

Postgraduate Program in Animal Breeding Management



The University of Sydney

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Announcing a new postgraduate coursework program in Animal Genetics, Breeding Program Design, Leadership and Management

In February 2007, a new postgraduate program in Animal Breeding Management (ABMgt) will be launched, a joint initiative of the University of New England and the University of Sydney. The new postgraduate program follows from discussions with industry that indicate a pressing need for people with applied skills in genetics and leadership.

The rapid growth of technological and scientific innovation in genetics, genomics, biotechnology and reproduction has resulted in a need for further training for scientists to support industries that rely on effective animal breeding.

The increasing globalization of agriculture means that the demands on professionals in animal industries and organisations have changed. People with skills in animal breeding as well as leadership will be well positioned to contribute to the type of change necessary for industries to remain relevant and competitive.

Advancing Careers

In addition to the structural and technological changes influencing animal industries, for individuals, the need for postgraduate qualifications is also increasing to ensure career progression and to facilitate career changes or specialisation. Postgraduate coursework is the fastest growing area in the higher education sector as more specialised and advanced qualifications are increasingly becoming the norm.

The Animal Breeding Management program provides an opportunity to combine study in animal genetics, animal breeding program design and other related scientific disciplines with skills in teamwork, communication and management. This will support individuals' career development and enhance the capacity for the application of genetic technologies in animal industries.

The new postgraduate program will commence in 2007 with a 5 day residential session in Sydney attached to

Sponsorship

Sponsorship arrangements for the course are being finalised with Australian Wool Innovation and Meat and Livestock Australia. Details will be outlined in the next Newsletter.

the unit of study Leadership, People and Organisations. An official launch of the program will be held during that week.

Following the five day residential session, students will participate in the program remotely, in collaborative online classes. The ABMgt program is being specifically designed to cater for postgraduate students who are working full time and will be accessible from anywhere in Australia or internationally, simply through a web browser.

Collaborative distance learning

Advances in educational technologies mean that distance study is no longer a laborious and isolated process. Active online participation with colleagues, facilitated by an academic expert in each subject area, leads to vibrant and

motivating learning experiences.

The ABMgt program is designed similarly to the University of Sydney's existing Veterinary Public Health Management (VPHMgt) program, which has been offered online, with short residential sessions, since 2003. The VPHMgt program has recently received a national teaching award, following on from student feedback that was the best in the University of Sydney.

The University of New England (UNE) has a much longer tradition of providing distance education. Principles of accessibility and innovation mean UNE's existing teaching in Animal Breeding is accessible on campus and by distance.

In fact, the strengths of both the University of New England and the University of Sydney are reflected in the ABMgt program. This includes the strong research traditions in animal genetics from both institutions, previous experience with distance and online education, existing units of study and teaching traditions in animal genetics, animal breeding, leadership and management.



*Training influential professionals in
animal breeding*

http://www.vetsci.usyd.edu.au/animal_breeding/index.shtml

Results of the Stakeholder Survey for ABMgt

Early in 2006, the Universities of New England and Sydney conducted a survey of stakeholders, which has assisted in planning the curriculum for the Animal Breeding Management program.

More than 20 stakeholders completed the survey, including industry and government representatives, academics, veterinarians and primary producers.

The goal of the survey was to obtain data on the priorities of key stakeholders for a new postgraduate coursework program in animal breeding and to ascertain whether the combination of technical coursework with managerial and leadership skills would be relevant to current industry and academic needs.

The survey followed on from discussions held with Meat and Livestock Australia and Australian Wool Innovation that had highlighted genetics, animal breeding and leadership as areas of need.

Participants were invited to describe the skills of a potential graduate in scientific and technical competencies and managerial and leadership abilities. This part of the survey was to assist the project team in building a picture of the

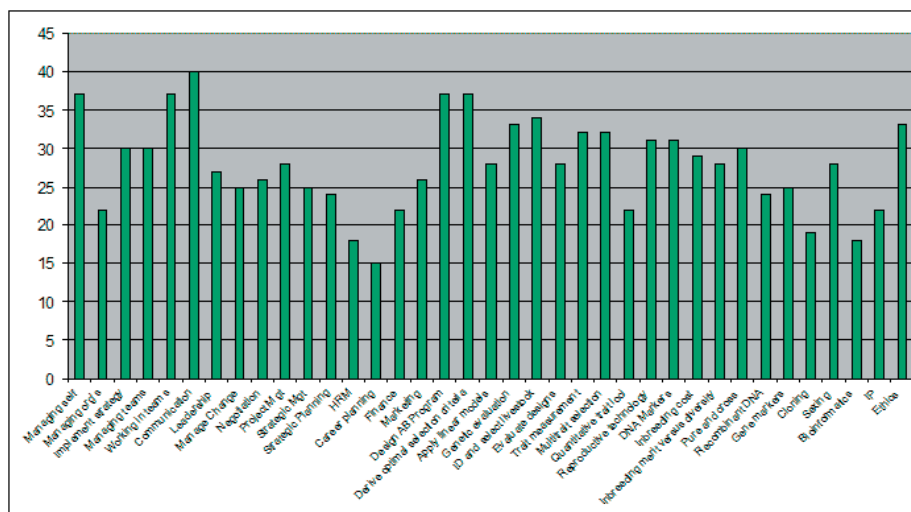
types of graduates the ABMgt program would produce.

A list of potential skills and competencies for inclusion in the ABMgt curriculum was provided, and respondents rated the usefulness of each item.

Communication was the highest rated skill that was considered essential by stakeholders responding to the

survey. This was followed closely by the ability to manage oneself, to work as a member of a team, to design an animal breeding program and to derive optimal selection criteria.

Other very highly ranked competencies for a graduate of ABMgt were considered to be the ability to plan and implement strategy, to manage



people, genetic evaluation, identification and selection of livestock, trait measurement, multitrait selection, estimating the cost of inbreeding and the ability to assess the value of reproductive technologies and DNA markers.

A very high priority for respondents to the survey was the ability to adopt an informed ethical approach to the use of animals, including special issues arising from genetic manipulation.

Strong preferences were also identified for leadership, managing change, negotiation, project management, marketing and strategic management.

Preference for technical skills included application of linear models, evaluation of designs for estimating genetic parameters, the ability to balance increased merit versus inbreeding and decreased diversity in commercial breeding programs, and the implications of gene expression and marker genotyping for gene mapping, genomics and gene discovery.

National Teaching Award

In program structure, curriculum design and modes of teaching and learning, the new ABMgt program is very similar to the Veterinary Public Health Management program offered by the University of Sydney. In fact, the two programs will share Leadership units of study.

It bodes well for the new ABMgt program then, that Veterinary Public Health Management was recently awarded a national citation for outstanding contributions to student learning by the Carrick Institute for Learning and Teaching in Higher Education.

Awarded in August 2006, this Carrick award acknowledges the program's quality in designing an innovative and relevant curriculum and preparing and maintaining a vibrant online learning environment for postgraduate students. Students from this program have given excellent feedback, including the highest student satisfaction ratings at the University of Sydney in 2005.

The experience of designing, developing, teaching and supporting students that has led to this award is also influencing the development of the ABMgt program.

Scholarships likely for ABMgt

Ten scholarships for Australian students will probably be made available in 2007, according to likely sponsors, Meat & Livestock Australia and Australian Wool Innovation.

In a bid to encourage Australian scientists to develop skills in animal genetics, breeding program design, leadership and management, these yet to be confirmed scholarships will cover the cost of course fees for enrolment in the Graduate Certificate, Graduate Diploma or Master of Animal Science (Animal Breeding Management).

Design of the Animal Breeding Management Program

Animal Breeding Management is a distance education program with short 3-6 day residential sessions. The program will be designed to deliver high quality education to students who are working full time and are able to apply their learning immediately to their professional context. Animal Breeding Management has been designed by academic staff from the University of Sydney and the University of New England, experts in Leadership and Management and an educational design consultant.



Julius van der Werf, UNE

Technical and Managerial Learning. The program allocates equal credit points to technical and managerial learning in the first 24 credit points of the course, demonstrating the importance of skill development in both areas. Managerial capabilities are a central, unique attribute of graduates and core units in leadership will feature. The leadership units facilitate learning about organisational behaviour, management and leadership in the context of animal industries, and will be taught by qualified consultants via residential workshops and online.

Short Residential Sessions. Residential sessions for Leadership, People & Organisations, Leadership: Managing Change and Project Management will be held in Sydney. A residential for Genetic Evaluation & Breeding Program Design will be held in Armidale.

Uncomplicated online classrooms. Online classrooms are kept simple to ensure they are easy to use and have minimum disruption due to technical problems. Online discussions, facilitated by expert academics and consultants, mean learning is developed through interaction, engagement with one another and with authentic learning activities. Orientation and support of students will ensure students are supplied with the key skills necessary for postgraduate distance study.



Ruth Laxton, RL Learning Designs

Leadership and Management in Animal Breeding

Leadership, People & Organisations is prepared and taught by Wendy Grusin (pictured here), a member of Adjunct Faculty at the Australian Graduate School of Management (AGSM) with substantial experience in the design and delivery of academic programs in organisational behaviour in a wide variety of institutions. Wendy has taught Leadership units to postgraduate veterinary and animal scientists at the University of Sydney for three years. This unit of study is core to the ABMgt program and introduces the professional application of leadership in animal and veterinary science.



Leadership: Managing Change (LMC) is prepared and taught by Loretta O'Donnell, who is also adjunct faculty at the AGSM and has 15 years experience teaching management at postgraduate level. As well as teaching and researching in sustainable human capital analysis and systems for

managing change, Loretta consults in human capital analysis and change management. Loretta has taught Leadership to postgraduates in the Faculty of Veterinary Science since 2003. This unit of study is core to the ABMgt program and covers the principles and practice of change management, including communication and negotiation.

Leadership Skills will be first offered in 2008 and will include key managerial systems, strategic planning & management, teamwork, finance and marketing. The unit is being prepared by Loretta O'Donnell with input from John Baguley, lecturer in professional practice at the University of Sydney. From 2008, Leadership Skills will be offered in second half of semester 1, following Leadership: Managing Change.



Project Management will not normally be core to the ABMgt program, however students wishing to complete a Graduate Certificate will be able to take this unit in place of LMC and Leadership Skills. Project Management will be available as an elective at all degree levels.

This unit is taught by Gary Timm (pictured here), a practising project manager who has been teaching Project Management to animal and veterinary scientists since 2003.

Program Team

Julius van der Werf is Associate Professor in Animal Genetics at the University of New England where he conducts research and teaching in quantitative genetics and its application in animal breeding programs. Julius will teach Genetic Evaluation & Breeding Program Design and Advanced Applications of Animal Breeding.

Chris Moran is Professor in Animal Genetics at the University of Sydney. Chris conducts and supervises research in molecular genetics and functional genomics and is the Academic Supervisor for the Master of Animal Science program, in which ABMgt is one stream. Chris will teach Advanced Animal Genetics and Advanced Animal Biotechnology.

Ruth Laxton is an educational design consultant who, in addition to working with the ABMgt team, was also instrumental in the design and development of the VPHMgt program. Ruth has been operating RL Learning Designs consultancy since 1995.

Jaime Gongora is a lecturer in Conservation Biology, Genetics and Wildlife Genetics at the University of Sydney. Jaime is a major contributor to the preparation of course materials for online delivery for the ABMgt program.

Hannah Forsyth is the Sub-Dean for Postgraduate Coursework at the Faculty of Veterinary Science.

Ten things you need to know about Animal Breeding Management

1: An online distance program with short residentials in Sydney and Armidale

Animal Breeding Management is designed to be suitable for busy postgraduate students who may be working full-time and located anywhere in Australia or around the world. Collaborative online classes are supplemented by short 3 - 6 day residential sessions in Sydney or Armidale.

2: Articulated postgraduate degree program

ABMgt is a collaboration between the Universities of New England and the University of Sydney, offered in articulated degree programs at Graduate Certificate, Graduate Diploma and Masters levels.

Students will graduate with a University of Sydney degree in Animal Science (Animal Breeding Management).

3: Units of Study

Advanced Animal Genetics
Leadership, People & Organisations
Genetic Evaluation & Breeding Program Design
Leadership: Managing Change
Leadership Skills
Advanced Animal Biotechnology
Advanced Applications of Animal Breeding
Project Management
Human and Animal Research Ethics
Advanced Animal Reproduction
Research Projects

4: How much does it cost?

In 2007 fees will be: local students \$410 per credit point, international (offshore only) students \$450 per credit point. Most units of study are 6 or 3 credit points and fees are paid as you go, each semester. Australian students can defer fees via FEE-HELP and a number of scholarships are likely to be available.

Questions, suggestions...?

Whether you are considering studying ABMgt or you are interested in the program for other reasons, if you have any questions or suggestions about the Animal Breeding Management Program we would be delighted to hear from you.

If you are interested in studying with us, please contact us to talk about the processes for admission and anything else you would like to know about studying online.

Contact us

Postgraduate Coursework
Faculty of Veterinary Science
University of Sydney, NSW, 2006, AUSTRALIA
PH: +61 2 9036 9105
Fax: +61 2 9351 3056
Email: pgcinfo@vetsci.usyd.edu.au
University of Sydney CRICOS Number: 00026A

5: How much time will it take?

Most units of study will require you to set aside approximately 10 hours per week in total to allow you to do your readings, complete tasks, participate online and complete your assignments. You do not need to be available at any particular time of the week - you can fit your study in when it best suits you.

6: How long can I take to complete it?

You can take up to 4 years to complete a Masters, 3 to complete a Graduate Diploma and 2 to complete a Graduate Certificate. At this pace you would be studying the equivalent of one subject per semester.

7: Admission requirements

Admission requires a bachelor degree in a relevant area - animal science, veterinary science or an equivalent degree in a relevant scientific field. Talk to us if you are unsure.

8: What if I can't remember enough statistics?

We offer an online Biostatistics Refresher Course every January to help people catch up on their statistics. If you miss it, you can purchase the study guide and work through the material yourself. Details can be found on the website.

9: Virtual Open Day 2006

From 9th - 27th October 2006 we will hold a virtual open day, which will give you access to an online classroom. This will enable you to get a sense of what online study is like. Look out for more details on the ABMgt website.

10: Website for more information

A large amount of additional information is available on the ABMgt website at www.vetsci.usyd.edu.au/animal_breeding/index.shtml



Program Summary

The Postgraduate Program in Animal Science in Animal Breeding Management (ABMgt) is a University of Sydney degree program offered collaboratively by the Universities of New England and Sydney. Award courses are offered at Graduate Certificate, Graduate Diploma and Masters levels and non-award enrolment in individual units of study.

Offered online with short (3 - 6 day) residential sessions in Sydney and Armidale in New South Wales, Animal Breeding Management offers postgraduate education that is accessible anywhere to people whose professional and personal lives are busy.

ABMgt offers core units of study in Animal Genetics and Animal Breeding along with units in Leadership and Management. This will equip students with the skills they need to be influential professionals in animal breeding.