Advanced Farm Environment Planning

Course Outline

This is a 15-credit course and will provide the student with the detailed knowledge and integrated skills necessary to produce New Zealand industry-standard, farm-scale, freshwater Farm Environment Plans for dairy, beef and sheep and arable farms. These plans will identify existing and potential soil, greenhouse gas, pathogen, and nutrient loss pathways, the sources of these losses, and will provide justification for a range of options to mitigate the impact of the farm system on freshwater bodies.

Co-ordinator: Farmed Landscapes Research Centre (Massey University)

Updated December 2020

Availability: Enrolment will be offered periodically as demand dictates.

Location: Online study and students will also be required to attend a week-long compulsory on-farm engagement visit arranged by Massey University.

Delivery mode: The course will be delivered through online distance learning in addition to a week-long 'in person' farm engagement visit.

Aim: This course will require students to integrate the concepts, tools, and skills developed in the Intermediate Farm Environment Planning course to examine and identify a farm's physical and natural resources and interact with farmer(s) to obtain the farm management information required to construct detailed Freshwater Farm Environment Plans for 1) dairy, 2) sheep and beef, and 3) arable farms. This process will also incorporate the unique attributes of the farm system, the farmer(s), and associated stakeholders.

Entry requirements: This course is suited to students or professionals holding a Bachelor's degree, preferably with some qualifications in soil science and with an interest in farm environment planning. Students are required to have completed Massey University's Intermediate Farm Environment Planning course OR be able to demonstrate existing skills and experience in Farm Environment Planning.

Completion of Massey University's Advanced Sustainable Nutrient Management course is also desirable OR be able to demonstrate high level skills and experience in nutrient management and the use and interpretation of OverseerFM nutrient budgets.

Workload: Advanced Farm Environment Planning is a 15-credit course, which equates to approximately 150 hrs of work. This course is designed for online blended delivery. 10 hours are designed for self-timed access, 5 hours are scheduled for zoom tutorials

and 35 hours are scheduled for 'in person' farm engagement visits. 100 hours are dedicated to targeted assessment.

Learning outcomes:

1) Integrate concepts, tools, and skills developed in the Intermediate Farm Environment Planning course to develop comprehensive Freshwater Farm Environment Plans for 1) dairy, 2) sheep and beef, and 3) arable farms, which take into account the farm system, the farmer, and associated stakeholders.

Certification: Successful participants will receive a Massey University 'Certificate of Completion' in Advanced Farm Environment Planning' and have this achievement and 15 credits added to their academic record at Massey University.

Assessment:

	Assessment type	Assessment Title	Weighting (%)	Link to Learning Outcome
1	Written Assessment	A series of online quizzes, Technical: freshwater Farm Environment Plan concepts and components.	10	1
2	Written Assessment	Report, Technical: Freshwater Farm Environment Plan: Dairy	30	1
3	Written Assessment	Report, Technical: Freshwater Farm Environment Plan: Beef and Sheep	30	1
4	Written Assessment	Report, Technical: Freshwater Farm Environment Plan: Arable	30	1

Requirements to successfully complete the paper:

Achieve an overall minimum of 50% in the Freshwater Farm Plan assessments.

Credit to other tertiary qualifications:

The 'Certificate of Completion' is a recognised University achievement. A student may wish to have the work completed on this course credited towards a postgraduate course in Soil Science offered by Massey University. This can be achieved by enrolling in the appropriate course and applying for credit to the course co-ordinator for the work completed in this short course.