LEARNING OUTCOMES

17.2 Health Effects of Hazardous Chemicals

	Cognitive level	What the graduate should be able to do	Context	Level
Operational activities that a new graduate generalist OHS professional would be expected to undertake related to the topic	5	**17.2-1** Facilitate development and implementation of control strategies for the health effects of hazardous chemicals.	For a nominated situation or workplace. Within a small organisation or section of a larger organisation. With support/input by experienced professionals and /or technical specialists.	In liaison with managers, supervisors, technical personnel and worker representatives. Taking account of relevant legislation and standards.
	5	**17.2 2** Contribute to the development and maintenance of safe systems of work relating to the health effects hazardous chemicals.	For a nominated situation or workplace. For a nominated scenario. Within a small organisation or section of a larger organisation. With support/input by experienced professionals and /or technical specialists.	System of work includes routine and non-routine operations.
Well-developed / advanced cognitive and technical skills to analyse, critically evaluate and transform information to complete activities related to the topic	6	**17.2-3** Apply knowledge of the principles of toxicology to assess/evaluate the health risk associated with a hazardous chemical.	For a nominated situation or workplace. For a nominated scenario/chemical. Within a small organisation or section of a larger organisation. With support/input by experienced professionals and /or technical specialists as appropriate.	Principles of toxicology include dose-response relationship, LD_{50} values, acute/chronic toxicity, absorption, distribution, excretion, biotransformation and the potential effect on DNA and gene expression. In consultation with appropriate workplace personnel. With sign off by a technical specialist as appropriate. Documented in a report to management.
	6	**17.2-4** Apply knowledge of the principles of toxicology to facilitate the development and implementation of processes to monitor and evaluate strategies to control the health risks of hazardous chemicals.	For a nominated situation or workplace. For a nominated scenario/chemical. Within a small organisation or section of a larger organisation.	Principles of toxicology include dose-response relationship, LD_{50} values, acute/chronic toxicity, absorption, distribution, excretion and biotransformation and the potential effect on DNA and gene expression.

LEARNING OUTCOMES

	Cognitive level	What the graduate should be able to do	Context	Level
			With support/input by experienced professionals and /or technical specialists as appropriate.	Documented in a report to management. With sign off by a technical specialist as appropriate.
Analyse and generate solutions to complex problems related to the topic	3	**17.2-5** Identify when specialist advice is required and define the scope of work to engage services of appropriate specialists.	For a nominated situation or workplace. For a nominated scenario/chemical. Within a small organisation or section of a larger organisation.	Documented in a report to management.
	3	**17.2-6** Engage with relevant personnel to implement strategies to control the health effects of hazardous chemicals.	For a nominated situation or workplace. For a nominated scenario/chemical. Within a small organisation or section of a larger organisation.	Relevant personnel including managers, supervisors, job planners and worker representatives.
Transmit knowledge, skills and ideas to others	3	**17.2-7** Interpret information to explain the health effects of hazardous chemicals, the way by which they may cause harm and rationale for control strategies.	Information may include specialist reports or input by specialist advisors.	Communication strategies and language appropriate to the audience.
	3	**17.2-8** Explain the work, health and safety procedures relating to managing the health effects of hazardous chemicals in the workplace.	In procedures, training and other awareness material.	To staff and contractors. Communication strategies and language appropriate to the audience.
Demonstrate the required underpinning science and/or psychology knowledge		Underpinning science: as it relates to the behavior of chemicals and the physiological and biological effects of chemicals on the human body. The Human: 7 The Human as Biological System as related to the effect of chemicals on the body.		
Integration of knowledge from other chapters		12.1 Systems; and Systems thinking 17.1 Managing Hazardous Chemicals; 17.3 Dusts, Fumes and Fibres 33 Models of Causation: Health 34.1 Prevention and Intervention		