Bachelor of Applied Science (Environmental Health)

The Bachelor of Applied Science (Environmental Health) is a 3 year full-time degree course (or part-time equivalent). The degree is accredited by Environmental Health Australia (EHA), the national body representing environmental health practitioners in Australia. Graduates are eligible to practice as Environmental Health Officers (EHOs) anywhere in Australia. The qualification is recognized nationally and internationally, as the course is structured according to the professional competency requirements of EHA. Environmental health infrastructure, risk management, community capacity building, sustainable development, housing and construction, project planning and legislative requirements for professional practice are covered in the course.

General Course Information

Course Code: BASEH
Faculty: VET
Sector: Undergraduate Degree - HED
Award: Bachelor
Year Offered: 2011 - For continuing students only
Full Time Equivalent (FTE): 3
Units Required: Total 24 Core 24 Elective 0
Last update: Tuesday, 15 February 2011 09:32 am

Course Information Contact

Telephone: 1800 677 095
Fax: (08) 8939 7327
Email: student.support@batchelor.edu.au

Course’s Descriptors

Course Objectives

The Bachelor of Applied Science (Environmental Health) is a 3 year full-time degree course (or part-time equivalent). The degree is accredited by Environmental Health Australia (EHA), the national body representing environmental health practitioners in Australia. Graduates are eligible to practice as Environmental Health Officers (EHOs) anywhere in Australia. The qualification is recognized nationally and internationally, as the course is structured according to the professional competency requirements of EHA. Environmental health infrastructure, risk management, community capacity building, sustainable development, housing and construction, project planning and legislative requirements for professional practice are covered in the course. Graduates will be employed in a diverse range of organisational and community settings. By the completion of the course, graduates will:

- have developed the skills, knowledge and understanding necessary for an EHO role in their communities, and as part of the wider Australian society
- be competent in planning, implementing and evaluating their own practice and effectively carry out their professional duties and responsibilities
- be conversant with, and able to use, a wide range of environmental health materials, hardware, resources and documents
- be guided by a theory of environmental health that is supportive of their communities’ aspirations and expectations
- be equipped to make significant contributions to environmental health theory, service, development and practice
- have well-developed study and research skills and appropriate personal skills and knowledge in the areas of environmental health
- have a good understanding of the basic issues relating to environmental health organisational and management systems and policy analysis and development, particularly as they relate to the functions and operations of environmental health in remote communities
- have a good understanding of the relationship between community environmental health and the wider issues of Aboriginal and Torres Strait Islander community development and advancement, and have a well developed understanding of public and environmental health law
- be aware of the role of environmental health in a cross-disciplinary field
- have undertaken on-the-job practicum required for course completion
- be able to adopt an advocacy role in environmental health education
• have a well-developed understanding of the inter-relationship of environmental health to global health and environmental concepts like health promotion (Ottawa Charter), Risk Assessment and Environmentally Sustainable Development (ESD)

Admission Requirements
To be eligible for entry into the Bachelor of Applied Science (Environmental Health) one or more of the following requirements are to be met:
• successful completion of year 12 or equivalent
• successful completion of an Enabling; Foundation or Bridging Program or equivalent
• successful completion of partial or full tertiary studies at a higher education level in undergraduate courses such as: certificates, diplomas, advanced diplomas or associate degrees, or bachelor degrees
• mature age entry with recognition for life-skills and previous experience and learning that has not been formally recognised, which will support the applicant in his/her studies*
• special admission as determined by Batchelor Institute Accreditation, Admission and Progressions Committee*
• a relevant TER or OP score (as determined by the Institute).

* Note: Assessment and interview procedures may be required prior to an offer of a place.

Unit Summary

<table>
<thead>
<tr>
<th>Unit</th>
<th>Title</th>
<th>Credits</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1 - Semester 1</td>
<td>Unit Count - 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICP101</td>
<td>Public communications</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>BEH102</td>
<td>Biology</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>BEH105</td>
<td>Physical Science</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>BEH104</td>
<td>Professional Development</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>Year 1 - Semester 2</td>
<td>Unit Count - 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICP102</td>
<td>Telling histories</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>BEH101</td>
<td>Construction I</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>BEH103</td>
<td>Environmental Health Issues</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>BEH106</td>
<td>Environmental Health Hardware</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>Year 2 - Semester 1</td>
<td>Unit Count - 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BEHA201</td>
<td>Public Health</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>BEH201</td>
<td>Construction 2</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>BEH206</td>
<td>Microbiology</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>BEH205</td>
<td>Environmental Health Law</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>Year 2 - Semester 2</td>
<td>Unit Count - 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BEHA202</td>
<td>Introduction to Research</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>BEH202</td>
<td>Community Development</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>BEH203</td>
<td>Pollution control</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>BEH204</td>
<td>Toxicology and Occupational Health and Safety</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>Year 3 - Semester 1</td>
<td>Unit Count - 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BEH301</td>
<td>Construction 3</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>BEH305</td>
<td>Water Quality</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>BEH306</td>
<td>Practical Placement</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>BEH308</td>
<td>Environmental Health Risk Assessment</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>Year 3 - Semester 2</td>
<td>Unit Count - 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BEH302</td>
<td>Food Safety</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>BEH303</td>
<td>Emergency Management</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>BEH304</td>
<td>Vector Control</td>
<td>10</td>
<td>Core</td>
</tr>
<tr>
<td>BEH307</td>
<td>Project Management</td>
<td>10</td>
<td>Core</td>
</tr>
</tbody>
</table>

Individual Unit's Descriptors

Year: 1 - Semester: 1

Public communications
Unit Code - ICP101 Credit Points - 10 Unit Type - Core
This unit introduces students to the values, genres and skills of public speech and action through a study of rhetoric. The unit exposes students to the long and powerful history of public speech and public action by Indigenous peoples in their struggle for human and Indigenous rights. Students learn the textual patterns and strategies used in public speaking to create speech that is powerful and persuasive. This unit will also introduce students to the conventions and structures of academic discourse. Students are required to explore and research a core public value both individually and collectively and present this in the public domain. The power of public speaking, the affirmation of Indigenous identity and an analysis of current political discourses are all implicit within the collective celebration of Indigenous voices. Students will also gain confidence by speaking in front of a public audience. This unit is based on a group work approach. Students are required to negotiate, participate, consult and support each other. The unit is designed to invite students to become strong Indigenous citizens, students and public leaders in ways that complement, extend and enrich their specific vocational/professional studies. The unit focuses on a collective celebration and each student will be assessed against their input as an individual to the collective whole.

**Biology**
Unit Code - BEH102 Credit Points - 10 Unit Type - Core
This unit orientates the student to the underpinnings of biological science as they relate to nutrition. Students will examine the cell and the organisation of cells within the human body. Indigenous science will be applied to provide an alternative explanatory basis of biological phenomena.

**Physical Science**
Unit Code - BEH105 Credit Points - 10 Unit Type - Core
This unit will introduce students to the basic general chemical principles. It covers a variety of biochemical aspects of life and health.

**Professional Development**
Unit Code - BEH104 Credit Points - 10 Unit Type - Core
This unit will cover issues of professional practice in the environmental health workplace and the activities will require you to research and/or consider questions within the environmental health work context. If you are not currently working then you should refer to any industry experience you have received as part of this degree. (If you have not yet undertaken any industry practice, respond assuming the role of an environmental health officer in your State or territory, or discuss other options with your lecturer).

**Year: 1 - Semester: 2**

**Telling histories**
Unit Code - ICP102 Credit Points - 10 Unit Type - Core
This unit introduces students to the ways in which Indigenous Australian histories are constructed and shape the lives of individuals and communities. The different ways that history may be told and used will be examined and discussed. Primary and secondary sources will be used to identify, compare and contrast the different perspectives that may be presented in various ways of telling and representing histories. The impact of histories on Indigenous communities and cultures will be explored. The unit is workshop-based.

**Construction I**
Unit Code - BEH101 Credit Points - 10 Unit Type - Core
This unit introduces students to appropriate housing design (both solar passive and active), planning and construction as detailed in the Building Code of Australia (BCA) and basic interpretation of plans. This unit will also assist in the understanding of; the principles of the historical and social standards of housing in Indigenous communities, physics in the contexts of environmental health and housing. Workshops will comprise of lectures, group work/investigation, laboratory and practical sessions, literature searches and field trips.

**Environmental Health Issues**
Unit Code - BEH103 Credit Points - 10 Unit Type - Core
Successful completion of the unit will enable students to investigate the major physical, sociological and political factors which affect the health and quality of life of a selected community. The unit will explore the history of and the current status of Indigenous health in Australia. In doing so, it will discuss those factors which could be defined as originating from within environmental health parameters.
Bachelor of Applied Science (Environmental Health)

Published on Course Handbook (http://courses.batchelor.edu.au/ofcourse)

Unit Code - BEH106 Credit Points - 10 Unit Type - Core
This unit is designed to introduce the student to low technology and hardware that improves the self-sufficiency and sustainability of a community without the reliance on expensive infrastructure. There is a strong emphasis on the importance of functional and durable health hardware in community housing as well as in community infrastructure. Workshops comprise lectures, group work/investigation, practical sessions, literature searches and field trips.

Year: 2 - Semester: 1

Public Health
Unit Code - BEHA201 Credit Points - 10 Unit Type - Core
Indigenous public health is the primary focus of this unit, and we will examine the key events in the development of public health in Australia, which is entangled in the history of tropical medicine and colonialism. The unit recognises the importance of social and cultural factors when assessing health and planning interventions. Students are encouraged to draw on their own experiences when thinking and discussing issues in this unit.

Construction 2
Unit Code - BEH201 Credit Points - 10 Unit Type - Core
The unit builds onto the knowledge and understanding of “housing for health”, from previous units. It also aims to broaden student understanding within their cultural frame of reference, and to build a foundation for the basis for ensuring housing improvement within their community and jurisdictions. Workshops comprising of lectures, group work/investigation, and practical sessions, literature searches and field trips will occur. Pre-workshop investigation comprises readings and the collection of sample materials for study. Students are encouraged to draw on their own experiences when thinking and writing about issues in this unit.

Microbiology
Unit Code - BEH206 Credit Points - 10 Unit Type - Core
This unit is designed to provide (i) an overview of the nature of microorganisms and their role in the environment, human health and disease, and in waste treatment; (ii) training in laboratory skills necessary to (a) maintain microbiological quality of food water and related environmental process, and (b) control outbreaks of communicable disease; and (iii) health management skills for the development and implementation of effective community education and training strategies for the control of communicable disease. The unit will be supported by lectures, tutorials, assignment work, laboratory work and field studies.

Environmental Health Law
Unit Code - BEH205 Credit Points - 10 Unit Type - Core
This unit will introduce students to the basic principles and legal knowledge in the area of Environmental Health. Given the national focus of this degree, negotiations will occur with jurisdictional authorities to allow students to have a State knowledge base and practical work application. Workshops comprising lectures, group work/investigation, Problem Based Learning Package, Case Studies, Moot Court and practical sessions, literature searches and field trips. Pre-workshop investigation comprises readings and the collection of sample materials for study from the students’ environment. Post-workshop teaching includes supervision and guidance for students in the community undertaking a community-based investigation on a biological theme and subsequent presentation in a formal paper.

Year: 2 - Semester: 2

Introduction to Research
Unit Code - BEHA202 Credit Points - 10 Unit Type - Core
This unit provides opportunity for students to explore definitions of research, types of research and the basic process of research in the field of natural and/or social science. Students will be asked to identity differences between quantitative and qualitative research through studying research reports. Students will also be required to participate in group discussions and debates on the role of researchers and ethical issues related to research, in particular, issues related to research on Indigenous education and Indigenous community development. The impact of research in social capacity building will also be examined. The unit will also familiarise students with the use of ICT and other study skills pertaining specifically to research.

Community Development
Unit Code - BEH202 Credit Points - 10 Unit Type - Core
The aim of this unit is to develop the capacity of students to critique and improve practice in environmental conflict situations, environmental policy and environmental and land management from a sociological perspective. This unit will introduce students to concepts such as social stratification, community, the state and civil society, gender, conflict and consensus and apply these to contemporary forms of environmental management and policy practice such as community participation and consultation, regulation and planning, and the use of economic and market instruments. Workshops comprising lectures, group
work/investigation, laboratory and practical sessions, literature searches and field trips. Pre-workshop investigation comprises readings and the collection of sample materials for study from the students’ environment. Post-workshop teaching includes supervision and guidance for students undertaking a community-based assignment and subsequent presentation in a formal paper.

**Pollution control**

Unit Code - **BEH203** Credit Points - **10** Unit Type - **Core**

This unit provides students with an understanding of air, soil, water and noise measuring and monitoring procedures, their impacts on human health, and methods available to reduce or eliminate pollutants. Environmental and human health protection guidelines and their history are also presented. The unit introduces the link between health and environmental protection legislation and industry to meet the challenges set by regulatory authorities in prescribing conditions limiting environmental pollution. Workshops comprising of lectures, group work/investigation, laboratory and practical sessions, literature searches and field trips. Pre-workshop investigation comprises readings and the collection of sample materials for study from the students’ environment. Post-workshop teaching includes supervision and guidance for students undertaking a report writing assignment.

**Toxicology and Occupational Health and Safety**

Unit Code - **BEH204** Credit Points - **10** Unit Type - **Core**

Understanding human and environmental toxicology allows an EHO to apply the risk assessment framework being used increasingly in environmental health. The risk assessment framework is used in both occupational and public health settings.

**Year: 3 - Semester: 1**

**Construction 3**

Unit Code - **BEH301** Credit Points - **10** Unit Type - **Core**

This unit will introduce students to the modern trends in building assessment and regulation. Students will become familiar with new legislation requirements, urban planning considerations and the regulatory processes of Government. Students will develop an integrated approach to the assessment functions of development control systems utilised by Local and State/Territory Governments.

**Water Quality**

Unit Code - **BEH305** Credit Points - **10** Unit Type - **Core**

This unit introduces the protection of the aquatic environment in terms of the need to monitor and maintain water quality. It covers the healthy aquatic environment, aquatic ecology, catchment management, pollutants and their sources, health and ecological impacts, guidelines and standards, and water management principles. After introduction in the laboratory, students spend a period carrying out an impact study in the field, and computer based analysis for the production of amelioration recommendations. This unit meets the needs of a wide variety of interests and is one of a suite of units in the area of environmental protection. Workshops comprising lectures, group work/investigation and practical sessions, literature searches and field trips.

**Practical Placement**

Unit Code - **BEH306** Credit Points - **10** Unit Type - **Core**

Students will be provided with 2 copies of the study guide: a copy for the student; and a copy for the workplace supervisor. The purpose of this is to ensure that there is a shared understanding of the unit objectives (detailed below) and that the supervisor is in a position to support the student to meet these objectives.

**Environmental Health Risk Assessment**

Unit Code - **BEH308** Credit Points - **10** Unit Type - **Core**

This unit will explore a range of processes and tools for undertaking Environmental Impact Assessments and Health Risk Assessment and associated processes and how they relate to the addressing of environmental, social and cultural considerations. Students will develop evaluation criteria students for assessing the effective consideration of environmental health impacts in an EIA context. Teaching includes supervision and guidance for students undertaking

**Year: 3 - Semester: 2**

**Food Safety**

Unit Code - **BEH302** Credit Points - **10** Unit Type - **Core**

As environmental health practitioners, food safety is an integral component of your professional practice in the protection of public health. Applying a common sense approach, this unit material aims to provide a practical and scientifically based guide
for managing the risks associated with food. It aims to enhance the student practitioners’ knowledge of the contextual elements that influence food safety, including the cultural, social, environmental and economic elements. It outlines the regulatory framework in which environmental health practitioners and food service providers operate in Australia, and explains the responsibilities of each stakeholder. By exploring common spoilage, disease and preservation organisms found or used in food, this unit provides students with the fundamentals of food science that informs food safety and underpins food safety management plans, such as Hazard Analysis Critical Control Points.

Emergency Management
Unit Code - BEH303 Credit Points - 10 Unit Type - Core
Students will investigate the Emergency Management process that is increasingly being linked to other areas of public policy and practice, including public and environmental health, sustainable development, land use planning and crime prevention. Local government, which is a key player in emergency management activities, is now being required to tie these different areas together. This course covers a broad range of issues in emergency management, relevant for local government personnel. The focus is on developing links between emergency management and other related areas of policy and practice.

Vector Control
Unit Code - BEH304 Credit Points - 10 Unit Type - Core
This unit introduces students to the important groups of insects and other arthropods that transmit vector-borne diseases of public health importance in Australia with a focus on northern jurisdictions. The course covers the basic biology of disease vectors, their role as pests and importance in public health. The ecology and epidemiology of important vector-borne diseases is dealt with, including environmental conditions that predispose to disease outbreaks. These fundamentals will then be applied to the development of integrated programs for managing insect vectors and diseases they transmit. The course comprises theoretical (lectures) field and laboratory components. Throughout the course, students will work in small groups to develop vector control programs and management recommendations for real and hypothetical case examples. The laboratory component includes learning to use taxonomic keys to identify adults and larvae of important insect groups and practical aspects of exotic insect surveillance. Lectures, practical (field) work, laboratory work, group projects and presentation.

Project Management
Unit Code - BEH307 Credit Points - 10 Unit Type - Core
In this unit, students undertake an environmental health based research project under the supervision of the course coordinator (internal supervisor) and either their current employer or another external supervisor (usually someone from state or local government). Students undertake the required research and write up the research. They also create a poster summarizing their research outcomes.

Course Authorisation
Last update Tuesday, 15 February 2011 09:32 am
Approved by
Review Date Sunday, 27 February 2011 08:58 pm

Source URL: http://courses.batchelor.edu.au/ofcourse/course/bachelor-applied-science-environmental-health