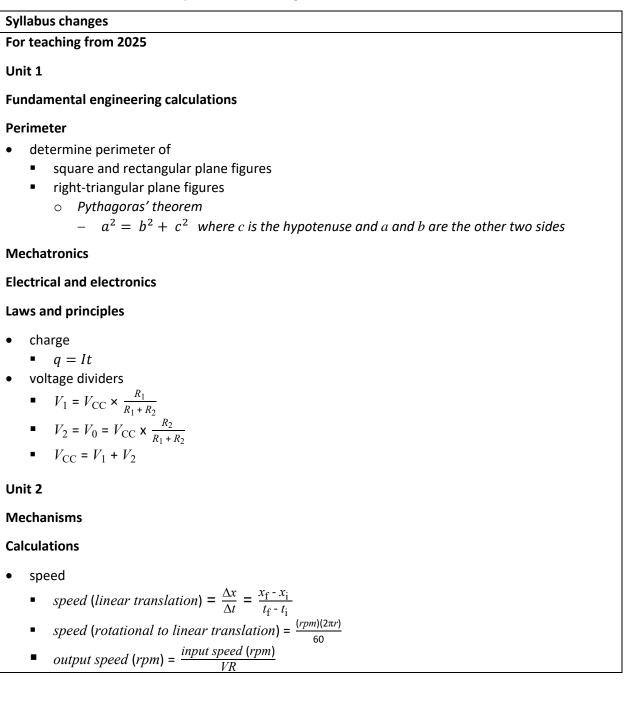
School administrators and Heads of Learning Area – Science and Technologies and teachers of Engineering Studies ATAR Year 11 are requested to note for 2025 the following minor syllabus changes. The syllabus is labelled 'For teaching from 2025'.

Science and Technologies | Engineering Studies ATAR Year 11 | Summary of minor syllabus changes for 2025

The content identified by strikethrough has been deleted from the syllabus and the content identified in *italics* has been revised in the syllabus for teaching from 2025



School administrators and Heads of Learning Area – Science and Technologies and teachers of Engineering Studies ATAR Year 11 are requested to note for 2025 the following minor syllabus changes. The syllabus is labelled 'For teaching from 2025'.

Energy, work and power Calculations energy • • E = Pt• $E_P = mg\Delta h$ • $E_K = \frac{1}{2}mv^2$ - $\Delta E_{P} = \Delta E_{K}$ (assuming 100% efficiency) • work done • $W = \Delta E$ • work (linear) • $W = Fs = F\Delta x = F(x_f - x_i)$ • power • $P = \frac{\Delta E}{\Delta t} = \frac{W}{\Delta t}$ power (linear) • $P = \frac{Fs}{\Delta t} = \frac{F\Delta x}{\Delta t} = \frac{F(x_f - x_i)}{\Delta t} = Fv$ Specialist engineering field Mechatronics Systems and control Interfacing with microcontroller analogue pins • detects voltage on a scale 0–5 V analogue to digital conversion (ADC) virtually no current draw serial • serial input (RX)

- serial output (TX)
- no need to code the above serial connections