



University
of Glasgow

Engineering at Glasgow

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Engineering at Glasgow

Engineering at Glasgow has a long history:

- 1840 Regius Chair of Civil Engineering and Mechanics founded
- 1872 First UK Engineering Degree Programme
- 1923 Faculty of Engineering Established

Is still at the forefront of technology

- James Watt Nanofabrication Centre
- National Wind Tunnel Facility
- Major research activity in Electronics, Energy Systems, Aerospace, Communications, Biomedical Engineering and Infrastructure and the Environment
- Top in Scotland for Engineering research excellence and joint 12th in the UK across 88 submissions





Engineering at Glasgow

Is big

- £70 million annual income
- 170 academic staff, 210 research staff, 150 Professional, IT and Technical Staff
- 500 research students
- 800 postgraduate taught students
- 2100 undergraduate students





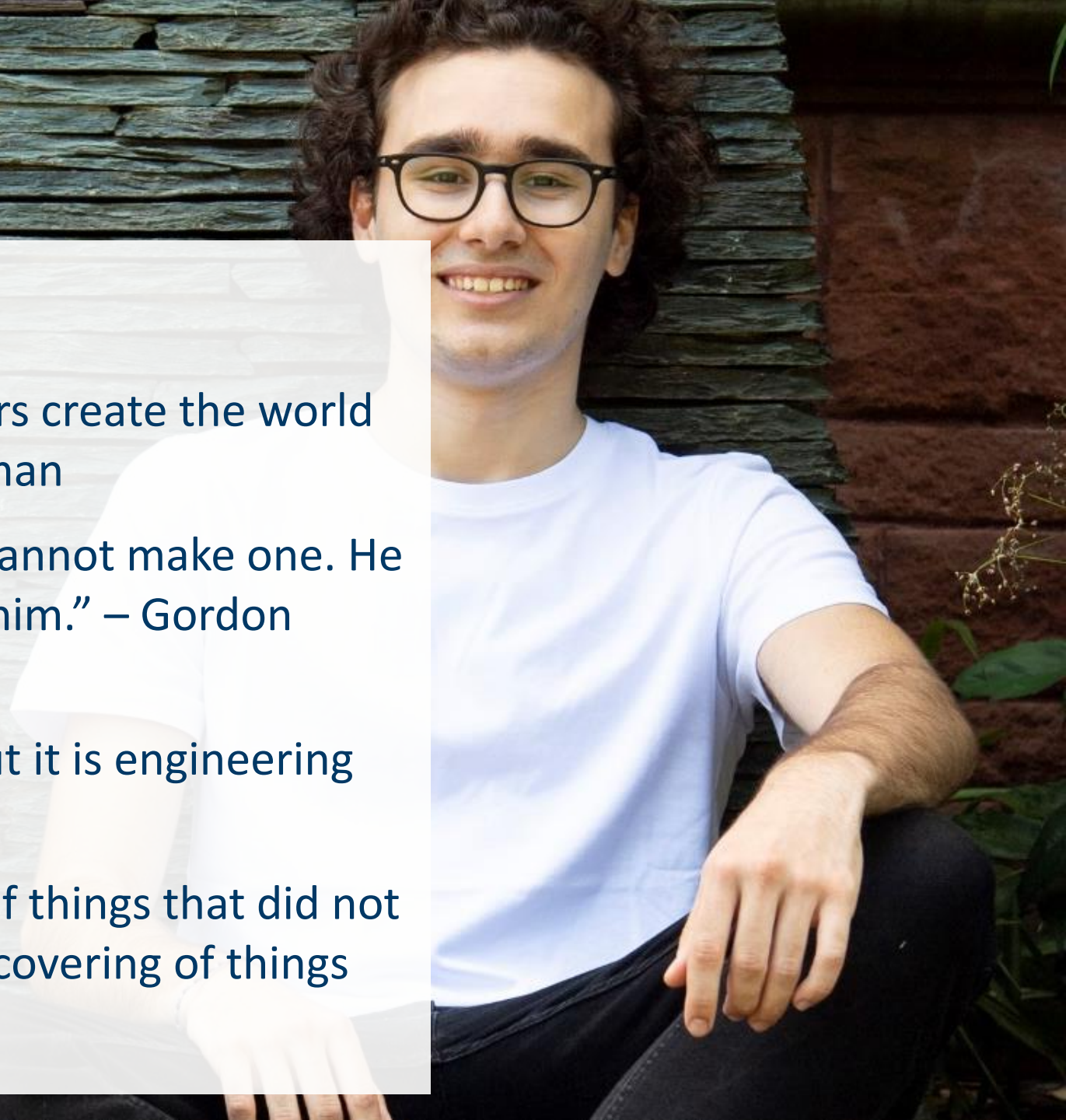
Engineering is not Science

“Scientists study the world as it is, engineers create the world that never has been.” – Theodore von Karman

A scientist can discover a new star but he cannot make one. He would have to ask an engineer to do it for him.” – Gordon Lindsay Glegg

“Science can amuse and fascinate us all, but it is engineering that changes the world.” – Isaac Asimov

“Engineering or technology is the making of things that did not previously exist, whereas science is the discovering of things that have long existed.” – David Billington



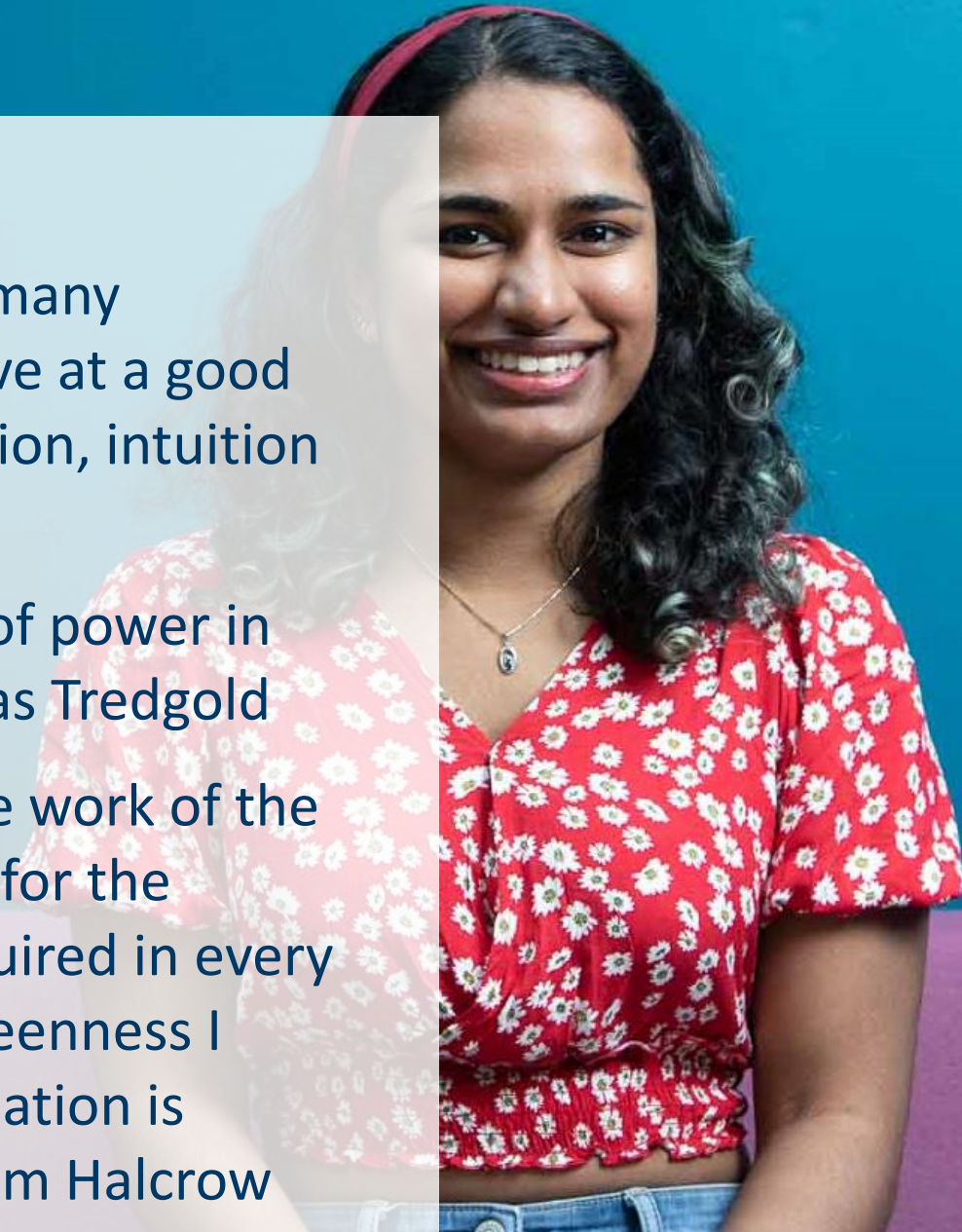


Engineering is Creative

“Engineering problems are under-defined, there are many solutions, good, bad and indifferent. The art is to arrive at a good solution. This is a creative activity, involving imagination, intuition and deliberate choice.” – Ove Arup

“Engineering is the art of directing the great sources of power in nature for the use and convenience of man.” – Thomas Tredgold

“The wellbeing of the world largely depends upon the work of the engineer. There is a great future and unlimited scope for the profession; new works of all kinds are and will be required in every country, and for a young person of imagination and keenness I cannot conceive a more attractive profession. Imagination is necessary as well as scientific knowledge.” – Sir William Halcrow





Degree Programmes at Glasgow

14 undergraduate degree programmes

- Aerospace (Aeronautical Engineering, Aerospace Systems)
- Biomedical (Biomedical Engineering)
- Civil (Civil Engineering, **Civil Engineering with Architecture**)
- Electrical (**Electronic and Software Engineering**, Electronics and Electrical Engineering, **Electronics with Music**, Mechatronics, Robotics and Artificial Intelligence)
- Mechanical (Mechanical Design Engineering, Mechanical Engineering, Mechanical Engineering with Aeronautics, **Product Design Engineering**)

Joint with other Schools in the University

Joint with the Glasgow School of Art





Key Features

- Common structure across the degree programmes and largely common first year
- Entry is to the School of Engineering – easy to transfer degrees
- MEng (5 years degree – employers prefer this) and BEng (4 year degree) are identical for the first 3 years
- Opportunities for study abroad/year in industry/work placement
- Groupwork throughout the degree programme
- Major group and individual projects later in the degree
- Approximately 20 of student led engineering societies





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Notes

Engineering does not follow the same structure as the rest of STEM at the University of Glasgow

All degrees are accredited through the Engineering Council

All Engineering degrees now include Sustainability, Ethics, Security, Risk, Law, Societal Impact and Equality Diversity and Inclusion





Ideal SQA qualifications:

- Year 5: Maths and Physics + other Highers
- Year 6: Maths and Physics Advanced Highers + other Advanced Higher or additional Higher(s)
- We accept Engineering Science as an alternative to Physics
- Other useful Highers/Advanced Highers may include Art, Biology, Chemistry, Music
- Engineering is creative and requires good communication skills



UCAS Applications - Engineering

- Key qualifications are strong Maths and Physics
- Personal statements are not marked/ranked but may be used to support adjusted offers may be appropriate
- Apply for one degree at Glasgow (entry requirements for all Engineering degrees are the same)
- Apply for either BEng or MEng (BEng and MEng students are taught together for 3 years and a decision is then made on MEng or BEng based on year 3 performance)



Engineering is rewarding and fun

“The engineer’s first problem in any design situation is to discover what the problem really is.” – Unknown

“At that time (1909) the chief engineer was almost always the chief test pilot as well. That had the fortunate result of eliminating poor engineering early in aviation.” – Igor Sikorsky

“To the optimist, the glass is half full. To the pessimist, the glass is half empty. To the engineer, the glass is twice as big as it needs to be.” – Unknown





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Admissions Officer
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