

Mathematics at Leaving Cert

The Maths syllabus is being revised as part of a revision of the whole maths course and a new Project Maths syllabus is being introduced for the first time.

Project Maths involves changes to what students learn in mathematics, how they learn it and how they will be assessed.

Project Maths aims to provide for an enhanced student learning experience and greater levels of achievement for all. Much greater emphasis will be placed on student understanding of mathematical concepts, with increased use of contexts and applications that will enable students to relate mathematics to everyday experience.

General Notes for the exam:

Write your answers in the spaces provided in this booklet. There is space for extra work at the back of the booklet. You may also ask the superintendent for more paper. Label any extra work clearly with the question number and part.

The superintendent will give you a copy of the booklet of Formulae and Tables. You must return it at the end of the examination. You are not allowed to bring your own copy into the examination.

Marks will be lost if all necessary work is not clearly shown.

Answers should include the appropriate units of measurement, where relevant.

Answers should be given in the simplest form, where relevant.

Is Maths a compulsory subject?

Maths is a compulsory subject in every school. You need to obtain a minimum of a pass mark at ordinary level for entry into the majority of college courses.

For Leaving Cert maths is offered at three different levels;

- Higher
- Ordinary
- Foundation

Did you know that more and more courses are now accepting a pass in foundation level Maths?

Before you apply for a course it is crucial that you make sure that you meet the Maths entry requirements for that course. For more info visit

www.qualifax.ie.

What level should I take?

This depends on a number of factors:

- The level that you are the most capable of.
- If you have done well at Junior Certificate Maths this usually bodes well for Leaving Cert
- Do you require maths for the course of your choice at Third Level
- Are you good at Maths and could the extra effort result in you doing well enough to avail of the new Bonus Points
- As you go into 6th year if you feel you are more comfortable at Ordinary Level you can drop down to it, having completed one year at Higher Level should stand to you at Ordinary Level

Why should I take higher level Maths?

There are very few students completing Maths at Higher Level with only 15.8% of students taking Maths at higher level in 2011. It is considered the most time-consuming subject of all. It generally

Takes up more time than the other subjects you study to obtain a good result.

The new Bonus points for Higher level maths will provide an added incentive for people who are good at Maths to stay on and complete Higher Level Maths. Bonus Points for Higher Level Mathematics has been Implemented by Universities, DIT and RCSI.

Did you know a minimum of a C3 in Higher Level Maths is a requirement for nearly 100 third level CAO courses!

Bonus Maths points are also in place for students who wish to study liberal arts or early childhood care and education at Mary Immaculate College.

We would advise that Higher-level Maths should not be taken by a student unless they are confident in their mathematical ability.

Will I receive bonus Maths points?

Students who take the higher level Maths paper in the Leaving Cert from June 2012 (to 2014, at which point the scheme will be reviewed) and achieve a D3 or higher will receive 25 bonus points. If you get an A1 in Higher Level maths you will receive an additional 25 Bonus points. These bonus points are available for most Third Level Colleges in Ireland.

A student with a D3 in higher level Maths will achieve the usual 45 points and a bonus of 25 points, bringing their total to 70 points.

A student with a A1 in higher level Maths will achieve the usual 100 points and a bonus of 125 points, bringing their total to 125 points.

It must also be noted that when calculating your Leaving Cert points, you must only include your best six subjects (your six highest grades). The bonus points will only be relevant in cases where the subject HL mathematics (including bonus points) is scored as one of the candidate's six best subjects for points purposes. Consequently, if HL mathematics (cumulative points score) is not among these six subjects, the bonus points will not be included in the total points score.

Therefore if Maths is not one of your top six subjects, you cannot count the bonus points either

What if I find Higher Level Maths too difficult?

If you are finding it too hard, the sooner you realise it the better. If you have tried Higher level maths in general Ordinary level maths will come a lot easier to you and you will be very confident of doing well at Ordinary level. By stepping down to Ordinary level maths you will get more time to study and maximise your performance in other subjects, this could benefit you massively.

Remember it's all about getting the balance right with all your subjects.

If you are tethering on the brink of getting a D in Higher Level and if there is a slight possibility of failing higher level, this will have serious consequences and should not be risked.

I would love a career in Science or Engineering but I am not a strong Maths student. What are my options?

There are also courses such as preliminary engineering in GMIT and DIT.

These courses allow for students who have not met the entry requirements (such as higher level Maths or an appropriate science subject). The course prepares students for progression into degree courses.

In addition, there are also higher certificate programmes which last two years that you can do prior to an honours degree. To gain entry into these courses you must have obtained a D3 in ordinary level Maths. To progress to an honours degree you must maintain 60pc or higher throughout these programmes, it is a longer route but it caters to the weaker Maths student.

Project Maths

The first exam for all students in Project Maths will be 2012, the differences from this exam to previous exams are Paper 2 will take on a new style while Paper 1 will be staying along the traditional lines

The major differences between the papers will be that on Paper 2 all questions must be attempted (unlike on Paper 1), and that on paper 2 up to half the marks will go for completely unseen problems, requiring methods drawn from the full length and breadth of the course.

As this is the first year for all students we have very few examples however we are selling excellent Revision notes which should help you prepare better for Project Maths see a sample [here](#).

Section B:

Contexts and Applications questions will more than likely involve real-life situations which you have not analysed mathematically before. For each such question, your tool-box for solving the problem is the entire course on probability. Geometry and trigonometry. You will have to make huge decisions as to what constitutes a suitable approach.

To successfully deal with such questions, you first need to master the use of all the tools in the toolbox.

You need to understand the ideas behind them and their suitability for different problems and not just learning methods off by heart.

The key to Project Maths is understanding:

The more you understand the less you have to learn, and the better you will be prepared for Section B questions on Paper 2.

If students attempt the a and b parts of questions they should pass the paper, the c parts of questions generally determine who gets A's and B's.

Students should attempt all parts of questions as attempt marks are given and examiners are willing to give marks if a concerted effort is made.