



Australian Institute
of Advanced Studies

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MEM60112 - Advanced Diploma of Engineering

Get technical at the

AIAS School of Engineering

All facets of modern society are affected by **the work of engineers**, from satellites, aircraft, drones, 3D printing, mobile technology and renewable energy right down to Polaroid glasses, Velcro and the common clothes peg. Engineers will be vital in the fight to clean up polluted water supplies and develop strategies to deal with climate change.



MEM60122 | CRICOS: 089996D

Advanced Diploma of Engineering



On completion of this course you may be a part of the design team for the next supersonic aircraft or energy efficient transport systems or developing new manufacturing equipment. This course equips you with the skills of an Engineering Technician. You will learn how to use design calculations, materials, manufacturing processes, 3D modelling and detail drafting to produce a diverse range of technologies for today and tomorrow in various engineering disciplines including; medical, civil, structural, manufacturing, electrical etc.

This two year full time (or part time) course is designed to give you a broad understanding of the concepts and processes to make you a valuable member of an engineering team as an Engineering Technician.



Pathways & Further Study

The successful completion of this course leads to industry positions in, mechanical, manufacturing, civil/civil structural and electrical industries as Design Draftsman, Engineering Technician, Estimator, Detailers and other technical positions. This course serves as a stepping stone towards practical employment opportunities and also paves the way for future educational pursuits in the field of Engineering at some of the premier universities in Australia.

Course Requirements

To be awarded an Advanced Diploma of Engineering, competency must be achieved in thirty (30) units of competency, plus one prerequisite unit (MEM13015 Work safely and effectively in manufacturing and engineering).

Course Overview



Where can I study?

BRISBANE CAMPUS
MOUNT GRAVATT

24 MAX CLASS SIZE



Course start dates

FEBRUARY

JULY



Commitment

FULL TIME

20HRS – 3DAYS P/W

24 MONTHS

Programs learned:



Autodesk Inventor (Advanced),
Autocad, HSM, Revit, Navisworks



Vertex
CAD/PDM



Tekla
BIM

Core Units

MEM16006 ORGANISE AND COMMUNICATE INFORMATION

MEM16008 INTERACT WITH COMPUTING TECHNOLOGY

MEM22001 PERFORM ENGINEERING ACTIVITIES

MEM22002 MANAGE SELF IN THE ENGINEERING ENVIRONMENT

MEM30007 SELECT COMMON ENGINEERING MATERIALS

MEM30012 APPLY MATHEMATICAL TECHNIQUES IN A MANUFACTURING, ENGINEERING OR RELATED ENVIRONMENT

MSAENV272 PARTICIPATE IN ENVIRONMENTALLY SUSTAINABLE WORK PRACTICES

Elective Units

MEM09155 PREPARE MECHANICAL MODELS FOR COMPUTER-AIDED ENGINEERING

MEM09157 PERFORM MECHANICAL ENGINEERING DESIGN DRAFTING

MEM09204 PRODUCE BASIC ENGINEERING DETAIL DRAWINGS

MEM12025 USE GRAPHICAL TECHNIQUES PERFORM SIMPLE STATISTICS

MEM14087 APPLY MANUFACTURED PRODUCT DESIGN TECHNIQUES

MEM14089 INTEGRATE MECHANICAL FUNDAMENTALS INTO AN ENGINEERING TASK

MEM12024 PERFORM COMPUTATIONS

MEM30033 USE COMPUTER-AIDED DESIGN (CAD) SYSTEM TO CREATE AND DISPLAY 3-D MODELS

Elective Units

MEM22013 COORDINATE ENGINEERING PROJECTS

MEM23003 OPERATE AND PROGRAM COMPUTERS AND/OR CONTROLLERS IN ENGINEERING SITUATIONS

MEM23123 EVALUATE MANUFACTURING PROCESSES

MEM13015 WORK SAFELY AND EFFECTIVELY IN MANUFACTURING AND ENGINEERING

MEM09229 READ AND INTERPRET TECHNICAL DRAWINGS

RIICWD534E PREPARE DETAILED DESIGN OF CIVIL STEEL STRUCTURES

MEM23004 APPLY TECHNICAL MATHEMATICS

MEM23006 APPLY FLUID AND THERMODYNAMICS PRINCIPLES IN ENGINEERING

MEM23063 SELECT AND TEST MECHANICAL ENGINEERING MATERIALS

MEM23109 APPLY ENGINEERING MECHANIC PRINCIPLES

MEM23120 SELECT MECHANICAL MACHINE AND EQUIPMENT COMPONENTS

MEM30005 CALCULATE FORCE SYSTEMS WITHIN SIMPLE BEAM STRUCTURES

MEM30006 CALCULATE STRESSES IN SIMPLE STRUCTURES

MEM23007 APPLY CALCULUS TO ENGINEERING TASKS

MEM30031 OPERATE COMPUTER-AIDED DESIGN (CAD) SYSTEM TO PRODUCE BASIC DRAWING ELEMENTS

MEM30032 PRODUCE BASIC ENGINEERING DRAWINGS



At the AIAS School of Engineering, you can study this fantastic course:



MSA30208 Certificate III in Manufacturing Technology



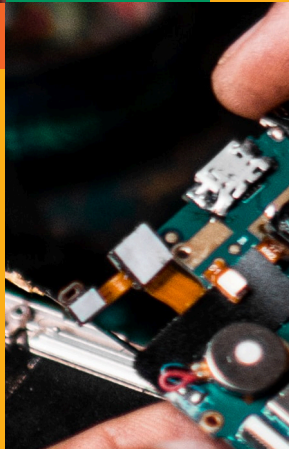
MEM40412 Certificate IV in Engineering Drafting



MEM50212 Diploma of Engineering - Technical



MEM60112 Advanced Diploma of Engineering



To learn more, email **info@aias.edu.au**
or call **+61 7 3343 8073** and you can visit
us online at **www.aias.edu.au**