

STUDY SCIENCE AT SWINBURNE

SWINBURNE UNIVERSITY OF TECHNOLOGY WEBINAR
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WHY SCIENCE AT SWINBURNE?

- Small classes
- Personal interactions
- Hands-on experiences
- Easily accessible
- Campus accommodation
- ARWU Top 200 Science
- Strong research exposure



LEARNING AND TEACHING APPROACH

Transforming STEM
Student Centred
CANVAS
Echo 360 ALP
Professional Purpose
Authentic Experiences



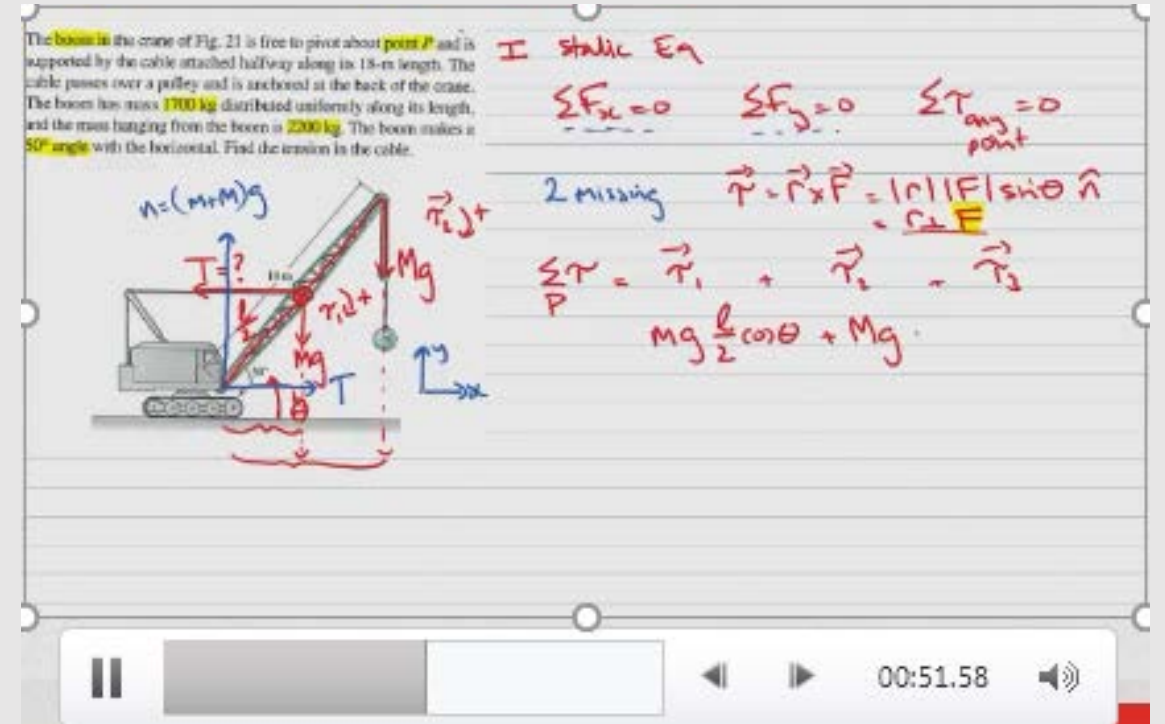
LEARNING AND TEACHING

Students are well supported both on campus and online



"It is so much more helpful to have an actual person explain something to me than go on the internet"

MASH is our drop in centre for one-to-one help



The boom in the crane of Fig. 21 is free to pivot about point P and is supported by the cable attached halfway along its 18-m length. The cable passes over a pulley and is anchored at the back of the crane. The boom has mass 1700 kg distributed uniformly along its length, and the mass hanging from the boom is 2000 kg. The boom makes a 50° angle with the horizontal. Find the tension in the cable.

I static Eq

$$\sum F_x = 0 \quad \sum F_y = 0 \quad \sum \tau_{\text{point}} = 0$$

2 missing $\vec{\tau} = \vec{r} \times \vec{F} = |\vec{r}| |\vec{F}| \sin \theta \hat{n}$

$$\sum \tau_P = \vec{\tau}_1 + \vec{\tau}_2 + \vec{\tau}_3$$
$$mg \frac{L}{2} \cos \theta + Mg$$

Casting program provides 1000+ how-to videos

THE SWINBURNE ADVANTAGE



Professional Degrees

Gain the advantage with degrees that incorporate a 12-month full-time professional placement with a leading employer.



Work placements

Get the edge on other graduates with work experience in a paid six or 12-month full-time professional placement.



Professional Internships

Learn from the experts. We pair you with a host organisation for a minimum of 18 full days.



Industry-linked projects

Take the challenge of working in a team to fulfil a client brief from start to finish.



Accreditation placements

Fulfil your degree requirements while getting experience with well-regarded organisations.



Industry study tours

Discover how the world does business.

CAREERS

- **Academia** (universities and research)
- **Agriculture** (wine industry, horticulture)
- **Analytical labs** (drug screening)
- **Business** (analyst)
- **Communications** (media, public outreach, museums)
- **Defence Science**
- **Education** (primary and secondary teaching)
- **Environment** (bioremediation, water companies)
- **Finance**
(Data scientist, banking, stock exchange, modelling)
- **Food and beverage industry**
- **Forensics**
(DNA typing, crime scene investigation)
- **Government** (policy advisors)
- **Health Industry** (hospital labs, research labs)
- **Industry**
- **Pharmaceutical industry**
- **Public health** (government departments, hospitals)
- **Research and Development**
- **Technical Sales**

BACHELOR OF SCIENCE AT SW INBURNE

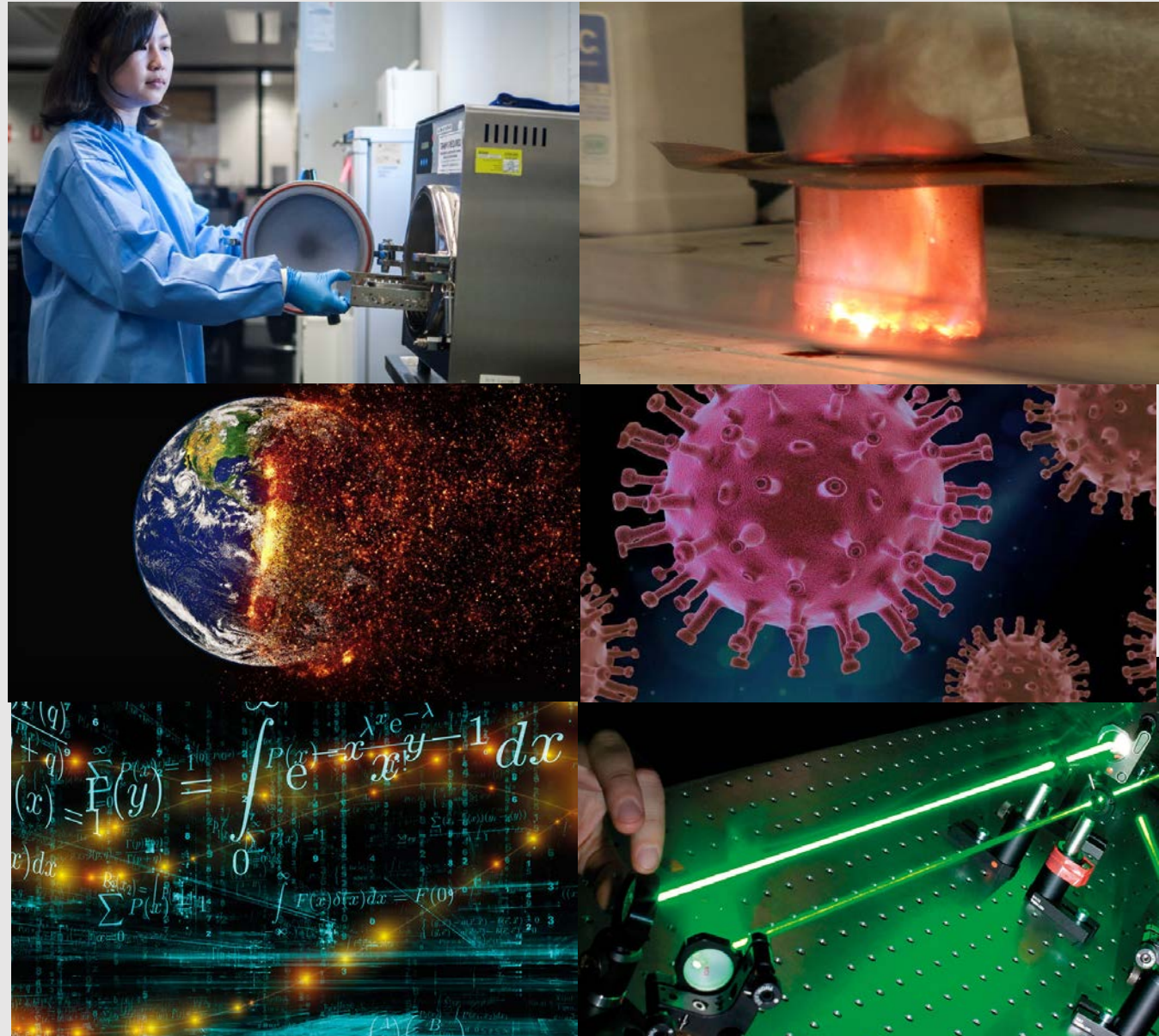
Degree with a selection of majors

- Applied Mathematics
- Physics
- Chemistry
- Biochemistry
- Biotechnology
- Environmental Science

Postgraduate Options

Upon completion, opportunities to transition into research study

- Masters by Research
- PhD



SUMMARY

BACHELOR OF SCIENCE
8 CORE UNITS
8 MAJOR UNITS
8 ELECTIVES

SWINBURNE ADVANTAGE
MASTER OF SCIENCE
HONOURS, MASTER AND PHD
OPPORTUNITIES

Biochemistry
Biotechnology
Chemistry
Environmental Science
Applied Mathematics
Physics