

Study Abroad and Exchange at UTS: Engineering

As a Study Abroad or Exchange Student, you may design a program of subjects from more than one faculty at UTS, provided you enrol in 24 credit points of full-time study. Engineering subjects are 6 credit points each. In other faculties at UTS, however, subjects are offered at different credit point levels, so make sure that you satisfy the credit point requirements when choosing your subjects.

When can I study?

Study Abroad and Exchange is available:

- 1) March – July (Autumn Semester) **A**
- 2) July – November (Spring Semester) **S**

Please note:

- In Australia, **Autumn** occurs in the first half of the year. **Spring** occurs in the second half of the year.
- If you apply for a subject with one or more prerequisites, you will need to demonstrate that you have the prior skills and knowledge necessary to undertake the subject.
- Most Business subjects are offered in both sessions, except where indicated **A** or **S**. Please check the timetable in case of a change
- Undergraduate students are not normally permitted to study postgraduate subjects

Further Details:

- For details on subjects, including prerequisites, refer to the UTS Handbook: www.handbook.uts.edu.au
- For availability of subjects, check the timetable at <https://www.uts.edu.au/current-students/timetable/uts-timetable-planner>
- UTS Faculty of Engineering programs: <https://www.uts.edu.au/future-students/engineering>
- UTS Study Abroad and Exchange: <https://www.uts.edu.au/future-students/international/study-abroad-and-exchange-students/welcome> Tel: (+61 2) 9514 7915, Email: studyabroad.exchange@uts.edu.au

Key:

Information included: **Subject Number, Subject Name, Level and Session offered**

- * the subject has prerequisite(s)
- **L1** (Level 1) Usually undertaken in first year (similar to 100 level, introductory level)
- **L2** (Level 2) Usually undertaken in second year (similar to 200 level, prior knowledge is required)
- **L3** (Level 3) Usually undertaken in third year (similar to 300 level, advanced level)
- **A** the subject is offered in Autumn Session (subject to change)
- **S** the subject is offered in Spring Session (subject to change)

Undergraduate subjects

The following are undergraduate subjects in Faculty of Engineering at UTS. Students with no prior Engineering background should start with Level 1 subjects (introductory level).

Core Subjects

48230	Engineering Communication	L1 A/S
48240	Design and Innovation Fundamentals*	L2 A/S
48250	Engineering Economics and Finance*	L2 A/S
48260	Engineering Project Management*	L3 A/S
48210	Interrogating Technology: Sustainability, Environment and Social Change*	L3 A/S
48270	Entrepreneurship and Commercialisation*	L4 A/S

Biomedical

41101	Fundamentals of Biomedical Engineering*	L3 S
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Civil/Civil and Environmental

48310	Introduction to Civil and Environmental Engineering	L1 A/S
48321	Engineering Mechanics*	L1 A/S
48320	Surveying	L1 A/S
48340	Construction*	L2 A/S
48352	Construction Materials*	L2 A/S
48331	Mechanics of Solids*	L2 A/S
48330	Soil Behaviour*	L2 A/S
48349	Structural Analysis*	L2 A/S
48821	Principles of Environmental Engineering*	L2 S
48840	Water Supply and Wastewater Engineering*	L2 S
48641	Fluid Mechanics*	L3 A/S
48350	Environmental and Sanitation Engineering*	L3 A/S
48362	Hydraulics and Hydrology*	L3 A/S
48860	Pollution Control and Waste Management*	L3 A
48370	Road and Transport Engineering*	L3 A/S
48360	Geotechnical Engineering*	L3 A/S
48353	Concrete Design*	L3 A/S
48366	Steel and Timber Design*	L4 A/S
48389	Computer Modelling and Design*	L4 A/S
48850	Environmental Planning and Law	L4 A
48881	Water and Environmental Design*	L4 S
48371	Advanced Engineering Computing*	L4 S

Electrical Engineering

48510	Introduction to Electrical Engineering	L1 A/S
48520	Electronics and Circuits*	L1A/S
48521	Fundamentals of Electrical Engineering*	L1 A/S
48530	Circuit Analysis*	L2 A/S
48531	Electromechanical Automation*	L2 A/S
48430	Embedded C*	L2 A/S
48540	Signals and Systems*	L2 A/S
48541	Advanced Digital Systems*	L3 A/S
48571	Electrical Machines*	L3 A/S
48572	Power Circuit Theory*	L3 A/S
48570	Data Acquisition and Distribution*	L3 A/S
48560	Introductory Control*	L3 A/S
48434	Embedded Software*	L4 A/S
48580	Advanced Control*	L4 A/S
48561	Power Electronics and Drives*	L4 A
48582	Power Systems Analysis and Design*	L4 A
48583	Power Systems Operation and Protection*	L4 S
48550	Renewable Energy Systems*	L4 S

ICT Engineering

48410	Introduction to ICT Engineering	L1 A
48023	Programming Fundamentals	L1 A/S
48024	Applications Programming*	L2 A/S
48441	Introductory Digital Systems*	L2 A/S
48541	Signal Theory*	L2 A/S
48740	Communications Networks*	L2 A
48440	Software Engineering Practice*	L2 S
48730	Network Security*	L3 A/S
48450	Real-time Operating Systems*	L3 A
48770	Continuous Communications*	L3 A
48750	Network Planning and Management*	L3 S
48433	Software Architecture*	L3 S
48436	Digital Forensics*	L3 S
48471	ICT Analysis*	L4 A/S
48481	ICT Design*	L4 A/S
48780	Mobile Communications*	L4 A
48771	Discrete Communications*	L4 S

Mechanical/Mechanical and Mechatronic/Mechatronic Engineering

48610	Introduction to Mechanical and Mechatronic Engineering	L1 A/S
48620	Fundamentals of Mechanical Engineering*	L1 A/S
48531	Electromechanical Automation*	L2 A/S
48641	Fluid Mechanics*	L2 A/S
48640	Machine Dynamics*	L2 A/S
48621	Manufacturing Engineering*	L2 A/S
48600	Mechanical Design 1*	L2 A/S
48622	Mechatronics 1*	L2 A/S
48651	Thermodynamics*	L2 A/S
48642	Strength of Engineering Materials*	L2 A/S
48660	Dynamics and Control*	L3 A/S
48661	Heat Transfer*	L3 A/S
48623	Mechatronics 2*	L3 A/S
48650	Mechanical Design 2*	L3 A/S
48663	Advanced Manufacturing*	L4 A/S
48670	Mechanical and Mechatronic Design*	L4 A/S
48601	Mechanical Vibration and Measurement*	L4 S

Postgraduate subjects

The following postgraduate subjects are available for bachelor level students to enrol in. Students enrolling in these subjects must have completed the equivalent relevant engineering studies (approximately 2.5 years of a 4 year degree).

Engineering Management

49006	Risk Management in Engineering	A/S
49016	Technology and Innovation Management	A/S

Civil / Civil and Environmental Engineering

49047	Finite Element Analysis	A/S
42991	Advanced Water and Wastewater Treatment	A
49119	Problematic Soils and Ground Improvement Technology	A
49123	Waste and Pollution Management	A
49115	Façade Engineering	A
49126	Environmental Management of Land	A
49136	Application of Timber in Engineering Structures	A
49150	Prestressed Concrete Design	A
49151	Concrete Technology and Practice	A
49256	Flood Estimation	A
49258	Pavement Analysis and Design	A
49106	Road Engineering Practice*	S
49133	Steel and Composite Design	S
49117	Floodplain Risk Management in NSW	S
49118	Applied Geotechnics	S
49121	Environmental Assessment and Planning	S
49122	Ecology and Sustainability	S
49125	Environmental Risk Assessment	S
49127	Decentralised Water and Wastewater Treatment*	S
49131	Bridge Design*	S
49134	Structural Dynamics and Earthquake Engineering	S
49254	Advanced Soil Mechanics and Foundation Design	S
49255	Catchment Modelling	S

ICT Engineering

49202	Communication Protocols*	A/S
49048	Wireless Networking Technologies*	A
49205	Transmission Systems*	A
49223	Satellite Communication Systems*	A
42890	4G Mobile Technologies*	A
42902	Interior Routing and High Availability*	A
42903	Multi Protocol Label Switching*	S
49110	3G Mobile Communication Systems*	S
49201	Integrated Services Networks*	S
49215	Telecommunication Industry Management	S
49238	Telecommunications Network Management*	S
49262	Web Technologies	S

Electrical / Mechanical and Mechatronic Engineering

42906	Biomedical Signal Processing*	A
49275	Neural Networks and Fuzzy Logic	A
49316	Materials Handling	A
49322	Air Conditioning*	A
49928	Design Optimisation for Manufacturing	A
42907	Design for Durability*	S
49261	Biomedical Instrumentation	S
49274	Advanced Robotics*	S
49307	Internal Combustion Engines*	S
49325	Computer-aided Mechanical Design	S
49329	Control of Mechatronic Systems*	S