



Belconnen High School

COURSE OUTLINE Semester 2, 2026

Course Title: **10 Extension Mathematics**

Faculty: **Mathematics**

Faculty Head: Abhinay Chand

Description of Course

This semester, students develop their algebra skills by working with fractional indices, surds, and quadratic expressions. They solve equations, graph quadratic functions, and explore how functions behave over time; this includes teaching a lesson on quadratic functions. In geometry, they apply deductive reasoning to problems involving circles. In trigonometry, students solve equations using algebraic and graphical techniques.

Learning Outcomes

- Solves problems involving fractional exponents and surds
- Expands and factorises monic and non-monic quadratic expressions and solves related equations
- Analyses and graphs quadratic functions
- Solves trigonometric equations using algebraic and graphical techniques
- Applies deductive reasoning to proofs and numerical exercises involving circles

Materials Required

Students will have access to a Google Classroom where class tasks and assessment items will be displayed, therefore a device is required. The assessment dates for this subject will appear on the students' Google calendar. Students can refer to the BHS Study Skills Guide and the BHS website for assistance with assessment tasks. The Assessment and Reporting Policy is available on the school website.

Items Required

Chromebook or suitable device, a notebook, pencil case and a calculator.

Homework Required

Students will be expected to complete a variety of tasks outside of class time. This may include, teacher-set homework, research for tasks, revision for tests, review of class work and more.

Assessment Schedule

	Due Date	% Weighting
Fractional Indices and Surds Test	12/08/2026	
Algebra Test	02/09/2026	
Teach A Lesson	09/09/2026	
Circles Test	19/10/2026	
Advanced Trigonometry Test	13/11/2026	
Classwork	04/12/2026	