

## HEAD START MATHS

### (REFRESHER MATHS PROGRAMME)

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The Head Start Maths aims to allow prospective students a thorough revision and consolidation of key basic mathematical topics prior to attending their course.

##### Who is this course for?

The aim of this short course is to revise and consolidate key basic mathematical topics that are necessary for students prior to entry onto the programmes in IT Tallaght which contain mathematical content.

It will also act a refresher for those who have recently left school or for mature students that have been out of the education system for some time.

You should consider completing this short course if any of the following apply to you?

- You do not meet the mathematics requirements for the course of your choice.
- You are considering completing an Engineering or Science course which involves advanced mathematics for example FESCAP (Ab –Initio Ordinary Degree in Mechanical Engineering) part time
- You are a mature applicant who has applied to IT Tallaght for an engineering, science or computing course and you would like to do some preparatory work on your mathematics prior to starting your course in September 2018.

##### Entry Requirements

The course is open to all prospective students

##### Course Timetable

The course runs on 5 consecutive Saturday mornings from 10:00- 13:00, students will also be required to study online using resources that are provided.

The course will be run twice over the coming months:

##### Cohort 1

Saturday 26<sup>th</sup> May – Saturday 30<sup>th</sup> June 2018

##### Cohort 2

Saturday 11<sup>th</sup> August – Saturday 8<sup>th</sup> Sept 2018

##### Course Summary

The course will provide you with opportunities to cover the following topics:

- Calculate and simplify numerical expressions involving scientific (stand form) notation
- Manipulate and solve algebraic expressions and equations.
- Apply the basic techniques of trigonometry to solve problems.
- Find the equation of a straight line through data.

## Course Content

### Arithmetic

Real numbers, indices, fractions, scientific form

### Algebraic expressions and formulae

Precedence rules

Manipulation of algebraic expressions

Manipulation of algebraic fractions

Factorisation of quadratic expressions

Recognition of the graphs of simple quadratic forms

### Algebraic equations

Solution of linear and quadratic equations

Co-ordinate geometry

Cartesian co-ordinates

Equation of a straight line

Plotting simple linear laws, y-intercept and slope

### Trigonometry.

Right-angles triangles, sin, cos and tan

Pythagoras' theorem

Solution of right-angles triangles

Introduction to sine and cosine rules

## How to Apply

### Students apply directly to IT Tallaght

Please apply through by completing an application form available at <http://www.it-tallaght.ie/parttimecourses>

The course is free to all mature full time students who have applied to IT Tallaght through the CAO.

The course is free to all prospective students who have applied based on an FET qualification for entry to IT Tallaght through the CAO.

The course is free to all unemployed prospective part time students.

The cost for all employed prospective part time students is €100 payable on application. (Postal order or Bank Draft – NO CASH is accepted). This fee includes the supply of your course book Foundations in Mathematics, a Scientific Calculator and access to online resources.

### For further information or enquiries

Please contact [LLL@it-tallaght.ie](mailto:LLL@it-tallaght.ie) or phone the Lifelong Learning Team @ 01-4042101