

Coláiste Muire

Senior Cycle

2020/21

Senior Cycle Programmes

Transition Year

Leaving Certificate

Leaving Certificate Vocational (LCVP)

Leaving Certificate Applied (LCA)

Useful websites

www.curriculumonline.ie

www.careersportal.ie

www.qualifax.ie

EARLY CHILDHOOD

PRIMARY

JUNIOR CYCLE

SENIOR CYCLE

Junior Cycle Short Courses

10 courses available



We are changing the way we present the curriculum...

Starting with [Junior Cycle English](#) and for **new** subjects and [short courses](#), you can now:

- view the curriculum in lots of different ways
- view examples of student work
- use the clipboard function to save to, a private curriculum library
- choose from a variety of assessment support options.



Early Childhood	Primary	Junior Cycle	Senior Cycle
			
AISTEAR FRAMEWORK	CURRICULUM	FRAMEWORK	
THEMES	CURRICULUM AREAS	SUBJECTS	
		SHORT COURSES	SUBJECTS
		LEVEL 2 LEARNING PROGRAMMES	CURRICULUM

Ac

Accounting

AS

Agricultural Science

AG

Ancient Greek

AM

Applied Mathematics

Ar

Arabic

Art

Art 2020

Bi

Biology

BS

Business

Ch

Chemistry

Cl

Classical Studies

CS

Computer Science

Co

Construction Studies

DC

Design and
Communication

Ec

Economics

En

Engineering

E

English

Fr

French

Ga

Gaeilge

Agricultural Science

Leaving Certificate agricultural science involves the study of the science and technology underlying the principles and practices of agriculture. It aims to develop knowledge, skills and attitudes that promote the sustainability of agricultural resources, and places emphasis on the managed use of these resources. Plants and animal types associated with agriculture are studied, and investigations are undertaken into such aspects as soil, ecology, plant and animal physiology, farm crops, farming practices, genetics and microbiology.

[CLICK HERE FOR THE FULL SPECIFICATION](#)

[View the specification here \(PDF\)](#)

New Specification

Guidelines for
Completing the
Individual
Investigative Study

Agricultural
Science



An Roinn Oideachais
agus Scileanna

Agricultural Science

Curriculum Specification



Career Guidance tools for all



Join
to create a
Career Profile



Discover
your Career Interests
and Personality



Match
your Interests to
Careers & Courses

START HERE!

MORE INFO

Courses

Job Profiles

Apprenticeships

Career Sectors

Site Search

by Course Title or Code...

by College here...

SEARCH NOW



School

I am a second level student researching my subjects, courses and career options



Graduates

I am an undergraduate/graduate researching career opportunities



Adult Learners

I want to return to education and explore options and supports available

Job Seekers

Parents

Guidance Professionals

School

Leaving Certificate

Leaving Cert Subjects

Education & Training Options

Going to College

Apprenticeships ▾

Study Skills

Career Advice ▾

Finding a Job ▾

Junior Cert

Transition Year

Leaving Cert

DISCOVER CAREERS


View All

IMPROVE YOUR STUDY!


WHAT'S ON...


190 Events

CAO TOOLBOX



Jessica Akomfrah, I am making...





Marketing Executive - Jessica Akomfrah



We have collected a number of Videos that contain very useful tips to help you, along with a Study Skills Test and worksheets to help you focus on your study behaviour.

DEC 3 9:30 AM

NUI Galway Taster Day - Law

NUI Galway

DEC 3 9:30 AM

NUI Galway Taster Day - Engineering

NUI Galway

DEC 4 9:30 AM

NUI Galway Taster Day - Arts

NUI Galway

DEC 4

NUI Galway Taster Day - Engineering

- CAO CourseFinder
- New Courses
- Restricted Courses
- Points Calculator
- CAO Course Worksheet
- Alert Lists
- CAO Handbook
- CAO Website
- CAO Video Guide

School

[Guide to Choosing Subjects](#)[Useful Tips](#)[Leaving Cert Subjects](#)[Subjects & Career Choice](#)[Subject Grades Explorer](#)[FAQs](#)

Leaving Cert Subjects

Practical Group

[Construction Studies](#)[Engineering](#)[Design & Comm
Graphics](#)[Technology](#)

Science Group

[Agricultural Science](#)[Applied Maths](#)[Biology](#)[Chemistry](#)[Mathematics](#)[Physics](#)[Physics and Chemistry](#)[Computer Science](#)

Artistic & Creative Group



Brenda O Loughlin, Franchisee

What subjects did you take in school and how have these influenced your career path?

I chose business studies and accountancy while at school and immediately after school I did an accountants technicians course. Accountancy was a good choice for me and added to the experience I gained while working for Citibank, I am comfortable completing my companies P&L's, managing my cash flows and planning financials for the future. Did I choose well as a student? Luckily yes.

< Leaving Cert Subjects

Subject Choice
Leaving Certificate
Chemistry

Career Zone
1 2 3 4 5

NFQ Level
QQI 4

Duration
2 Years

- Summary
- Grades Awarded
- Course Overview
- Course Content
- Exam Structure
- Career Possibilities
- Career Guidance

Summary



Summary

Grades Awarded

Course Overview

Course Content

Exam Structure

Career Possibilities

Career Guidance

Course Overview

The subject aims to provide a relevant course for students who will complete their study of chemistry at this level while, at the same time, providing a foundation course for those who will continue to study chemistry or related subjects following completion of their Leaving Certificate.

The Leaving Cert. course follows on directly from Junior Cert Science, and deals with more topics in a lot more depth. The course includes 28 mandatory practical experiments which must be completed in the lab, as well as a written paper including questions on the experiments and examining the theory and applications of chemistry. There are an amount of calculations involved. Chemistry has been the second most popular science subject for some time now.

Quick facts

- There is no element of continuous assessment but experimental copies must be available for inspection by State Examinations Commission

INTERVIEWS

View All >

What subjects did you take in school and how have these influenced your career path?

[Summary](#)[Grades Awarded](#)[Course Overview](#)[Course Content](#)[Exam Structure](#)[Career Possibilities](#)[Career Guidance](#)

Course Content

The syllabus consists of approximately 70% pure chemistry; the remaining 30% deals with the social and applied aspects of chemistry.

The syllabus is comprised of all the essential and relevant topics within general chemistry. The major topics involved include the following:

1. Atomic structure
2. Volumetric analysis
3. Organic chemistry
4. Water chemistry
5. Reaction mechanisms.

There also is an option to be taken as part of the course which involves the study of atmospheric and industrial chemistry or the study of materials and electrochemistry.

Experimental investigations are an essential part of the leaving certificate course. Each student must complete at least 28 experiments over the duration of the course.

Experimental work is examined as part of the leaving cert exam and forms the basis for a minimum of three questions on the exam paper.

Subject Choice

Leaving Certificate

Chemistry

Career Zone

1 2 3 4 5



NFQ Level

4

Duration

2 Years

[Summary](#)[Grades Awarded](#)[Course Overview](#)[Course Content](#)[Exam Structure](#)[Career Possibilities](#)[Career Guidance](#)

Career Guidance

Subject Group: Science

These subjects demonstrate how to explore nature using carefully planned methods, and teach the basic methods and findings of scientific investigation.

Required for 3rd Level?

This subject may be essential for entry into some Third Level courses. Click on the link below to view courses that may require this subject for entry:

 [Chemistry](#)

Select Courses To View

There is a total of 201 courses that match your search requirements.
Please select one of the options below to view your results.

Show me the courses that:

- ☒ Definitely requires: Subject Chemistry.- Total of 7 courses
- ☐ May require: Subject Chemistry. - Total of 194 courses
- ☐ Does not require Subject Chemistry. - Total of 1376 courses

[View Courses](#)[New Search](#)

Search Courses Results

New Search

Click on the Course to get details about that course. Click on the Course Provider to get details about that course provider.

Search Criteria: Subject Chemistry. (Definitely need subject).

Showing 1 to 7 of 7 results

Code	Course	Course Provider
CK702	Dentistry	University College Cork
TU870	Human Nutrition & Dietetics	TU Dublin - City Campus
CK701	Medicine - Undergraduate Entry	University College Cork
RC005	Pharmacy	Royal College of Surgeons in Ireland
CK703	Pharmacy	University College Cork
CK707	Science - Medical & Health Sciences	University College Cork
DN300	Veterinary Medicine - Undergraduate Entry	University College Dublin



Career Guidance tools for all



Join
to create a
Career Profile



Discover
your Career Interests
and Personality



Match
your Interests to
Careers & Courses

START HERE!

MORE INFO

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Apprenticeships

Career Sectors

Site Search

medical

or by Career Sector here...

SEARCH NOW



School

I am a second level student researching



Graduates

I am an undergraduate/graduate



Adult Learners

I want to return to education and explore

13 Results



Biological Sciences

Biotechnology is an increasingly important area, featuring in the creation of medical devices, food production, energy creation and even construction.

 Biological, Chemical & Pharmaceutical Science



Medicine

Becoming a qualified medical practitioner is a long road, the first thing you'll need is a medicine degree from a recognised course. Once you have this, you need to register with the Medical Council and then complete a period of internship.

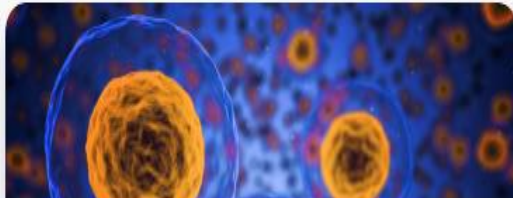
 Medical & Healthcare



Nursing & Midwifery

Nurses are the frontline carers of the healthcare world. They help patients reach the best quality of life possible while going through an illness and assist them in making a full recovery. Midwives work with pregnancy and childbirth, caring for mother and child.

 Medical & Healthcare





Medical Diagnostics

There are many other vital roles in the healthcare profession including those who work in diagnostics, therapeutics professionals, radiographers, lab technicians, and cytopathologists.



Medical & Healthcare

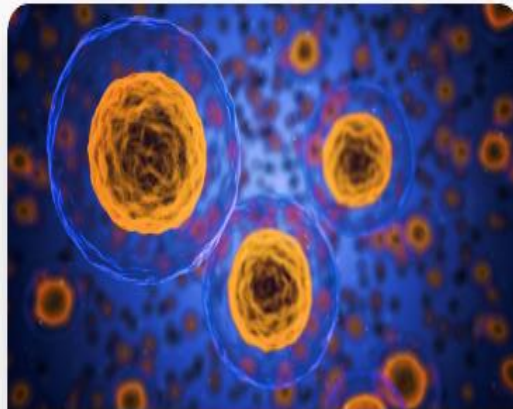


Dentistry

There are many specialities dentists can pursue, they could help patients with the positioning of their teeth as an Orthodontist or work with preventing gum disease as a Periodontist.



Medical & Healthcare



Clinical Trials

Clinical trials occur in phases, where a drug is tested on patients or on healthy volunteers.



Biomedical Technologies & Medtech





Medical Devices

Career opportunities in the world of medical technologies range from the research, design and manufacture of simple consumables such as bandages, to electrically active implantable products such as artificial hearts, cardiovascular stents, orthopaedic knees, wheelchairs and contact lenses.

 Biomedical Technologies & Medtech



Plastics & Polymer

The plastics industry in Ireland is an important sub sector of MedTech. It includes suppliers of raw materials, plastic processors and service providers.

 Biomedical Technologies & Medtech



Pharmacy

A pharmacist is a health professional with expertise in the science of medicines, which includes the development, use, and the supply of medicines. Titles include hospital pharmacist, clinical pharmacist and pharmacologist.

 Medical & Healthcare





Biomedical Technologies & Engineering

Biomedical Technologies& Engineering involves research to develop new technologies for medical purposes, such as diagnosing illnesses or assisting people with disabilities. The maintenance of existing technology is also an important part of the field.



Biomedical Technologies & Medtech



Research and Development

Biomedical and Medtech researchers push at the boundaries of technology to find new methods to advance healthcare.



Biomedical Technologies & Medtech



Paramedics

A paramedic is a person trained to give emergency medical care to people who are seriously ill with the aim of stabilising them before they are taken to hospital.



Medical & Healthcare

Records per page 12 ▾ First Prev 1 2 Next Last



Career Guidance tools for all



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to create a
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Site Search

biotech

by Career Sector here...



SEARCH NOW



School

I am a second level student researching...



Graduates

I am an undergraduate/graduate...



Adult Learners

I want to return to education and explore...

Filter by: Clear All Found 1 careers Print Sort by Title

CAREER TITLE clear

biotech

Example: "ani" will find animal and mechanical.

☐ My favourites

CAREER TYPES

☒ Occupations

☐ Apprenticeships

JOB ZONES

☐ Zone 1

☐ Zone 2

☐ Zone 3

☐ Zone 4

☐ Zone 5

CAREER SECTORS

☐ Agriculture, Animals & Food

☐ STEM, Environment & Construction

☐ Medical, Wellbeing & Sport

☐ Creative Arts, Fashion & Media

biotech x

CAREER TITLE	JOB ZONE	STATUS
☆ Biotechnologist	1 2 3 4 5	▼

IN BRIEF...

Scientists who study and work with micro-organisms in a variety of areas including alcohol manufacture, agricultural genome mapping and medical science.

KNOWLEDGE

- Engineering and Technology
- Computers and Electronics
- Mathematics
- Design
- Physics

SKILLS

- Critical Thinking
- Active Listening
- Complex Problem Solving
- Judgment and Decision Making
- Reading Comprehension

In Summary

The Work

The Person

Entry Requirements

Pay & Salary

Labour Market Updates

Useful Contacts

The Work - Biotechnologist

Biotechnologists make products with a biological ingredient or action, like vaccines, antibiotics, drugs and hormones.

Biotechnologists use the techniques of molecular biology such as genetic engineering, to change the way an organism grows or behaves. For example, insulin, a chemical normally made in the human body (but lacking in people with diabetes) has been made from genetically engineered bacteria. It encompasses an ever-growing range of laboratory techniques for the attention and manipulation of molecules, genes and cells.

In agriculture, biotechnologists may change genes to increase crop yields, or make crops more resistant to pests and disease. They use micro-organisms, such as bacteria or yeasts to perform

Skip to content



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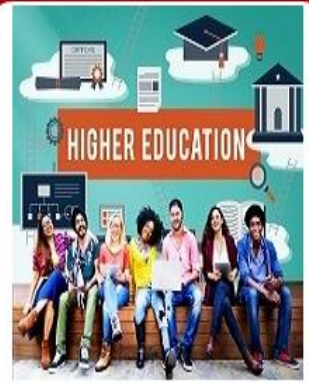
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- Adult learners
- Guidance professionals
- Parents / Family
- News
- NFQ
- My Account



Further Education PLC



Higher Education CAO



Lifelong Learning



Postgraduate Study

Welcome to Qualifax

Qualifax is Ireland's National Learners' Database and is the "one stop shop" for learners and the public. Comprehensive, annually updated information is provided about further and higher education and training options in Ireland and further afield. Articles and links are also provided to assist students, jobseekers, parents, guidance professionals and graduates to make informed choices for education, training and career pathways.

Qualifax is a service provided by Quality and Qualifications Ireland (www.qqi.ie/).



Search all Courses



Take an Interest Assessment



Check a Qualification

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Are you looking for the widest range of education and training programmes?
Are you considering further or higher education and training? Unsure which
subjects to take?

I am looking for information on one of these areas ...

- [Accommodation](#)
- [Careers](#)
- [Career Events](#)
- [Courses in Ireland](#)
- [Courses outside Ireland](#)
- [Coming to Ireland to Work or Study](#)
- [Disability](#)
- [Glossary of Terms](#)
- [Grants](#)
- [Higher Education Links Scheme \(HELS\) - QQI FET](#)
- [How to Use Qualifax](#)
- [HPAT](#)
- [Interest Assessment](#)

[International Students](#)[View My Tagged Courses](#)[Subject Choice](#)[Where are the jobs?](#)



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In this section

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▶ [Career Events](#)

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[All Courses](#)

[Choosing the right course](#)

[Courses leading to NFQ awards](#)

[Courses outside Ireland](#)

[Disability resourced](#)

[Help on searching courses](#)

[Higher Education CAO](#)

[Mature student](#)

Courses in Qualifax

Searching courses is one of the most important parts of Qualifax. There are a number of searches available on the left hand side menu. Most people will use [All Courses](#). You may however, prefer to look at one of the course types listed below. Clicking on any of these links will give you a full list of all the courses, it may be necessary to reduce that list by selecting Refine Search and picking some options from the menus.

[Adult Literacy](#) - Literacy tuition to adult students.

[Apprenticeship](#) - Combines and alternates learning in the work place with learning in an education or training centre.

[Back To Education](#) - Second-chance education.

[CAO](#) - Third level Higher Education courses in Ireland.

[Disability Resourced](#) - Third Level courses for students with disabilities.

[Higher Education Direct Entry](#) - Third Level courses.

[International](#) - Information on studying in Ireland.



[International Students](#)

[View My Tagged Courses](#)

[Subject Choice](#)

[Where are the jobs?](#)

In this section

- ▶ [Students](#)
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- [All Courses](#)
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- [Courses leading to NFQ awards](#)
- [Courses outside Ireland](#)
- [Disability resourced](#)
- [Help on searching courses](#)
- [Higher Education CAO](#)
- [Mature student](#)
- [PLC Post Leaving Cert](#)
- [Postgraduate](#)

▶ [DARE and HEAR](#)

Search Higher Education CAO

?

[View Search Help](#)

A

[Advanced Search](#)

Course Title/Keywords	<input type="text" value="Biotechnology"/>
Course Category	<input type="text" value="Any"/>
Award Name	<input type="text" value="Any"/>
Course Provider	<input type="text" value="Any"/>
Course Code	<input type="text"/>
Points	<input type="text"/>
Province	<input type="text" value="Any"/>
County	<input type="text" value="Any"/>
Restricted Entry	<input type="text" value="Any"/>

In this section

▶ Students

▶ Career Events

▶ Choosing a Career

▶ **Course Finder**[All Courses](#)[Choosing the right course](#)[Courses leading to NQF awards](#)[Courses outside Ireland](#)[Disability resourced](#)[Help on searching courses](#)[Higher Education CAO](#)[Mature student](#)[PLC Post Leaving Cert](#)[Postgraduate](#)

▶ DARE and HEAR

▶ Frequently Asked Questions

▶ How to use Qualifax

▶ Support and Advice

Search Higher Education CAO Results

Showing 1 to 21 of 21 results

for

Keywords/Course Title: Biotechnology, Course Type: Higher Education CAO

[New Search](#)[Refine Search](#)

Compare	Tag All	Code	Course	Course Provider	NQF Level	Points
<input type="checkbox"/>	★ Tag	AL730	Biotechnology	Athlone Institute of Technology	Level 7 NQF	206
<input type="checkbox"/>	★ Tag	AL838	Biotechnology	Athlone Institute of Technology	Level 8 NQF	303
<input type="checkbox"/>	★ Tag	MH202	Biotechnology	Maynooth University	Level 8 NQF	429
<input type="checkbox"/>	★ Tag	GY304	Biotechnology	NUI Galway	Level 8 NQF	473
<input type="checkbox"/>	★ Tag	DC181	Science - Biotechnology	Dublin City University	Level 8 NQF	476
<input type="checkbox"/>	★ Tag	SG449	Medical Biotechnology	Institute of Technology Sligo	Level 8 NQF	329
<input type="checkbox"/>	★ Tag	CR325	Pharmaceutical Biotechnology	Cork Institute of Technology	Level 8 NQF	388
<input type="checkbox"/>	★ Tag	LC362	Science - Biotechnology & Biopharmaceutical Sciences	Limerick Institute of Technology	Level 8 NQF	379
<input type="checkbox"/>	★ Tag	TU700	Biotechnology	TU Dublin - Tallaght Campus and TU	Level 7	200

Higher Education CAO		qualifax.ie/index.php?option=com_wrapper&view=wrapper&Itemid=16	
	Link to Course Fee	Web Page - Click Here	
	CAO Application Dates and Fees	<div> <div>+Early online application (discounted): Fee €30 Closing Date: 20 January 2020 at 5:15pm</div> <div>Normal online application: Fee €45 Closing Date: 1 February 2020 at 5:15pm</div> <div>Late online application - restrictions apply (see page 3 2020 CAO Handbook): F...</div> </div> <div> <div>+</div> <div>Expand</div> </div>	
	Course Content	<div> <div>-Why Choose This Course?</div> <div>Biotechnology uses our knowledge of biology to solve real-world problems. It is about making use of molecules, cells and organisms to provide medicines and foods, enable forensics or reverse pollution</div> <div>Class sizes in biotechnology are small, which means you get to know your classmates quickly and interact more with your lecturers</div> <div>The language (French or German), communication and business modules help our students stand out from other science graduates</div> <div>The third-year placement option enables students to spend 3–6 months in research labs in continental Europe or in biopharma industry in Ireland</div> </div> <div> <div>-</div> <div>Hide</div> </div>	
	Subjects Taught	<div> <div>+Your Course Year By Year</div> <div> <div>Year One</div> <ul style="list-style-type: none"> • Biotechnology Concepts and Skills • Biology • Chemistry • Statistics and Probability, and Programming • Language (French or German) <div>Year Two</div> <ul style="list-style-type: none"> • Biotechnology Skills • Biochemistry • Mic... </div> <div> <div>+</div> <div>Expand</div> </div> </div>	
	Comment	<div>You Might Also Like</div> <ul style="list-style-type: none"> • GY318 Bachelor of Science (Biopharmaceutical Chemistry) • GY303 Bachelor of Science (Biomedical Science) • GY301 Bachelor of Science 	

Leaving Certificate

The Leaving Certificate is a two year programme.

Students study seven subjects for their Leaving Cert. Examination.

Subjects can be taken at ordinary or higher level.

7 Exam Subjects

Core Subjects (4)

Irish, English, Maths, French or German

Optional Subjects (3)

Biology, Chemistry, Physics, Ag Science

Accounting, Business, Economics

History, Geography Home Economics

Technology, Music , Japanese, Art, PE

Subject Choice

Subjects

Essential subjects?

- ✓that you are interested in and prepared to work at..
- ✓that suit your strengths and talents...

Particular combinations...

Manner in which subject is assessed...

Grading Scheme 2017

points	Higher Level	%	Ordinary Level	points
100	H ₁	90 – 100	O ₁	56
88	H ₂	80 – 89	O ₂	46
77	H ₃	70 – 79	O ₃	37
66	H ₄	60 – 69	O ₄	28
56	H ₅	50 – 59	O ₅	20
46	H ₆	40 – 49	O ₆	12
37	H ₇	30 – 39	O ₇	0
0	H ₈	0 – 29	O ₈	0

+25 Bonus points for H₁ – H₆ Maths

Foundation Maths F₁ = 20, F₂ = 12 (certain institutions)

Subject Requirements!

A Science subject required for entry to all medical, paramedical, nursing, science and engineering degrees.

Two Sciences are required in

TCD- Pharmacy,
Physiotherapy,
HHD, Sciences... (2H4)
Med, Dent (H3 & H4)

UCC-Med, Dent, Med & Health Sc,
Pharmacy (2H4)

UCAS

Chemistry essential

Human Nutrition TUD	H4
Dentistry UCC	H4
Medicine UCC	H4
Medical & Health Sc UCC	H4
Pharmacy UCC	H4
Pharmacy TCD	H4
Pharmacy RCSI	H5
Veterinary UCD	H5

- Physics and Chemistry are more numerate sciences. In other words there are a lot more calculations, formulae and equations to be worked on. So ability in maths and a facility with numbers would be needed for these two.
- Biology is more descriptive and involves a lot of learning of names and terms and parts.

Biology

Biology is the science of life and living things. It forms a knowledge base for careers ranging from Oceanography and Ecology to Medicine and Biotechnology.

Students explore the world of living things from micro-organisms to humans.

Uses practical activity and investigation to develop skills and knowledge. Topics such as DNA profiling / genetic screening, physiology and biotechnology

22 mandatory experiments, 3 examined (2)
Ecology field trip 5th yr (Portfolio)

Essential for:

- Genetics UCC H4
- Human Health & Disease
TCD H4

Recommended for

- Nursing (all)
- Medical & Health
Sciences
- Public Health Science
- Biomedical Science
- Psychology

- Marine Science
- Environmental Science
- Biotechnology / Industrial
Biochemistry
- Food Science
- Beauty Therapy
- Horticulture
- Agriculture
- Athletic Therapy & Training
- Health & Leisure / Physiology
- Sport & Exercise Science
- Medical Technology LIT
- Clinical Technology LIT

Chemistry

“....Chemistry deals with the composition of matter, the laws of Chemical change and the relationship between the properties and composition of substances.

In other words it involves everything we use, wear, consume including medicines, plastic, preservatives etc.”

Students have to learn the chemical components of 28 mandatory experiments. 2 questions on practical work must be answered on L.Cert paper.

Essential for:

- Human Nutrition TUD H4
- Dent UCC H4
- Med UCC H4
- Medical & Health Sc UCC H4
- Pharm UCC H4
- Pharm TCD H4
- Pharmacy RCSI H5
- Veterinary UCD H5

Useful for:

- Food Science
- Nutritional Science
- Public Health Nutrition
- Forensic Science
- Pharmaceutical & Industrial Chemistry
- Chemical/Biochemical/Process Engineering
- Nursing
- Pharmacy
- Medical and Health Sciences
- Environmental Science
- All Science courses
- U.C.A.S

Physics

- “....Physics deals with the laws and forces governing natural phenomena which include heat, light, electricity and magnetism. It uses maths and equations to describe and predict events and phenomena. It is of key importance in technology, engineering and paramedical careers e.g.: Radiography/ Physiotherapy.”
- 24 core mandatory experiments of which 4 are offered on L. Cert paper.

70% Theory & calculations

30 % Experiments

Essential for:

Theoretical Physics TCD **H3**

Recommended /Useful for:

- Engineering
- Physics/Astrophysics
- Radiography
- Clinical Measurement Science
- Physiotherapy
- Optometry
- Pilot
- Architecture
- UCAS

Agricultural Science

.....is the study of the science and technology underlying the principles and practices of modern agriculture.

New syllabus September 2019!

Agricultural Science (4 strands)

1. Scientific practices

Hypothesising, Experimenting, Evaluating evidence, Communicating, Working safely

2. Soils

Role and function of soil and to appreciate its importance in providing for the growth of grass and other crops. (ecosystem services provided ..

3. Crops

Role and importance of a variety of crops, including crops as forage and crops for human consumption, their mgt and production, and their contribution to future sustainable development.

4. Animals

Includes traditional farm animals such as cattle, sheep and pigs and also other animals of agricultural importance and interest, eg horses and poultry.

Assessment

Written 75%

Coursework 25%

- Individual investigative study

....a topic of agricultural significance is investigated in greater depth

....based on a thematic brief which is set by the SEC

....students gather and process data, evaluate evidence, and develop arguments

- eg Farm Safety
- eg Grassland Utilisation

Accepted as a Science subject for most science, medical, healthcare and nursing courses

Except

- UCC - Dentistry, Medicine & Pharmacy
- RCSI – Pharmacy
- TCD – Radiation Therapy, Human Health & Disease

Useful

- Agricultural Science
- Veterinary Medicine/Nursing
- Veterinary Biosciences / Bioveterinary Science
- Animal Science
- Dairy Business
- Forestry
- Agri- Environmental Sciences
- Horticulture, Landscape & Sportsturf Mmgt
- Science with concurrent Teacher Ed (Biol with Chem or Agricultural Science)

Accounting

- Concerned with the preparation, recording, extraction, presentation & analysis of financial info for the purpose of making economic decisions.
- Course also involves a Management Accounting section where the student will learn how to analyse business costs and how to prepare budgets.

Essential for:

- Commerce (Accounting) NUIG (H4)

Highly recommended for:

- Accountancy courses
- Business Studies / Commerce
- Financial Maths
- Office Information Systems

Useful for

- Hotel Management
- Marketing / Management
- Taxation Consultancy
- Business Information Systems
- Insurance
- Business & Law
- Reception / Hotel Front Office
- Auctioneering / Valuation
- Surveying
- Advertising
- Journalism
- Quantity Surveying

Economics (5 strands)

What is economics about?

- Economics as a way of thinking
- The economic concepts of scarcity & choice
- Economic, social & environmental sustainability

How are economic decisions made?

The market economy / The consumer / The firm / Government & Intervention

What can markets do?

Market structures / The labour market / Market failure

What is the relationship between policy and economic performance?

National income / Fiscal policy and the budget framework / Employment & unemployment / Monetary policy and the price level / Financial sector

How is the economy influenced by international economics?

Economic growth & development / Globalisation / International trade & competitiveness

Assessment components

- Written exam (80%)
 - Research study (20%)
-
- Research study will be based on a brief issued annually by SEC.
 - The research study will assess the students' ability to use the knowledge, concepts and skills developed in their study of economics to evaluate information and data and make informed conclusions.

Useful for:

- Banking
- Finance degree
- Financial Maths & Econ
- Law
- Social Science
- Hotel Management
- Journalism
- Marketing
- Accountancy/Business/Commerce
- Business Information Systems
- Architecture
- Environmental Science

Often offered in third level:

- Politics
- Sociology
- Modern Languages
- European Studies
- History

Business

Looks at

- People in Business
- Setting up a business and developing a new product or service
- Skills & activities necessary for good management practice
- Impact of technology, foreign trade, global firms & competition, business structures & the national economy

Useful for:

- Banking
- Business Studies
- Marketing & Management
- Retail Management
- Human Resource Management
- Insurance
- Taxation
- Hotel Management
- Reception / Hotel Front Office Management
- Culinary Arts
- Office Information Systems

Technology

A wide range of new Technologies are now part of everyday life.

Technology gives students a basic understanding of the principles of design, manufacture, and project management.

Students studying Technology-

- Design and manufacture projects using ICT & a wide variety of materials, components and equipment – including computer controlled machines.
- Become familiar with Technological developments in areas such as ICT, mobile communications, digital media, etc.

Structure of Technology Course

Core (Study all)

- Design
- Materials
- ICT
- Structures & Mechanisms
- Electronics
- Graphics
- Project Management

+

Options (Pick 2)

- ICT
- Electronics
- Control Technology
- Materials
- Manufacturing Systems

+

Design Folio & Artefact

Assessment

**Design Folio &
Artefact**



50%

Final Exam



50%

Thematic brief for project is issued in October of Leaving Cert year.
Design Folio & Artefact executed in class from October until March.

Thematic Brief 2013 (HL)

“The smallest act of kindness is worth more than the grandest intention” (Oscar Wilde)

Fundraising is the process of soliciting and gathering voluntary contributions for worthwhile causes.....

Thematic Brief 2013 (contd.)

With a focus on modern materials, processes and technologies

Design and make an interactive device which facilitates the collection of donations for a charitable cause of your choice.

The device should stimulate interest in the identified cause and encourage the giving of donations.....

Your solution should include electro-mechanical movement in operation and should be well presented.

Thematic Brief 2013 (solutions presented by students)

Fundraising

- Anna has designed a coin box in the shape of a flower for the sunshine charity. When a coin is inserted the flower 'grows' and it plays the tune 'you are my sunshine'.



Thematic Brief 2013 (solutions presented by students)

Fundraising

Ashling picked Trocaire as her third world charity and depicted an image from a developing country in her coin donation box. When a coin is inserted into the well, the disc rotates displaying a message, the lights are activated and music is played.



Thematic Brief 2013 (solutions presented by students)

Fundraising

Eilis has picked the ISPCA as her chosen charity. When money is inserted into the roof of the kennel, a cat comes out the door and music plays. The cat retreats again after a few seconds.



Thematic Brief 2013 (solutions presented by students)

Fundraising

Alanna designed a fundraising box in the shape of a sheep for the charity Gorta. When coins are inserted into the sheep the mouth moves and it 'baa's



Thematic Brief 2013 (solutions presented by students)

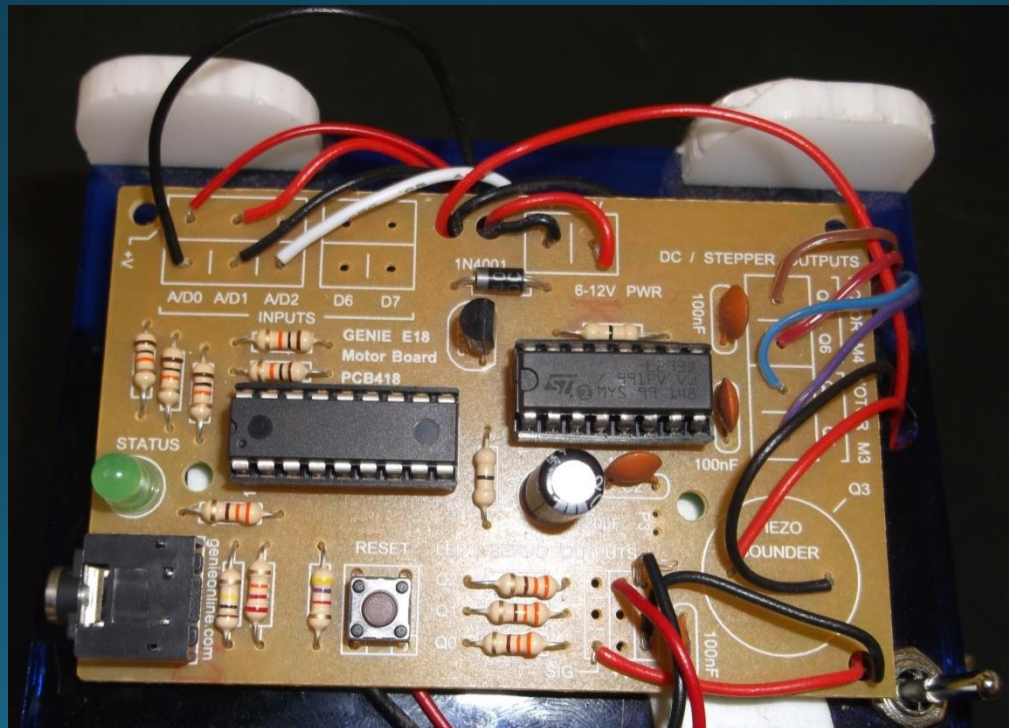
Fundraising

Rianat designed a fundraising coin box for the Jack & Jill Foundation based on the Jack & Jill Nursery Rhyme. When a coin is inserted into the slot music plays and 'Jack & Jill go up the hill'



Operation of Projects

The projects you have seen contain a PIC (Peripheral interface controller) and are programmed using a computer. The programme is then downloaded to a chip contained in the project.



Thematic Brief 2020

More than half of us live in cities. By 2050, two thirds of all humanity will be urban dwellers. Sustainable development cannot be achieved without significantly transforming the way we build and manage our urban spaces. (Ref. United Nations Development Programme.)

Some examples of areas where technologies can contribute to sustainable cities and communities are:

- Public transport
- The worlds of work, business and education
- Enhancing public and communal spaces
- Urban planning and management
- Energy generation, distribution and use
- Waste management and recycling.

In this context and with a focus on modern materials and processes, design and manufacture a working model of a device, system or technological aid that would positively impact the sustainability of a city or community. Your solution should include an electro-mechanical element and should also be well presented.

Subject requirement

➤ Technology is now accepted in place of a science subject for entry to

- Engineering – NUIG, UCC, Maynooth
- Some Science / Engineering – UL , D.I.T.

I have not studied Technology (J Cert) ?

Technologically minded

Creative – Prefer problem solving to rote learning

Always “fixing things”

Comfortable with numbers and formula

Graphically inclined – Argos assembly instructions

Organised – time management of project

Possible Career Paths



Engineering



Planning & Environmental Management



I.C.T, Graphic Design & Multimedia

Web Design



Animation / games development



Product Designers



Education (Technology!)

Home Economics S+S

Core

- Food Studies
- Resource Mgt & Consumer Studies
- Social Studies

Elective (1)

- Textiles, Fashion & Design
- Social Studies
- Home Design & Mgt

**20% coursework journal
submitted prior to exam
(4 projects)**

Useful for:

- Bakery & Pastry Arts Mmgt
- Culinary Arts
- Hospitality Studies
- Hotel Management
- Human Nutrition & Dietetics
- Public Health Nutrition
- Food Innovation & Enterprise
- Food Marketing & Entrepreneurship
- Food Science
- Nutritional Science
- Environmental Health
- Occupational Therapy
- Fashion Design
- Social Science
- Social Studies/Childcare

A good Home Economics Student displays....

- An interest in cooking, balancing flavours and tastes, and nutrition with value for money.
- An interest in clothes design, materials, styles and even a desire or skill in making some.
- A flair for design of houses, kitchens and other areas to be functional and effective.
- An informed interest in current affairs, social issues and family life and a capacity to write on these supporting their views.

Geography

- ...study of people, their environment and the interaction between the two.
- Topics such as rocks, soils, oceans, population movements, map reading and economic activities.

Geographical Skills

- **Info Gathering**: map reading, statistics, charts
- **Presenting Info**: using diagrams, maps, writing
- **Evaluating Info**: fact from opinion, informed judgements, solutions to problems.

Geographic Investigation (20 %)

Prepare in May

Fieldwork Sept - Nov

Group work

Direction / Instruction

List of Geographical Investigation Topics for 2020

- ❑ Undertake a comparative study of the demographic profile of two local residential areas.
- ❑ A study of the impact of the European Union on economic activity (primary, secondary or tertiary economic activity) in a local area (urban or rural).
- ❑ Carry out an investigation of the factor(s) that influence traffic flow patterns in a local area.
- ❑ Water pollution – A local study.
- ❑ A study of the impact of the geomorphic processes of transportation and deposition on the formation of any ONE landform.
- ❑ An investigation of the impact of human activity on geomorphic processes in a fluvial or coastal or glacial environment.

Accepted as:
Science subject in

TCD

- Pharmacy
- Biological & Biomedical Sciences
- Chemical Sciences
- Geography & Geoscience
- Physical Sciences

UCD

- Science Degree

Useful for

- Archaeology
- Civil / Environmental Engineering
- Architecture
- Meteorology
- Tourism/Heritage studies
- Horticulture
- Agriculture
- Planning & Environmental Mmgt
- Marine Science
- Earth & Ocean Sciences
- Environmental Science
- Auctioneering/Estate Agent

History

Has moved away from politics to encompass social and cultural history. (1492 – 1993)

...more choice, research work, less emphasis on memorising...

- Special Topic Q (20%) Submitted by April L.C
- Europe (6) / Ireland (6) select 2 from both!
- Document based question
(Dictatorship & Democracy)

...exam < 3 hrs ...

Special topic

Draft in 4th year (1500)

...of historical importance...

3 sources (e.g. books, documentation, newspaper articles, interview, websites..)

Topics...

- Coco Chanel – her influence on women's fashion.
- Irene Sendler – saving Jewish children in WW2.
- Siege of Jadotville 1961 – an attack on Irish peace keepers in the Congo
- Berlin Olympics 1936
- The Theft of the Crown Jewels by Colonel Thomas Blood in 1671

Useful for:

- History, Politics, Sociology
- Journalism
- European Studies
- Law
- Tourism/Heritage Studies

Art

Useful for:

Art & Design

Animation

Advertising

Architecture

Marketing

Occupational Therapy

Product Design & Technology

Primary Teaching

Fashion Design

Film Studies

Film & Documentary

Photography

Early Childhood Care & Ed

Creative Media Technologies

Digital Media Design

Art Therapy

Exam

Life Drawing (1 hr)
Craft / Design (5/2 hrs)
Imaginative Composition / Still life (2.5 hr) May

History of Art (written exam) 150 / 400 marks June

Change to practical component... present 5th yrs

Imaginative composition or still life and Craft or Design
Jan – Mar (10 weeks within school)

Life sketches (13%) & History / Appreciation of Art (37%)
June L.Cert

Music

Listening 25%

4 set works, Irish music & general listening skills

Composition 25%

Melody writing and harmony

Practical 25% (Mar / Apr)

Play or sing
Play 3 on 1 or 2 on 2. Groups also!

Plus

Elective 25% in one of above

Listening - Research a topic e.g. Film music

Composition - Submit a portfolio of compositions

Practical - Perform double the required amount of pieces for the Core Practical or option of Music Technology (Sibelius) or Conducting the school choir.

Useful for:

- Music Degrees
- Performing Arts UL (Irish Music, World Music, Voice)
- Music Technology
- Primary Teaching
- Speech & Language Therapy
- Film Studies
- Theatre & Performative Practices UCC
- Drama Theatre & Performance Arts NUIG
- Arts Administration
- Music Therapy

Japanese

Communicative Proficiency
(greetings, personal details..)

Language Awareness
(spoken & written text)

Cultural Awareness
(everyday activities, customs, entertainment..)

3RD Level Courses

World Languages UCC

Applied Languages UL

Business Studies with Japanese UL

Law Plus UL

Applied Languages & Translation Studies DCU

Physical Education (PE)

Aims 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 careers.

Assessment

Physical activity project	20% (H & O)
Performance assessment	30% (Common)
Written exam	50% (H & O)

....must complete the physical activity project and performance assessment in **two different** activities!

Physical activity project (20%)

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

- Performer
- Coach/choreographer

Project should span 8 – 10 weeks

Digital format

4 sections

- Performance analysis
- Identification of 4 performance goals.
- Evidence of ongoing training/practice and reflection.
- Concluding analysis

Performance assessment (30%)

- Students select one of three selected physical activities being studied by their class in LCPE (Adventure activities, Artistic and aesthetic activities, Athletics, Aquatics, Games, Personal exercise and fitness).
- Learners are required to demonstrate knowledge and understanding of the principles of play/performance, an understanding of the rules and conventions of the activity and adherence to safe practice before, during and after the performance, fully competitive and/or conditioned practices.
- The performance is captured digitally by the learner and is captured in sessions designed to demonstrate the learner's best personal performance in fully competitive and/or conditioned practices or performance settings.

Written Exam (50%)

Half of the marks available for the course will be determined by a written examination, areas it will cover include the following

- Understanding of the factors which affect participation and performance in physical activity and the relationships between them
- A **case study** requiring students to apply their learning to a physical activity.

Leaving Cert. Vocational Programme

In addition to the 4 core and 3 optional subjects offered as part of the Leaving Cert, students pursuing the Leaving Cert Vocational Programme study two link modules

Preparation for Work

Local employment opportunities

Job-seeking skills

Career Investigation

Work Placement

Enterprise Education

Enterprise skills

Local Business Enterprises

Local Voluntary Organisations / Community Enterprise

An Enterprise Activity

Selection of students for LCVP

To be eligible for the above programme students must select one of the following combinations of optional subjects:

- Phy & Tech
- H.E., Ag Sc., Biol (any 2)
- Biol or Chem or Phy (any 2)
- Ag Sc & Chem or Phy
- Ag Sc & Acc or Econ or Bus
- Ag Sc & Tech
- Tech & Bus or Acc or Econ
- H.E. & Bus or Econ or Acc
- Art & Bus or Acc or Econ
- Music & Bus or Acc or Econ
- Acc or Bus or Econ (any 2)
- H.E. & Art

Assessment / Certification

Portfolio of Coursework 60%

Written Exam 40%

Certification

Distinction	(66)	H4 (60<70)
Merit	(46)	H6 (40<50)
Pass	(28)	O4 (60<70)

Leaving Cert. Applied (LCA)

Leaving Cert. Applied focuses on the needs and interests of the students using a variety of methodologies.

It is a self contained two year course designed to meet students needs not adequately catered for by either the Leaving Certificate or Leaving Certificate Vocational Programme.

Curriculum

Vocational Preparation:

- Vocational Preparation and Guidance (incl. wk exp)
- *English and Communication

Vocational Education:

- *Mathematical Applications
- *Vocational Specialism
IT & OACC

General Education:

- Arts Education
- *Social Education
- *Languages
- Leisure & Recreation

Elective Courses

- Hair and Beauty
- Science

Course Design / Assessment

Sessions: (4)

September – January

February – June

3 modes of Assessment

Modules (44) – 62 Credits (31%)

Task (7) – 70 Credits (35%)

Final Examination – 68 Credits (34%)

Total: 200 Credits (100%)

Certification

Three Levels:

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

Options after L.C.A

