



Study Abroad and Exchange at UTS: Engineering

As a Study Abroad/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 weighted 6 credit points each. Subjects offered in other faculties may carry different credit point values. Be mindful of this when choosing your subjects.

Please note: This guide focuses on key study areas to locate our more popular Engineering subjects. In addition to the subjects in this guide, you can search for **all** subjects and majors using the [UTS Handbook](#).

When can I study?

Study Abroad and Exchange is available:

Period	Category
March – July	A: Autumn Session

Period	Category
July – November	S: Spring Session

Please note:

- In Australia, **Autumn Session** occurs in the first half of the year. **Spring Session** 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 subjects are offered in both sessions, except where indicated **A** or **S**. Please check the timetable in case of a change.
- Subjects offered in **A:** Autumn Session or **S:** Spring Session may be subject to change.
- Undergraduate students are not permitted to study postgraduate subjects.
- Sessions include the examination weeks. Should you leave the country prior to attending and completing the assessments, you will not receive a grade/mark for your exam or quiz or any other assessments.

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>
- To find out more about UTS Study Abroad and Exchange programs, visit: <https://www.uts.edu.au/future-students/international/study-abroad-and-exchange-students/welcome>
- For general enquiries contact: T: (+612) 9514 7915, E: studyabroad.exchange@uts.edu.au

Key: (Information included: Subject Number, Subject Name, Level and Session offered)

- **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)



Undergraduate subjects

- The following are undergraduate subjects offered by the Faculty of Engineering and Information Technology at UTS.
- Students with no prior Engineering background should start with Level 1 subjects (introductory level).
- The list is not exhaustive – there may be other subjects available to Study Abroad/Exchange students.
- * Indicates that this subject has prerequisite(s)

Core subjects

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

Biomedical Engineering

41101	Fundamentals of Biomedical Engineering*	L3	S
41160	Introduction to Biomedical Engineering	L1	S

Civil and Environmental Engineering

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

Electrical Engineering

48510	Introduction to Electrical and Electronic Engineering	L1	A or S
48521	Fundamentals of Electrical Engineering*	L1	A or S
48530	Circuit Analysis*	L2	A or S
48531	Electromechanical Automation*	L2	A or S
48430	Fundamentals of C Programming	L2	A or S
48540	Signals and Systems*	L2	A or S
48571	Electrical Machines*	L3	A or S
48572	Power Circuit Theory*	L3	A or S
48570	Data Acquisition and Distribution*	L3	A or S
48560	Introductory Control*	L3	A or S
48434	Embedded Software*	L4	A or S
48580	Advanced Control*	L4	A
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

Data and Software Engineering

48023	Programming Fundamentals	L1	A or S
48434	Embedded Software*	L1	A or S
48570	Data Acquisition and Distribution	L1	A or S
48024	Applications Programming*	L2	A or S
48441	Introductory Digital Systems*	L2	A or S
31269	Business Requirements Modelling*	L1	A or S
41081	Sensing, Actuation and Control*	L1	A
48450	Real-time Operating Systems*	L2	A
31251	Data Structures and Algorithms*	L2	A
31257	Information System Development Methodologies*	L2	A
48440	Software Engineering Practice*	L2	S
48033	Internet of Things*	L2	A
48730	Cyber Security*	L3	A or S
48450	Real-time Operating Systems*	L3	A
48433	Software Architecture*	L3	S
48436	Digital Forensics*	L3	S
48433	Software Architecture*	L3	S



Mechanical and Mechatronic Engineering

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

Postgraduate subjects

The following postgraduate subjects are available for bachelor's 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 or S
49016	Technology and Innovation Management	A or S

Biomedical Engineering

42991	Advanced Water and Wastewater Treatment	A
42906	Biomedical Signal Processing*	A
49275	Neural Networks and Fuzzy Logic	A
49261	Biomedical Instrumentation	S

Civil and Environmental Engineering

42991	Advanced Water and Wastewater Treatment	A
49119	Problematic Soils and Ground Improvement Techniques	A
49123	Waste and Pollution Management	A
49115	Façade Engineering	A
49136	Application of Timber in Engineering Structures	A
49150	Prestressed Concrete Design	A
49151	Concrete Technology and Practice	A
49258	Pavement Analysis and Design	A
49106	Road Engineering Practice*	A

49131	Bridge Design*	A
49047	Finite Element Analysis	S
49133	Steel and Composite Design	S
49117	Floodplain Risk Management	S
49118	Applied Geotechnics	S
49122	Ecology and Sustainability	S
49125	Environmental Risk Assessment	S
49127	Decentralised Environmental Systems*	S
49134	Structural Dynamics and Earthquake Engineering	S
49254	Advanced Soil Mechanics and Foundation Design	S
49255	Catchment Modelling	S

Data and Software Engineering

32555	Fundamentals of Software Development*	A or S
49202	Communication Protocols*	A or S
49048	Wireless Access Network Technologies*	A
49205	Transmission Systems*	A
49227	Advanced Sensor Networks*	S
32603	Systems Quality Management	A
42890	4G/5G Mobile Technologies*	S
49215	Telecommunications Industry Management*	S

Electrical, Mechanical and Mechatronic Engineering

49928	Design Optimisation for Manufacturing	A or S
49325	Computer-aided Mechanical Design	A or S
49316	Materials Handling	A
49322	Airconditioning*	A
42907	Design for Durability*	S
49274	Advanced Robotics*	S
49329	Control of Mechatronic Systems*	S