

# The Galway Study Centre Christmas Course Topics

## (Leaving & Junior Certificates 2019)

### L'19 Higher Level Mathematics

1. Differentiation (Max and Min, Rates of Change, Rate of Flow) – Paper 1
2. Functions and Algebra (Composite and Inverse Functions, Cubic Equations, Inequalities, Logs, Indices and Applications) – Paper 1
3. Probability and Statistics (Venn Diagrams, Binomial, Normal Dist, Hypothesis Testing) – Paper 2
4. Trigonometry and Geometry (Trig Graphs and Solving Equations, Sinusoidal Functions, Sine and Cosine Rules) – Paper 2

(Students are advised to bring along the latest Past Papers to each class)

### L'19 Ordinary Level Maths

#### • Strand 4 ~ Algebra

Quadratic Equations, Factor Theorem, Simultaneous Equations, Inequalities, Solving more complex Equations

#### • Strand 5 ~ Functions & Calculus

Reading graphs of a function, solving functions, using Differentiation within Cubic Functions, Solving Functions and finding missing values

#### • Strand 2 ~ Co-Ordinate Geometry

Co-Ordinate Geometry of the Line, Using Formulae and Essential Concepts, Translations and Symmetry Introduction and overview of the Circle requirements

#### • Strand 2 ~ Trigonometry

Using Trigonometric ratios, Right Angled and Non Right Angled Triangles, Correct use of the Sine and Cosine Rules, Answering practical problems within Trigonometry

The revision course will also include advice on exam technique and timings as well as important guidelines to best approaching Paper 1 and Paper 2 topics. Students will be made aware of the Essential Topics to cover in their strand revision.

### L'19 Higher Level Biology

1. Nutrition
2. Respiration & Breathing
3. Genetics ii
4. Microbiology (Bacteria & Viruses)

### L'19 Higher Level English

The course will cover all of Paper One and some of Paper Two, with particular emphasis placed on the five language genres and on poetry.

- ◊ Intensive exam practice and writing evaluation will be at the core of this course, with breakdown and analysis of past exam questions and sample answers.
- ◊ Comprehensive, concise notes that have been prepared with a view to aid revision and focus attention on exactly what is necessary for exam success will be provided.
- ◊ Tips and advice on exam technique and various modes of effective study and practice of English will also be provided.

#### Paper 1 Skills

- 5 Language Genres.
- Question A Techniques.
- Question Bs
- Paper 1 Essays – Different types, techniques and sample essays

#### Paper 2

- Prescribed Poetry
  - Yeats
  - Heaney
  - Ní Chuilleanáin
- Single Text:
  - Introduction to William Shakespeare's 'Macbeth'

### Junior Cert Higher Level Maths

#### • Strand 4 – Algebra

Quadratic Equations, Inequalities, Algebraic Long Division, Writing Linear Equations for Practical Problems

#### • Strand 5 – Functions & Graphs

Linear Concepts and Notation, Linear, Quadratic and Exponential Functions, Finding Missing Coefficients, Interpreting Data and Reading Graphs

#### • Strand 2 – Co-Ordinate Geometry

Co-Ordinate Geometry of the Line, Using Formulae and Essential Concepts, Application and Development of Higher level concepts and questions

#### • Strand 2 – Trigonometry

Using Trigonometric ratios, Right-Angled Triangles, Answering practical problems within Trigonometry.

The revision course will also include advice on exam technique and timings as well as important guidelines to best approaching Paper 1 and Paper 2 topics. Students will be made aware of the Essential Topics to cover in their strand revision.

### L'19 Higher Irish (Oral Exam Course)

#### Beannú agus Fáiltiú:

A quick overview of this element of the oral exam. And the five pieces of information needed.

#### Léamh na Filíochta:

- Reading of poetry with the phonetics of all the 5 poems given
- Tips on how to approach the poetry reading in the exam, showing emotion and personality.

#### Na Sraith Pictiúir:

- Nathanna cainte agus frásaí that can be used for all pictures.
- Overview of the sraith pictiúir with notes on a few of the more challenging pictures.

#### An Cómhra:

This is the most important part of the Oral. In-depth notes, phrases, and proverbs will be given. Also, sample and detailed answers will be given on most topics including tips on how to approach the exam and how to lead the conversation.

Topics will include:

- Me féin agus mo chlann
- Mo Cheantar
- Mo Chaitheamh Aimsire
- Mo Scoil/An Bhliain Seo Chugainn/Tar éis na hArdeiste
- Laethanta Saoire/ An Ghaeltacht/An Ghaeilge
- Na Suíomhanna Sóisialta agus an Teicneolaíocht
- Saol an Duine
- Óg/Fadhanna/decrachtaí/brú
- Cúrsaí Timpeallachta

#### Other:

- Grammar notes and pointers will be given throughout the day.
- Students will be made aware of the most common mistakes that occur in the oral exam and how to best avoid them.