**Week 17 – Trigonometry**

By the end of the unit, students should:

* be able to solve trigonometric equations within a given interval;
* understand and be able to use tan𝜃 = sin𝜃/cos𝜃;
* understand and be able to use sin2 θ + cos2 θ = 1.

**Week 18 – Differentiation**

By the end of the unit, students should:

* be able to apply differentiation to find gradients, maxima, minima and stationary points;
* be able to identify where functions are increasing or decreasing.

**Week 19 Integration**

By the end of the unit, students should:

* be able to evaluate definite integrals;
* be able to use a definite integral to find the area under a curve.
* be able to use the trapezium rule to find an approximation to the area under a curve;
* appreciate the trapezium rule is an approximation and realise when it gives an overestimate or underestimate

**Week 21 – Proof**

By the end of the unit, students should:

* understand and be able to use the structure of mathematical proof, proceeding from given assumptions through a series of logical steps to a conclusion;
* be able to use methods of proof, including proof by exhaustion and disproof by counter-example.