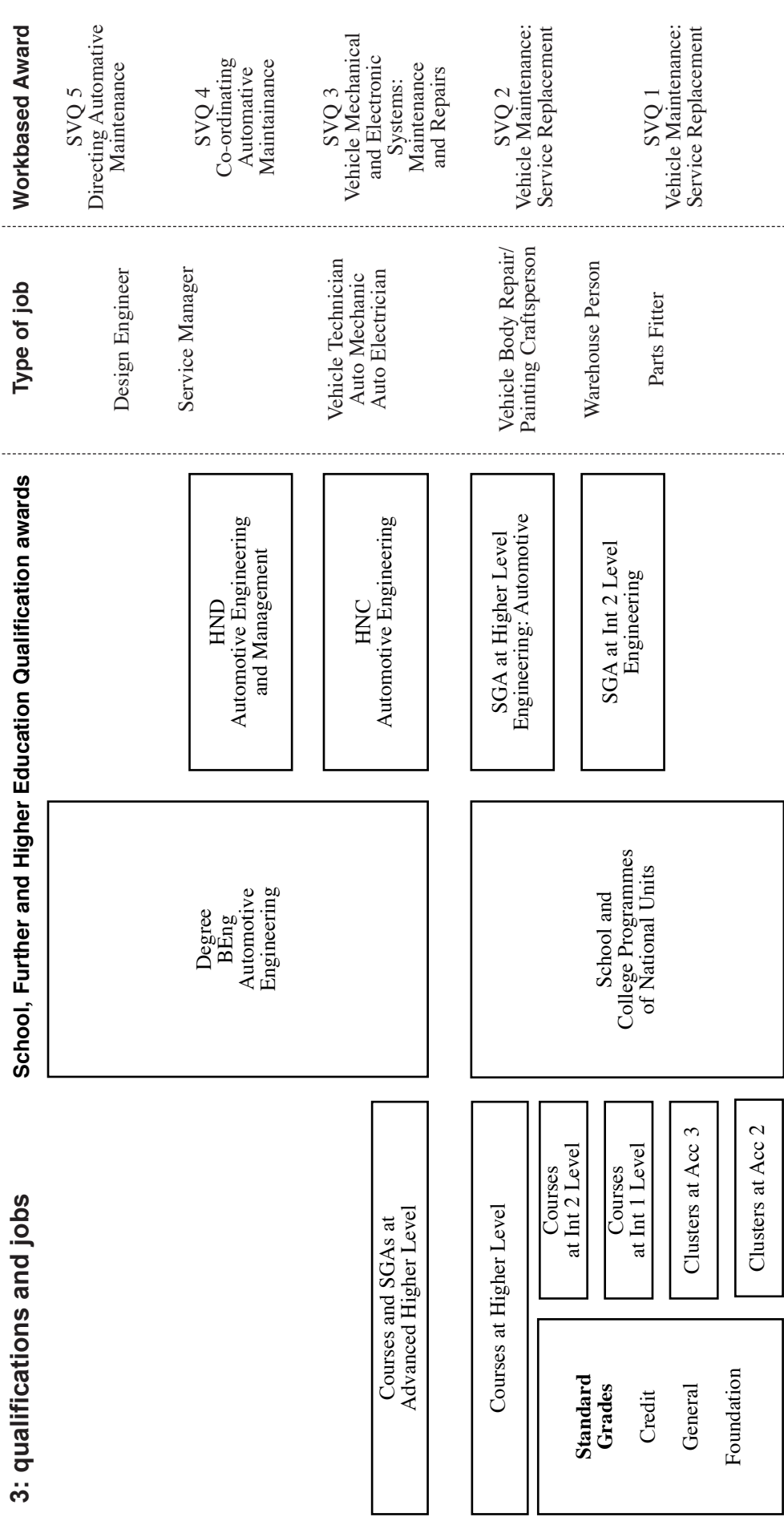


Automotive Engineering

3: qualifications and jobs



This diagram outlines the main qualifications in the Automotive Engineering area. A full list of all SQA qualifications is on the following pages. People can progress vertically from one qualification to another, eg from a Course at Int 1 to a Course at Int 2. In addition people can progress diagonally from one level of Standard Grade to a higher level of Course or Scottish Group Award (SGA), eg from Standard Grade at General level to Courses or SGAs at Int 2 level.

In this diagram, SVQs and PDAs in the Vocational sector are placed according to current practice and usage in illustrating the relationships and pathways between qualifications, jobs and careers.

Automotive Engineering

4. qualifications

HND

Automotive Engineering
Automotive Engineering and Management

HNC

Automotive Engineering
Automotive Management

PDA

Certificate

Motor Vehicle Systems
Motor Vehicle Systems Diagnostics
Motor Vehicle Repair and Body Refinishing

SGA

Higher

Engineering: Automotive Engineering

Int 2

Engineering

National Course

Higher

Automotive Diagnostics

Intermediate 2

Automotive Engineering

NC Group Award

Motor Vehicle Repair and Body Re-finishing
Motor Vehicle Systems

SVQ 5

Directing Automotive Maintenance

SVQ 4

Co-ordinating Automotive Maintenance

SVQ 3

Maintaining Automotive Vehicles: Electrical/Electronic
Maintaining Automotive Vehicles: Mechanical
Motorcycle Mechanical and Electronic Systems: Maintenance and Repair
Vehicle Body Re-finishing
Vehicle Body Repair
Vehicle Mechanical and Electronic Systems: Maintenance and Repair: Heavy Vehicle
Vehicle Mechanical and Electronic Systems: Maintenance and Repair: Light Vehicle

SVQ 2

Maintaining Automotive Vehicles
Maintaining Automotive Vehicles: Body Structures and Cladding
Vehicle Body Fitting
Vehicle Maintenance: Service Replacement
Vehicle Mechanical and Electronic System Unit Replacement: Light Vehicle

SVQ 1

Maintaining Automotive Vehicles
Vehicle Maintenance: Service Replacement

Automotive Engineering

5. notes on entry to jobs and careers

Entry routes

- ♦ **School leavers** — could enter FE courses at National Certificate or Higher National Certificate depending on school qualifications.
- ♦ **Direct entry into employment** — it is possible to obtain employment before or after FE courses.
- ♦ **Adult entry** — mature entrants would normally enter a National Certificate programme; a bridging course may be necessary depending on qualifications and experience.

SVQ access

SVQs are normally workbased and obtained after or during FE courses.

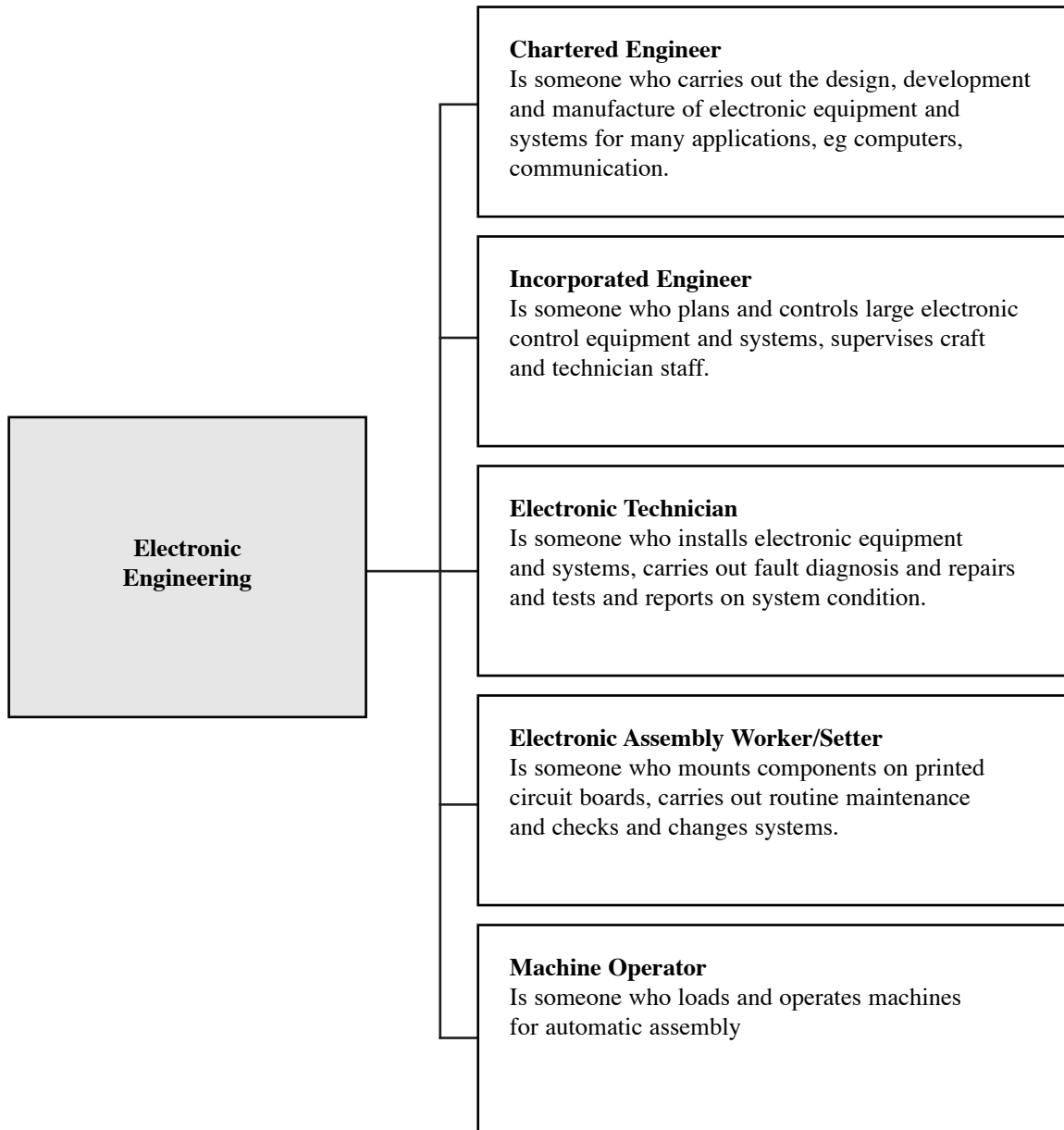
Entry requirements

- ♦ For some jobs listed no formal qualifications will be required.
- ♦ Entry to an SGA ranges from no formal qualifications to two Standard Grades. Science and Technology subjects are important.
- ♦ HNCs/HNDs will normally require an appropriate SGA or one or two Highers, plus 3 to four Standard Grades, including English and Maths.
- ♦ Degree courses will usually require three or four Highers including Maths and Physics or Technological Studies plus appropriate Standard Grades; or appropriate HNC/HND.

Note — entry requirements vary between institutions. Check prospectuses before applying.

Electronic Engineering

2. jobs and careers



Electronic Engineering

3: qualifications and jobs

School, Further and Higher Education Qualification awards		Type of job	Workbased Award
<div> <div>Courses and SGAs at Advanced Higher Level</div> <div> <div>Courses at Higher Level</div> <div> <div>Standard Grades</div> <div>Credit</div> <div>General</div> <div>Foundation</div> </div> </div> </div>	<div> Degree BEng/BSc Electronic Engineering B Eng Electronic Engineering with Management </div>	Chartered Engineer	
	<div> HND Electronic and Electrical Engineering HNC Electrical Engineering Electronic and Electrical Engineering SGAs at Higher Level Engineering: Electronics SGA at Int 2 Level Engineering SGAs at Int 1 Level Skillstart and SGAs at Acc 2 & Acc 3 </div>	Incorporated Engineer	
		Electronic Technician	SVQ 3 Servicing Electronic Systems
		Electronic Assembly Worker/Setter	SVQ 2 Servicing Electronic Systems
		Machine Operator	SVQ 1 Electronic Product Assembly

This diagram outlines the main qualifications in the Electronic Engineering area. A full list of all SQA qualifications is on the following pages. People can progress vertically from one qualification to another, eg from a Course at Int 1 to a Course at Int 2. In addition people can progress diagonally from one level of Standard Grade to a higher level of Course or Scottish Group Award (SGA), eg from Standard Grade at General level to Courses or SGAs at Int 2 level.

In this diagram, SVQs and PDAs in the Vocational sector are placed according to current practice and usage in illustrating the relationships and pathways between qualifications, jobs and careers.

Electronic Engineering

4. qualifications

HND

Audio Engineering
Electronic and Electrical Engineering
Electronic and Electrical Systems
Electronic Engineering
Electronic Systems
Electronics with Music Technology
Engineering: Computer Technology
Engineering: Electronics
Engineering: Electronic Manufacture
Engineering: Telecommunications

HNC

Audio Engineering
Electronic and Electrical Engineering
Electronics
Engineering: Electronics
Engineering: Electronic Manufacture
Engineering: Practice
Engineering: Telecommunications
Television and Audio Visual Media Engineering

PDA

Adv Certificate

Engineering Practice: Electromechanical

SGA

Higher

Engineering: Electronics

Int 2

Engineering

GSVQ III

Engineering: Electronic and Electrical
Engineering: Practice
Technology

GSVQ II

Engineering
Technology

National Course

Adv Higher

Electronics

Higher

Electronics
Process Control
Process Measurement
Telecommunications

Int 2

Electronic and Electrical Fundamentals

Int 1

Applied Practical Electronics

NC Group Award

Electronic Engineering
Electronic Engineering Practice

SVQ 3

Operating and Maintaining the Performance of Telecommunications Equipment
Repair Cellular Terminal Equipment
Servicing Electronic Systems (Field)
Servicing Electronic Systems (Workshop)
Servicing Software (Support Centre) or (Field)

SVQ 2

Electronic Product Assembly and Rectification
Installing and Maintaining Aerial Equipment and Associated Feeders
Performing Engineering Operations
Printed Circuit Board Assembly and Repair
Servicing Electronic Systems (Field)
Servicing Electronic Systems (Workshop)
Servicing Software (Support Centre)

SVQ 1

Electronic Product Assembly
Installing Fibre Optic Communications Links
Printed Circuit Board Assembly
Surface Mount Technology and Automatic Assembly and Repair

Electronic Engineering

5. notes on entry to jobs and careers

Entry routes

- ♦ **School leavers** — could enter FE courses at NC, HNC, HND level or HE courses at degree level depending on school qualifications.
- ♦ **Direct entry into employment** — is possible before or after FE or HE courses.
- ♦ **Adult entry** — mature entrants would normally enter a National Certificate programme; a bridging course may be necessary depending on qualifications and experience.

SVQ access

SVQs are normally workbased and obtained after or during FE or HE courses.

The Professional Qualifications of Technician, Incorporated Engineer and Chartered Engineer are awarded by the Engineering Council. In addition to appropriate academic qualifications candidates must have work experience and undertake further work-based training and awards. They must also hold an appropriate post of responsibility.

Entry requirements

- ♦ Some jobs require no formal qualifications
- ♦ Entry to an SGA ranges from no formal qualifications to three or four Standard Grades. Useful subjects include English, Maths, Physics, Technological Studies, Craft and Design, Computing
- ♦ HNCs/HNDs require an appropriate SGA or two Highers and three Standard Grades including Maths, Physics or Technological Studies
- ♦ Degree courses will usually require three or four Highers including Maths and Physics or Technological Studies and Standard Grades; or appropriate HNC/HND.

Note — entry requirements vary between institutions. Check prospectuses before applying.

Electrical Engineering

2. jobs and careers

