LC Accounting H Course 1

- Revaluation of Fixed Assets (60 Marks).
- Control Accounts (Debtors & Creditors 60 Marks).
- Club Accounts (60 & 100 Marks).

LC Accounting H Course 2

- Incomplete Records (Type B 100 Marks).
- Ratios (100 Marks).
- Tabular (60 Marks).

LC Accounting H Course 3

- Budgets (80 Marks).
 - Cash Production.
 - Flexible.
 - Mixed.
- Accounting Theory Questions/Notes.

LC Applied Maths H Course 1

Chapter 2:

• Uniform Acceleration: Solved Exam Problems (These techniques are vital to the rest of the examination).

Chapter 3:

• Projectiles: Both Horizontal & Vertical Displacements.

Chapter 4:

• Connected Particles: This is basically an application of Newton's Laws. Overview of style of 3 (With Sub Styles) Main Broad Question Types posed over the last 40 years.

Chapter 6:

• Application of Newton's Laws from Question 4. Overview of 5 LCH Main Question Types posed over the last 40 years.

LC Applied Maths H Course 2

From Murphy:

- Chapter 9: Differentiation & Integration.
- Chapter 10: Differential Equations.

LC Ag Science H Course 1

- Crop Management.
- Sheep.
- Dairy.
- Kale.
- Project Information.

LC Biology H Course 1

- Digestive System.
- Respirations.
- Enzymes.
- Food.

LC Biology H Course 2

- Variation & Evolution.
- Genetic Engineering.
- Genetic Crosses.
- DNA & RNA.

LC Biology H Course 3

- Reproductive System.
- Circulatory System.
- Breathing System.
- Nervous System.

LC Biology H Course 4

- Defence System.
- Cell Division.
- Bacteria.
- Viruses.
- Fungi.

LC Biology H Course 5

- Plant Reproduction.
- Plant Transport.
- Plant Structure.
- Plant Responses.

LC Business H Course 1

ABQ Focused:

- Unit 2, 3 & 4.
- How to answer the ABQ & Theory from these Units.

Computer Science H Course 1

We will cover the Project Topic:

- <u>ALT 1 & ALT 2</u>
 - Databases & Analytics These are the Applied Learning Tasks for the Project.

Computer Science H Course 2

As Python is the only language being examined on the actual test in March 2025. We will review all Chapters 1 & 9 from the textbook –

**Will be Furnished with Notes from Dr Barry Ryan.

LC Chemistry H Course 1

- Chemical Equilibrium & Le Chatelier's Principle.
- Rates of Reaction.

LC Chemistry H Course 2

• Practical Organic Chemistry Experiments.

LC Chemistry H Course 3

- Generic Titration Q1 on Acid Base Titrations.
- Acid/Bases/pH/Indicators.
- pH Titres.

LC Chemistry H Course 4

- Fuels/Octane Numbers Q6.
- Thermochemistry.
- Radioactivity.

LC Chemistry H Course 5

- Redox Titration's in Q1.
- Oxidation & Reduction.
- Water Analysis.

LC Chemistry H Course 6

- Organic Chemistry.
- Ionic Addition/Free Radical Substitution Mechanism.
- Reactions of Alkanes/Alkenes/Alkynes/Aldehydes/Ketones/Carboxylix Acids

LC Economics H Course 1

Microeconomics

In Light of the new Syllabus introduced in 2021 & Sample Papers published, emphasis is on problem solving.

Course Content:

- Fundamentals of Economics.
- Supply, Demand, Equilibrium in Markets.
- Market Failure.
- Factors of Production.
- Cost Structure of the Firm.
- Firm Structures.

We will illustrate such with new syllabus emphasis.

LC Economics H Course 2

Macroeconomics

In Light of the new Syllabus introduced in 2021 & Sample Papers published, emphasis is on problem solving.

Course Content:

- National Income & Econometric Measures of such.
- Unemployment & Inflation.
- International Trade.
- National Budget & National Debt.
- History of Economic Thought.

We will illustrate such with new syllabus emphasis.

LC English H Course 1

<u> Paper 1:</u>

- Comprehending Question A.
- Writing about Visual Texts.
- Comprehending Question B.
- Composing.
- Unseen Poetry.

<u> Paper 2:</u>

• Unseen Poetry.

LC English H Course 2

King Lear:

- Comprehensive Analysis of the Plot.
- Detailed Description of the Main Characters.
- Analysis of Character Relationships.
- Overview of the Main Themes in the Drama.

LC English H Course 3

Prescribed Poetry

- Theme, Language, Style of Each Poem & How to Write an Examination Answer.
- Eavan Boland -
 - The War Horse.
 - Child of Our Time.
 - The Famine Road.
 - The Black Lace Fan My Mother Gave Me.
 - The Shadow Doll.
 - The Pomegranate.

• Patrick Kavanagh.

- Inniskeen Road.
- July Evening.
- Shancoduff.
- On Ranglan Road.
- A Christmas Childhood.
- Advent.

- Canal Bank Walk.
- Lines Written on a Seat on the Grand Canal Dublin.

LC English H Course 4

Paper 1 - Composition:

- This Question is 25% of your full exam.
- Discussions on Personal Essays, Short Stories & Opinion Pieces.
- Sample Answers & Exam Techniques Discussed.

Paper 2 - Poetry of Sylvia Plath:

- Review of Poems with Notes Concerning Themes, Imagery & Language.
- Sample Responses & Exam Techniques Discussed.

Paper 2 – Poetry of Emily Dickinson:

- Review of Poems with Notes Concerning Themes, Imagery & Language.
- Sample Responses & Exam Techniques Discussed.

LC English H Course 5

<u> Paper 1:</u>

- Question B.
- Functional Writing.

Comparative Study

• Overview.

Prescribed Poetry

Eavan Boland.

LC French H

- Layout of Paper.
- Timing.
- Reading Comprehensions Explained.
- Vocabulary & Question Words Analysed.
- Written Production & Grammar.
- Forming Phrases, Expressing Opinions & Using a Variety of Tenses.
- Sample Answers.
- Aural Work.
- Sample Questions.
- Q & A.

LC French Oral

- Myself.
- My Family.
- My Area.
- My Hobbies.
- Review Common Errors.
- Complete a Mock Exam.

LC Geography H Course 1

- Plate Tectonics.
 - o Boundaries.
 - Volcanoes.
 - o Earthquakes.
- Rocks.
- Rivers.
- Isostasy.
- Biomes

LC German H

- Overview of Paper & Timing.
- Key Grammer Topics & Past Paper Exercises.
- *Reading Comprehension, Extension on the Topic & Letter Writing:* Word Order Rules, Key Vocabulary, German Idioms, Opening/Closings, Marking Scheme, Past Paper Examples.
- Exam Strategy.

LC German Oral

- Overview of Oral Exam.
- Key Vocabulary, German Idioms & Useful Phrases.
- General Conversation, Picture Stories & Role Play Practice.
- Pronunciation Tips.
- Exam Strategy.

LC Home Economics H Course 1

Focus on Long Q1, Q2 & Core Elective.

- Nutrients.
- Food Commodities.
- Processing & Packaging.

LC Home Economics H Course 2

Focus on Long Q3, Q4 & Core Elective.

- Microbiology.
- Food Spoilage & Preservation.
- Food Safety & Hygiene.
- Technology in the Home.
- Finance & Housing.

HPAT Course 1

Sections 1 & 3:

• Logical & Non Verbal

LC History H

DBQ

- Stalin's Show Trial's.
- The Nuremberg Rallies.
- The Jarrow March.
- Practicing Exam Style Questions & Evaluating Historical Sources.

LC Irish H

<u> Páipéar 1</u>

• <u>An Aiste:</u> Multiple Sample Essay's Given.

Páipéar 2

- *Dánta:* The 3 most likely Poems to come up in 2025 will be covered.
- <u>*Prós*</u>: The 3 most likely Prós to come up in 2025 will be covered.

LC Oral Irish

- Fáiltiú.
- Filiíocht.
- Comhrá.
 - $\circ \quad \text{Mé Féin.}$
 - \circ Mo Cheantar.
 - Mo Scoil.
 - Mo Chaitheamh Aimsire.
 - o Saol an Dalta i ndiaidh na Scoile.
 - Teicneolaíocht.
 - An Ghaeilge agus An Ghaeltacht.
- Sraith Pictiúr:
 - o Advice on how to prepare for the Sraith Pictiúr.

LC Maths H Course 1

Differentiation Calculus

Topics Covered:

• <u>Applying the Rules of Differentiation</u>: This includes using the product, quotient, and chain rule. Applying these rules to differentiate Trigonometric, Exponential, Logarithmic and Inverse Trigonometric Functions.

- Limits, Asymptotes & Continuity of Functions.
- Differentiation using first principles.
- <u>Applications of Differentiation:</u> Turning Points, The Second Derivative Test, Maximum & Minimum Points, Increasing & Decreasing Functions.
- *Differentiation Word Problems:* Maximum & Minimum Word Problems, Rates of Change & Related Rates of Change.
- Exam Questions from Section A & Section B of the Exam Papers on Differentiation.

LC Maths H Course 2

Probability and Statistics

Topics Covered:

- <u>Statistics</u>: The Correlation Coefficient & Line of Best Fit. The Normal Distribution, Z Scores & Solving problems using the Normal Distribution Tables.
- <u>Probability:</u> The Addition Rule, The Multiplication Rule, Independent Events, Mutually Exclusive Events, Conditional Probability, Expected Value, Bernoulli Trials & The Binomial Distribution, Difficult Word Problems on Probability.
- *Inferential Statistics:* The Central Limit Theorem, Confidence Intervals & Hypothesis Testing using sample means, Proportions & P Values.
- Exam Questions from Section A & Section B of the Exam Papers on Probability & Statistics.

LC Maths H Course 3

Co Ordinate Geometry of the Line & Circle

Topics Covered:

• <u>Co Ordinate Geometry of the Line:</u> The Area of a Triangle, Internal & External Division of a Line Segment, The Perpendicular Distance Formula, The Angle

Between 2 Lines, Finding the Circumcentre, Orthocentre & Centroid of a Triangle using Co Ordinate Geometry.

- <u>Co Ordinate Geometry of the Circle:</u> Finding the Centre & Radius of Circles, The Intersection of a Line & Circle, Tangents & Circles, More Difficult Problems in finding the Equation of a Circle when you are given certain restrictions.
- Exam Questions from Section A & Section B of the Exam Papers on Co Ordinate Geometry of the Line & Circle.

LC Maths H Course 4

Trigonometry

Topics Covered:

- The Sine Rule, Cosine Rule, Area of a Triangle & 3 Dimensional Problems.
- Solving Trigonometric Equations using CAST.
- The Graphs of Trigonometric Functions.
- Using the Formulae from The Log Tables to prove Trigonometric Identities.
- Exam Questions from Section A & Section B of the Exam Papers on Trigonometry.

LC Maths H Course 5

Functions, Indices & Logarithms

Topics Covered:

- *Functions:* Composite Functions, Completed Square Form, Inverse Functions, Injective Surjective & Bijective Functions.
- Indices: Solving Quadratic Equations Using Indices.
- *Logarithms:* Solving Log Equations, Writing Expressions a Single Logs,
- Using the Natural Log to get a Power Down, Log Word Problems.
- Exam Questions from Section A & Section B of the Exam Papers on Functions, Indices & Logarithm.

LC Maths H Course 6

Financial Maths

Topics Covered:

- Lump Sum & Deprecation Questions.
- Annuity, Savings & Investment Questions.
- Amortisation Schedules & Using the Amortisation Formula.
- The Present Value Series.
- Problems Involving Bonds & Pensions.
- Deriving the Amortisation Formula.
- Exam Questions from Section A & Section B of the Exam Papers on Financial Maths.

LC Maths P Course 1

Unit 1: Algebra

- Algebraic Operations on Polynomials & Rational Functions.
- Addition, Subtraction, Multiplication & Division & the use of Brackets & Surds.

- Laws of Indices.
- Factorisation of such Polynomials (The Linear & Quadratic Factors having Integer Coefficient).
- Solution of Cubic Equations with at least One Integer Root.
- Quadratic Equations by Factoring or using the -B Formula.
- Form a Quadratic from its Roots.
- Inequalities with X.
- Solving for X as a Power.

Unit 2: Functions with Differential Calculus

- Differentiation by Rule & First Principles.
- Rules of Sums, Products & Quotients.
- First Derivatives of Polynomials, Rational, Power.
- First Derivatives of Products.
- First Derivatives of Quotients.
- Simple Second Derivatives.
- Maxima & Minima.

Unit 3: Complex Numbers

- Real & Imaginary Part to Complex Numbers.
- Adding/Subtracting Complex Numbers.
- Multiplying Complex Numbers.
- The Conjugate.
- Dividing Complex Numbers.
- Plotting Complex Numbers on a Graph (Argand Diagrams).
- The Modules.
- Quadratic Equations with Complex Numbers.
- Transformations with Complex Numbers.

LC Maths P Course 2

Unit 1: Co Ordinate Geometry of the Straight Line & Circle

- General Equation of the Line in Form ax + by + c = 0.
- Length of Perpendicular from (x1, y1) to ax + by + c = 0.
- Angle Between Two Lines with Slopes m1 & m2.
- Equation Circle Centre (0,0) & Radius r (x2 + y2 = r2).
- Equation of Tangent at (x1, y1) to x2 + y2 = r2.
- Intersection of Line & Specific Circle.

<u>Unit 2:</u>

- Probability of an Outcome with one event happening.
- Probability of an Outcome with two events happening.
- Fundamental Principle of Counting.
- Arrangements Permutations.
- Expected Frequency.
- Or Rule (Add): Mutually Exclusive Events.
- And Rule/The Multiplication Rule Bernoulli Trial.
- Tree Diagram.
- Expected Values Law of Large Numbers.

Unit 3: Trigonometry

- Calculate the Area of a Sector of a Circle & the Length of an Arc & Solve Problems Involving these Calculations.
- Pythagoras Theorem.
- Use Trigonometry to Calculate the Area of a Triangle.

- Use the Sine & Cosine Rules to Solve Problems 2D & 3D.
- Define Sine A, Cos A & Tan A for all values of A.

LC Music H

- Bach.
- Barry.
- Irish Music.
- Melody.

LC Physics H Course 1

- **Optics:** Reflection & Mirrors.
- **Optics:** Refraction & Lenses.

- <u>Current Electricity</u>: Circuits, Ohm's Law, Resistivity, Resistance, Wheatstone & Metre Bridges.
- *Circuit Problems:* Resistors, Inductance Coils, Diodes with DC & AC Sources.

LC Physics H Course 2

- **Sound:** Sound Intensity, Decibel Scale, Velocity of Sound, Doppler Effect.
- **Sound**: Travelling Waves, Standing Waves, Open & Closed Pipes, Sonometer.
- *Electrostatics*: Coulomb Law, Definition of Charge, Electroscope.
- **Capacitance:** Parrell Plate, Van De Graaf Generator, Energy Heat & Temperature, Calibration, Latent & Specific Heat, Heat Exchangers, Heat Engines, Heat Pumps, Refrigerators.

LC Physics H Course 3

- <u>Atomic Theory</u>: Rutherford, Millikan, Planck, Bohr, Electromagnetic Radiation & Spectrum, Electron, Photon, Line & Continuous Spectra.
- **<u>Photoelectric Effect:</u>** Importance & Photocells.
- <u>X- Rays:</u> Rontgen, X-Ray Tubes, Applications.
- **Cathode Ray Tubes:** Electric & Magnetic Fields, Faraday, Fluorescence.
- Semiconductors: Theory, Diodes.
- Radioactivity: Detectors, Nuclear Decay Processes.
- *Fission & Fusion:* Nuclear Processes, Reactors, Link to Heat Exchangers & Power.

LC Physics H Course 4

• <u>Vectors:</u> Addition, Equilibrium.

- *Newton's Laws:* Force, Momentum, Momentum Conservation, Friction.
- *Kinematics:* Equations & Problem Solving.
- *Work:* Energy & Power, Mechanical Energy.
- <u>Conservation Centripetal Forces</u>: Types of Centripetal Forces, Radians, Problem Solving.
- *Gravitation:* Satellites, Weightlessness, Earth Spin, Link to Doppler & Speed of Light.
- **Simple Harmonic Motion:** Pendulums, Spring Constants.
- *Moments:* Equilibrium, Couples.
- <u>Archimedes:</u> Flotation, Hot Air Ballons, Density, Boyle's Law.

	LC Physics H Course 5
Mechanics.	
• Electricity.	
• Sound.	
• Optics.	
• Heat.	

• Light.

LC Spanish H

Section 1:

• Comprehension Strategies.

Section 2:

• Opinion Piece & Writing Skills.

Section 3:

• Verbs & Tenses Practice.

Section 4:

• Vocabulary Learning & Synonym Skills.

Section 5:

• Aural & Oral Exam Strategies.

LC Oral Spanish

This Comprehensive Course is tailored to help Students Excel in the Leaving Cert Spanish Oral Exam by focusing on:

- **General Conversation Practice:** Students will work on Key Topics (*mi familia, mi barrio, hablando del pasado y del futuro etc) with* an emphasis on fluency, tenses, expressions & confidence.
- **Role Play Practice:** Students will engage in typical exam scenarios, with emphasis on using appropriate tenses & handling spontaneous questions.

Benefits: Students will receive feedback, improve fluency & boost their confidence to maximize marks.