University – degrees in Mathematics, statistics, Engineering or **a facilitating subject** for most other degrees or degree-level apprenticeships; **Careers** in a wide range of areas

LeAF Studio

Applied Paper 2 – 1 hour Statistics and Mechanics

Final Exams Paper 1 – 2 hours: Core Mathematics

Individual exam style practice

Calculating moments and equilibrium, solving problems involving moments, forces and friction

Practice exam style questions

Revision of all units

Moments

Feedback and Corrections DIRT

A level Mock paper

Biology

Calculating mean and Standard deviation, working with z distribution applying it to real life situations, choosing the correct distribution to **model** and hypothesis testing

Calculating and **predicting** outcomes for projectiles and colisions in 2 dimensions

Differentiation and Integration

DIRT **Feedback and corrections**

Normal Distribution

Binomial expansion

Kinematics and Dynamics

A level practice paper

Calculating Binomial expansions, including partial fractions and approximation

Calculating Points of inflection and using the chain, product and quotient rule along with differentiating e, logs, trig functions and parametric equations. Integrating by substitution and parts. And **calculating** areas.

Evaluating Conditional probabilities and **modelling**

Calculating regression and correlation figures, **interpreting** them and coding data

Probability

Sequences and series

Correlation and Regression

Co-ordinate Geometry

Paired and small group exam style practice

Evaluating Arithmetic and Geometric Sequences and **applying** them to real world situations

Calculating and **plotting** parametric and Cartesian equations

Trigonometry

Calculating with Radians, **manipulating** and **evaluating** with arcsin, arccos and arctan as well as cosec, sec and cot

Evaluating vectors and **calculating** reactions to forces

End of Year AS Exam Paper

DIRT **Feedback and Corrections**

YEAR 13

Vectors for Core and Mechanics

Proof, Algebra and functions

Revision of exam style questions

Differentiation and Integration

Calculate and **derive** 1st and 2nd order differentials and Integrals of equations

Evaluating Algebraic proof and **manipulating** algebraic expressions

Whole class exam style practice

Testing Hypothesis both one tail and two tail

Exponentials, and Logarithms

Newtons Laws

Units in Mechanics and Modeling

Hypothesis Testing

Calculating and **plotting** with exponentials and logarithms

Evaluating Velocities, acceleration, Distances and time by **applying** Newtons Laws of motion.

DIRT **Feedback and Corrections**

Practice AS paper

Memorising and **using** units of measure in mechanics. **Plotting** distance, velocity and acceleration graphs

Statistical Distributions

Calculating and **interpreting** probabilities of different outcomes and **interpreting** results

Expanding multiple bracket expressions and **calculating** trigonometric expressions

DIRT **Feedback and corrections**

Sampling, data presentation and Interpreting

Probability

Binomial expansion and Trigonometry

Graphs including Inequalities, quadratics, cubics and cyclical.

Defining and **Testing** various statistical analysis tools

Psychology

Teacher led exam style practice

Practice AS paper

Evaluating and **predicting** Binomial distributions

Sketching and **explaining** equations and inequalities

YEAR 12

Modelling, proof and Algebra

Revision of GCSE grade 7+

Outlining and **testing** Algebraic relationships

DIRT **Feedback and corrections**

Baseline test on GCSE 7+ topics

Calculating, **plotting** and **transforming** graphs, simplifying Algebraic fractions, Factorising Quadratics and Trigonometric graphs

Strong GCSE pass (5+) in both English Language and Literature

welcome

"Go down deep enough into anything and you will find Mathematics"