Bachelor of Design (Industrial Design) (DE40)

Year offered: 2011
Admissions: Yes
CRICOS code: 056386C
Course duration (full-time): 4 years
Domestic Fees (indicative): 2011: CSP $3,878 (indicative) per semester
International Fees (indicative): 2011: $11,875 (indicative) per semester
Domestic Entry: February
International Entry: February
QTAC code: 412382
Past cut-off: 81
Past OP cut-off: 10
OP Guarantee: Yes
Assumed knowledge: English (4, SA)

Total credit points: 384
Standard credit points per full-time semester: 48
Course coordinator: Mr Andrew Scott
Discipline coordinator: Dr Marianella Chamorro-Koc
Campus: Gardens Point

Why choose this course?
The QUT Industrial Design course philosophy is to educate industrial designers to play a leading role in the design and development of products or systems in our changing environment. It aims to enhance the quality of life by ensuring that new technologies are working for the benefit of their users.

Career outcomes
QUT Industrial Design graduates are working worldwide in places such as the UK, Singapore and France. Some students obtain employment in the industry in the final year of study. Students work in a variety of areas such as consulting practices, large private and government organisations. Industrial designers specialise as a:

Consumer Appliance Designer who is involved in a design team that develops products and appliances to assist or entertain in the home or office, such as whitegoods, electronic goods and computer equipment.

Furniture Designer who creates designs for the manufacture of domestic, commercial and industrial furniture.

Transport Designer who works in large teams putting shape, style and comfort into cars, trucks, trains and trams.

Practical teaching
'Real world' activities students will undertake during this course include workshop activities design studio projects, product testing and interaction analysis and product visualisation the synthetic environment.

Industry links
You will be exposed to lecturers with industry experience. QUT is an Educational Member of the International Council of Societies of Industrial Design (ISCID).

Course structure
The curriculum focuses on a human-centred design approach, innovation and systematic thinking. The aims and objectives of the program reinforce life-long learning as they facilitate the enhancement of graduates' knowledge and skills as part of their career development. It is envisaged that the graduates of this course will be able to contribute to the development of their profession, respond to changes occurring in their environment, and make an immediate and positive contribution to the industry, community and profession.

Facilities / technology
You will have first-hand experience of the latest technologies used in the industry by evaluating your projects and building prototypes in QUT's state-of-the-art 3-D Visualisation Laboratory.

Convenience
You will study at QUT’s Gardens Point campus in the centre of Brisbane, within easy walking distance to public transport, including buses, trains and ferries.

Who should do this course?
If you are interested in the following, you may enjoy a career in Industrial Design:
- problem-solving skills
- practical and patient
- creative
- technical aptitude
- good communication skills.

Overview
Students in this course develop their capacity to contribute to the design of products and systems for the mutual benefit of users and manufacturers of a wide range of products.

Information for future students
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Second majors and minors
You will be able to select from two 4 unit approved minors or one 8 unit approved second major to enhance and broaden your knowledge in a related field or area of interest. Please refer to the rules at the following location before making your selection:

INDUSTRIAL DESIGN Second Major and Minor Options
Second Major:
A 2nd major from anywhere in QUT.

Minors:
A minor from anywhere in QUT. Please remember that one minor must be from outside of your course.
(Design students interested in enrolling in the BEE Applications minor, must first consult and obtain approval from the Subject Area Coordinator/Course Coordinator.)

Professional Recognition
The Bachelor of Design (Industrial Design) is recognised by DIA (Design Institute of Australia). Graduates of this course are eligible for DIA Membership. Industrial Design QUT is also an Educational member of ICSID (International Council of Societies of Industrial Design).

Limits on grades of 3
A new policy concerning grades of 3 came into effect from 1 January 2009 (QUT MOPP C/5.2). With effect from this date grades of 3 are no longer considered a conceded or low pass but are classified as a fail grade. Any grades of 3 awarded prior to 1 January 2009 retain the conceded pass status and will be counted for graduation purposes up to the maximum number of grades of 3 permitted for your course. Grades of 3 incurred in units that commence after 1 January 2009 will not count towards your degree. Further information is available on the Student Services website.

Deferment
Domestic students can defer their offer in this course for one year. In exceptional circumstances up to 12 months of additional deferment may be granted.

Further Information
The School of Design - Phone +61 7 3138 2626, Fax +61 7 3138 5280, email: bee.enquiries@qut.com

Course structure - Commencing February 2011

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Second Major and Minor Options

Please refer to Second Major and Minor information under Course Summary.

Potential Careers:
Industrial Designer.

UNIT SYNOPSES

DEB100 DESIGN AND SUSTAINABILITY
This unit, with its special focus on the role and impact of designers to shift society toward a more environmentally sustainable way of living, introduces you to essential academic and professional skills and practices for learning to become a designer.

Antirequisites: ENB100  Equivalents: BEB100 and UDB100  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1

DEB101 INTRODUCING DESIGN
Please note: this unit is only available to First Year DE40 students.

This unit offers a uniquely broad introduction to the field of design as applied across the design disciplines. It uses exercises to enhance student perceptions of the natural and human made environments in a problem based learning context. The unit is block taught over several weeks during the semester and will include students from a range of design disciplines participating in a four day field trip (students unable to attend participate in an alternative program). Students work individually and in cross-disciplinary teams in a stimulating and immersive environment. This unit covers content of problem solving, teamwork, visualisation and communication, and environmental awareness.

Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1

DEB102 INTRODUCING DESIGN HISTORY
This unit encompasses a broad survey of the history of design from the civilizations of antiquity to the opening of the 20th century – including architecture, industrial design, interior design and landscape architecture. It is a first year foundation unit and serves as preparation for more detailed and specialized studies in history and theory in subsequent years. Key designs, ideas and artefacts and the aesthetic, environmental, technological, socio-cultural and political factors that related to their production will be analysed.

Equivalents: ADB831, DEB102  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

DEB203 VISUALISATION 2
DEB103 Visualisation 1 introduced you to the skills and techniques needed to support design visualisation with a focus on analogue media and drawing skills. This unit continues that process and integrates digital and analogue approaches. Content will be divided between common and discipline specific techniques and traditions.

Prerequisites: DEB103  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

DEB601 COLLABORATIVE DESIGN
The experience of cross-disciplinary design collaboration is considered a significant aspect of the preparation of design students for future professional practice. This unit provides such an experience through a collaborative design studio. Collaboration will be addresses and fostered by students working on a design studio project that facilitates cross-disciplinary collaboration and introduces them to various forms of collaboration. Through the projects student will be exposed to the discourse of design disciplines other than their own while at the same time being able to build on discipline specific skills, knowledge and attitudes.

Assumed knowledge: First and second year DE40 design units is assumed knowledge  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

DEB701 DESIGN AND RESEARCH
This unit is a core unit common to architectural studies, landscape architecture, industrial design and interior design. The unit is project based and introduces students to research methods and methodologies that have relevance in design practice. It also provides a foundation for higher degree research. The content covered in this unit includes:
- philosophical context of research in, of and through design
- qualitative research incorporating methodologies and methods of relevance to design
- research rigour and ethics
- developing a research plan
DNB202 PRODUCT USABILITY
The professional designer designs principally for others and not primarily by personal preference. Therefore an understanding of the breadth of physical and cognitive needs and capabilities of people is vital to the development of useable products. This unit provides the basis for a user-centred design philosophy built upon an understanding of people and their capabilities and knowledge and experience to integrate advanced human factors and usability concepts into the industrial design process. The content covered in this unit includes: anthropometrics; principles of physical and cognitive ergonomic requirements of special needs groups; human error; usability principles; usability evaluation methods and user testing techniques.

Prerequisites: DNB101 Equivalents: ADB212 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2011 SEM-2

DNB301 INDUSTRIAL DESIGN 3
This unit offers creative opportunities to design and develop new and innovative products in the field of industrial design. It uses design research and methodologies found in biomimicry (study of nature’s principles) to inspire new ideas for future (green) markets. It proposes innovative design thinking in keeping with sustainable practices both in the built and natural environments. Analysis of future global markets lead to design projects that engage with issues of context, biometrics, technology and design principle transfers from nature; all form part of the unit content. Learning and teaching activities are spread across lectures, tutorials, workshops and studio based practices.

Prerequisites: DNB101 Equivalents: ADB203 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2011 SEM-1

DNB302 COMPUTER AIDED INDUSTRIAL DESIGN
Once an Industrial Designer has completed the conceptual design stage of a project the details required for manufacture need to be resolved and prototypes made. It is at this stage that Computer Aided Design (CAD) is used. 3D CAD allows the details of the design to be resolved. Rapid prototypes can be made directly from the CAD data for design testing and verification. Modifications to the CAD data can be made quickly. Once the design is satisfactory, the 3D CAD models can then be used to generate photorealistic images and engineering drawings so that the new product can be manufactured.

Equivalents: ADB245 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2011 SEM-1

DNB303 MANUFACTURING TECHNOLOGY
Manufacturing technology is integral to industrial design and is a basic knowledge requirement to build upon throughout the course. Design for manufacturing allows both the analysis and application of manufacturing principles to product design and development. The knowledge gained in this unit allows the designer to develop a sound awareness of the relationship between design and manufacturing. The content covered in this unit includes: electronics; plastics; production techniques in relation to different materials; forming; finishing operations; production costs; technical documentation and communication.

**Equivalents:** ADB233  **Credit hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-1

**DNB401 INDUSTRIAL DESIGN 4**  
Industrial design advances design knowledge gained in DNB201 Industrial design 2. The unit introduces how various design processes interact, in complex problems such as sustainable transportation systems. Through collaborative projects students will be exposed to: design research; design innovation; communication skills; integration of design processes, manufacturing technologies and application transfer of design principle mechanisms to solve real world problems.

**Prerequisites:** DNB201  **Equivalents:** ADB204  **Credit points:** 12  **Contact hours:** 4 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-2

**DNB402 SOCIO-CULTURAL STUDIES**  
An understanding of people and their cognitive and emotive relationship with the world is essential for designing responsive products and environments. This unit encourages a diversity of knowledge to gain a broader perspective of culture, understand how issues of culture influence product design and the designer's interaction with society and diverse cultures. The content covered includes: theoretical perspectives of culture, psychological implications of everyday human-artefact interactivity, environmental and cultural perception, changing socio-cultural landscapes, ageing population, sustainability and globalisation, potential for design to advance social changes and quality of life, and psychological implications and attitudes imbedded in product semantics and symbolics.

**Credit points:** 12  **Contact hours:** 3  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-2

**DNB501 INDUSTRIAL DESIGN 5**  
Experience design (or design for experience) is a design approach that aims to create appropriate experiences before, during and after product interaction. This unit introduces methods for enhancing the user experience. Through projects students will be exposed to:
- design process and creative thinking
- user-product interaction
- user research and context study
- design narratives
- design ethics and culture

**Prerequisites:** DNB301  **Equivalents:** ADB205  **Credit points:** 12  **Contact hours:** 4 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-1

**DNB502 INDUSTRIAL DESIGN HISTORY, THEORY AND CRITICISM**  
This unit provides students with the opportunity to become aware of theoretical and historical discourse in industrial design and to debate innovative and advanced ideas and critical thinking in the field internationally. It provides a framework in which students can locate their individual design activities. The content covered in this unit includes:
- contemporary history of industrial design
- relationship between social and technological change and industrial design
- contemporary design theory and discourse
- criticism methodology
- writing about design
- learning to critique design

**Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-1

**DNB601 INDUSTRIAL DESIGN 6**  
Design for experience focuses design intent not on products as an end in themselves but in the experiences of the people who use them. Going beyond this involves focusing on the emotional aspects of experience. Through projects students will be exposed to:
- design process and creative thinking
- interaction design
- socio-cultural trend analysis
- design narratives
- creativity and product innovation
- interdisciplinary teamwork
- design ethics and culture

**Prerequisites:** DNB401  **Equivalents:** ADB206  **Credit points:** 12  **Contact hours:** 4 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-2

**DNB602 NEW PRODUCT DEVELOPMENT**  
The unit will focus on the introduction of new products into the market. It will provide the students with an overview of the relationship between product design and commercialisation. It will provide an overview of strategy development where the aim is to meet consumer expectations, whilst achieving corporate objectives. The major topics covered in this unit include:
- new product development process
- idea generation
- strategic planning
- introduction to marketing
- product screening and evaluation
DNB701 INDUSTRIAL DESIGN 7
This unit introduces an advanced product and system design as relevant to industrial design. It provides students knowledge about the various contexts that impact on products – from usability to business to manufacturing. Through the projects the students will be exposed to:
• advanced design process and creative thinking
• knowledge integration within various contexts
• understanding industrial designer’s role within collaborative projects.
Prerequisites: DNB501  Equivalents: ADB207, ADP207  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1

DNB702 HUMAN-CENTRED DESIGN INNOVATION
Human-centred innovation incorporates studies of the dynamic relationships between people, products/artifacts and systems, and their contextual environment. The unit will introduce the ways research about people can contribute to product innovation, an essential aspect of industrial design. It will introduce how to integrate the applied research skills and knowledge that support the development of an innovative product or system. It also provides you with the foundation for higher research degrees. The major topics covered in this unit include:
• human-centred innovation framework
• application of qualitative research methods to industrial design
• situating product/systems within the social framework
• communication of research outcome.
Prerequisites: DNB601  Equivalents: ADP267  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1

DNB801 RESEARCH AND INNOVATION 1
Applied research is key component of industrial design: this unit will show you how to apply research outcomes to the design of products and systems and how to lead large projects. It also serves as the foundation for higher research degrees. Your research will be centred on a project you select and you will be responsible for its leadership, in close collaboration with industrial design academic advisers who will guide your progress. The unit is built upon the units Human-centred Design Innovation and Design Research and is corequisite to Research and Innovation 2.
Prerequisites: DNB701 and DNB702  Equivalents: ADB235  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

DNB802 RESEARCH AND INNOVATION 2
The aim of this unit is to assist students to integrate the knowledge gained in previous semesters and to learn how to generate relevant, new knowledge to be applied during the developmental phases of a design project. Through the individual project the students will be exposed to how to:
• apply in depth research outcome to product design
• apply usability testing in the relevant stages of design process
• develop design in collaboration with other relevant professions
• manage large projects
• communicate at a professional level visually, orally and in writing
This unit is corequisite to Research and Innovation 1 and serves as the foundation for higher research degrees.
Prerequisites: DNB701, DNB702 and DNB801  Equivalents: ADP269  Credit points: 12  Contact hours: 4  Campus: Gardens Point  Teaching period: 2011 6TP5