, and materials and technology. This practical subject gives students hands-on experience of working with tools and machinery. Students also undertake theoretical and

background work for their final examinations, which provides useful skills for those considering a career in the sector. Each student should have an aptitude for and an interest in design and practical work

Assessment:

There are three components to the assessment of Engineering at both Higher and Ordinary level as follows:

Theory (written exam) 50%
Practical exam 25%
Project assessment 25%

Career Related Areas:

Useful in careers such as Mechanical, Structural, Civil and Plastics Engineering, Industrial Design, Product Design & Innovation, Trade Apprenticeships- Mechanic, Panel Beater, Welder, Plumber, Manufacturing, Architecture, Aircraft Technician, Defence Forces and so on.

ARTISTIC SUBJECTS OFFERED AT MCS

Visual Art

Subject Overview:

The Leaving Certificate Art syllabus is a broadly based course which is made up of three units. These units should be linked together and based on the everyday visual experience of the student's own environment.

Content:

The course includes both practical and theory:

The project is a practical course workbook which lasts 12 weeks.
This is a Visual Journal and development for artefact A,
for artefact B and a Realised Artefact A

Assessment:

The Invigilated Practical takes place in April and students will undertake a five-hour exam.
Marks are awarded for both: 250 for workbook and 100 for exam.
This accounts for 70% of the overall mark.
Visual Studies counts for 30% and this exam will be in June.

Visual Studies is composed of 3 areas

1. Today's World
2. Europe and the wider world

3. Ireland and its place in the wider world

Recommendation:

Studying Art gives the student the diverse knowledge, skills and values that enable them to make connections in their learning across other subjects at senior cycle. Through the study of Art, students will develop an appreciation of the importance of research in their work. Studying Visual art for Leaving Certificate not only allows students to express their creativity but encourages the development of skills such as observation, self-expression, perseverance, collaboration, risk-taking, attention to detail and so on.

Career Related Areas:

Art is useful in careers such as Teaching, College Lecturing, Architecture, Fine Art, Graphic Design, Photography, Animation, Fashion Design Gallery/Museum Curator, Industrial/Ceramic Design, Product Design & Innovation, Advertising, Film, Theatre, Media and so on.

Music

Subject Overview:

The aim of the Leaving Certificate Music syllabus is to provide the musical knowledge, understanding, practical competencies and attitudes appropriate to the student's age, abilities and interests. It caters for the varying needs of all students including those who wish to pursue further studies in music. Music spans all cultures, breaks down barriers and is an international language.

Content:

The syllabus is based on the three musical activities as follows:

- Performing
- Composing
- Listening

Recommendation:
Students considering studying this subject for senior cycle must have a basic knowledge of Music Theory which is especially important for singing as an individual or part of a group and playing an instrument. Prospective students should have an interest in Music Technology and History. While studying the music curriculum you are training your eyes and ears to see and hear. Music encourages students to develop skills such as teamwork, attention to detail, communication, music reading, analysis, dictation as well as historical / contextual knowledge.

Assessment:
There are two modes of assessment:

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

Up to 50% of the total marks can be gained in activities best suited to the student's particular talent.

Career Related Areas:

Musical creativity is linked with competence and enterprise providing life and employment opportunities. Careers include Teaching, Professional Musician, Sound engineering, Music Technology, Orchestra, DJ, Music Production, Music Therapy and so on.

MODERN / FOREIGN LANGUAGES (MFL) OFFERED AT MCS

French and Spanish

Subject Overview:

The syllabus framework for the three languages at Leaving Certificate level is the same. Aims include giving learners a critical awareness of how meaning is organised and conveyed by the structures and vocabulary of the language. The four key skills required, especially at higher level, include reading, comprehension, writing, aural and oral production. All students, irrespective of their aptitude, are given the opportunity to continue with a language into Senior Cycle.

Content:

The three components of the syllabus are:

- Basic Communicative Proficiency
- Language Awareness
- Cultural Awareness

Recommendation:

A language is a slowly acquired subject, not something that one can 'cram' for at the last minute. Studying a language increases cultural awareness and is a life skill. Learning a language helps develop strong cognitive skills, such as a better concept formation, mental flexibility, multitasking, listening skills and problem-solving, in addition to improving social interaction and encouraging connection between peers. Students who have shown an aptitude for language at Junior Cycle Level are encouraged to continue with their studies at Senior Cycle.

Assessment:

Languages are assessed at both Ordinary and Higher levels in three components:

	Written Exam *(Reading Comprehension And Written Production)*	Aural Test *(Listening)*	Oral Test *(Speaking)*
Higher Level	55%	20%	25%
Ordinary	55%	25%	20%

Please Note:

- A foreign language is a basic requirement into the NUI colleges (UCD, NUIG, Maynooth University, UCC, RCSI, St. Angela's College, Shannon College of Hotel Management and National College of Art & Design) except for science and engineering therefore it is recommended that students continue with their language.
- A language(s) is generally a module in any business, commerce or international relations course at third level.
- Maynooth University have removed the third language requirement from business, accounting, finance and law degrees. **However,** to study these subjects through their Arts Degree at lower points one *must have* a foreign language for entry.
- The effect of globalisation on the world of work has greatly enhanced the employability of students competent in foreign languages.

Career Related Areas:
A modern foreign language is helpful for working in areas such as International Business/ Marketing, Teaching, Translation, Flight Attendant, Air Traffic Control, Cadets, Hotel and Tourism Industry. There is a new Education degree at DCU Gaeilge with one of French, German and Spanish- students require a H3 in Gaeilge and in the European Language a student wishes to study for this degree.

LEAVING CERTIFICATE VOCATIONAL PROGRAMME (LCVP)

LCVP is a Senior Cycle Programme designed to give a strong vocational dimension to the Leaving Certificate. The programme combines the discipline of academic study with a new and dynamic focus on self-directed learning, enterprise, work and the community.

Assessment of the Link Modules

Portfolio of Coursework

Date:	Assessed at end of the final year of Leaving Certificate
Duration:	Two-year programme
Value:	60% of total marks
Content:	Section 1 Core Items

Curriculum Vitae
Career Investigation
Summary Report
Enterprise/Action Plan

Section 2 Optional Items (two out of four)

Diary of Work Experience
Enterprise Report
Recorded Interview / Presentation
Report on "My Own Place"

*Students must submit a total of **six items** comprising the four core items and any two of the optional items*

Written Examination

Date:	Final Year of Leaving Certificate
Duration:	2.5 hours
Value:	40% of total marks
Content:	**Section A** – Audio-Visual Presentation **Section B** – Case Study (received one month in advance) **Section C** – General Questions (four out of six)

Distinction 66 points
Merit 46 points
Pass 28 points

The LCVP is a Leaving Certificate with a focus on enterprise and preparation for working life. This two-year programme combines the academic strengths of the Leaving Certificate with a dynamic focus on self-directed learning, enterprise, work and the community. In most ways the LCVP is like the established Leaving Certificate. LCVP students take two additional courses, called Link Modules, in the areas of Preparation for the World of Work and Enterprise Education.

Students starting 5th year in the academic year 2022/2023 may access the LCVP without having to meet the subject-specific criteria. This removes the need to choose two subjects from the designated Vocational Subject Groupings (VSGs) and the need to follow a recognised course in a Modern European Language (other than Irish or English).

A revised programme statement is now available reflecting these changes can be found at **www.curriculumonline.ie/Senior-cycle/Leaving-Certificate-Vocational-Programme-(LCVP)/**

Frequently Asked Questions on Senior Cycle Subject Choice (FAQs)

What happens if I don't take Irish at higher level?

If you want to be a **primary school teacher** you must secure a minimum of a grade H4 in higher level Irish. There are several honours bachelor degree programmes which have Irish as a core entry requirement. Language Degrees that include the study of Irish will require a **specific grade** in the Leaving Certificate exam. Note: One cannot pursue a career in **An Garda Síochána unless they have studied English and one other language - Irish or a Modern Foreign Language. This career path excludes students with language exemptions as does Primary Teaching.**

What happens if I don't take higher level Maths?

You will be excluded from **only** those courses requiring a specific grade at higher level maths typically a H4 grade or higher. These include many engineering, science and technology courses, and most degrees that include maths as a core subject. Many of the STEM courses rely on students having a higher-level standard of maths. A full list of these courses is available on www.qualifax.ie

How important is Maths?

A pass in ordinary level maths is essential for entry into the majority of third-level courses. Every year about 5,000 students fail to secure passing grade in ordinary level or fail foundation level. Whatever you do over the next two years, don't neglect your studies in this key subject. Bonus points are an incentive to more students to study maths at higher level. LC Maths is even becoming more and more relevant for Apprenticeships.
See www.careersportal.ie www.solas.ie or www.apprenticeships.ie

What happens if I do not take a language other than Irish and English?

The NUI colleges – Maynooth University, UCD, UCC and NUIG, and some others – require a pass in a third language for entry into some of their courses, see **www.nui.ie**. The courses for which a third language **is no longer required** are nursing, engineering and science at all four NUI universities. UCD and UCC have also dropped this requirement for their agricultural/food science programmes. Students applying to NCAD may present art instead of the third language. Trinity College Dublin accepts Irish as a second language. UL and DCU, plus all the institutes of technology, do not require a third language for entry purposes to most of their courses. Maynooth University has dropped its third language requirement for finance, business accounting and law degree programmes, however this requirement is needed to access such areas through Arts. Obviously if a student aspires to studying his/her European language at third level they must have a H3 (French) and H5 (Spanish) to meet entry requirements. Again, see www.qualifax.ie to check specific entry requirements for courses of interest to you.

Science:

In what areas are science subjects necessary?

There are a number of courses for which you need a science subject. If you are interested in one of these courses, then you must choose a science subject **- in some cases the subject is specified**. The list of courses that require a science subject includes: engineering, medical courses and courses that specify a laboratory science subject. All Paramedical courses such as Medical Laboratory Science, Pharmacy, Physiotherapy, Radiography, Human Nutrition and

Dietetics require a science subject. You may pursue a course in Engineering, Science or Electronics at an Institute of Technology without a science subject, but it is important to check with the college if you would be at a disadvantage without a science subject at Leaving Certificate level.

If a career in **Medicine or Nursing** is high on your list you should think in terms of Biology and/or Chemistry. Two science subjects are required for Medicine and Dentistry in Trinity College, Dublin and is preferable in undergraduate medicine. Those who aspire to study Medicine but who do not have the required level of science usually end up studying in a 6 year degree.

If you are interested in **Engineering** then Physics should be considered. If you are interested in a career in the Food Industry, then **Agricultural Science** would be an appropriate choice, but for some courses Biology and Chemistry should also be considered.

There are some courses at third level which do not offer you any choice as they specify the science subject and the grade they require. The best examples are Human Nutrition & Dietetics in Technological University Dublin where a H4 in Chemistry is specified, Veterinary Medicine in UCD (H5 in Chemistry) and Medicine and Dentistry in UCC Cork (H4 in Chemistry).

Students must research on www.qualifax.ie or www.careersportal.ie or the college prospectus/website of interest to you in order to find out the best and most useful subjects to study for Leaving Certificate and future career choice.

LANGUAGES:

Why are Languages so important?

The National Universities of Ireland (NUIs) require three languages for entry into many of their courses.

Some exceptions are Science & Engineering, Agriculture and Food Science.
See www.qualifax.ie for further information.

Defence Force Cadetships require a European Language and **An Garda Síochána** require English and one other language for entry into the force.

What Percentage is the aural section in Higher Level French and Spanish?

At Higher Level, the Listening Comprehension Test is worth 80 marks, which amount to 20% of the total marks of the entire examination.

What percentage is the oral section of the Language Leaving Certificate Exam?

At Higher Level, the oral section is worth 25% and 20% at Ordinary Level

BUSINESS STUDIES GROUP:

Is it necessary to have studied Business for the Junior Certificate to study it at Senior Level?

Junior Certificate Business Studies is not a pre-requisite for this subject, but it is preferable.

What particular areas could I expect to study in Senior Level Business?

Leaving Certificate Business provides students with a general introduction to business, and it sows the seeds of initiative and enterprise. It contains elements of law, finance, and economic issues. This enables students upon leaving school to choose from a variety of disciplines in third level. Leaving Certificate Business also provides students with business start-up knowledge and skills, which then allows self-employment to become a positive career option.

Is it necessary to have a good ability in Maths for L.C. Accountancy?

Students taking accounting do require a high level of mathematical reasoning and for students attempting higher level Accountancy. Junior Certificate Business Studies is a preferred requirement.

There are good career prospects with accounting in business (book-keeping, accounts, payroll, and administration) and the subject is also pre-requisite for many third level courses.

ARTISTIC GROUP:

How are marks allocated at Senior Level Art?

The Invigilated Practical takes place in April and students will undertake a five-hour exam.
Marks are awarded for both: 250 for workbook and 100 for exam.
This accounts for 70% of the overall mark.
Visual Studies counts for 30% and this exam will be in June.

Is it necessary to have studied Music at Junior Certificate Level?

The normal requirement for students doing music in Leaving Certificate is the completion of the Junior Certificate programme. Students considering taking up music in 5th Year who have not studied it for Junior Certificate need to play an instrument and have knowledge of staff notation. Applicants who have not studied Junior Certificate music will be considered on an individual basis.

What does the Musical Practical involve in the Leaving Certificate Exam?

All students offering at Ordinary level, for example, must present performing as outlined in (a) and (b) below:

(a) Singing and/or playing individually; **or**
Singing or playing as a member of a musical group; **or**
Rehearsing and conducting a musical group;
and
(b) Singing or playing a sight reading test; **or**
Singing or playing an aural memory test; **or**
Singing or playing an unprepared improvisation

How much is the Musical Practical worth?

The Practical is worth 50 % of the exam. Listening and Composing constitute the remaining 50 %.

APPLIED SCIENCE GROUP / PRACTICAL SUBJECTS:

What are the practical technical subjects and how are they assessed?

Construction Studies

This subject is divided into three sections.

(1) A practical project designed and processed by the student over the full two years, it is worth 25% of the final grade.

(2) A one-day practical examination takes place in May of sixth year, worth 25%. This exam provides students with the opportunity to demonstrate their practical skills and put theory into practice.

(3) The terminal exam in June of Sixth year is worth 50% of the final grade. An understanding of the various forces that affect a building links well with a variety of other subjects such as maths and physics

(4) Knowledge of building styles and buildings of the past will greatly help a student appreciate the merits of modern construction. Having completed Materials Technology Wood at Junior Cert would be a help but is not necessary.

Design and Communication Graphics / DCG *(Formerly Technical Drawing)*

This is a new syllabus introduced in 2007. This subject is all practical based.

Topics for study include Freehand Drawing, Assemblies, Plane & Descriptive Geometry and Design and Computer Graphics. All topics are the same for higher and ordinary level.
The difference lies in depth of knowledge.

The terminal examination is worth 60% of the total marks it is all physical hands on drawing.
A project worth 40% is to be completed in January of sixth year the use of Computer Aided Drawing (C.A.D.) forms a major part of the assessment

It is recommended to have completed Technical Graphics at junior level in order to attempt this subject at L.C. level

Engineering

Engineering deals with finding solutions to problems that matter to ordinary people, from hip replacements to microwaves, from roads to natural gas, from machinery to a cleaner environment, from the Internet to pop videos, engineers are always involved.

Engineering is the hidden face of public utilities, transport systems, buildings, computers and the Internet, food production, diamond rings, racing cars and fizzy drinks – we all know the end product but rarely see the engineer working in the background.

The Leaving Certificate engineering course is divided into three sections.

The Practical component is worth 50 % of the L.C. exam, with the remaining 50% on the Theory of Engineering

In Home Economics, what areas will I be studying for Leaving Certificate?

The syllabus contains four main sections: food studies, resource management and consumer studies, social studies and one elective area

Is there a practical exam in Home Economics for the Leaving Certificate?

Yes, the practical element has to be submitted at the end of fifth year receiving an allocation of 20% of the aggregate marks.

Humanities/ Social Science

Is there project work involved in Geography for the Leaving Certificate?

Yes, all students have to submit an original Geographical Investigation Report (field study) worth 20% of the terminal exam.

How much is the Research Project in Leaving Certificate History worth?

The Research Project is worth 20% of the terminal exam.

Useful Sources of Reference:

www.sec.ie State Examinations Commission

www.education.ie

www.curriculumonline.ie Junior and Senior Cycle Curriculum

www.qualifax.ie careers website

www.careersportal.ie Careers Website

www.cao.ie applying to college in Ireland

www.ucas.com applying to college in the UK

www.mocks.ie

www.solas.ie Further Education and Training including apprenticeships

www.apprenticeships.ie apprenticeships

www.careerservices.ie

www.eunicas.ie Studying in Europe

www.military.ie The Defence Forces

www.susi.ie College Grants

www.accesscollege.ie Access Programmes (HEAR and DARE)

www.gotocollege.ie Third Level Scholarships

Common Points Scale for Entry to Higher Education from 2017:

Since 2017, a new Higher Education Common Points Scale came into effect. The new scale applies to all students applying to CAO on the basis of their Leaving Certificate examination results (1985 – present). If you sat the Leaving Certificate between 1985 and 2016, scores for grades will be adjusted to conform to the new scale. The points available under the new scale cannot be compared with the points awarded up to 2016.

Higher Level	Points	Ordinary Level	Points
H1	100	O1	56
H2	88	O2	46
H3	77	O3	37
H4	66	O4	28
H5	56	O5	20
H6	46	O6	12
H7	37	O7	0
H8	0	O8	0

Higher Level Maths Bonus Points:

Bonus Points 25 bonus points will continue to be awarded for Higher Level Mathematics for H6 grades and above. For example, if an applicant receives a H6 grade, an additional 25 points will be added to the 46 points already awarded for a H6 grade i.e. Higher Level Mathematics now carries a points score of 71 for this applicant.

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