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 it’s important to make sure that you satisfy the credit point requirements when choosing your subjects.

What can I study?

> Study abroad and exchange is available:
  > February semester (Autumn, March – June)
  > July semester (Spring, August – November)
> Prerequisites apply to certain subjects:
  > If you apply for a subject with a prerequisite, you will first need to demonstrate that you have the prior skills and knowledge needed to undertake the subject.
  > Undergraduate study abroad students are not normally permitted to study postgraduate subjects.
> For further details on subjects, including prerequisite knowledge, refer to the UTS Handbook at www.handbook.uts.edu.au.
> For availability of subjects, check the timetable at http://timetable.uts.edu.au. Many subjects are offered in one semester only.

For more information

UTS Engineering programs: www.eng.uts.edu.au

UTS study abroad and exchange:
www.uts.edu.au/international/studyabroad

Tel: (+61 2) 9514 7915
Email: studyabroad.exchange@uts.edu.au

Undergraduate subjects

Key
> Information is ordered: Subject Number, Level and Name
> Level 1: Usually undertaken in first year (similar to 100 level, introductory level)
> Level 2: Usually undertaken in second year (similar to 200 level, prior knowledge is required)
> Level 3: Usually undertaken in third year (similar to 300 level, advanced level)
> Level 4: Usually undertaken in fourth year (similar to 400 level, advanced level)

Core Subjects
48230 1 Engineering Communication
48221 1 Informatics: Visual Basic
48240 2 Design Fundamentals
48250 2 Engineering Economics and Finance
48260 3 Engineering Project Management
48210 3 Interrogating Technology: Sustainability, Environment and Social Change
48270 4 Engineering Enterprise

Civil / Civil and Environmental
48310 1 Introduction to Civil Engineering
48321 1 Statics
48320 1 Surveying
48340 2 Construction
48352 2 Construction Materials
48821 2 Ecological Engineering
48641 2 Fluid Mechanics
48331 2 Mechanics of Solids
48840 2 Water Supply and Wastewater Engineering
Civil / Civil and Environmental (continued)
48350 3 Environmental and Sanitation Engineering
48850 3 Environmental Planning and Law
48362 3 Hydraulics and Hydrology
48860 3 Pollution Control and Waste Management
48330 3 Soil Behaviour
48349 3 Structural Analysis
48370 3 Transport in the Environment
48360 4 Geotechnical Engineering
48353 4 Concrete Design
48366 4 Steel and Timber Design
48389 4 Computer Modelling and Design
48881 4 Water and Environmental Design

Electrical Engineering
48510 1 Introduction to Electrical Engineering
48520 1 Electronics and Circuits
48521 1 Fundamentals of Electrical Engineering
48530 2 Circuit Analysis
48531 2 Electromechanical Automation
48430 2 Embedded C
48540 3 Signals and Systems
48451 3 Advanced Digital Systems
48571 3 Electrical Machines
48434 3 Embedded Software
48572 3 Power Circuit Theory
48580 4 Advanced Control
48551 4 Analog Electronics
48570 4 Data Acquisition and Distribution
48581 4 Digital Electronics
48560 4 Introductory Control
48561 4 Power Electronics and Drives
48582 4 Power Systems Analysis and Design
48583 4 Power Systems Operation and Protection
48550 4 Renewable Energy Systems

ICT Engineering
48410 1 Introduction to ICT Engineering
48720 1 Network Fundamentals
48024 1 Object-oriented Design
48023 1 Object-oriented Programming
48441 1 Introductory Digital Systems
48541 2 Signal Theory
48740 2 Communications Networks
48730 3 Authentication and System Security
48750 3 Network Planning and Management
48450 3 Real-time Operating Systems
48770 3 Signal Processing
48440 3 Software Engineering
48771 4 Communication Theory
48471 4 ICT Analysis
48481 4 ICT Design
48780 4 Mobile Communications
48433 4 Software Architecture: Engineering

Innovation
48080 1 Introduction to Innovation
22107 1 Accounting for Business
25300 1 Fundamentals of Business Finance
21193 2 Business Strategy
79006 2 Intellectual Property Commercialisation
21227 2 Managing Innovations and Entrepreneurship
24108 2 Marketing Foundations
48081 3 Innovation Processes

Mechanical / Mechanical and Mechatronic Engineering
48610 1 Introduction to Mechanical and Mechatronic Engineering
48620 1 Fundamentals of Mechanical Engineering
48531 2 Electromechanical Automation
48641 2 Fluid Mechanics
48640 2 Machine Dynamics
48621 2 Manufacturing Engineering
48600 2 Mechanical Design 1
48622 2 Mechatronics 1
48651 2 Thermodynamics
<table>
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<tr>
<th>Code</th>
<th>Course</th>
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<tbody>
<tr>
<td>48660</td>
<td>3 Dynamics and Control</td>
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<td>48661</td>
<td>3 Heat Transfer</td>
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<td>48623</td>
<td>3 Mechatronics 2</td>
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<td>48642</td>
<td>3 Strength of Engineering Materials</td>
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<td>48601</td>
<td>4 Mechanical Vibration and Measurement</td>
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<tr>
<td>48650</td>
<td>4 Mechanical Design 2</td>
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<tr>
<td>48662</td>
<td>4 Mechanical Applications</td>
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<tr>
<td>48663</td>
<td>4 Advanced Manufacturing</td>
</tr>
<tr>
<td>48670</td>
<td>4 Mechanical and Mechatronic Design</td>
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</tbody>
</table>
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).

Key
> Information is ordered: Subject Number, Name
> Subjects marked with an *(asterix) have prerequisites. You must provide evidence that you have passed a subject equivalent to the UTS prerequisite at your home institution.

Engineering Management
49006  Risk Management in Engineering
49016  Technology and Innovation Management

Civil / Civil and Environmental Engineering
49047  Finite Element Analysis
49049  Air and Noise Pollution
49102  Traffic and Transportation *
49104  Asset Maintenance Management
49106  Road Engineering Practice *
49107  Urban Stormwater Design
49108  Local Government Powers and Practice
49109  Engineered Natural Water Treatment Systems
49115  Façade Engineering
49116  Contaminated Site and Waste Remediation
49117  Floodplain Risk Management in NSW
49118  Applied Geotechnics
49119  Problematic Soils and Ground Improvement Technology
49121  Environmental Assessment and Planning
49122  Ecology and Sustainability
49123  Waste and Pollution Management
49124  Water Quality Management
49125  Environmental Risk Assessment
49126  Environmental Management of Land
49127  On Site Water and Wastewater Treatment
49131  Bridge Design *
49132  Stability of Structures
49133  Steel and Composite Design
49134  Structural Dynamics and Earthquake Engineering
49135  Wind Engineering
49136  Application of Timber in Engineering Structures
49150  Prestressed Concrete Design
49151  Concrete Technology and Practice
49152  Rehabilitation of Concrete Structures
49254  Advanced Soil Mechanics and Foundation Design
49255  Catchment Modelling
49256  Flood Estimation
49257  Geographic Information Systems
49258  Pavement Analysis and Design
49285  Emergency Management

ICT Engineering
49048  Wireless Networking Technologies *
49099  GSM, GPRS and EDGE Technologies *
49110  3G Mobile Communication Systems *
49201  Integrated Services Networks *
49202  Communication Protocols *
49205  Transmission Systems *
49223  Satellite Communication Systems *
49225  Software Project Management
49247  Object Oriented Technology
49262  Web Technologies

Electrical / Mechanical and Mechatronic Engineering
49261  Biomedical Instrumentation
49274  Advanced Robotics *
49275  Neural Networks and Fuzzy Logic
49286  Vehicle Design
49307  Internal Combustion Engines *
49312  Advanced Flow Modelling
49316  Materials Handling
49321  Energy Conversion
49322  Air Conditioning *
49323  Vibration Analysis *
49325  Computer-aided Mechanical Design
49328  Turbomachines
49329  Control of Mechatronic Systems *
49330  Sensors and Signal Processing
49928  Design Optimisation for Manufacturing