

Course Descriptions (Short)

Part A

Course Code and Name	Semester and mode of offer	Brief description
AGRC7001 Sustainable Rangelands Production Systems and Regions	Semester 1, 2 External, internal and intensive	This course examines the drivers of sustainability, and industry and government commitment to the concept. It covers principles of sustainable development, requirements for sustainable regions, landscapes and enterprises, efforts to achieve sustainable regions and enterprises, and economic, social and institutional impediments to achieving sustainability. Key biophysical and socio-economic characteristics of rangeland systems are explored with respect to the use and management of these systems. This course provides the foundation for further study of the use and management of rangelands and introduces sustainable grazing practices.
MGTS7976 Building Effective Stakeholder Engagements	Semester 2 External, internal and intensive	Resolution of management and planning issues in the rangelands increasingly involves a diversity of stakeholders. The outcomes of these devolved processes have significant and far-reaching economic, environmental and social implications for rangelands enterprises and regions. This course develops the skills to be an effective participant in such processes, and to design and manage effective stakeholder engagement based on knowledge of culture, values and aspirations of various stakeholders. This knowledge is applied in a stakeholder engagement process.
MKTG7965 Global and National Trends, Local Scenarios	Semester 1 External, internal and intensive	There are many forces driving economic, environmental and social change in the world, and these can impact, directly or indirectly, on practices, livelihoods, lifestyle and communities in the rangelands. This course explores the economic, environmental and social trends that may influence planning and management in the rangelands. It will develop skills in scenario analysis, tracking trends and emerging issues, in identifying opportunities and decision-making, as well as build capacity for strategic management in the face of continuing change.

Bold = Rangeland-specific courses

Optional research project and associated courses

Course code and name	Semester and mode of offer	Brief description
ENVM6501 Research, Development and Extension Methodologies	Semester 1 Internal Semester 2 External	Examines the broad philosophies, paradigms and methodologies encompassing the whole process of research, development and extension in natural and agrifood systems and rural communities. Provides examples of the field application of various methodologies and challenges students to develop their own research proposals
STAT7501 Advanced Biometrics 1	Semester 1 Internal	This course is designed to meet the individual student needs.
LPWM7611/7612/7613 (#4) Graduate Research Project I or LPWM7617/7618/7619 (#8) Graduate Research Project III	Semester 1, 2 External or Internal	This course involves the design, implementation and presentation of a research project approved by the Program Coordinator. The project will examine an integrated rangeland management issue which focuses on at least two (preferably three) dimensions of the 'triple bottom line'. Emphasis is placed on defining the research issue, establishing an appropriate methodology, undertaking appropriate collection and analysis of data & drawing defensible conclusions and recommendations. Students completing the course in one semester must enrol in LPWM7617. Students completing the course in two semesters must enrol in LPWM7618 for both semesters if commencing in semester 1 or LPWM7019 if commencing in semester 2.

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Elective courses

Course Code and Name	Semester and mode of offer	Brief description
AGRC7023 Grazing Land Management	Semester 1 External, internal and intensive	This course explores issues in the sustainable use & management of the rangelands, with particular emphasis on meat & wool production. The course covers the theory & practice of grazing management, strategies to optimise productivity in a variable climate, & options for management of major rangeland types.
AGRC7027 Rangeland Pest Animals, Weeds and Biosecurity	Semester 2 Offered odd years only. Next offered 2011. External mode only.	The course develops an understanding of the biology, ecology & costs of key weed, insect & vertebrate pests together with landowner obligations & legislative requirements. The course also examines strategies for early detection & methods by which pests can be managed including physical, cultural, chemical & ecological methods, & their integration into IPM & landscape management strategies.
AGRC7028 Rangeland Monitoring and Adaptive Management	Semester 1 Offered odd years only. Next offered in 2011. External, internal and intensive	This course examines the role, tools & use of monitoring for regional, enterprise & paddock monitoring to enable the most appropriate information for decision making. It also covers collection, analysis & interpretation of data & integration of the information into decision making that affects production systems & risk management.
AGRC7029 Diversification and New Industries in the Rangelands	Semester 2 Offered odd years only. Next offered in 2011. External, internal and intensive	This course examines the financial & environmental aspects of diversification options for the rangelands. This course looks at how to research options & conduct market research; investigate supply chains & markets; find start up funds; investigate legal restrictions; project cash flows; use qualitative forecasting techniques & deal with risk.
AGRC7030 Reading the Rangelands	Semester 2 Intensive only	This course develops understanding of natural resources including cycles and patterns of key resources such as nutrients, water, plants etc. It will develop the critical observational and interpretive skills necessary to assess and evaluate landscapes in order to 'read country' and improve everyday decision making and management practices.
AGRC7031 Property, Catchment and Regional Planning	Semester 2 Offered even years only. Next offered 2010. External, internal and intensive	This course examines the processes involved in property planning; setting business goals, evaluating the effects of change within a property & at a catchment & regional level, in order to implement changes that are ecologically sustainable.
AGRC7035 Advanced Rangeland Ecology	Semester 2 External, internal and intensive	This course examines the characteristics and classification of rangelands; ecological concepts and principles applicable to rangelands; models used in understanding ecological processes in rangelands and application of rangeland ecology to resource management and agricultural production. Ecological function and dysfunction and ecological assessment of rangelands.

AGRC7037 'E' technologies for the Food and Fibre Sector	Semester 1 Internal and remote	An in-depth study of the major issues facing the food and fibre sector throughout the supply chain from on-farm to the consumer when moving into the electronic business environment. Current agri-industry examples are used throughout.
ANIM7017 Animal Nutrition and Behaviour	Semester 1 External, internal and intensive	This course explores issues of animal health, welfare & behaviour. This involves understanding behaviour to predict seasonal patterns of use of the landscape and animal impact; complementary and competitive effects of grazers and browsers and how that can be managed for maximum nutritional impact; digestion and nutrient requirements; pasture growth and nutritive value; the theory and practice of pasture and grazing management to optimise yield & quality of animal products; tools for monitoring nutritional status and strategies for managing nutritional deficiencies.
ANIM7018 Animal Wellbeing and Health	Semester 2 External, internal and intensive	The course will investigate current issues in livestock welfare & health, & how they can impact & constrain animal productivity. It will examine & interpret animal behaviour to increase safety & efficiency & minimise stress in working stock & develop an understanding of the principles of epidemiology, including the importance of the identification, control & prevention of common diseases in livestock herds & feral animals.
ENVM7521 Environmental Problem Solving	Semester 2 External and internal	Development of problem solving framework for environmental management. Appreciation of disciplines which define dimensions of environment problem decision space & its relevance to other studies.
FINM7960 Agribusiness Project Proposal	Semester 1 External and internal	Examination of the financial appraisal of capital investments in the agribusiness sector. Project appraisal concepts, the time value of money and essential financial formulae, project cash flows, qualitative forecasting techniques and how to deal with risk when undertaking project appraisals.
LAND7000 Water and Land Resource Management	Semester 2 Internal and remote	Study of hydrology & land degradation processes within a landscape context; use of this knowledge to apply the principles of sustainable land & water resource use for agriculture, forests, rangelands, recreation areas & urban zones; development of practical land management packages for conservation of land & water resources.
LPWM3005 Game Management – the Science of Sustainable Use	Semester 1 External only	This course provides the scientific principles of game management (the manipulation of wildlife populations using population monitoring, habitat management & sustainable utilisation) as it is practiced throughout the world today. Students will also gain an understanding about the history of game management and the utilization of wildlife; community attitudes to wildlife in relation to utilization, animal welfare and cultural differences; basic population models and how they relate to resource use and methods of determining population size; and case studies on game management with examples from Africa, Australia, Europe, New Zealand and North America.
LPWM6640 Postgraduate Advanced Topic I	Semester 1,2 External and internal	Advanced piece of work in a specialist area relevant to the student's program and conducted under the supervision of a member of academic staff.

MGTS7960 Agribusiness Supply Chain Management	Semester 1 External and remote	Investigates theory & practice of supply chain formation, management & performance in context of globally competitive agribusiness firms.
MGTS7968 Rural Community Development	Semester 1 Internal and intensive	Processes and current issues in rural community development. Leading and facilitating community groups. The social and cultural processes relevant to rural community development and social sustainability. (Minimum enrolment required 8) Residential Schools - 1x5 days and 1x2 days
MGTS7978 Managing Self, Developing and Retaining Others	Semester 1 Offered odd years only. Next offered 2011. External, internal and intensive	This course provides an introduction to the personal and interpersonal aspects of people management. It develops key people management processes and skills including: leadership; motivating others; valuing others; developing other's skills and abilities; building positive attitudes; managing conflict and change; building effective teams and developing self-awareness.
MKTG7960 Commodities, Futures and Options	Semester 2 External and internal	Agribusiness production, marketing & processing firms exposed to considerable price risk because of commodity price volatility. Examines options available to agribusiness managers to manage this risk. (Minimum enrolment required 8 - please contact Dr Ray Collins before enrolling ray.collins@uq.edu.au)
MKTG7961 Agribusiness Marketing	Semester 1 Internal and remote	The course examines the forces of change that impinge on agribusiness firms and develops a marketing framework that individual managers can utilize to cope with these changes.

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Courses Available through Cross-Institutional Enrolment

MEAT518 Meat Technology (UNE)	Semester 1, 2 External and internal	This unit consists of 39 lectures and an excursion and provides an advanced understanding of industry activities in meat processing. It covers all aspects of the operations of meat works; meat safety; meat preservation, storage, packaging and transport; secondary processing and smallgoods production; industry by-products; pet foods; hides and skins and the chemistry and analysis of meats. All species are covered including poultry. Practical sessions focus on industry visits. Available as a postgraduate unit. Students enrolled in MEAT518 will have to complete the requirements for MEAT418 and complete additional guided reading/practical work appropriate to the needs of individual students.
WOOL512 Sheep Production (UNE)	Semester 1 External only	This unit introduces the major themes associated with sheep production in Australia including: wool production, sheep meat production, sheep management, sheep breeding, grazing and nutritional management. The unit represents a specialisation for students planning to enter the sheep and wool industry. Students enrolled in WOOL512 will have to complete additional guided reading/practical work appropriate to the needs of individual students.
AGRO501 Organic Agriculture: Principles and Practice (UNE)	Semester 1 External and Internal	The unit consists of a special program of study in organic agriculture, tailored to meet the needs of individual students, involving guided reading and assessment. Students will gain a thorough knowledge of the organic farming sector in Australia and overseas, as well as skills and knowledge in specific aspects of organic production relevant to their interests.
Note: Students interested in doing a course from the University of New England will have to undertake it by cross-institutional enrolment. Please contact the relevant school at UNE for further details www.une.edu.au		
SBI507 Ecology and Management of Tropical Forests and Savannas (CDU)	Semester 1 External and internal	This unit focuses on the ecology and management of tropical savannas. Current knowledge on the determinants of structure and function of tropical savannas will be described. Management issues in savannas will be examined and the relationship between the ecology and management of savannas will be emphasised.
Note: Students interested in doing this course will have to undertake it by cross-institutional enrolment. Contact Charles Darwin University, School of Environmental and Life Sciences for further details www.cdu.edu.au/ehs/sels		
AGB555 Managing Rural Change (CSU)	Semester 1 External and internal	The subject covers personal change, community change and change within organisations. It adopts an action oriented approach to managing change whereupon students are expected to manage a change situation within a community or organisation. Students work in action learning groups to support each others projects.
AGR595 Managing Agroecosystems (CSU)	Semester 2 External and internal	Agricultural systems are managed ecosystems. This core subject will enable students to develop their understandind of natural ecosystems and how that knowledge can be applied to agricultural ecosystems. This subject will explore the relationship between the environment and the ecological suitability of agricultural enterprises. A major outcome of this subject will be to impart skills in developing and applying systems models towards the

		understanding of management options and their implications from the perspectives of productivity, stability, social equity, economics, and natural resource management.
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Note: Students interested in doing a course from Charles Sturt University will have to undertake it by cross-institutional enrolment. Please contact Charles Sturt University, the School of Agricultural and Wine Science www.csu.edu.au

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