1-1-2012

Comparison of OHS course accreditation procedures in Australia

Sue Reed
Edith Cowan University, s.reed@uws.edu.au

Jane Whitelaw
University of Wollongong, jwhitela@uow.edu.au

Comparison of OHS course accreditation procedures in Australia

Abstract

As OHS professional bodies have moved or are moving towards professional certification of their members, the need for accredited programs of study has developed. This move has been prompted by the requirement of the certification boards for the applicant to demonstrate that they have the minimum knowledge required to work at a professional level. The AIOH has had a course accreditation procedure for over 20 years as discussed by Whitelaw and Reed (2011) which has been well recognised by the profession, but until 2009 only one course had been accredited. In the last two years the AIOH has revised its procedure and now requires any university applying for course accreditation to map their program against the learning outcomes as defined by the AIOH as well as the being at a minimum of a Graduate Diploma (AIOH, 2011) which is equivalent to the Australian Qualifications Level (AQF) level 8. In 2011 a new course accreditation board was set-up to look at courses that are promoted to educate OHS professionals that are not considered specialists and are core OHS Generalists. The new board called the Australian Occupational Health and Safety Education Accreditation Board (AOHSEAB) is set-up under the SIA but has members from all OHS professional groups in Australia in addition to academics, OHS representatives from government, employer and employee groups. Programs being accredited under this scheme have to be mapped against the OHS BoK and need to meet the respective AQF level of 7 or above depending on the qualification. This paper compares the two schemes in respect to both the procedure that is undertaken, and the knowledge required to meet course accreditation requirements.

Keywords

procedures, australia, accreditation, ohs, comparison, course

Disciplines

Arts and Humanities | Social and Behavioral Sciences

Publication Details

Reed, S. & Whitelaw, J. 2012, 'Comparison of OHS course accreditation procedures in Australia', 30th Annual Conference and Exhibition: Meeting Global Challenges, 2012 Conference Proceedings, AIOH, Australia, pp. 102-107.

AUSTRALIAN INSTITUTE OF OCCUPATIONAL HYGIENISTS INC

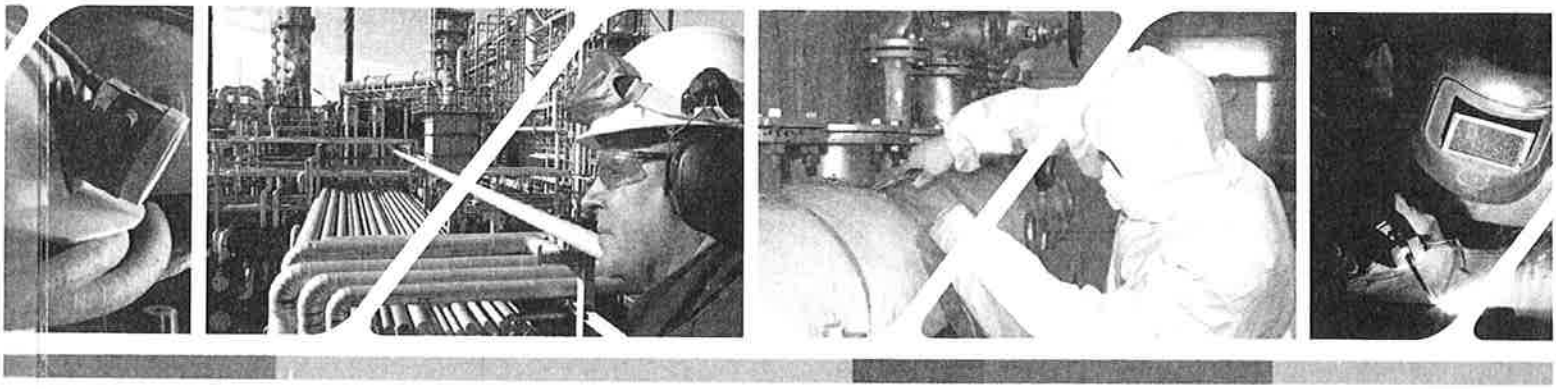
ADELAIDE CONVENTION CENTRE | SOUTH AUSTRALIA
SATURDAY 1st - WEDNESDAY 5th DECEMBER 2012

WWW.AIOH.ORG.AU

AIOH ADELAIDE 2012
MEETING GLOBAL CHALLENGES

30th ANNUAL CONFERENCE & EXHIBITION

MEETING GLOBAL CHALLENGES



2012 CONFERENCE PROCEEDINGS

AIOH

COMPARISON OF OHS COURSE ACCREDITATION PROCEDURES IN AUSTRALIA

Sue Reed[1] and *Jane Whitelaw*[2]
[1.] Edith Cowan University; [2.]University of Wollongong

KEYWORDS

academic program evaluation, accreditation of occupational hygiene programs, core competency assessment, curriculum evaluation, occupational hygiene learning outcomes.

ABSTRACT

As OHS professional bodies have moved or are moving towards professional certification of their members, the need for accredited programs of study has developed. This move has been prompted by the requirement of the certification boards for the applicant to demonstrate that they have the minimum knowledge required to work at a professional level.

The AIOH has had a course accreditation procedure for over 20 years as discussed by Whitelaw and Reed (2011) which has been well recognised by the profession, but until 2009 only one course had been accredited. In the last two years the AIOH has revised its procedure and now requires any university applying for course accreditation to map their program against the learning outcomes as defined by the AIOH as well as the being at a minimum of a Graduate Diploma (AIOH, 2011) which is equivalent to the Australian Qualifications Level (AQF) level 8.

In 2011 a new course accreditation board was set-up to look at courses that are promoted to educate OHS professionals that are not considered specialists and are core OHS Generalists. The new board called the Australian Occupational Health and Safety Education Accreditation Board (AOHSEAB) is set-up under the SIA but has members from all OHS professional groups in Australia in addition to academics, OHS representatives from government, employer and employee groups. Programs being accredited under this scheme have to be mapped against the OHS BoK and need to meet the respective AQF level of 7 or above depending on the qualification.

This paper compares the two schemes in respect to both the procedure that is undertaken, and the knowledge required to meet course accreditation requirements.

INTRODUCTION

In recent years as the professional bodies have or are developing processes for certifying professionals in their respective areas the need for accredited courses has increased. This is because the processional bodies have or are specifying the knowledge base that the respective professional needs. The successful completion of an accredited course means that applicants for professional certification don't need to then prove their knowledge base.

The need for improved education of Occupational Health and Safety (OHS) professionals in Australia and related specialists such as occupational hygienists has been highlighted previously by a number of researchers (Olson et al, 2005; Borys et al 2006; Toft et al, 2010; Whitelaw and Reed, 2011). The benefits of occupational hygienists being appropriately trained has been highlighted by Vadali et al (2012) in their studies that showed that with appropriate training occupational hygienists are able to better estimate exposures and therefore potential health risks.

The need for people who have completed accredited courses will grow over the next few years as need for certified OHS professionals grows and the new education requirements for certification become implemented. In occupational hygiene this has been observed as the Australian Institute of Occupational Hygienists (AIOH) membership has more than doubled over the last two years and many contracts now require that a certified occupational hygienist is part of the team employed to do occupational hygiene related activities.

An interesting trend has been identified in the United States of America (USA) where there has been a decline in the types and depth of material covered in courses (Ellenbecker, 2012) as the National Institute for Occupational Safety and Health (NIOSH) has reduced the amount of funding for courses. This decline will hopefully not be seen in Australia because of the new course accreditation requirements but it is an issue that the OHS professions will need to keep under review as economic pressures are placed on courses. The benefits of using trained occupational hygienists as part of a team was also identified by Tyers et al (2012) as a major contributor towards the implementation of good workplace health practices at the 2012 London Olympics.

HISTORY OF OHS COURSE ACCREDITATION IN AUSTRALIA

The accreditation of university academic programs in both occupational hygiene and OHS started over 20 years ago in Australia. The occupational hygiene programs had to cover criteria as developed by the AIOH education committee (Whitelaw and Reed, 2011) whereas the OHS course accreditation was more informal but was undertaken by the Safety Institute of Australia (SIA). Because of the lack of a formal accreditation process in Australia for OHS courses, a number of universities had their programs accredited by Institute of Occupational Safety and Health (IOSH) based in the United Kingdom, and one or two had their programs accredited by the American Society of Safety Engineers (ASSE).

To meet the needs of accreditation of OHS courses which were developed to educate professionals in the broad field of OHS, a new accreditation board was formed in 2011 called the Australian Occupational Health and Safety Education Accreditation Board (AOHSEAB) under the auspices of the SIA.

COMPARISON OF THE AIOH VERSUS THE AOHSEAB COURSE ACCREDITATION PROCEDURE

Table 1 presents a comparison of the AOHSEAB accreditation process approved by the AOHSEAB early in 2012, with the AIOH procedure which was approved by the AIOH council early in 2011. As can be seen from Table 1 the major areas of difference between the two procedures are:

- Minimum levels of qualification: The AOHSEAB allows for degree courses to be accredited as long as 50% of the program relates to the Body of Knowledge (BoK) whereas the AIOH process does not accredit below a Graduate Diploma level.
- Fee for accreditation: AIOH currently does not charge for accrediting courses except that the institution being assessed for accreditation must fund the cost of the assessment panel visiting the institution. The AOHSEAB is charging a fee for accreditation (currently $7000/course) and if a visit is required then the institution will also need to pay the cost of a member of the panel visiting the institution.
- Assessment of the Accreditation Application: For AIOH accreditation the assessment is undertaken by all members of the education committee, unless they have a conflict of interest, whereas the assessment for AOHSEAB accreditation is undertaken by a 3 member panel on 1 day where they all

meet together to both discuss the application and to undertake telephone interviews with the Head of School, Head of Program, selected teaching staff including sessional teachers, and several current students.

Table 1: Comparison of the AIOH Courses Accreditation Procedure with the AOHSEAB Course Accreditation Procedure

Parameter	AIOH Course Accreditation Procedure	AOHSEAB Course Accreditation Procedure
Level of Qualifications	Graduate Diploma and Masters programs Minimum of AQF level 8	Bachelors Degree, Graduate Diploma and Masters programs which have a minimum of 50% of the program or 1 year (whichever is greater) related to the BoK. Minimum of AQF level 7
Course Accreditation fee	Nil	$7000/program (additional $3000 for imbedded courses)
Details of Applying Institution	Required	Required
Details of Contact person	Required. The course coordinator must be Certified Occupational Hygienist (COH)	Required. The course coordinator should be a OHS professional
Details of Program/Course	Required	Required
Date/Proposed date of first delivery of the course:	Required	Required
Mode of delivery:	Required	Required
Length of course (in months):	Required	Needs to be defined to ensure it meets AQF requirements
Minimum entry requirements:	Need to be specified	Need to be specified
Course curriculum:	Needs to be shown	Needs to be shown including any imbedded courses
Unit Outlines for all units presented in the study of program, including reading list and details of assessments.	Required in a format that shows the teaching processes	Required in a format that shows the teaching processes
Teaching and learning activities associated with the course	The applying institution needs to clearly define the teaching and learning activities that are undertaken in relation to both on-campus and off-campus activities and how the learning from these activities are assessed when mapped against the AIOH Learning Outcomes	The applying institution needs to clearly define the teaching and learning activities that are undertaken in relation to both on-campus and off-campus activities and how the learning from these activities are assessed when mapped against the BoKs.
Teaching Resources	Specific in relation to library and laboratory resources	Main area required in the adequacy of resourcing the teaching staff including sessional staff.
Course assessment	Needs to be described in detail including marking criteria to enable adequacy	Needs how the BoK is met
Teaching staff:	CV's for all staff who teach on the program	CV's for all staff who teach on the program
Proposed Student numbers:	Should be indicated	Should be indicated
Describe the students' facilities and support services provided:	Needs to describe the facilities available which may also be inspected when the panel visit	Needs to describe the facilities available
Details of the institutional quality assurance system and procedures that have been implemented to ensure that the administration and delivery of the course is up to the standard by AQF.	Needs to be defined	Assumed not an issue if the institution meets TEQSA requirements
Graduate Learning Outcomes	Yes	At the time of writing this paper they are only in draft form but should be based on the information provided in the BoK.
Assessment of Application	All members of the education committee unless conflict of interest	3 panel members, 1 academic, 1 professional and 3rd is either.

COMPARISON OF THE AIOH VERSUS THE AOHSEAB CONTENT REQUIREMENTS

It is when comparing the course content that must be covered that the two accreditation processes have major differences. These differences are expected as the courses being accredited are targeted at educating different types of OHS professionals. Both accreditation processes are based on the learning outcomes of the course and this allows universities to develop their programs to meet the required learning outcomes using the strengths of the academic staff employed.

When AIOH started the review of their accreditation process in 2010 a workshop was held that brought together members of the AIOH education committee, membership committee and council to determine what are the learning outcomes (or competencies) that a graduate occupational hygienist is expected to have. These were further developed by the AIOH education committee before being circulated for comment, to the Universities delivering accredited courses following a comment period, the revised procedure was approved by the AIOH council in the middle of 2011.

The development of the material required in courses accredited by the AOHSEAB took a different process. Initially it was developed as part of a project undertaken by the SIA on behalf of the Health and Safety Professionals Alliance (HaSPA). The BoK was developed as a project funded by the Worksafe Victoria to determine what an OHS professional needs to know. A workshop was initially held in 2010 consisting of both OHS academics, OHS professionals and government personal to determine what are the major areas that need to be covered and what the BoK may look like. The BoK was then written by a number of OHS professionals throughout Australia and then appropriately reviewed. Before the BoK was released in April 2012 it became apparent that for universities to map their course content to this material, the learning outcomes relating to the BoK needed to be developed, and this is currently in draft format.

There are 6 major learning out outcomes covered in the AIOH course accreditation with more detail in sub learning outcomes. It should be noted that the majority of the outcomes need to be aimed at Recognition, Evaluation, Assessment and Control of Hazards. The AIOH major learning outcomes (AIOH, 2011) are:

- *Learning Outcome 1: General Sciences* - Graduates should appreciate, understand and apply, where appropriate, basic principles of physics, chemistry and human physiology as they relate to the discipline of occupational hygiene. This learning outcome may be achieved by a combination of undergraduate and postgraduate study. (4 Learning Outcomes)
- *Learning Outcome 2: Recognition* - Graduates should be able to identify, describe and prioritise chemical physical and biological hazards in the workplace. (9 Learning Outcomes)
- *Learning Outcome 3: Evaluation and Assessment* - Graduates should be able to undertake exposure assessments, interpret the results, analyse and record the risk, using standard techniques. (12 Learning Outcomes)
- *Learning Outcome 4: Control of Hazards* - Graduates should be able to select appropriate methods to either eliminate or control identified hazards. (8 Learning Outcomes)
- *Learning Outcome 5: Management* - Graduates should be able to contextualise, apply and appraise management practices in industry, commerce and public bodies particularly as it applies to occupational hygiene. (4 Learning Outcomes)
- *Learning Outcome 6: Communication* - Graduates should be able to effectively communicate (written and verbal) information such as technical data, clearly and concisely at a level appropriate to the

intended audience, as well as being able to organise arguments and discussion in a logical sequence. (3 Learning Outcomes)

Because OHS for the generalist is broader in its context, the content (concepts) required are also broader (AOHSEAB, 2012). The areas that need to be covered include:

- *Concept 1:* Socio-political context including OHS law in Australia and industrial, technological and business imperatives;
- *Concept 2:* Systems including systems thinking, management systems and systems of work;
- *Concept 3:* The organisation - Culture, leadership, organisational change, governance, management, organisational strategy
- *Concept 4:* Foundation science required for the understanding of hazards, mechanisms of action and control
- *Concept 5*: Human (individual) factors including the human as a biological system, basic psychological principles and basic principles of social interaction
- *Concept 6*: Hazards and their mechanisms of action and related controls including:
    - hazard as a concept;
    - biomechanical hazards;
    - chemical hazards;
    - biological hazards;
    - Psycho-social hazards including occupational stress, fatigue, bullying, aggression and violence;
    - Physical hazards including: noise and vibration, electricity, radiation, thermal (hot/cold environments, processes and objects), gravitational (people and things falling from heights), slips and trips, mechanical plant, mobile plant and vehicles and occupational road use.
- *Concept 7:* Risk - Uncertainty, perspectives, tolerance, acceptability, risk perception, exposure, likelihood, consequence, risk assessment/risk estimation.
- *Concept 8:* Causation including models of occurrence, causation for both safety and health determinants.
- *Concept 9:* Control - Philosophy of control, prevention and intervention, mitigation of health impacts and emergency planning.
- *Concept 10:* Practice including models of OHS practice and using research to inform practice

The current issues with the concepts that have to be covered is that they are not written as learning outcomes which makes it difficult to map courses, but this is currently being resolved, and it is anticipated that learning outcomes will be written for all the concepts by the end of 2012.

CONCLUSION

The strength of both the AIOH and AOHSEAB accreditation processes is that the quality and depth of content has been assessed by independent bodies. This is a positive for potential students and for professional certification bodies because they don't need to review the content in depth to ensure it meets the needs of an OHS professional.

The major negative of both processes is that it is not clear what percentage of the learning outcomes needs to be covered for a course to be accredited. This question is often asked but difficult to answer as it has too many variables. It is an issue the accreditation bodies may need to address in the future.

REFERENCES

AIOH 2011, *AIOH Course Accreditation Procedure*, Tullamarine, Vic.: AIOH.

AOHSEAB 2012, *Application Pack for Universities Applying for Accreditation of Programs for Education of Generalist OHS Professionals*, Tullamarine, Vic.: Australian Occupational Health and Safety Education Accreditation Board, viewed 25 July 2012, <http://www.ohseducationaccreditation.org.au/providers.aspx>

AQF 2011, *The Australian Qualification Framework*. Australian Qualifications Framework Council, viewed 25 July 2012, <http://www.aqf.edu.au/PoliciesPublications/tabid/196/Default.aspx>.

Borys, D., Else, D., Pryor, P., & Sawyer, N. 2006, 'Profile of an OHS professional in Australia in 2005'. *J Occup Health and Safety Australia NZ, vol. 22, no.* 2, pp. 175-192.

Ellenbecker. M. 2012, 'The Future of Occupational Hygiene Education and Research', *Journal of Occupational and Environmental Hygiene*, vol. 9, no. 9, pp. D172-D174.

Olson, D.K., Lohman, W.H., Brousseau, L.M, Fredrickson, A.L, McGovern, P.M, Gerberich, S.G, and Nachreiner, N.M. 2005. 'Crosscutting Competencies for Occupational Health and Safety Professionals'; *J Public Health Management Practice*, vol. 11, no. 3, pp. 235-243.

Toft, Y., Capra, M., Moodie-Bain, D., Kift, R., Pryor, P., Eddington, I. & Joubert, D., 2010, *Safeguarding Australians: Mapping the strengths and challenges toward sustainable improvements in OHS education and practice*, Australian Learning and Teaching Council.

Tyers, C, Speckesser S, Hicks, B, Baxter, K, Gilbert, M, Ball, E 2012, 'Occupational Hygiene at the Olympic, Park and Athletes' Village Can workplace health management be cost effective?' *Report 497, Institute for Employment Studies*, viewed 3 September 2012, http://www.employment-studies.co.uk/pubs/report.php?id=497

Vadali, M., Ramachandran, G., Mulhausen, J.R. & Banerjee, S. 2012, 'Effect of Training on Exposure Judgment Accuracy of Industrial Hygienists', *Journal of Occupational and Environmental Hygiene*, vol. 9, no. 4, pp. 242-256.

Whitelaw, J. L. & Reed, S. 2011, 'Looking Back, Moving Forward: Lessons learnt from Accreditation of Post Graduate Occupational Hygiene Courses'. *AIOH 29th Annual Conference Proceedings*, Brisbane, Qld: Australian Institute of Occupational Hygienists.