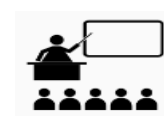


University – degrees in Mathematics, statistics, Engineering or a **facilitating subject** for most other degrees or degree-level apprenticeships; **Careers** in a wide range of areas

Applied Paper 2 – 1 hour Statistics and Mechanics

Final Exams Paper 1 – 2 hours: Core Mathematics



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 collisions in 2 dimensions

Differentiation and Integration



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

Evaluating vectors and calculating reactions to forces

End of Year AS Exam Paper

Feedback and Corrections (DIRT)

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

YEAR 13

Vectors for Core and Mechanics

Proof, Algebra and functions

Revision of exam style questions

Evaluating Algebraic proof and manipulating algebraic expressions

Differentiation and Integration

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

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.

Feedback and Corrections (DIRT)

Practice AS paper

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

Calculating and interpreting probabilities of different outcomes and interpreting results

Expanding multiple bracket expressions and calculating trigonometric expressions

Feedback and corrections (DIRT)

Statistical Distributions

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

Modelling, proof and Algebra

Revision of GCSE grade 7+

YEAR 12



Outlining and testing Algebraic relationships

Feedback and corrections (DIRT)

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