Title	**Manage the production of electronic products within a manufacturing cell**		
Level	**4**	**Credits**	**30**

Purpose	This unit standard covers management of the production processes for the manufacture of electronic products within a manufacturing cell, and is intended for supervisors in an electronic manufacturing environment. People credited with this unit standard are able to: –interpret a master production schedule; –prepare a production schedule for a manufacturing cell; and –control production of electronic products within a manufacturing cell.

Classification	Electronic Engineering > Electronic Manufacturing

Available grade	Achieved

Guidance Information

1 Definitions
electronic products – what the enterprise manufactures. These could be complete products intended for end users; or sub assemblies, printed circuit boards, or components, for use in other manufacturing processes.
manufacturing cell – an independently controlled area of production (cell) within a larger electronic manufacturing facility.

2 Candidates are expected to have capability with the following:
a concepts of production planning in a batch production environment;
b where required, the operation of production planning software packages.

3 Range
a electronic products – one or more electronic products;
b production planning method – either manual or software based;
c production batch sizes – typically between 10 and 100 in quantity.

4 References
Health and Safety in Employment Act 1992;
Hazardous Substances and New Organisms Act 1996.

5 The following apply to all outcomes of this unit standard:
- a all activities are to be completed and reported within agreed timeframes;
- b all work practices must meet worksite's documented quality management requirements;
- c all activities must comply with policies, procedures and requirements of the enterprises involved; and any relevant legislative and/or regulatory requirements, which include, but are not limited to, the Health and Safety in Employment Act 1992 and the Hazardous Substances and New Organisms Act 1996.

Outcomes and performance criteria

Outcome 1

Interpret a master production schedule.

Performance criteria

1.1 The interpretation process provides retrieval of all information necessary to prepare a production schedule for a manufacturing cell.

1.2 The interpretation identifies all constraints that apply to the production schedule.

Range constraints may include but are not limited to – delivery timescale, batch sizes, availability of production resources, staff, work in progress, materials, components.

Outcome 2

Prepare a production schedule for a manufacturing cell.

Performance criteria

2.1 The production schedule preparation process demonstrates application of all master schedule information for the given scheduling requirement.

2.2 The production schedule output provides alternatives that accommodate conflicting constraints.

Range constraints may include but are not limited to – delivery timescale, batch sizes, availability of production resources, staff, work in progress, materials, components.

2.3 Negotiation over adjustment of master and production schedules resolves conflicting constraints.

Range constraints may include but are not limited to – delivery timescale, batch sizes, availability of production resources, staff, work in progress, materials, components.

2.4 The production schedule conforms to the milestones and constraints of the master schedule.

Outcome 3

Control production of electronic products within a manufacturing cell.

Performance criteria

3.1 The management of the production schedule enables the schedule milestones to be met.

Range management may include but is not limited to – changeover of product batches, managing the product, staff and equipment resources, monitoring product quality, resolving problems.

3.2 The staff of the manufacturing cell are made aware of the production schedule milestones and constraints for the given product batch.

3.3 Necessary operational adjustments to production schedule have minimal effect on master schedule.

3.4 Procedures for dealing with problems that affect the production schedule milestones are known.

Range problems include equipment breakdown, staff absence, product quality issues, accidents and emergencies.
Evidence is required for three problems.

3.5 Production records comply with enterprise quality procedures.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	24 February 1998	31 December 2021
Review	2	28 June 1999	31 December 2021
Review	3	23 November 2003	31 December 2021
Rollover and Revision	4	19 March 2010	31 December 2021
Review	5	26 July 2018	31 December 2021

Consent and Moderation Requirements (CMR) reference	0003

This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.