

# August Course Topics

## Leaving Cert 2016 Higher Mathematics Course

Monday, August 17<sup>th</sup> to Wednesday, August 19<sup>th</sup> 2015 (10 a.m. to 1 p.m. each day)

### 1. FUNCTIONS

- (a) Introduction to Functions
- (b) Review of Rules
- (c) Implicit Differentiation
- (d) Differentiation of Inverse Trig Functions
- (e) Maxima and Minima Problems
- (f) Parametric Differentiation and Functions

### 2. TRIGONOMETRY

- (a) Solving Trig Equations
- (b) Sine Rule & Cosine Rule and Applications
- (c) 3D Trig Problems
- (d) Sketching the Trig Curves
- (e) Application of Inverse Trig Functions

### 3. ALGEBRA

- (a) Problems incorporating  $\alpha$  and  $\beta$
- (b) Solving Simultaneous Equations (Linear and Non-Linear)
- (c) Inequalities
- (d) Problems involving Sequences (Un)
- (e) Factorising Cubic Polynomials
- (f) Multiple Factorisations
- (g) Applications of Log Rules and Exponentials