

Extension Education and Training – Undergraduate and Postgraduate Courses

STATE	INSTITUTE	TERTIARY LEVEL	SCHOOL	DEGREE	COURSE	COURSE DESCRIPTION	COURSE DELIVERY	COORDINATOR/LECTURER	CONTACTS	COURSE INFO
NSW	Charles Sturt University	Undergraduate	School of Agricultural and Wine Sciences	Bachelor of Agricultural Science	AGR220 - Extension	Course description: Extension concepts and practice. The history and development of Australian agriculture - including agricultural education. Communication theory. The Information business. Basic skills. Communication models to improve and criticise practice. The professional talk. Choosing the topic, planning, and constructing the talk. The theory, choice and construction of visual aids. Diffusion and adoption behaviour of farmers and equine business operators. The sociology and behaviour of managers and owners. Bottom-up change. Community participation and rural development. The enhancement of improving complex problems and using local knowledge and skills. Marketing, economics in the public and private sectors. Social research - its relevance to community research and development. Group dynamics and group exercises. The knowledge and skills required. Mass communication. Understanding and knowing who to use. An optional unit on participation by farmers, rural communities in extension and research. Includes Rapid Rural Appraisal, bottom-up methods, Farming Systems Research, and Action Research.	Internal/Distance	Scott Glyde	sglyde@csu.edu.au	http://www.csu.edu.au/handbook/handbook14/subjects/AGR220.html
	Charles Sturt University	Postgraduate	School of Agricultural and Wine Sciences	Masters, Postgraduate Diploma, Postgraduate Certificate of Animal Science	AGR520 - Extension Post Graduate	Extension involves 'the conscious use of communication of information to help people form sound opinions and make good decisions' (van den Ban & Hawkins, 1996). In practice this includes building and enhancing the knowledge of people in rural communities. For students the subject is about people and change in the agricultural and equine industries. It introduces the role of the social sciences in agriculture and equine industries - emphasising social relationships and networks as well as the physical and biological components of the farm and industry systems. It gives students an appreciation of social processes as a means of change and improvement in whichever industry and role they see themselves. It uses methods and theory from communication and social science to provide an understanding of the forces and process of change, and to develop the skills necessary to assist people achieve change.	Distance	Scott Glyde	sglyde@csu.edu.au	http://www.csu.edu.au/handbook/subject/AGR520.html
	University of New England	Undergraduate	School of Environmental and Rural Science	Bachelor of Agriculture / Bachelor of Rural Science / Bachelor of Environmental Science	AGEX 310 - Agricultural and Natural Resource Extension	This unit explicitly focuses on employment-relevant skills and knowledge suited to agriculture and natural resource extension. All assignments are designed to become part of each student's employment portfolio upon graduation, and to provide evidence of the student's achievements and competencies to potential employers when job-seeking.	Internal/External/Intensive	Julian Prior	jprior2@une.edu.au	https://my.une.edu.au/courses/2013/units/AGEX310
	University of New England	Postgraduate	School of Environmental and Rural Science	Master of Agriculture / Master of Science in Agriculture	AGEX510 - Agricultural and Natural Resource Extension	<p>This unit explicitly focuses on employment-relevant skills and knowledge suited to agriculture and natural resource extension. All assignments are designed to become part of each student's employment portfolio upon graduation, and to provide evidence of the student's achievements and competencies to potential employers when job-seeking.</p> <p>Both off-campus and on-campus students must attend the three day mandatory intensive school. At this school students will be trained in extension approaches, oral presentation skills, facilitation skills and media skills.</p> <p>During trimester, on-campus students will attend lectures and practicals. As the major assignment task, on-campus students will be formed into groups and will undertake an 'extension consultancy' for a client external to the University. Off-campus students will undertake a similar 'extension plan' assignment on a topic of their choosing.</p> <p>The 500 level unit is based on the undergraduate level unit with additional reading, assignments or projects and the demonstration of a greater level of understanding of the undergraduate material.</p>	Internal/External/Intensive	Julian Prior	jprior2@une.edu.au	https://my.une.edu.au/courses/2013/units/AGEX510

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NSW	Southern Cross University	Undergraduate	School of Environment, Science and Engineering	Bachelor of Environmental Science	ENV10656 - Extension and Professional Practice in NRM.	Provides skills to help you in your future role as a professional natural resource manager, including skills in communication within organisations and to the stakeholders and the general public. The unit also focuses on skills that will be required in obtaining work in and succeeding in your chosen career. While this unit assumes no prior knowledge of all issues covered in the unit, it does assume you have a willingness to engage with the unit and participate fully in discussions that arise from issues raised in the course.	Internal Lismore/Distance	David Lloyd	david.lloyd@scu.edu.au	http://scu.edu.au/coursesin2014/?action=unit&command=load_unit&spk_no=302415
	Southern Cross University	Postgraduate	School of Environment, Science and Engineering	Graduate Diploma of Forest Science and Management Master of Forest Science and Management	FOR03019 - Extension and Professional Practice in NRM	Covers communication of technical information on forestry and the forest industries to landholders. Provision of extension and advisory services by government agencies, business enterprises and consultants. Introduction to relevant sociological research methods. This unit includes a Masters Tutorial component in which students critically analyse advanced issues in the field.	Internal Lismore/Distance	David Lloyd	david.lloyd@scu.edu.au	http://scu.edu.au/coursesin2014/?action=unit&command=load_unit&spk_no=300799
QLD	The University of Queensland	Undergraduate	School of Agriculture and Food Science	Bachelor of Agribusiness	AGRC1010 - Systems Thinking and Practice for Natural and Agrifood Industries	This course has been included as a core component of the suite of BAppSci programs. The course is intended to provide you with a broad understanding of the systems addressed by your own program and of the relationship between these and other systems affecting your operational environment. We aim to broaden your horizons and expand your appreciation of complexity. We have clear feedback from graduates and employers indicating that you need an analytical framework to help you to critically analyse complex situations, solve problems and make decisions. Generic skills like these are more widely required of graduates than specific factual knowledge. These skills will take time and experience to develop. In this course, you will learn to develop a framework for the critical analysis of complex situations, and you will progress to the design of system improvements. These are skills you can apply to any practical or professional field of employment.	Internal	Donald Cameron	donald.cameron@uq.edu.au	http://www.courses.uq.edu.au/student_section_loader.php?section=1&profileid=61634
	The University of Queensland	Undergraduate	School of Agriculture and Food Science	Bachelor of Agricultural Science (Hons)	ENVM2521 – Participatory Research, Development and Extension Practice	Practice issues in conducting participatory research, development and extension in agriculture, resource management, environmental management and community development. Includes practical methods for professionals working with diverse communities and multi-stakeholder groups. Includes qualitative research, participatory and gender analysis methods, and tools for systems thinking, incorporating cultural differences and facilitating participatory learning. This course will cover the following modules: <ul style="list-style-type: none"> •The evolution of extension and conceptual frameworks •Extension in contemporary society •Transformational learning •Participatory and research methods •Theories of change •Capacity building •Communication and technology •Opportunities, challenges and dilemmas in extension •Monitoring and evaluation of extension 	Internal Gatton	Gomathy Palaniappan	g.palaniappan@uq.edu.au	http://www.courses.uq.edu.au/student_section_loader.php?section=1&profileid=71384
	The University of Queensland	Undergraduate	School of Agriculture and Food Science	Bachelor of Environmental Management	ENVM2503 - Environment and Community	Environment and Community ENVM2503 is a course designed for students with an interest in community roles in environmental management. It explores human interactions with their environment, humans in community, the multiple dimensions of sustainability, the challenges for communities to achieve effective environmental management while meeting social and economic needs, and processes by which environmental objectives are progressed within the community. It emphasises environmental management approaches that incorporate community decision-making and action.	Internal/External	Helen Ross and Jim Cavaye	helen.ross@uq.edu.au	http://www.uq.edu.au/study/course.html?course_code=ENVM2503

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QLD	The University of Queensland	Undergraduate	School of Agriculture and Food Science	Bachelor of Agribusiness	MGTS2961 - Working with Groups and Teams	Almost all professions and walks of life involve working in groups and teams and it's important for students to have a basic understanding of group function and dynamics. This course provides a comprehensive overview of the concepts, principles and practical skills involved in the development and function of groups and teams. It consist of five modules which progress from understanding individuals and how they interact in groups, to group function and dynamics, through to conflict management and leadership in groups. Students will learn how their personality type influences their participation in groups, how groups develop and perform, various methods for facilitating groups, and ways of managing conflict and how to foster leadership in groups. The course is conducted by the School of Agriculture and Food Sciences and has some focus on agriculture and natural resources. However, students from a wide range of fields will find the course relevant and useful.	Internal Gattor/ External	Jim Cavaye	j.cavaye@uq.edu.au	http://www.courses.uq.edu.au/student_section_loader.php?section=1&profileid=68890
	The University of Queensland	Postgraduate	School of Agriculture and Food Science	Master of Rural Development	AGRC7049 - Extension and Participatory Practice	The course covers the principles and practices of agricultural extension and participation methodologies in rural settings. It describes the aims, incentives and barriers to stakeholder participation and learning, and practice change. It includes models of extension including technology transfer, action learning and participatory processes.	Internal/Intensive	Gomathy Palaniappan, Helen Ross, Jim Cavaye	g.palaniappan@uq.edu.au ; helen.ross@uq.edu.au ; j.cavaye@uq.edu.au	http://www.uq.edu.au/study/course.html?course_code=AGRC7049
	The University of Queensland	Postgraduate	School of Agriculture and Food Science	Master of Rural Development Master of Agricultural Science Master of Environmental Management	ENVM7513 – Environment and Community	Environment and Community ENVM7513 is a course designed for students with an interest in community roles in environmental management. It explores human interactions with their environment, humans in community, the multiple dimensions of sustainability, the challenges for communities to achieve effective environmental management while meeting social and economic needs, and processes by which environmental objectives are progressed within the community. It emphasises environmental management approaches that incorporate community decision-making and action. While the focus is primarily on Australian arrangements, in which there is strong opportunity for community involvement in natural resource management, there are opportunities to consider arrangements in other countries where community participation or action occurs.	Internal/External	Helen Ross, Jim Cavaye	Helen.Ross@uq.edu.au ; j.cavaye@uq.edu.au	http://www.uq.edu.au/study/course.html?course_code=ENVM7513
	The University of Queensland	Postgraduate	School of Agriculture and Food Science	Master of Rural Development Master of Agricultural Science Master of Environmental Management	ENVM7523 - Systems Thinking for Sustainability	Systems thinking is the science and art of understanding the dynamic behaviour of systems by understanding feedback. Positive and negative feedback occurs in all systems (be they biophysical, social, economic, business, engineering, political or managerial) and it is the interaction of positive and negative feedback that leads to complex dynamic behaviour. In order to make good decisions within complex systems it is necessary to understand feedback processes. This course introduces the concepts, theories, and modelling tools of Systems Thinking and System Dynamics. Qualitative tools are used within the course to understand system structures and feedback, while quantitative tools are used to model system behaviour over time and to foresee the intended as well as unintended consequences of decisions. Group projects conducted within the course provide a multi-disciplinary learning opportunity for students.	Internal/Intensive	Carl Smith	c.smith2@uq.edu.au	http://www.courses.uq.edu.au/student_section_loader.php?section=1&profileid=64885

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QLD	The University of Queensland	Postgraduate	School of Agriculture and Food Science	Master of Rural Development Master of Agricultural Science	MGTS7976 - Effective Stakeholder Engagement	<p>Social, economic and environmental improvements depend on the effective involvement and empowerment of a wide range of stakeholders. There has been a strong and increasing emphasis on the engagement of stakeholders and community members by government at all levels, by commercial industry and by community organisations. The involvement and empowerment of stakeholders is often critical to the effectiveness and sustainability of local, regional and national initiatives and can have far-reaching economic, social and environmental implications.</p> <p>Yet, the experience of stakeholders with engagement has been mixed at best. Some engagement processes have led to a high level of involvement and ownership by stakeholders. However, many engagement exercises have had limited stakeholder participation and many stakeholders often feel disengaged and cynical about engagement processes. Many stakeholders feel as though they have little influence on outcomes, that decisions have already been made and their involvement is token. Stakeholders also complain of over-consultation and duplication of contact.</p> <p>Effective stakeholder engagement requires extensive understanding, planning, commitment and ongoing processes. This involves understanding the situation and preferences of stakeholders, building and maintaining relationships, using appropriate methods to engage diverse stakeholders and providing feedback and follow-up action. Effective engagement can be difficult to manage given budget and time limitations and the complexity and often controversy involved in many public issues.</p> <p>This course provides knowledge and skills to manage effective engagement with stakeholders. It covers fundamental principles and understandings that underpin effective engagement, processes for understanding stakeholders, planning engagement processes, providing feedback and maintaining stakeholder relationships. It also includes specific topics in engagement and “troubleshooting” of common issues that arise in stakeholder relationships. It is based on engagement being a dynamic set of long term relationships between stakeholders rather than a specific engagement process, event or activity.</p> <p>While it is an advantage for students to have some experience with engagement, this is not essential. The course also covers engagement in many contexts including rural and regional issues, the corporate sector, mining industry, local, state and federal government, natural resource management and Indigenous engagement. The course involves practical exercises and activities that require students to assess recent or current engagement processes and participate in engagement activities in their community. While the course covers theoretical components, it takes a very practical and pragmatic approach to engagement.</p>	External/Intensive	Jim Cavaye	j.cavaye@uq.edu.au	https://www.uq.edu.au/study/course.html?course_code=MGTS7976
	The University of Queensland	Postgraduate	School of Agriculture and Food Science	Master of Rural Development Graduate Diploma in Agricultural Studies Master of Agricultural Studies Master of Agricultural Science	MGTS7968 - Rural Community Development	<ul style="list-style-type: none"> •Principles and Processes of Community Development •Changes in Rural and Regional Communities •Community Resilience •Community Appraisal and Planning •Asset-Based Community Development •Managing the Practical Realities of Community Work •Planning and Conducting Community Engagement •Methods of Community Engagement •Encouraging Community Participation •Economic Analysis and Economic Development •Accessing Funding and Resources •Conflict Management •Fostering Leadership and Entrepreneurship •The Role of Government in Community Development •The Roles of a Community Practitioner •Evaluation and Measurement of Community Outcomes 	Internal/External	Helen Ross, Jim Cavaye	Helen.Ross@uq.edu.au j.cavaye@uq.edu.au	http://www.courses.uq.edu.au/student_section_loader.php?section=1&profileid=65127

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QLD	The University of Queensland	Postgraduate	School of Agriculture and Food Science	Master of Rural Development Graduate Diploma in Agricultural Studies Master of Agricultural Studies	MGTS7965 - Leading and Facilitating Groups	This course focuses on you as a facilitator and leader within a community setting. It aims to equip you with an understanding and skills in the areas of group leadership, group dynamics, group facilitation, process design and facilitation techniques.	Internal/Intensive	Helen Ross	Helen.Ross@uq.edu.au	http://www.uq.edu.au/study/course.html?course_code=MGTS7965
	The University of Queensland	Postgraduate	School of Agriculture and Food Science	Master of Rural Development Master of Agricultural Science	MGTS7973 - Negotiation and Conflict Management in Resource Management	A conceptual framework of conflict at the interpersonal, intra-group and inter-group level that will enable students to improve their conflict management skills. The focus will be on processes and skills that will improve individual and team negotiating competence and confidence. What are the main causes of conflict? Is conflict always destructive? How do you prefer to manage conflict? What strategies and communication skills can be used for conflict management and negotiation? How can you plan for a negotiation? How can negotiation be used in resource management situations? These are some of the questions which will be answered by this course, using a participatory, practical approach. It provides students with a detailed theoretical understanding of conflict and practical processes and skills to manage conflict in a range of settings.	Internal/Intensive	Helen Ross	Helen.Ross@uq.edu.au	https://www.uq.edu.au/study/course.html?course_code=MGTS7973
	The University of Queensland	Postgraduate	School of Agriculture and Food Science	Master of Rural Development Master of Agricultural Science	MGTS7963 - Evaluation of Programs and Projects	This course provides the framework for undertaking an evaluation of an activity, project or program. It introduces you to the critical elements necessary for evidence-based evaluation, consistent with today's government, industry and community expectations that the design and implementation of programs and projects will result in measurable benefits for society. The course introduces a variety of evaluation approaches and the program logic to plan an evaluation. Various methods for data collection are introduced, practised and discussed. The political and ethical considerations associated with evaluation are examined, together with tested methods to satisfactorily engage the different sectors and individuals who may have a stake in the design, implementation and findings of an evaluation. Students will learn how to prepare an evaluation plan for an activity, project or program from their workplace or community and gain practical exposure in completing a small evaluation. Students will also be exposed to the challenges of communicating the findings from an evaluation. Skills practice examples in the course will be drawn from both social and natural resource management settings. This course uses action learning processes and students are expected to actively participate both in learning and helping others in their learning journey.	Internal/Intensive	Helen Ross	Helen.Ross@uq.edu.au	https://www.uq.edu.au/study/course_code=MGTS7963
	The University of Queensland	Postgraduate	School of Agriculture and Food Science	Master of Rural Development Master of Agricultural Science Graduate Diploma in Agricultural Studies Master of Agricultural Studies	EDUC7960 - Adult Learning for Regional Development	Adult learning forms the foundation of training, extension, community development, facilitation and working with groups. This course will cover principles and strategies in adult learning and how these can be applied to work and community situations. This course will cover the basic principles of adult learning; learning styles and strategies; session design to meet learning needs; identification of learning needs; and Kolb's learning cycle and adaptations. You will be able to assist adult learners to: identify learning needs; encourage and support self-directed learning; develop materials and resources; and deliver learning experiences in an adult learning context.	Internal/Intensive	Helen Ross	Helen.Ross@uq.edu.au	https://www.uq.edu.au/study/course_code=EDUC7960

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QLD	The University of Queensland	Postgraduate	School of Agriculture and Food Science	Master of Rural Development Master of Agricultural Science	AGRC7046 - Leadership in Rural Industries and Communities	<p>It is crucial for Master's degree graduates to have a sound understanding and practical skills in modern leadership. Many of the issues facing rural industries and communities require not just technical knowledge, but the capacity to analyse complex problems, work collaboratively with a range of stakeholders, foster capacity on an industry and community scale, and develop collaborative leadership often around emotive issues often involving considerable conflict. This course addresses modern principles and practices of leadership in rapidly changing rural industries and communities.</p> <p>Leadership is also important given the key challenges in industries and communities such as maintaining the economic viability of rural enterprises, managing major issues such as the Murray Darling Basin Plan, or poverty in developing countries, and the changing role of government and industry organisations. Combined with the Queensland Government goal of doubling food production by 2040 (together with increasing global food supply), these are key challenges that will require considerable leadership. This course is comprehensive and practical, aimed at students gaining a greater understanding of leadership and fostering their skills in leadership, to better support organisations, businesses and communities.</p> <p>Participants will develop concepts and skills to manage complex problems, foster collaborative approaches and contribute to leadership both in Australia and overseas.</p> <p>The course covers:</p> <ul style="list-style-type: none"> •The nature of leadership •Leadership styles •Individual leadership and shared leadership •Differences between leadership and management •Managing Change •Understanding individual personality and approaches to leadership •Understanding power and empowerment •The role of ethics and values in leadership •Conflict management and negotiation •Leadership in various settings e.g. crisis, capacity building, national, local •Leadership in a community context •Adaption to long-term change e.g. food security, climate change. •Leading high performance teams •Group development and team roles •Self concept and self esteem •Mentorship •Practical scenarios and case studies of leadership 	Internal/External	Jim Cavaye	j.cavaye@uq.edu.au	http://www.courses.uq.edu.au/student_section_loader.php?section=1&profileid=65346
	The University of Queensland	Postgraduate	School of Agriculture and Food Science	Master of Rural Development Master of Agricultural Science	AGRC7047 - Global Challenges in Agriculture	<p>The course introduces students to major emerging issues affecting policy and practice in the agricultural, agribusiness, food sciences and rural development fields, and equips them to apply their knowledge and skills in a rapidly changing world context. Topics include global megatrends, futuring and foresighting skills, leading into examination of globalisation, food security, climate change, water resources, sustainability and resilience. In combination with the leadership course, students will be encouraged to think of themselves as shaping the future, rather than solely responding to trends. The course will emphasise student directed learning, and case studies. The course will be designed to be equally relevant to students from developing and developed countries.</p>	Internal/External	Helen Ross	Helen.Ross@uq.edu.au	https://www.uq.edu.au/study/courses.html?course_code=AGRC7047

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SA	The University of Adelaide	Undergraduate	School of Agriculture, Food and Wine	Bachelor of Agricultural Sciences	AGRIC 3500WT - Professional Skills in Agricultural Science III	The Professional Skills III course has two equally-weighted components: 1] Communication theory and skills, and 2] Professional Internship. Communication theory and skills is coursework undertaken in the first half of semester 2, in Year 3. Students learn: how to design training and extension events using action learning processes and adult learning principles; how to design complex communication and evaluation programs; how to resolve conflict and negotiate in the workplace and business. They will also receive training in career planning, applying for jobs and interview technique. The Professional Internship is a period of 12 weeks employment engaged from mid-year of Year 2 until end of Semester 2 of Year 3. Work can be conducted in areas that are related to agricultural science, including research, agribusiness, agricultural production (including farm experience) and related industries such as food processing, veterinary, livestock, wildlife and natural resource management. By completing the internship students will achieve the following outcomes: - Apply knowledge gained in the undergraduate program to a professional working environment - Develop a deeper understanding of work in areas of professional agricultural or animal science practice - Develop a professional approach and attitude to work - Enhance their ability to synthesise information and present it in written reports	Internal Waite	Ian Nuberg	ian.nuberg@adelaide.edu.au	https://www.adelaide.edu.au/course-outlines/106515/1/sem-2/
VIC	The University of Melbourne	Undergraduate	School of Land and Environment	Bachelor of Agriculture Bachelor of Science majoring in Agricultural Science	AGRI30011 - Innovation Change and Knowledge Transfer	Students will use case studies in agricultural systems to access, organize and present data for knowledge creation and management in natural and agrifood systems. The subject will provide students with an understanding of how and why people take up knowledge and information and as well as the impediments to adoption. Students will develop the skills to enable them to generate, acquire, apply and make accessible the knowledge needed to enhance material, human, social and environmental wellbeing. Topics Covered: What's innovation and change? Why do people change (individually, collectively)? Models of extension and change (Rogers/ADOPT tool vs Systemic learning models); Farmer segmentation and farmer networks; stakeholder and community engagement in change and facilitation: theory and tools; Project design and delivery models (facilitation/empowerment/consultant/mentor/problem solving/technology development/information delivery); Evaluation.	Internal/Intensive - Dookie Farm Campus near Shepparton	Ruth Nettle	acra@unimelb.edu.au	https://handbook.unimelb.edu.au/view/2014/AGRI30011
	The University of Melbourne	Undergraduate	School of Land and Environment	Bachelor of Agriculture Bachelor of Science majoring in Agricultural Science	AGRI30003 - Agricultural Systems Analysis	Farm productivity and profitability is a result of interdisciplinary interactions between soil, plant, animal, climatic, human, risk and market factors. This subject aims to develop the skills required to analyse these interactions and support decision-making in agricultural businesses. The subject is taught using problem-based learning by doing. Students will conduct farm management economics case study analyses during the semester, and submit a detailed report on these. Each case study is based on a commercial farm business. Case study analysis will require students to clearly identify the problem to be solved and the context for problem solving (including business and personal goals of the owners and their approach to management and decision making), analyse options for solving the problems and meeting goals, and prepare a report of their findings for the 'client'. Case study visits are supplemented by lectures and tutorials that develop the theory and practice of farm systems thinking and analysis. The subject integrates biophysical science disciplines, management economics, and human systems elements. It is designed to enable students to work effectively with the owners and managers of agricultural businesses in bringing about change in their business.	Internal Parkville	Bob Farquharson and Ian Bland	13MELB@unimelb.edu.au	https://handbook.unimelb.edu.au/view/2014/AGRI30003
	The University of Melbourne	Undergraduate	School of Land and Environment	Bachelor of Science majoring in Agricultural Science	MGMT 20003 - Project Management	This subject will offer the opportunity to develop the skills and knowledge necessary to manage projects with particular focus on project conception, initiation, planning, monitoring and control. It focuses both on the analytical side of project management, referring to schedule cost, and resource management, as well as the 'people' and client management issues that must be dealt with in order to ensure success of the projects. The subject will cover the core principles of the project management 'body of knowledge' and the key elements required to bring projects to successful fruition.	Internal Parkville	Damien Power	damien@unimelb.edu.au	https://handbook.unimelb.edu.au/view/2014/MGMT20003

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VIC	The University of Melbourne	Undergraduate	School of Land and Environment	Bachelor of Environments	ENVS 10002 - Reshaping Environments	This subject explores how environments shape us and we humans reshape the environment. It examines human attitudes to, impacts on and interactions with the environments in which we live by considering 'natural', transformed and built environments as sites of production and consumption, imagining and contest, in different parts of the globe. The subject considers the material relationship between the natural and built environments by exploring issues of resource use. Human demands for water, energy, food, fibres and minerals, will be examined in relation to the technologies and practices used to meet those needs, and the resulting creation of waste and pollution and impacts on climate and a range of ecosystems and species. These issues and processes will be presented and considered using thematic, geographically varied, historic and contemporary examples. The subject will operate at three 'scales' including: 'natural' landscapes and their ecosystems; cities and the urban environment; buildings.	Internal Parkville	Graham A. Moore and Helena Bender	13MELB@unimelb.edu.au	https://handbook.unimelb.edu.au/vi/ew/2014/ENVS10002
	The University of Melbourne	Undergraduate	School of Land and Environment	Bachelor of Agriculture Bachelor of Science majoring in Agricultural Science Community Access Program (CAP) which offer Single Subject Study	NRMT90014 - Sustainable Landscapes	This subject will consider the wider landscape issues associated with: <ul style="list-style-type: none"> •rural and urban land use and land use change, clearing, fragmentation and modification of native vegetation, and the influences of these on biodiversity, and ecosystem services and processes; •utilisation, degradation and management of rural and urban biophysical resources, especially in regard to the soil and water; •climate change and sustainable rural futures; •population - the regional, the service town, the rural, urban fringe; •agriculture - agro-ecology, trends in modern agricultural production, and the sustainability of production, food sovereignty, post-production landscapes; •industrialisation - intensification and pollution; •the commons - public and private good; •environmental security and institutions; •governance - deliberative democracy, empowerment; community based natural resource management; and •economics. <p>These issues will be situated within the systems theory paradigm. Theories of complex adaptive systems, social-ecological systems, uncertainty, complexity, and emergence will frame the investigation of these issues and provide the foundation for a critique of command and control approaches to landscape management. Central to the framework explored in this subject are notions of resilience and community based knowledge systems. Students will engage deeply with the literature that informs these ideas and develop a critical understanding of their value and limitations.</p>	Internal Parkville	Ruth Bellin	13MELB@unimelb.edu.au	https://handbook.unimelb.edu.au/vi/ew/2014/NRMT90014
	The University of Melbourne	Undergraduate	School of Land and Environment	Bachelor of Agriculture Bachelor of Science majoring in Agricultural Science Community Access Program (CAP) which offer Single Subject Study	NRMT 90007 - Community Natural Resource Management	In this interdisciplinary subject, a range of ideas and theories from the social sciences are applied to situations in which members of the community are involved in natural resource management. Subject teaching includes lectures, group exercises and case studies, including a one day field trip. The subject is presented under nine main headings: <ul style="list-style-type: none"> •philosophy and evolution of participation and community management; •models of community management of forests and other natural resources - overseas and in Australia; •understanding communities and stakeholders; •issues of power and knowledge in community management; •policy and institutional issues in community management; •process and techniques in participatory enquiry, planning and management; •issues in Koori community resource management; •forms of evaluation in community management programs; and •conflict management. 	Internal Parkville	Rebecca Ford	13MELB@unimelb.edu.au	https://handbook.unimelb.edu.au/vi/ew/2014/NRMT90007

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STATE	INSTITUTE	TERTIARY LEVEL	SCHOOL	DEGREE	COURSE	COURSE DESCRIPTION	COURSE DELIVERY	COORDINATOR/LECTURER	CONTACTS	COURSE INFO
VIC	The University of Melbourne	Postgraduate	School of Land and Environment	Master of Agribusiness	ENST90023 - Managing Innovation and Change	Students will review theories and case studies of innovation and change in land and environment in order to analyse and consider the design, delivery and evaluation of innovation systems. The subject will provide students with an understanding of how and why innovation is generated, as well as the roles of different agents in innovation systems. Students will develop the skills to enable them to manage innovation and changed for improved economic, social and environmental outcomes.	September online/distance	Ruth Nettle and Barbara King	acra@unimelb.edu.au	https://handbook.unimelb.edu.au/view/2014/ENST90023?output=PDF
VIC	The University of Melbourne	Postgraduate	School of Land and Environment	Master of Agribusiness	MGMT90030 - Managing Innovation and Entrepreneurship	The purpose of this subject is to examine the topics of Managing Innovation and Entrepreneurship in the context of large and small organisations. Innovation is ultimately the lifeblood of organisations, in that it is concerned with the capability to effectively introduce new products and services, new or substantively improved processes or other major initiatives into existing and new organisations. Topics include innovation capability, new product/process technology introduction, and innovation culture and innovation measures. The subject addresses how the 'Newstream' of an organisation can be effectively developed, resourced and how it can provide a return on investment to the organisation's 'Mainstream'. Key elements addressed that are part of successful innovation companies are vision and strategy innovation, creativity and idea management, culture and climate, management of technology, organisational structures, intelligence and systems. Firms that have successfully and systematically created such capabilities will be used as case studies. The subject also examines the definition of an entrepreneur as an innovator who recognises and seizes opportunities; converts those opportunities into workable/marketable ideas; adds value through effort, money and skills; assumes the risk of the competitive marketplace to implement these ideas; and realises the rewards from these efforts.	Internal Parkville	Patrick Foley and Alka Singh	pfoley@unimelb.edu.au	https://handbook.unimelb.edu.au/view/2014/MGMT90030
TAS	University of Tasmania	Undergraduate	School of Agricultural Science	Bachelor of Agricultural Science	KLA312 - Farm Business Management and Extension	The unit provides students with an overview and understanding of farm business management and the theory and practice of extension. The unit will include study of: the agribusiness environment of Australia, enterprise and farm budgeting, business structures, finance, business planning, farm accounting, risk management, value chain analysis, the planning of scientific development and extension programs, extension methods and evaluation of extension programs. Examination of farm case studies and visits to several Tasmanian farms will be used to gain exposure to current farming systems and enterprises with an emphasis on successful farm management strategies. Experienced practising professionals will be involved in components of this unit, either as presenters or facilitators.	Internal	Peter A. Lane and Joanna James	Peter.Lane@utas.edu.au ; Joanna.Jones@utas.edu.au	http://courses.utas.edu.au/portal/page/portal/COURSE_UNIT/UTAS_UNIT_DETAIL?P_YEAR=2014&P_UNIT_CODE=KLA312&P_CONTEXT=NEW
TAS	University of Tasmania	Postgraduate	School of Agricultural Science	Master of Business Administration (Professional) Agricultural Innovation	KLA535 - Farm Business Management and Extension	The unit provides students with an overview and understanding of farm business management and the theory and practice of extension. The unit will include study of: the agribusiness environment in Australia, enterprise and farm budgeting, business structures, finance, business planning and financial analysis, farm accounting, risk management, and introduction to the concept of value chain analysis, the planning of scientific development and extension programs, extension methods and evaluation of extension programs. Examination of farm case studies and visits to several Tasmanian farms will be used to gain exposure to current farming systems and enterprises with an emphasis on successful farm management strategies. Experienced practising professionals will be involved in components of this unit, either as presenters or facilitators.	Internal Hobart/Distance	Peter A. Lane and Joanna James	Peter.Lane@utas.edu.au ; Joanna.Jones@utas.edu.au	http://courses.utas.edu.au/portal/page/portal/COURSE_UNIT/UTAS_UNIT_DETAIL?P_YEAR=2014&P_UNIT_CODE=KLA535&P_CONTEXT=NEW