Tertiary Emergency Management Education in Australia
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Introduction
Over the past 15 years, emergency management in Australia has changed dramatically. We have seen the industry grow from dealing in basic disaster response planning and operations to one that now deals in all aspects of emergency management. Today the industry is heavily involved with emergency prevention and mitigation programs, risk assessment and analysis, essential service/ lifeline management planning, emergency management planning, emergency operations management and emergency recovery management. Today each State and Territory Emergency Management agency also provides specific emergency management training and awareness programs within their community for organisations and individuals who have emergency management responsibilities.

Similarly, the formalisation of emergency management education programs has also progressed over the past 15 years. Today, emergency management study programs are offered nationally by Emergency Management Australia (EMA) through the Australian Emergency Management Institute (AEMI) as well as by a number of Australian universities and higher education institutions. These programs are both short and long course in nature and cater to students studying full time on campus and also part time by distance education.

A short history of the need and trends for tertiary courses in emergency management.

During the mid to late 1980s, a number of emergency management agencies and tertiary education institutions within Australia identified the need for an increased level of emergency management education. Emergency management practitioners were being asked to take on increased responsibility in the areas of emergency management planning and operations without any formal emergency management education or qualifications.

In the late 1980s the Cumberland College of Health Sciences at the University of Sydney set up the Centre for Disaster Management. The Centre offered a post graduate course in disaster management culminating in the award of a Graduate Diploma in Applied Science (Disaster Management).

In 1991 the Centre for Disaster Management at the University of Sydney was relocated to the University of New England's (UNE) Faculty of Arts under an initiative of the UNE commercial arm, University Partnerships. The focus at the time was on the development of Certificate and Diploma (Associate and Graduate) units in disaster management to enable workers in the disaster
management field to obtain professional qualifications. The units were delivered by distance education.

In 1998, retirement, resignation and relocation of staff resulted in the cessation of UNE's disaster management program and the closure of the Centre for Disaster Management. The broad area of study was transferred to UNE's Faculty of Education, Health and Professional Studies under a new program focusing on Civil Care and Security. This program offers awards at Advanced Diploma and Bachelor levels in Professional Studies majoring in either Civil Care and Security or Policing. As with the previous Disaster Management program, all units are offered via distance education.

In 1988 the Tasmanian State Emergency Service (SES) recognised that there was a clear need to train emergency managers how to plan. The development of a prevention and preparedness training program for local government emergency managers was therefore given urgent priority by the Tasmanian SES. In 1989, in collaboration with the Tasmanian State Institute of Technology (incorporated within the University of Tasmania in 1991) and Emergency Management Australia, formalised training commenced. The program became an instant success and as a result was further developed to include emergency operations management and emergency recovery management. In all, the program comprised 16 units of study to be undertaken over a three year period culminating in the award of an Associate Diploma in Emergency Management from the University of Tasmania. Delivery was "face to face" ie. based on course work at residential schools and was financed by Emergency Management Australia.

In 1993 the Tasmanian State Emergency Service (SES) in collaboration with the University of Tasmania translated the "face to face" course into a distance education format. In 1996, through an innovative product grant from the Federal Department of Industry, Technology, Regional Development and Tourism, the Tasmanian SES reviewed and updated the distance education format of the course. The development of the distance education course was deemed necessary to meet the emerging needs of prospective students in other States, Territories and overseas.

In 1995 as the result of a change in policy at the University of Tasmania, the Tasmanian Associate Diploma program was transferred to Charles Sturt University (CSU). In association with the Tasmanian SES, CSU further developed the program into a 24-subject undergraduate degree with graduates being awarded the Bachelor of Social Science (Emergency Management). Students have the option of exiting the course after successfully completing 16 subjects and receive a Diploma. The course is offered via distance education over a four-year period. As with the initial Associate Diploma course, the target audience for the undergraduate course are emergency management practitioners.

In 1998, CSU commenced development of a post-graduate masters degree program in emergency management. This program is designed to compliment and continue on from the undergraduate degree program and comprises four
16-point subjects offered via distance education over a two-year period. The post-graduate program was initially offered for study in 1999, with successful completion of the full program culminating in the award of Master of Emergency Management. The program also incorporates a Graduate Certificate in Emergency Management.

In 1997 Southern Cross University (SCU) recognised a need for alternative study options in the field of emergency management. At the time, SCU's existing emergency management programs focussed primarily on logistics based disaster response, with very little in the area of community development and human services. Southern Cross developed these two areas of study, culminating in a 12 unit Master of Community Development (Emergency Management) program. This program also incorporates a Graduate Diploma and Graduate Certificate in Community Development. Southern Cross targets those involved in the human services field, particularly those with emergency management responsibilities.

In addition to those institutions mentioned above, a number of other tertiary institutions either already offer, or are in the process of developing, tertiary level programs or subjects related to emergency management. These include Edith Cowan University, Swinburne University of Technology, Kangan College of Technical and Further Education and RMIT University. The RMIT University is also currently in the process of developing a new Masters degree program across three Faculties covering management, social science and geo-spacial science. RMIT see a need in the future for risk management and community recovery programs and research bridging these disciplines.

**The professionalisation of emergency managers and the relationship of the tertiary sector in this development.**

Today, as community and industry expectations of emergency managers grow, there is an increasing pressure on emergency management agencies to professionalise their staff through targeted tertiary education programs in their particular specialist fields. In a number of Australian states and territories Police officers going through basic training are either being encouraged, or required, to undertake undergraduate policing studies as part of their basic training. Similar steps are being taken within ambulance services in the pre-hospital care field and fire services in fire technology. It is interesting to note that elements of basic emergency management are contained within each of these example programs. This move towards professionalising the emergency services and emergency management agencies may be indicative of the increased importance that our governments and communities are placing on comprehensive emergency management practices.

In addition to the agency specific courses described above, tertiary institutions are also offering emergency management courses, or components of courses, that focus in a particular area of emergency management. Examples include:
• Charles Sturt University's undergraduate and post-graduate Emergency Management programs which focus on general emergency management prevention, preparedness response and recovery practices and risk management
• UNE's current undergraduate and post-graduate Professional Studies programs which focus on civil care and security, and
• Southern Cross University's post-graduate program in Community Development with a major in emergency management and human services.

The need for staff development of emergency management staff supported by the tertiary sector outside of the usual courses, seminars, conferences etc.

The provision of workplace related training courses, seminars and conferences is only a part of the educational support required by emergency management organisations and personnel. Tertiary education programs, crucial to the ongoing development and professionalisation of emergency management personnel, should be used to compliment the workplace activities and provide a formal qualification. The tertiary sector should be invited to participate in and support workplace training activities, thereby helping to break down the barriers between formal tertiary education and workplace training.

Support by the tertiary sector should also be provided to activities outside the usual workplace training activities mentioned above. To enable appropriate recognition of industry based programs, the tertiary sector and the emergency management industry need to take a collaborative pro-active role in identifying those industry based programs that are suitable for credit towards tertiary level programs. For example, Charles Sturt University has determined that some courses offered by the Australian Emergency Management Institute have sufficient academic rigour to enable students who successfully complete them to receive some subject credits towards subjects within CSU's undergraduate emergency management program. In a similar vein, CSU has also entered into an agreement with a Philippines based emergency management training organisation, the Asia Pacific Disaster Management Centre, enabling one of their courses to qualify for a subject credit within CSU's post-graduate emergency management program.

Similar agreements between other tertiary sector institutions and the emergency management community would enable appropriate workplace training activities to qualify for subject credit within tertiary emergency management programs.

In addition to educational support for staff development there is also a need for support from research institutions. A number of Australian Universities currently house disaster/emergency management or hazard research centres. Notable amongst these are the Natural Hazards Research Centre at Macquarie University and the Centre for Disaster Studies at James Cook
University. Other universities operate more specific research centres, among which are Queensland University's Advanced Centre for Earthquake Studies, the Australian National University's Centre for Resource and Environmental Studies and Charles Sturt University's Centre for Research into Cultural Risk.

The conduct and availability of research plays a major role in the ongoing development of knowledge, skills and abilities for emergency management personnel. As with the educational programs mentioned above, emergency management agencies should be actively working to develop linkages with these research institutions to ensure staff maintain the highest levels of industry practice and the emergency management community's body of knowledge is expanded.

In addition to research, the availability of emergency management related information is also crucial for ongoing staff development. Many government agencies, organisations, tertiary education and research institutions and industry groups maintain a wide and often comprehensive base of disaster/ emergency related information. Recently we have seen work commence in Australia on the development of the Australian Disaster Information Network (AusDIN). The amalgamation of disaster/ emergency information systems and making them available to the emergency management community is another important step towards improving our emergency management capability and services.

The impact of tertiary emergency management programs on the emergency management industry

The introduction of tertiary emergency management programs within Australia has resulted in some very substantial benefits within the Australian emergency management community. Students within the various programs mentioned above represent a wide cross-section of the emergency management community within both public and private sectors.

Each program has improved the emergency management knowledge, skills and capabilities of their respective students and has had a positive effect within the emergency management community of those students. In a number of instances there have been direct benefits to communities and organisations. These have included:

- The conduct of hazard analyses and risk assessments for specific communities, public and private enterprises. These have included ports, airports, emergency service agencies, essential service providers, recreational facilities, local government areas and government departments,
- The development of specific emergency management plans, procedures, training and exercises related to the above analyses,
- The analysis of the operational management emergency events within Australia and overseas. These have resulted in the identification of strengths and weaknesses of the management of those events and subsequent identification of recommendations to improve the management of future events, and
• The analysis of current emergency management and risk management issues and practices with the aim of improving that area of emergency or risk management.

The impact of these tertiary programs on the emergency management community is increasing. As more and more students undertake emergency management education programs and transfer their acquired skills, knowledge and capabilities to their workplace, the potential benefit to the emergency management capabilities of their organisations is increased.

The future regarding tertiary emergency management courses, the professionalisation of the emergency management community and tertiary staff development

As the emergency management community evolves through participation in formalised tertiary educational and staff development programs, there will also be a need for such programs to continually evolve. Staff teaching these programs need to be provided with the opportunity to develop their emergency management knowledge, skills and understanding to ensure that the programs remain relevant to the emergency management community’s need and abreast with emergency management best practice. Tertiary sector institutions and emergency management agencies should be encouraged to collaborate in this continual professionalisation of staff. Development of staff exchange programs and active participation in workplace related training, seminars and conferences are examples of strategies that could address this need.

Conclusion

At the present moment tertiary emergency management programs offered within Australia vary in their context and focus. This variety of programs enables emergency management personnel to receive specialised and focused education relevant to their field of operation. As the specialist fields within emergency management develop and expand into the future so will the need for educational programs relevant to these areas. In this regard the tertiary sector should ensure that it maintains close links with the emergency management community to ensure such changes and developments within the industry are incorporated within their educational programs.

Today our communities are evolving at an extremely fast pace. They are becoming better informed and able to determine their needs and rising expectations of government agencies and personnel. Emergency management agencies and personnel are under increasing pressure from their communities to improve their emergency management capabilities and professionalism. One strategy that could address this need is the development of collaborative education and support programs between emergency management agencies and tertiary education institutions.

Development of such programs would enable emergency management agencies to identify their ongoing educational and research needs. The
identification of these needs would also enable tertiary educational institutions to provide programs that would benefit the emergency management community, improving their professionalisation, capabilities and service to the community.

**About the author**
Ian Manock is a lecturer in emergency management at Charles Sturt University with responsibility for coordinating subjects in CSU’s undergraduate emergency management program. Ian is also the coordinator of the Australian Emergency Management Forum, an Internet based emergency management forum maintained by CSU. Prior to joining CSU, Ian worked for nine years with the Tasmanian State Emergency Service as a Regional Emergency Management Officer and prior to that was a Senior Inspector in the Royal Hong Kong Police Force. Ian holds a Bachelor of Social Science (Emergency Management) and is currently studying towards a Master of Emergency Management.

**Acknowledgments**
I would like to thank the following people for their valuable input and help in putting this article together:
- Ms. Christine Stafford, Director, Professional Studies Programs, Faculty of Education, Health and Professional Studies, University of New England
- Ms. Jean Griffiths, Senior Lecturer/ Head, School of Human Services, Southern Cross University.
- Dr Graham Marsh, School of Social Science and Planning, RMIT University
- Mr. John Lunn, Course Coordinator, School of Public Health, Faculty of Health Studies, Charles Sturt University
- Mr. Eric Turner, School of Nursing and Public Health, Edith Cowan University
- Professor Russell Blong, Natural Hazards Research Centre, Macquarie University
- Mr. Anthony Ralph, Kangan TAFE
- Mr. Peter Koob, Senior Education Officer, Australian Emergency Management Institute.