CERTIFICATE IV IN ENGINEERING

National Course Code: MEM40105

TAFE NSW code: MEM40105-01V08-18CHE-006

This course is for people employed as apprentices in Higher Engineering Trade and for people who have completed a Certificate III in an engineering trade and who are seeking to expand their knowledge and skills and to achieve a higher level of qualification. You will gain the competencies required by a tradesperson working at higher levels in the manufacturing, engineering or related industries. You will acquire skills and knowledge in workplace communication, occupational health and safety, quality procedures systems and planning, engineering measurement, computations and computer technology plus some industry-specific skills in welding, boiler making, metal casting, patternmaking, metal machining, maintenance and diagnostics and electrotechnology that are relevant to your current or intended employment. The course duration will vary depending on the training pathway agreed to between you, your employer and the TAFE college.

**Units**

Number Title

MEM18055B Dismantle, replace and assemble engineering components

MEM09010C Create 3D models using computer aided design system

MEM05046B Perform welds to code standards using manual metal arc welding process

MEM16007A Work with others in a manufacturing, engineering or related environment

MEM05053A Set and edit computer controlled thermal cutting machines

MEM09003B Prepare basic engineering drawing

MEM09004B Perform electrical/electronic detail drafting

MEM12003B Perform precision mechanical measurement

MEM12025A Use graphical techniques and perform simple statistical computations

MEM18003C Use tools for precision work

MEM05047B Weld using flux core arc welding process

MEM05037C Perform geometric development

MEM05048B Perform advanced welding using flux core arc welding process

MEM05018C Perform advanced welding using gas metal arc welding process

MEM09023A Create 3D code files using computer aided manufacturing system

MEM05009C Perform automated thermal cutting

MEM09007B Perform advanced mechanical detail drafting

MEM09011B Apply basic engineering design concepts

MEM05050B Perform routine gas metal arc welding

MEM18007B Maintain and repair mechanical drives and mechanical transmission assemblies

MEM07021B Perform complex lathe operations

MEM09022A Create 2D code files using computer aided manufacturing system

MEM05023C Weld using submerged arc welding process

CERTIFICATE IV IN ENGINEERING (CNC PROGRAMMING)

National Course Code: MEM40105

TAFE NSW code: MEM40105-02V06-18NEW-914

Overview

Are you a tech head looking to start a career in the engineering industry? You should consider a career in Computer Numerical Control. The Certificate IV in Engineering (CNC Programming) will provide you with the practical skills and knowledge to set up, program, inspect, and operate NC and CNC macchines, create 2D and 3D models using computer aided design, write 2D and 3D program code, interpret technical drawing, and workplace health and safety. Once you successfully complete this course you'll have specialist skills in engineering, machining, and manufacturing, opening up a career as a manufacturing supervisor, production manager, or team leader.

**Units**

Number Title

MEM18055B Dismantle, replace and assemble engineering components

MEM16007A Work with others in a manufacturing, engineering or related environment

MEM07007C Perform milling operations

MEM12003B Perform precision mechanical measurement

MEM18012B Perform installation and removal of mechanical seals

MEM18003C Use tools for precision work

MEM09023A Create 3D code files using computer aided manufacturing system

MEM07006C Perform lathe operations

MEM18007B Maintain and repair mechanical drives and mechanical transmission assemblies

MEM07008D Perform grinding operations

MEM07021B Perform complex lathe operations

MEM18013B Perform gland packing

MEM07018C Write basic NC/CNC programs

MEM09022A Create 2D code files using computer aided manufacturing system

MEM16006A Organise and communicate information

MEM16008A Interact with computing technology

MEM14004A Plan to undertake a routine task

MEM12023A Perform engineering measurements

MEM12024A Perform computations

MEM18005B Perform fault diagnosis, installation and removal of bearings

MEM07024B Operate and monitor machine/process

MEM15002A Apply quality systems

MEM07028B Operate computer controlled machines/processes

MEM15024A Apply quality procedures

MEM13014A Apply principles of occupational health and safety in the work environment

MEM18006C Repair and fit engineering components

MEM18002B Use power tools/hand held operations

MEM07015B Set computer controlled machines/processes

MEM14005A Plan a complete activity

MEM07005C Perform general machining

MEM18004B Maintain and overhaul mechanical equipment

MEM07019C Program NC/CNC machining centre

MEM12006C Mark off/out (general engineering)

MEM05005B Carry out mechanical cutting

MEM09002B Interpret technical drawing

MEM18009B Perform levelling and alignment of machines and engineering components

MEM18008B Balance equipment

MEM09009C Create 2D drawings using computer aided design system

MEM17003A Assist in the provision of on the job training

MEM07016C Set and edit computer controlled machines/processes

MEM18001C Use hand tools

CERTIFICATE III IN APPLIED FASHION DESIGN AND TECHNOLOGY

National Course Code: MST30816 TAFE NSW code: MST30816-01V02-18CAS-004

Overview

Are you seeking technical skills for employment in a clothing and fashion production environment? TAFE NSW's Certificate III in Applied Fashion Design and Technology will provide you with fundamental skills and knowledge for work in applied design and production roles. You will gain an understanding of the operational processes of the different areas of the fashion industry, as well as skills in production processes such as: identifying and selecting fabrics; laying, cutting and machining; garment construction; and pressing and finishing. You will also learn introductory design theory and skills in pattern modification. Enjoy a self-employed role in the fashion market or a production role with a fashion enterprise. You can also use this qualification as a pathway to more advanced TAFE fashion design courses, such as the Diploma of Applied Fashion Design and Merchandising.

**Units**

Number Title

MSTCL3010 Sew woven and stretch knit garments

MSTCL3007 Embellish garment by hand or machine

MSTCL2007 Lay up, mark and cut uncomplicated fabrics and lays

MSTGN2011 Identify fibres, fabrics and textiles used in the TCF industry

MSTFD2005 Identify design process for fashion designs

MSMENV272 Participate in environmentally sustainable work practices

MSTFD3004 Draw a trade drawing for fashion design

MSTGN2009 Operate computing technology in a TCF workplace

MSTGN2004 Work in a team environment

MSTFD2001 Design and produce a simple garment

MSTTX3003 Set up, adjust and maintain industrial sewing machines

MSTCL3009 Develop patterns from a block using basic patternmaking principles

MSTCL3003 Perform garment repairs and alterations

MSTCL2010 Modify patterns to create basic styles

MSTGN3002 Organise and plan own work to achieve planned outcomes

MSS402051 Apply quality standards

MSTGN2005 Perform minor maintenance

MSTCL3002 Prepare and produce a complex whole garment from specifications

MSTCL2011 Draw and interpret a basic sketch

MSTGN2003 Work in the TCF industry

BSBDES202 Evaluate the nature of design in a specific industry context

BSBDES301 Explore the use of colour

MSTFD3003 Prepare design concept for a simple garment

MSTFD2006 Use a sewing machine for fashion design

MSTCL2019 Sew components, complex tasks

MSMWHS200 Work safely

MSTCL3001 Identify fabric performance and handling requirements

CERTIFICATE II IN PRINTING AND GRAPHIC ARTS (GENERAL)

National Course Code: ICP20115

Overview

This qualification applies to individuals who perform a range of mainly routine tasks in the printing and graphic arts industry. They work under direct supervision and use limited practical skills and fundamental operational knowledge in a defined context. It is a preparatory qualification that can be used as a pathway into a range of specialist Certificate III qualifications within the printing and graphic arts industry. Licensing/Regulatory Information No licensing, legislative or certification requirements apply to this qualification at the time of publication.

**Units**

Number Title

ICPPRP397 Transfer digital files

BSBSUS201 Participate in environmentally sustainable work practices

ICPSUP262 Communicate in the workplace

ICPPRP225 Produce graphics using a graphics application

ICPPRP252 Output images

ICPSUP216 Inspect quality against required standards

ICPPRP284 Produce PDF files for online or screen display

ICPPRP283 Prepare artwork for screen printing

ICPPRP321 Produce a typographic image

ICPSUP260 Maintain a safe work environment

ICPPRP221 Select and apply type

ICPPRP224 Produce pages using a page layout application

ICPPRP211 Develop a basic design concept

ICPPRP286 Scan images for reproduction

ICPPRP322 Digitise images for reproduction

# CERTIFICATE III IN LOGISTICS

#### National Course Code: TLI32416

Overview

This is a qualification for those engaged in logistics operations within the Transport and Logistics Industry. It involves a defined range of skilled operations, usually within a range of broader related activities involving known routines, methods and procedures, where some discretion and judgement is required in selecting equipment, services or contingency measures within known time constraints. It may also include responsibility for coordinating the work of others. Successful achievement of the licensing units within the qualification must align with applicable licensing and regulatory requirements. Job roles Job roles and titles vary across different sectors. Possible job titles relevant to this qualification include: Logistics Administration Officer Logistics Service Clerk. No licensing, legislative or certification requirements apply to this qualification at the time of publication.

**Units**

Number Title

TLIU3011 Implement and monitor environmentally sustainable work practices

BSBCUS301 Deliver and monitor a service to customers

TLIA3019 Organise receival operations

TLIF3063 Administer the implementation of fatigue management strategies

TLIA3016 Use inventory systems to organise stock control

TLIF1001 Follow work health and safety procedures

TLIE3002 Estimate/calculate mass, area and quantify dimensions

TLIL1001 Complete workplace orientation/induction procedures

TLIA3018 Organise despatch operations

TLIJ3002 Apply quality systems

TLIG3002 Lead a work team or group

TLIF0001 Apply chain of responsibility legislation, regulations and workplace procedures

TLIE3004 Prepare workplace documents

CERTIFICATE II IN FOOD PROCESSING

National Course Code: FDF20111

Overview

Do you work in the food processing industry? The Certificate II in Food Processing is an industry-based qualification targeted at developing your skills and knowledge of food processing. The course will ensure that you are multi-skilled, with a strong understanding of WHS processes, quality systems and procedures, food safety procedures and environmentally sustainable workplace practices. You will also select career related elective units based on your specific areas of interest. Completion of the Certificate II in Food Processing will give you a solid basis for employment, or for further study related to the food processing industry.

**Units**

Number Title

FDFOP2027A Dispense non-bulk ingredients

FDFOP2064A Provide and apply workplace information

FDFPPL2001A Participate in work teams and groups

FDFFS2001A Implement the food safety program and procedures

FDFOP2002A Inspect and sort materials and product

FDFOP2001A Work effectively in the food processing industry

FDFOHS2001A Participate in OHS processes

FDFFS1001A Follow work procedures to maintain food safety

FDFOP1005A Operate basic equipment

FDFOP2028A Operate a mixing or blending process

FDFOP1003A Carry out manual handling tasks

FDFOP2004A Clean and sanitise equipment

FDFOP2063A Apply quality systems and procedure

CERTIFICATE IV IN SPATIAL INFORMATION SERVICES

National Course Code: CPP40316

Overview

This qualification reflects the role of geographic information system (GIS) technicians who work under supervision to support a spatial information services team. They perform a range of duties using various geospatial technologies, including global navigation satellite system (GNSS) and specialisedd geospatial software. No licensing, legislative, regulatory, or certification requirements apply to this qualification at the time of endorsement. This qualification is suitable for an Australian apprenticeship pathway.

**Units**

Number Title

ICTWEB429 Create a markup language document to specification

ICTWEB401 Design a website to meet technical requirements

CPPSIS4039 Design and produce maps

CPPSIS4022 Store and retrieve spatial data

CPPSIS4027 Organise surveying field services

CPPSIS4024 Source and assess spatial data

CUAACD301 Produce drawings to communicate ideas

ICTWEB411 Produce basic client-side script for dynamic web pages

CPPSIS4041 Set out site and building works

CPPSIS4034 Maintain spatial data

CPPCMN4002 Implement and monitor environmentally sustainable work practices

CPPSIS5035 Obtain and validate spatial data

ICTDBS502 Design a database

ICTICT302 Install and optimise operating system software

CPPSIS4026 Digitally enhance and process image data

CPPCMN4003 Establish, develop and monitor teams

CPPSIS4038 Prepare and present GIS data

CPPSIS4025 Collect spatial data using GNSS

CPPSIS4040 Collect spatial data using terrestrial technologies

CPPSIS4037 Produce computer-aided drawings

CPPSIS4035 Apply GIS software to solve spatial data problems

CPPSIS4036 Operate spatial software applications

STATEMENT OF ATTAINMENT IN 2D COMPUTER AIDED DRAFTING INTRODUCTION COURSE

Course Code: 160-16425V01

Overview

Introduction to using 2D computer aided drafting using AutoCAD. The course is aimed at existing apprentices, tradesman and any staff interested in drafting with a computer aided program. No previous experience is required but students require reasonable computer skills. Students will be able too download the CAD program for free from the Autodesk site as an educational only version. 2D drafting is used across a range of engineering, construction and manufacturing industries. The program is predominantly for drawing parts, machinery, buildings, diagrams and structural steel components. This course is 24 hours in duration delivered as 3 hours, one night a week over 8 weeks. Additional home practice will be required. Applicants may use this course as a lead into a future course in 3D modelling using CAD.

**Units**

Number Title

MEM30031A Operate computer-aided design (CAD) system to produce basic drawing elements

CERTIFICATE IV IN ENGINEERING (CNC PROGRAMMING)

National Course Code: MEM40105

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**Units**

Number Title

MEM18055B Dismantle, replace and assemble engineering components

MEM16007A Work with others in a manufacturing, engineering or related environment

MEM07007C Perform milling operations

MEM12003B Perform precision mechanical measurement

MEM18012B Perform installation and removal of mechanical seals

MEM18003C Use tools for precision work

MEM09023A Create 3D code files using computer aided manufacturing system

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MEM18007B Maintain and repair mechanical drives and mechanical transmission assemblies

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MEM07018C Write basic NC/CNC programs

MEM09022A Create 2D code files using computer aided manufacturing system

MEM16006A Organise and communicate information

MEM16008A Interact with computing technology

MEM14004A Plan to undertake a routine task

MEM12023A Perform engineering measurements

MEM12024A Perform computations

MEM18005B Perform fault diagnosis, installation and removal of bearings

MEM07024B Operate and monitor machine/process

MEM15002A Apply quality systems

MEM07028B Operate computer controlled machines/processes

MEM15024A Apply quality procedures

MEM13014A Apply principles of occupational health and safety in the work environment

MEM18006C Repair and fit engineering components

MEM18002B Use power tools/hand held operations

MEM07015B Set computer controlled machines/processes

MEM14005A Plan a complete activity

MEM07005C Perform general machining

MEM18004B Maintain and overhaul mechanical equipment

MEM07019C Program NC/CNC machining centre

MEM12006C Mark off/out (general engineering)

MEM05005B Carry out mechanical cutting

MEM09002B Interpret technical drawing

MEM18009B Perform levelling and alignment of machines and engineering components

MEM18008B Balance equipment

MEM09009C Create 2D drawings using computer aided design system

MEM17003A Assist in the provision of on the job training

MEM07016C Set and edit computer controlled machines/processes

MEM18001C Use hand tools

CERTIFICATE III IN SURVEYING AND SPATIAL INFORMATION SERVICES

National Course Code: CPP30216

Overview

Would you like to boost your skills for employment as a surveying assistant? TAFE NSW's Certificate III in Surveying and Spatial Information Services will teach you essential skills for work in a field support role under supervision. You will learn to produce basic maps, collect basic surveying dataa, produce basic plans of surveys, and to perform basic surveying computations. Elective units also include the provision of field support for surveying and spatial projects, the operation of surveying equipment and the visual interpretation of image data. Enjoy a role providing support to a surveying or spatial information services team, or go on to more advanced surveying courses.

**Units**

Number Title

ICTICT203 Operate application software packages

CPPSIS4022 Store and retrieve spatial data

CPCCWHS1001 Prepare to work safely in the construction industry

CPPSIS3019 Produce basic plans of surveys

BSBITU304 Produce spreadsheets

CPPSIS3020 Perform basic surveying computations

CPPSIS3021 Visually interpret image data

CPPSIS3016 Provide field support services for surveying and spatial projects

CPPSIS3015 Collect basic surveying data

RIISTD201D Read and interpret maps

CPPSIS3011 Produce basic maps

CERTIFICATE I IN ENGINEERING

National Course Code: MEM10105

Overview

Are you considering a career in engineering, but want to get a taste of the industry before diving into an intensive course? The Certificate I in Engineering will give you the knowledge and practical skills required to start your career in the engineering industry. You'll learn about communicationn, teamwork, problem-solving, initiative and enterprise, planning, organising and self-management. You'll also learn how to use industry standard hand and power tools. Successful completion of the Certificate I in Engineering enhances your employment opportunities if you are seeking an apprenticeship or traineeship in the engineering trade.

**Units**

Number Title

MEM12001B Use comparison and basic measuring devices

MEM16007A Work with others in a manufacturing, engineering or related environment

MEM07001B Perform operational maintenance of machines/equipment

MEM16008A Interact with computing technology

MEM05013C Perform manual production welding

MEM11011B Undertake manual handling

MEM14004A Plan to undertake a routine task

MEM05012C Perform routine manual metal arc welding

MEM15024A Apply quality procedures

MEM13014A Apply principles of occupational health and safety in the work environment

MEM14005A Plan a complete activity

MEM18002B Use power tools/hand held operations

MEM05004C Perform routine oxy acetylene welding

MEM05007C Perform manual heating and thermal cutting

MEM18001C Use hand tools

**BD620 - Diploma of Building Design**

BD016 Apply OHS requirements, policies and procedures in the construction industry

BD017 Research construction materials and methods for small-scale residential building design projects

BD018 Research compliance requirements for small-scale residential building design projects

BD019 Recommend sustainability solutions for small-scale building design projects

BD020 Develop concepts for small-scale building design projects and finalise solutions with clients

BD021 Produce compliant client-approved designs for small-scale building design projects

BD022 Produce compliant client-approved working drawings for small-scale residential buildings