

# MANAGEMENT & SYSTEMS



Every sector of Manufacturing needs responsible managers to guide the business processes and systems that ensure the financial success of a manufacturing company.

As you gain experience you might like to move into Management, overseeing the work of a team. Whether it is in Design, Engineering, Operations, Maintenance, Quality Assurance or even Sales and Marketing, all work tasks need to be planned, performed on time, checked and recorded.

To start, you could become a Team Leader or Supervisor, ensuring that deadlines and quality standards are being met. From there you could acquire more qualifications and move into middle or upper level Management, Training, Planning, Export, Logistics, or Human Resources and Occupational Health and Safety. There are also great opportunities to move into management in Manufacturing from other industries by bringing your existing management skills with you.

The challenges of 'just in time' production and 'lean manufacturing' encourages continuous innovation and improvement. A career progression into Management ensures that you can make a vital contribution to the success of your company.



**Nicole Burnes**

"As Development Manager for Hunter Gatherer, I'm responsible for the retail stores and also for the design and production of the Hunter Gatherer label. I look after the people that do the designing, the buying, the sample machining, pattern making..."

A lot of fashion production is now offshore, but Hunter Gatherer manufactures here in Melbourne, and we are accredited with the 'no sweatshop' label.

I enjoy the leadership side of my job, coaching people and passing on skills that I've learned to others..."

Development Manager @ Hunter Gatherer

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# MANAGEMENT & SYSTEMS OPERATIONS & PRODUCTION MANAGEMENT



Operations managers are essential to manufacturing businesses. You will plan, review and manage production activities to optimise the use of resources, determining appropriate timelines and schedules for production, ensure that materials and equipment are available when needed and minimise costs and maintain quality standards.

Working with other managers, you'll be responsible for making sure that projects are designed and completed on time and within budget. You will also advise senior management on production matters and implement management directives – and sometimes you will need to make or relay tough decisions.

As you gain experience and a high level of technical skill in your area, you can progress to Operations Management and work with teams to manage production of particular products or major components. Alternatively you can gain a technical



Robert Fielding works as office manager in the Mimili Community Office at its Pitjantjatjara Yankunytjatjara Ku Centre which provides services for Anangu people. He has completed a Certificate II in Business, was named Australian Aboriginal Torres Strait Islander Student of the Year 2005, and also won the SA Training awards Aboriginal and Torres Strait Islander Student of the Year 2005.

Robert is also a highly regarded young artist who creates works with mingkulpa (dried bush tobacco leaves), sifted sand, charcoal, ash, glass and acrylics.

**BUSINESSMAN**

qualification through study and on-the-job training to move directly into an operation or production management role.

In Operations Management, you will always be challenged to learn more. As you progress, you can add to your existing qualifications or gain new ones in the operations oriented 'Competitive Manufacturing' qualifications.

Skills covering Operations Management can be found in the Competitive Manufacturing Training Package ([see the Qualifications InfoSheet](#)).



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IT & SYSTEMS



IT and Systems are the backbone of any modern company. A busy manufacturing company or plant needs to manage the day-to-day operations of their information technology (IT) systems and ensure that they run efficiently.

In IT roles, you will determine what information is needed, and organise data flows, control systems, access and security.

You could coordinate protocols for multi-user IT networks, check system integrity, optimise performance and initiate recovery action after system failures.

You might also be responsible for managing the storage and distribution of data and coordinating system updates and replacement of old hardware.



Avin Mathew has received a prestigious 2006 Fulbright Award in Technology and Communications to undertake research at the University of Cincinnati into the design of an engineering asset management data warehouse. His research will significantly improve the decision-making processes within industry.

Avin graduated from the University of Queensland with dual degrees in Bachelor of Engineering (Software) with First Class Honours and a Bachelor of Commerce (Finance). He is currently undertaking a PhD in the School of Engineering Systems at QUT.

SYSTEMATICALLY CLEVER

If you're interested in computing and information systems, then you can put your skills to use and make sure that all your company's valuable information is available 24x7.

You might even have developed your skills in another industry, which can be ported into manufacturing.



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# MANAGEMENT & SYSTEMS SALES & MARKETING



Without a clever and enthusiastic Sales and Marketing team, even the best products will not reach their customers! Whether it's mobile phones, furniture, boats, car parts, garden ornaments or construction equipment, if you believe in the value and use a product, then you could have a great career in Sales and Marketing.

In Sales, you and your team will visit clients to assess their needs, demonstrate products and provide technical information. You will also research new trends and develop new products to cater for consumer demand. You could oversee the selling of goods B2B (Business To Business) or supply wholesale and retail outlets. An important part of your job may be to liaise with overseas clients.

In Marketing, you'll analyse market trends, conduct consumer surveys, plan advertising campaigns, develop promotional literature and work with the media through your publicity agencies.



Kevin Spiteri started his career with Broens Industries as an apprentice tool-maker. Broens actively encourage their apprentices to do further study in a related field. Kevin has also completed a Certificate in Business Management and Marketing and now works in the Marketing Department. As well as his marketing duties, Kevin has also taken on the role of training manager.

Says Kevin, "Students who have come from the floor and progressed through to uni have been almost unstoppable in this industry".

**UNSTOPPABLE**

There are also great careers in labelling, packaging, distribution, merchandising and public relations for anyone with the energy to seize opportunities when they appear.

Skills covering Sales & Marketing can be found in the Competitive Manufacturing Training Package ([see the Qualifications InfoSheet](#)).



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# IMPORT & EXPORT



Today, many companies rely on importing supplies from overseas and exporting products to markets in other countries. If you have what it takes to work in this competitive environment, a career in Import or Export could be for you.

You could be responsible for sourcing raw materials and equipment at advantageous prices from overseas suppliers, while dealing with freight companies and customs to make sure that supplies consistently arrive on time.

You may also liaise with overseas clients over product deliveries, deal with customs brokers and make freight and space bookings with airlines and shipping companies. You may also be responsible for making sure that cargo clears customs and leaves airports and wharves in plenty of time for your customer's needs.



Jan Nash's 'Pastilla' Prune and Walnut Log was an instant hit when released in 2002. Jan now exports worldwide and Dean and DeLuca of New York sold out of the product for Xmas 2005 (try it with blue cheese).

Mind Challenge is a Brisbane based company. Their first product, The Kaleidoscope Classic, is the largest selling game in India.

Neuragenix is one of Australia's fastest-growing technology companies. Their Casagenix case management software is used by many global banks to fight financial crime.

**FOOD, FUN, TECHNOLOGY**

Whether working in Import or Export, you'll also be responsible for arranging payments, preparing financial statements and reporting on operations.

It's exciting, but you will need to be highly organised and resourceful, culturally sensitive, love travelling – and work well under pressure!

Skills covering Importing & Exporting can be found in the Competitive Manufacturing Training Package ([see the Qualifications InfoSheet](#)).



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# MANAGEMENT & SYSTEMS SUPPLY CHAIN MANAGEMENT



Are you motivated by fast moving deadlines and difficult delivery demands?  
Do you like the challenge of working in a fast changing environment where every day brings fresh problems to solve?

Efficiency in business is critical to staying ahead of the competition and ultimately ensuring business survival. There are enormous costs associated with stockpiling supplies such that 'just-in-time' delivery has become a science in itself.

The Management of the Supply Chain is a vital role in any company, particularly if it's rapidly expanding into new markets. No matter what the obstacles, it will be your responsibility to make sure supplies arrive on time for production and products are delivered your clients – exactly when they are needed!



Australian manufacturing operates in a global market, and more and more manufacturers are implementing the latest in supply chain and digital commerce and communications technologies.

E.g. Radio Frequency Identification (RFID) tags are essentially an advanced form of barcodes. Whilst barcodes only identify the product, RFID tags can tell what the product is, where it has been, when it expires, and any other information programmed into it.

WITHOUT A TRACE

You will need to develop excellent relationships with clients, analyse the dynamics of the supply chain and work constantly to find ways to improve it.

Skills covering Supply Chain Management can be found in the Competitive Manufacturing Training Package ([see the Qualifications InfoSheet](#)).



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# LOGISTICS



Companies need smart, energetic people to manage the Logistics of the Warehousing and Distribution of both their supplies and their products. This career is challenging, but offers great satisfaction to people who are focussed on attention to detail and are naturally highly organised.

You will co-ordinate deliveries to clients, keeping continuous contact with freight companies and production teams, aiming to maximise efficiency and exceed client's expectations.

You could be responsible for inventory and replenishment planning or managing the buying of stock from local suppliers. You might also supervise the warehouse distribution team and negotiate with transport companies and product suppliers to ensure all aspects of the warehouse operate cost effectively.



Big distances require a big goods transport and storage systems, and efficient logistical systems to drive them.

Australia covers 7.5 million square kilometres with a coastline of almost 70,000 kilometres. We have over 800,000 kilometres of roads, and our freight trains cover 66 million kilometres a year.

Transport and storage in Australia comprises over 35,000 businesses, includes 2.3 million commercial road vehicles, and moves 1,500 million tonnes of freight a year.

**BIG COUNTRY**

You will need to be a good communicator and be comfortable juggling multiple (and sometimes conflicting) requirements.

Skills covering Logistics can be found in the Competitive Manufacturing Training Package ([see the Qualifications InfoSheet](#)).

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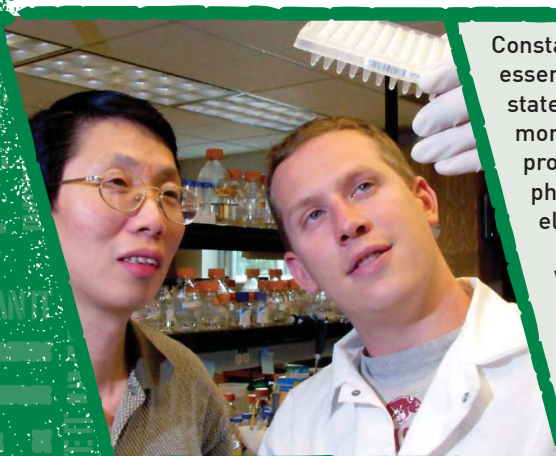
# QUALITY



There is increasing emphasis on Quality in modern manufacturing businesses as the financial costs of recalling defective products (and their impact on reputations) can be crippling. There is also increasing regulation of standards relating to environmental and health hazards and to the safe use of materials and equipment.

Quality Assurance and Control Managers examine manufactured products and ensure they meet specifications and standards of presentation and quality. You will decide whether a product can go to market...

You would study product specifications and then sample products to determine whether they meet quality standards. You will carry out routine testing to make sure that safety and health standards are met and analyse quality assurance data and make recommendations for improvement.



Constant improvement in quality standards is essential in manufacturing today. Cognex supply state of the art vision and sensor systems to monitor and improve production. They have provided over 300,000 vision systems to food, pharmaceutical, packaging, automotive and electronics manufacturers worldwide.

Vision systems can identify parts, check for defects or missing components, and gauge dimensions. Information can then be sent to other equipment in the production line to automatically reject a single part or to control assembly and robotic systems.

VISION

It will also be your job to research, analyse and recommend ways of improving quality and to check the handling, processing and storage of raw materials.

Skills covering Quality can be found in the Competitive Manufacturing Training Package ([see the Qualifications InfoSheet](#)).

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# MANAGEMENT & SYSTEMS HUMAN RESOURCES & OCCUPATIONAL HEALTH & SAFETY



The 'human resources' of an organisation are its people. HR Managers provide employment and personnel administration services. You will be responsible for staffing matters including recruitment, training, wages and entitlements.

Manufacturing can be physically demanding, even dangerous, if correct procedures are not followed. Occupational Health and Safety Managers make sure that health and safety requirements are met in all areas of a company. They also educate staff in health and safety procedures and look for ways to improve procedures.

Both Human Resources Managers and Occupational Health and Safety Managers will work closely with Line Managers, Team Leaders and Senior Management. There are also opportunities to take on a training role within a company, implementing and running training and development programs.



BHP Billiton has 37,000 employees, Boral over 15,000, Goodman Fielder 7,000 and Ford Australia 5,000. What they have in common is strong Human Resources departments.

And like all modern, successful companies they actively pursue OH&S improvement; e.g. BHP Billiton's 'Zero Harm' programme aiming to create a totally injury free workplace.

Big or small, organisations most important asset is their people, working safely and effectively.

**PEOPLE SKILLS**

HR and OH&S are 'people-oriented' jobs and the skills learned are easily transferable from (and to) other industries.

Skills covering HR & OH&S can be found in the Competitive Manufacturing Training Package ([see the Qualifications InfoSheet](#)).

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