

LC Accounting H Course 1

Interpretation of Accounts (Ratio Analysis) – 100m

- List of Formulas & Explanations.
- Technic & Explanation of how-to best answer Part B.
- Part C Theory from previous years included.
- Full 100m worked solution with notes included.

Cash Flow Statements – 60m & 100m

- Answer Template given for both 60m & 100m.
- All Theory included from previous years.
- Full 60m & 100m worked solution with notes included.

**Accounting Theory Booklet Included on All Topics.

LC Accounting H Course 2

Tabular Statements

- Answer Template given for both 60m & 100m.
- All Theory included from previous years.
- Full 60m & 100m worked solution with notes included.

Suspense Accounts

- Answer Template given for both 60m & 100m.
- All Theory included from previous years.
- Full 60m & 100m worked solution with notes included.

**Accounting Theory Booklet Included on All Topics.

LC Applied Maths H Course 1

Question 1:

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

Question 2:

- Projectiles: Both Horizontal & Vertical Displacements.

Question 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.

Question 5:

- 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 2

- Grassland.
- Soil.
- Beef.
- Pigs.
- 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 – Easter Only

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

LC Biology H Course 6 – Easter Only

- Skeleton & Muscle System.
- Photosynthesis.
- Excretion.
- Senses.

LC Business H Course 1

- Units 1, 2 & 3 (ABQ Focused).

LC Business H Course 2

- Tax & Insurance.
- Monitoring a Business – Ratio's.
- Business Start Up.
- Business Organisation.
- Business, The Economy & Government.

LC Chemistry H Course 1

- Chemical Equilibrium.
- Rates Of Reaction.

LC Chemistry H Course 2

- Practical Organic Chemistry.
 - Focus on Mandatory Experiments.

LC Chemistry H Course 3

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

LC Chemistry H Course 4

- Fuels/Octane Number – Q6.
- Thermochemistry.
- Radioactivity.

LC Chemistry H Course 5

- Redox Titrations in Q1.
- Oxidation & Reduction.

LC Chemistry H Course 6

- Organic Chemistry – Reactions of:
 - Alkanes.
 - Alkenes.
 - Alkynes.
 - Ketones.
 - Carboxylic Acids.
 - Esters.
 - Reaction Mechanisms Included.

LC Economics H Course 1

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

- Paper 1
 - Comprehending A.
 - Comprehending B.
 - Writing about Pictures & Infographics.
 - Composing.
- Paper 2:
 - Unseen Poetry.
 - Timing & Answering Techniques.

LC English H Course 2

Hamlet

- 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

Comparative Study

- All 3 Registers.
- Popular Novels, Plays & Films Covered.
- Writing Techniques – E.g., Linking etc.

Poetry – Eileen Ní Chuilleanain

- Themes & Style Features.
- Exam Questions.

Paper 1 – Question B

- Functional Writing Formats (Written & Spoken Word).
- Sample Responses.

LC English H Course 4

Hamlet

- Dramatic Characters.
- Relationship between Hamlet & Ophelia.
- Imagery in this Tragedy.

Poetry

- John Dunne
- W.B Yeats.

LC English H Course 5

- Paper 1 – Comprehensions & Section A & B.
- *Poetry*
 - Hopkins
 - Donne.

LC French H

Introduction

- Overview of Paper.
- Timing.

Section 1

- Exam Grammar.
- Grammar.

Section 2

- Useful Phrases for Opening/Closing & Main Body of Opinion Pieces & Journal Intime.
- Sample of H1's & H2's.
- Key Grammatical Structures.
- Written Expressions.
- Standardisation of Topics.

Section 3

- Looking at the Marking Scheme to see how/where marks are awarded.
- Recurring Words & Phrases.

- Aural Comprehension.
- Transcript Review.

LC Geography H Course 1

- Plate Boundaries.
- Volcanoes.
- Earthquakes.
- Fold Mountains.
- Rocks.
- Weathering.
- Surface Processes, Isostatic Movements.

LC Geography H Course 2

- Characteristics of a Biome.
- Biome Adaptations.
- Human Interference with Biomes.
- Soil Forming Factors.
- Soil Processes.
- Human Interference with Soils.

LC German H

- Overview of Paper & Timing.
- Key Grammar Topics & Past Paper Exercises.
- Aural Comprehension & Recurring Vocabulary.
- Writing: Word Order Rules, Key Vocabulary, German Idioms, Opening/Closings, Marking Scheme, Past Paper Examples.

LC Home Economics H Course 1

- Focus on Q1 & Q2 on LC Course.
- Nutrients & Diet Related Diseases.

LC Home Economics H Course 2

- Focus on Q3 on LC Course.
- Microbiology.
- Food Spoilage & Preservation.
- Food Safety & Hygiene.
- Food Processing & Preservation.
- Food Labelling & Packaging.
- Sensory Analysis.

LC Home Economics H Course 3

- Focus on Q4 & Q5 on LC Course.
- Q4: Family Resource Management.
- Q5: Social Studies.

LC History H

- Approaching the DBQ: Notes & Sample Answers.
- Composing Essays Under the Following:
 - Pursuit of Sovereignty & Impact of Partition.
 - Politics & Society in Northern Ireland.
 - The United States & The World.
- Key Notes, Past Examination Questions, Essay Plans/Breakdowns & Key Words.

LC Irish H

- Paper 1:
 - Popular Essay Topics & Three Sample Essay's.
- Paper 2:
 - Three Sample Answers from Prescribed Poems.
 - Three Sample Answers from Prescribed Prose.

LC Maths H Course 1

Differentiation Calculus

- Applying the Rules of Differentiation: This includes using the product, quotient & chain rule. Applying these rules to differentiate Trigonometric, Exponential, Logarithmic & Inverse Trigonometric Functions.
- Limits, Asymptotes & Continuity of Functions.
- Differentiation using first principles.
- Applications of Differentiation: 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

Statistics & Probability

- Statistics: The Correlation Coefficient & Line of Best Fit. The Normal Distribution, Z Scores & Solving Problems using the Normal Distribution Tables.
- Probability: 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:

- Co Ordinate Geometry of the Line: 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.
- Co Ordinate Geometry of the Circle: 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 (x_1, y_1) to $ax + by + c = 0$.
- Angle Between Two Lines with Slopes m_1 & m_2 .
- Equation Circle Centre $(0,0)$ & Radius r ($x^2 + y^2 = r^2$).
- Equation of Tangent at (x_1, y_1) to $x^2 + y^2 = r^2$.
- Intersection of Line & Specific Circle.

Unit 2:

- 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 Physics H Course 1

- Optics: Reflection & Mirrors.
- Optics: Refraction & Lenses.
- Current Electricity: 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

- Atomic Theory: Rutherford, Millikan, Planck, Bohr, Electromagnetic Radiation & Spectrum, Electron, Photon, Line & Continuous Spectra.
- Photoelectric Effect: Importance & Photocells.
- X- Rays: 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

- Vectors: Addition, Equilibrium.
- Newton's Laws: Force, Momentum, Momentum Conservation, Friction.
- Kinematics: Equations & Problem Solving.
- Work: Energy & Power, Mechanical Energy.
- Conservation Centripetal Forces: 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.
- Archimedes: Flotation, Hot Air Ballons, Density, Boyle's Law.

LC Physics H Course 5

- Mechanics.
- Optics.
- Light.
- Heat.
- Sound.
- Resistance.

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.