AGRI30016 Irrigation and Water Management

Credit Points:	12.5
Level:	3 (Undergraduate)
Dates & Locations:	2016, Dookie This subject commences in the following study period/s: June, Dookie - Taught on campus. One week intensive course at the Dookie campus, Monday 27 June - Friday 1 July 2016. The cost for single room accommodation with shared bathroom facilities, breakfast, lunch and evening meal will be approximately $450. Further details can be viewed at Dookie Intensives or contact: Jacinta Way, Acdemic Support Officer, Dookie Campus, email: jway@unimelb.edu.au. The first assignment (worth 25%) in this subject requires students to gain an understanding of continental water management issues. The Murray Darling Basin provides environmental, technical , political, social and economic challenges for case study. During the pre teaching period (4 April - 26 June) students need to read the 2012 Federal Government Murray Darling Basin plan to help complete the assignment. Additional information on the Basin will also be circulated for supplementary reading.
Time Commitment:	Contact Hours: 40 hours contact Total Time Commitment: 170 hours
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry. It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability
Coordinator:	Ms Ros Gall
Contact:	**rosgall@unimelb.edu.au (mailto:rosgall@unimelb.edu.au)**
Subject Overview:	On completion of this subject students should be able to: # Describe the scale and distribution of the major irrigation systems in south-eastern Australia # Evaluate plant water requirements in terms of water quality and frequency of supply # Apply basic principles of hydraulics to the selection of irrigation systems appurtenances and structures # Assess irrigation systems in terms of efficiency, economy, energy-use and environmental impact # Recognise the advantages and disadvantages of common irrigation systems # Recognise the need for efficient irrigation drainage as well as water supply The content includes:

	# Water supply potential for the development of irrigation systems, management planning and operation of water allocations, water law, cost benefit analysis, environmental and energy-use implications of resource utilisation and development, efficiency of irrigation systems and long-term viability # Climatic factors in irrigation development, rainfall, evaporation, evapotranspiration and hydrology # Plant physiology and plant water use, transpiration crop water requirements in terms of water quality and quantity # Soils and water, soil moisture retention and movement, plant root zones and development, infiltration and leaching # Irrigation scheduling, soil moisture measurement # Types of irrigation systems, selection of irrigation systems, irrigation drainage, seepage, surface and subsurface drainage systems, salinity, conveyance and disposal of drained effluent, re-use systems, management of irrigation systems, operations and maintenance requirements
Learning Outcomes:	N/A
Assessment:	Two assignments approximately 1000 words each due approximately in Week 6 and Week 11, worth 25% each One three-hour examination to be held during the end-of-semester exam period worth 50%
Prescribed Texts:	None
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Arts (https://handbook.unimelb.edu.au/view/2016/B-ARTS)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2016/B-ENVS)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2016/B-MUS)** You should visit **learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html)** and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	Information Not Available
Related Majors/Minors/ Specialisations:	Agricultural Economics Plant and Soil Science Production Animal Health Science-credited subjects - new generation B-SCI and B-ENG. Selective subjects for B-BMED Sustainable Production
Related Breadth Track(s):	Climate and Water