

BACHELOR OF DESIGN AND TECHNOLOGY (3729)

Approved Abbreviation: BDes&Tech

Western Sydney University Program Code: 3729

AQF Level: 7

CRICOS Code: 041034F

This program applies to students who commenced in 2021 or later.

Students should follow the program structure for the session start date relevant to the year they commenced.

For commencement year 2020, please refer to: 3729.3 Bachelor of Design and Technology (<http://handbook.westernsydney.edu.au/hbook/course.aspx?course=3729.3>)

For commencement year 2018-2019, please refer to: 3729.2 Bachelor of Design and Technology (<http://handbook.westernsydney.edu.au/hbook/course.aspx?course=3729.2>)

Handbook Summary 2021 - 2022

The Design and Technology program provides a sound knowledge in a broad range of work-ready design skills, including thinking methods, drawing skills for creativity, design innovation, product design, human factors, design management, and 2D and 3D CAD. This program can lead to multiple career outcomes, including product design, packaging, 3D modelling, rapid prototyping with 3D printing, design for sustainability, new product-oriented Start-Up, or secondary school teaching (with additional qualifications). Fields of Study include Design Practice, Graphic Design, Cultural Studies, UX, Manufacturing, and Sustainable Futures. Students wishing to become industrial designers can articulate in the fourth year of the Bachelor of Industrial Design.

Parts of this course may be taught at the Parramatta City - Hassall St campus or at the Parramatta South campus.

Handbook Summary 2023

The Design and Technology Program is a catalyst for innovation in product design, service design and design for sustainability, drawing together an all-disciplines approach mindset highly valued by employers. It responds flexibly to the varying needs and the power of integrated design for communities, industry, entrepreneurial pursuits and design education.

The Design and Technology degree provides skills development in a broad range of work-ready design skills, including design thinking methods, drawing skills for creativity, design innovation, product design, human factors design, design management, and 2D and 3D CAD with the latest internationally recognised software. Students also work collaboratively in teams and with clients on industry projects whilst utilising the extensive Design Studio and Advanced Prototyping Workshop facilities available to them.

This program prepares students for multiple career outcomes, including product design, packaging, 3D modelling, rapid prototyping with 3D printing, design for sustainability, new product-oriented venture Start-Ups, high-level verbal and visual presentation and if preferred, secondary school teaching with additional WSU qualifications in Master of Teaching (Secondary). Studies are held at the Parramatta Engineering Innovation Hub.

Effective Design career professionals require a broad range of knowledge to allow them to connect and work with colleagues across many disciplines. To assist students to flexibly build their career

pathways, the Bachelor of Design and Technology provides elective options in order to complete a major; or one or two minors; or explore a range of free electives in areas of interest across the university.

Study Mode

Three years full-time or six years part-time.

Program Advice

edbe@westernsydney.edu.au

Prospective students should visit the following websites for general enquiries about this program.

Enquire about this program (<https://enquiry.westernsydney.edu.au/courseenquiry/>) | Local Admission (<https://www.westernsydney.edu.au/future/>) | International Admission (<https://www.westernsydney.edu.au/international/home/apply/admissions/>) |

Location

| Campus | Attendance | Mode | Advice |
|------------------------|------------|----------|-----------|
| Parramatta City Campus | Full Time | Internal | See above |
| Parramatta City Campus | Part Time | Internal | See above |

Parts of this course may be taught at the Parramatta City - Hassall St campus or at the Parramatta South campus.

Accreditation

Graduates are eligible for membership of the Design Institute of Australia (DIA).

Admission

Assumed knowledge: any two units of English plus at least two units of Design, Design and Technology, Visual Arts, Digital Multimedia, Engineering, or Business Studies

Alternate Entry

Entry by interview in which personal aptitude, experience, and educational qualifications are taken into consideration supported by a portfolio of works. After applicants have applied, they are required to book an interview and download a questionnaire at the University's online booking system. The questionnaire provides applicants further information on how to prepare their portfolio and for the interview.

<https://admissions.westernsydney.edu.au> (<https://admissions.westernsydney.edu.au/>)

Applications from Australian and New Zealand citizens and holders of permanent resident visas may be made via the Universities Admissions Centre (UAC) or directly through the Western Portal. Use the links below to apply via UAC or Western Sydney University. Applications made directly to Western Sydney do not have an application fee.

<http://www.uac.edu.au/>
<https://westernsydney.uac.edu.au/ws/>

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to the University should also use the information provided on the UAC website.

International students currently completing an Australian Year 12 in or outside Australia, an International Baccalaureate in Australia or a New

Zealand National Certificate of Educational Achievement (NCEA) level 3 must apply via UAC International.

<http://www.uac.edu.au/>

All other International applicants must apply directly to the University via the International Office.

International students applying to the University through the International Office can find details of minimum English proficiency requirements and acceptable proof on their website.

International Office (<http://www.westernsydney.edu.au/international/>)

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and Western Sydney University.

Sequence Current

Qualification for this award requires the successful completion of 240 credit points which include the subjects listed in the recommended sequence below.

Students must complete at least 60 credit points at Level 3 or higher.

The core subjects are taught at the Parramatta City (Hassall St) campus.

Students may be required to travel to different Western Sydney University campuses to complete Majors, Minors or elective subjects.

Full-time start-year intake

| Course | Title | Credit Points |
|-----------------------------|--|---------------|
| Year 1 | | |
| Autumn session | | |
| ENGR 1046 | Human Centred Design Research Methods | 10 |
| ENGR 1039 | Designing for Circular Economy | 10 |
| ENGR 1043 | Co-Designing Change with Local Communities | 10 |
| ENGR 1038 | Design Graphics: Presenting Innovation | 10 |
| Credit Points | | 40 |
| Spring session | | |
| ENGR 1041 | Designing for User Experience (UX) | 10 |
| ENGR 1044 | Drawing Skills for Design Thinking | 10 |
| ENGR 1040 | Designing for People: Applied Ergonomics | 10 |
| ENGR 2025 | Design Graphics: Engineering Documentation | 10 |
| Credit Points | | 40 |
| Year 2 | | |
| Autumn session | | |
| ENGR 1042 | Sustainable Materials and Smart Manufacturing | 10 |
| ENGR 2026 | Design Semantics: Exploring Product Form | 10 |
| ENGR 2024 | Design Graphics: Communication for Manufacture | 10 |
| Select one elective subject | | 10 |
| Credit Points | | 40 |
| Spring session | | |
| ENGR 3023 | Biomechanics in Product Innovation | 10 |

| | | |
|---|--|------------|
| ENGR 3026 | Design Thinking for Successful Brands and Products | 10 |
| Select two elective subjects | | 20 |
| Credit Points | | 40 |
| Year 3 | | |
| Autumn session | | |
| ENGR 4021 | Studio: Interdisciplinary Global | 10 |
| Select three elective subjects | | 30 |
| Credit Points | | 40 |
| Spring session | | |
| ENGR 4022 | Studio: Design Synthesis Capstone | 10 |
| Select one capstone subject from the following: | | 10 |
| ENGR 2029 | Simulation in Virtual and Augmented Realities | |
| ENGR 4019 | Start-Up Product Launch | |
| ENGR 3024 | Design Research Methods (Advanced) | |
| ENGR 4017 | Design Thinking for Competitive Advantage | |
| ENGR 3025 | Designing for Circular Economy (Advanced) | |
| ENGR 3028 | Mentored Practice in Design Innovation | |
| ENGR 3031 | Mentored Practice in Design (Industry) | |
| ENGR 2022 | Design Practice: Sustainable Manufacturing | |
| ENGR 4016 | Design Practice: Sustainable Components | |
| Select two elective subjects | | 20 |
| Credit Points | | 40 |
| Total Credit Points | | 240 |

Full-time mid-year intake

| Course | Title | Credit Points |
|------------------------------|--|---------------|
| Year 1 | | |
| Spring session | | |
| ENGR 1041 | Designing for User Experience (UX) | 10 |
| ENGR 1044 | Drawing Skills for Design Thinking | 10 |
| ENGR 1040 | Designing for People: Applied Ergonomics | 10 |
| ENGR 2025 | Design Graphics: Engineering Documentation | 10 |
| Credit Points | | 40 |
| Autumn session | | |
| ENGR 1046 | Human Centred Design Research Methods | 10 |
| ENGR 1039 | Designing for Circular Economy | 10 |
| ENGR 1038 | Design Graphics: Presenting Innovation | 10 |
| ENGR 2024 | Design Graphics: Communication for Manufacture | 10 |
| Credit Points | | 40 |
| Year 2 | | |
| Spring session | | |
| ENGR 3023 | Biomechanics in Product Innovation | 10 |
| ENGR 3026 | Design Thinking for Successful Brands and Products | 10 |
| Select two elective subjects | | 20 |
| Credit Points | | 40 |
| Autumn session | | |
| ENGR 1043 | Co-Designing Change with Local Communities | 10 |

| | | |
|-----------------------------|---|----|
| ENGR 1042 | Sustainable Materials and Smart Manufacturing | 10 |
| ENGR 2026 | Design Semantics: Exploring Product Form | 10 |
| Select one elective subject | | 10 |

Credit Points **40**

Year 3

Spring session

| | | |
|---|-----------------------------------|----|
| ENGR 4022 | Studio: Design Synthesis Capstone | 10 |
| Select one capstone subject from the following: | | 10 |

| | | |
|-----------|---|--|
| ENGR 2029 | Simulation in Virtual and Augmented Realities | |
| ENGR 4019 | Start-Up Product Launch | |
| ENGR 3024 | Design Research Methods (Advanced) | |
| ENGR 4017 | Design Thinking for Competitive Advantage | |
| ENGR 3025 | Designing for Circular Economy (Advanced) | |
| ENGR 3028 | Mentored Practice in Design Innovation | |
| ENGR 3031 | Mentored Practice in Design (Industry) | |
| ENGR 2022 | Design Practice: Sustainable Manufacturing | |
| ENGR 4016 | Design Practice: Sustainable Components | |

Select two elective subjects 20

Credit Points **40**

Autumn session

| | | |
|--------------------------------|----------------------------------|----|
| ENGR 4021 | Studio: Interdisciplinary Global | 10 |
| Select three elective subjects | | 30 |

Credit Points **40**

Total Credit Points **240**

Elective subjects

Students may select their electives from any program offered by the university, provided any requisite requirements are met.

Students may use their 80 credit points of elective subjects to complete a major, or two minors, or suggested Design and Technology electives or university wide electives or a combination of the above.

Two Elective subjects must be Level 3 or above.

Suggested Design and Technology Electives

| Subject | Title | Credit Points |
|----------------------------|--|---------------|
| ENGR 3024 | Design Research Methods (Advanced) | 10 |
| ENGR 4019 | Start-Up Product Launch | 10 |
| ENGR 4017 | Design Thinking for Competitive Advantage | 10 |
| ENGR 3025 | Designing for Circular Economy (Advanced) | 10 |
| ENGR 3028 | Mentored Practice in Design Innovation | 10 |
| ENGR 3031 | Mentored Practice in Design (Industry) | 10 |
| ENGR 2022 | Design Practice: Sustainable Manufacturing | 10 |
| ENGR 4016 | Design Practice: Sustainable Components | 10 |
| Total Credit Points | | 80 |

Majors

Design Practice, Major (0225) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/design-practice-major/>)

Indigenous Australian Studies, Major (0015) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/indigenous-australian-studies-major/>)

Technology Entrepreneurship, Major (0261) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/technology-entrepreneurship-major/>)

Minors

Western Sydney University also offers the following innovative transdisciplinary minors which we encourage those students who have elective space to consider or may choose another university wide.

Business Studies for Secondary Teaching, Minor (0139) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/business-studies-secondary-teaching-minor/>)

Climate Justice, Minor (0315) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/climate-justice-minor/>)

Design Practice, Minor (0225) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/design-practice-minor/>)

Eco-Socially Conscious Design and Manufacturing, Minor (0310) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/eco-socially-conscious-design-manufacturing-minor/>)

Equitable Technologies, Minor (0312) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/equitable-technologies-minor/>)

Global Sustainability, Minor (0196) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/global-sustainability-minor/>)

Global Workplaces, Minor (0316) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/global-workplaces-minor/>)

Humanitarian Action in Practice, Minor (0327) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/humanitarian-action-practice-minor/>)

Indigenous Australian Studies, Minor (0015) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/indigenous-australian-studies-minor/>)

Innovating, Creating and Problem Solving, Minor (0283) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/innovating-creating-problem-solving-minor/>)

Innovating For Humans, Minor (0288) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/innovating-humans-minor/>)

Migration and Global Change, Minor (0314) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/migration-global-change-minor/>)

Personal Innovation, Minor (0284) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/personal-innovation-minor/>)

Social Ecology, Minor (0215) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/social-ecology-minor/>)

Sustainable Futures, Minor (0035) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/sustainable-futures-minor/>)

Urban Evolution, Minor (0313) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/urban-evolution-minor/>)

Water for Life, Minor (0311) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/water-life-minor/>)

Recommended Sequence 2021 - 2022

Students may be required to travel to different Western Sydney University campuses to complete the elements of their program.

Qualification for this award requires the successful completion of 240 credit points which include the subjects listed in the recommended sequence below.

To be eligible to graduate from this program, students are required to complete a minor from the list below.

Students must complete at least 60 credit points at Level 3 or higher.

Parts of these units may be taught at the Parramatta City - Hassall St campus or at the Parramatta South campus.

Start Year Intake

| Course | Title | Credit Points |
|---|--|---------------|
| Year 1 | | |
| Autumn session | | |
| ENGR 1046 | Human Centred Design Research Methods | 10 |
| ENGR 1039 | Designing for Circular Economy | 10 |
| ENGR 1043 | Co-Designing Change with Local Communities | 10 |
| ENGR 1038 | Design Graphics: Presenting Innovation | 10 |
| Credit Points | | 40 |
| Spring session | | |
| ENGR 1041 | Designing for User Experience (UX) | 10 |
| ENGR 1044 | Drawing Skills for Design Thinking | 10 |
| ENGR 1040 | Designing for People: Applied Ergonomics | 10 |
| ENGR 2025 | Design Graphics: Engineering Documentation | 10 |
| Credit Points | | 40 |
| Year 2 | | |
| Autumn session | | |
| ENGR 1042 | Sustainable Materials and Smart Manufacturing | 10 |
| ENGR 2026 | Design Semantics: Exploring Product Form | 10 |
| ENGR 2024 | Design Graphics: Communication for Manufacture | 10 |
| Select one Major, Minor or Alternate subject | | 10 |
| Credit Points | | 40 |
| Spring session | | |
| ENGR 3023 | Biomechanics in Product Innovation | 10 |
| ENGR 3026 | Design Thinking for Successful Brands and Products | 10 |
| Select two Major, Minor or Alternate subjects | | 20 |
| Credit Points | | 40 |
| Year 3 | | |
| Autumn session | | |
| ENGR 4021 | Studio: Interdisciplinary Global | 10 |
| Select three Major, Minor or Alternate subjects | | 30 |
| Credit Points | | 40 |
| Spring session | | |
| ENGR 4022 | Studio: Design Synthesis Capstone | 10 |
| ENGR 2029 | Simulation in Virtual and Augmented Realities | 10 |
| Select two Major, Minor or Alternate subject | | 20 |
| Credit Points | | 40 |
| Total Credit Points | | 240 |

Mid-year Intake

| Course | Title | Credit Points |
|---|--|---------------|
| Year 1 | | |
| Spring session | | |
| ENGR 1041 | Designing for User Experience (UX) | 10 |
| ENGR 1044 | Drawing Skills for Design Thinking | 10 |
| ENGR 1040 | Designing for People: Applied Ergonomics | 10 |
| ENGR 2025 | Design Graphics: Engineering Documentation | 10 |
| Credit Points | | 40 |
| Autumn session | | |
| ENGR 1046 | Human Centred Design Research Methods | 10 |
| ENGR 1039 | Designing for Circular Economy | 10 |
| ENGR 1038 | Design Graphics: Presenting Innovation | 10 |
| ENGR 2024 | Design Graphics: Communication for Manufacture | 10 |
| Credit Points | | 40 |
| Year 2 | | |
| Spring session | | |
| ENGR 3023 | Biomechanics in Product Innovation | 10 |
| ENGR 3026 | Design Thinking for Successful Brands and Products | 10 |
| Select two Major, Minor or Alternate subjects | | 20 |
| Credit Points | | 40 |
| Autumn session | | |
| ENGR 1043 | Co-Designing Change with Local Communities | 10 |
| ENGR 1042 | Sustainable Materials and Smart Manufacturing | 10 |
| ENGR 2026 | Design Semantics: Exploring Product Form | 10 |
| Select one Major, Minor or Alternate subject | | 10 |
| Credit Points | | 40 |
| Year 3 | | |
| Spring session | | |
| ENGR 4022 | Studio: Design Synthesis Capstone | 10 |
| ENGR 2029 | Simulation in Virtual and Augmented Realities | 10 |
| Select two Major, Minor or Alternate subject | | 20 |
| Credit Points | | 40 |
| Autumn session | | |
| ENGR 4021 | Studio: Interdisciplinary Global | 10 |
| Select three Major, Minor or Alternate subjects | | 30 |
| Credit Points | | 40 |
| Total Credit Points | | 240 |
| Autumn Alternate Subject Pool | | |
| Two Alternate subjects must be Level 3 or above. | | |
| Subject | Title | Credit Points |
| ENGR 2022 | Design Practice: Sustainable Manufacturing | 10 |
| VISU 2003 | From Ochre to Acrylics to New Technologies | 10 |
| HUMN 1013 | Contextualising Indigenous Australia (Day Mode) | 10 |
| BUSM 3005 | Creating Change and Innovation | 10 |
| BUSM 3036 | Leadership and Entrepreneurship | 10 |

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|-----------|------------------------------------|----|
| BEHV 1018 | Psychology: Human Behaviour | 10 |
| HUMN 3077 | Sustainable Futures | 10 |
| ENGR 3024 | Design Research Methods (Advanced) | 10 |

Spring Alternate Subject Pool

Two Alternate subjects must be Level 3 or above.

| Subject | Title | Credit Points |
|-----------|---|---------------|
| ENGR 3025 | Designing for Circular Economy (Advanced) | 10 |
| MKTG 2002 | Incubator 1: Innovation and Creativity for Entrepreneurship | 10 |
| ENGR 3028 | Mentored Practice in Design Innovation | 10 |
| ENGR 4016 | Design Practice: Sustainable Components | 10 |
| ENGR 4019 | Start-Up Product Launch | 10 |
| BLDG 1009 | Environmental Building Design | 10 |

Majors and Minors

The Bachelor of Industrial Design is offered at Parramatta City campus only. Students may be required to travel between campuses in order to complete some subjects within specific Majors and Minors.

Majors

Design Practice, Major (0225) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/design-practice-major/>)

Technology Entrepreneurship, Major (0261) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/technology-entrepreneurship-major/>)

Minors

Business Studies for Secondary Teaching, Minor (0139) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/business-studies-secondary-teaching-minor/>)

Construction Economics, Minor (0119) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/construction-economics-concentration/>)

Culture and Society, Minor (0264) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/culture-society-minor/>)

Design Practice, Minor (0225) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/design-practice-minor/>)

Graphic Design, Minor (0073) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/graphic-design-minor/>)

Indigenous Australian Studies, Minor (0015) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/indigenous-australian-studies-minor/>)

Social Ecology, Minor (0215) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/social-ecology-minor/>)

Sustainable Futures, Minor (0035) (<https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/sustainable-futures-minor/>)

Replaced Minors

The minor listed below counts towards completion of this Program for students who began studying this minor prior to the years indicated below.

SM1070 Cultural and Social Analysis, Minor (<http://handbook.westernsydney.edu.au/hbook/specialisation.aspx?unitset=SM1070.1>), replaced by Culture and Society, Minor in 2021 (listed above)