Electrotechnology Curriculum Framework

Teaching programs

An Integrated Approach to Programming – Using Projects or Events

An integrated programming approach:
- provides practical training
- produces end products
- encourages students to work to schedule
- encourages students to work with others.

The following suggestions may provide some ideas for projects and events:
- simulations, such as workplace emergencies
- role-plays to simulate meetings and interaction with co-workers
- research projects on the industry, such as industrial relations, workplace illness and injury issues
- design posters and signs for display to encourage a safe workplace
- portfolio of work placement documents and student experience
- participation in school, regional, state and national WorldSkills competitions
- class projects for the community
- school-based projects to meet particular needs of the school.

Three important principles for teachers to remember when devising projects:
- stay within your 'skill level'
- don't attempt anything unless you are sure it will be successful
- incorporate student interests wherever possible.

Projects, experiences and events allow for the concurrent development and assessment of a number of units and elements of competency. They may be used for the full delivery of a particular unit of competency or to supplement other learning and assessment activities.

The following steps provide a guide to planning and organising an integrated teaching program.

Step 1

Based on knowledge of the course intended for delivery, the interests and experience of students and the available resources, devise a project or event that relates to a number of competencies.

Step 2

Use Part B of the Syllabus to map components/activities/products of the project to particular units/elements ensuring that there is opportunity for students to develop competency and demonstrate the performance criteria for each element included. Where necessary, modify the project specifications to address elements or performance criteria.

Step 3

Using the information from step 2, list the elements of competency and identify appropriate assessment strategies. Plan to use a range of assessment instruments over time to validate the evidence collected. Also try to use each assessment opportunity to assess and record evidence of competence for a number of elements. In this way 'overassessment' can be minimised.

Step 4

Draw up a programming sheet to summarise the information. Learning outcomes for components of the project may be defined or included in a separate schedule.

An Integrated Approach to Programming – Using a Theme

An integrated approach to programming using a theme or other focus can provide a holistic approach to teaching and assessing a number of units of competency.

Units that relate to a particular aspect of the electrotechnology industry could be grouped together, for example:

- communication in the workplace
- tools and equipment
- components, accessories and materials
- working in the industry
- workplace health and safety
- routine work activities.

Programs could be developed using a theme related to the electrotechnology industry, such as:

- sustainable work practices
- solve problems with circuits
- providing quality service
- working with electricity

Programming Individual Units of Competency

When programming individual units of competency:

- ensure that all elements of competency are addressed
- ensure that HSC requirements are addressed
- stress links with other units
- as far as possible, adopt an integrated assessment approach.