Animal Breeding Management
Newsletter
November 2009

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Animal Breeding Management is a distance course designed for working professionals that combines study in animal genetics, breeding program design and animal biotechnology with teamwork, communication, leadership and management. Developed in response to a rapidly changing science and agricultural environment, the course combines theoretical and applied animal genetics with the skills required to participate in the enormous changes currently taking place in animal industries. The course is offered online with short residential sessions in Sydney and Armidale.

Animal Breeding Management - and there’s more!

This November edition of the Animal Breeding Management Newsletter looks at some of the wonderful elective options that are available to our students. Those involved in the development of the Animal Breeding Management program wanted to see a degree with an emphasis on genetic improvement and management skills, but also understood that applicants may have wider interests in areas such as advanced reproduction technologies, animal ethics and veterinary public health. Here we look at some options able to be accessed through other veterinary postgraduate degree programs and across faculties to further enrich our students experience in ABMgt.

Semester 1, 2010 ABMgt applications now open!

http://www.vetsci.usyd.edu.au/animal_breeding
Our last edition of this newsletter announced the roll-out of ABMgt’s new unit in Advanced Animal Biotechnology and it is worth following up with a report of the success of the unit of study after it’s pilot performance.

This unit comprehensively introduces and examines animal biotechnology, mainly in relation to the application of new technologies in animal reproduction and breeding to improve animal production and health in animals. It examines opportunities for the creation of new high value products from animals with predominantly medical applications for humans. The scientific element progresses into addressing ethical and social issues, economic incentives and potential liabilities.

The PGC team would like to sincerely thank Dr Imke Tammen and the team of academics who made this unit of study a working reality, adding this responsibility to their substantial teaching loads and making the on-line classrooms a rewarding and lively place to learn. The ‘pioneer’ students, including two cross-faculty members from the Faculty of Science’s Master of Molecular Biotechnology, are already reporting that this study has been relevant to their working life. As one student wrote “I’ve enjoyed what I have learnt from this subject, especially as I’m directly involved with most of the technology being implemented directed back to the industry”.

This unit will next be offered in Semester 2 of 2010 and we are already having enthusiastic interest demonstrated by others of our student cohort, who are increasingly seeing the value of taking this knowledge into their workplace.

We would also like to thank our sponsors, Meat and Livestock Australia, who funded the development of this unit as part of the Master of Animal Science (Animal Breeding Management) program.

Some of the team (pictured above) who contributed to the content and facilitation of the AAB unit - Dr Imke Tammen, Professor Herman Raadsma and Dr Christopher Grupen
Have you considered electives from the Bioethics program!

As it is the time of the year to think about pre-enrolments [11] I thought it might be a good time to remind you of the possibility to choose one of three Bioethics units as electives. The three units of studies for your consideration are: BETH5201 Ethics and Biotechnology, BETH5202 Human and Animal Research Ethics and BETH5000 Core Concepts in Bioethics. These units are all offered as part of a Bioethics postgraduate coursework program, which is a joint initiative between the Centre for Values, Ethics and the Law in Medicine (VELIM) in the Faculty of Medicine, and the Unit for the History and Philosophy of Science (HPS) in the Faculty of Science.

I have been enrolled in the Bioethics Masters for the past years and those three units are among the six that I have taken so far. I have already implemented lots of what I have learned in my undergraduate teaching and postgraduate teaching (as those of you that participated in the Advanced Animal Biotechnology Unit this year would have found out) as well as in my research.

One of the many strength of these units is that they are very interdisciplinary and I have very much enjoyed the many discussions with fellow students and facilitators from very different backgrounds. Most of the assessment topics were negotiable which allowed me to focus on animal related issues – which made the assessment very relevant for me. Animal welfare has always been a concern for livestock industries but considering the growing influence of animal rights activism there might be an increased need for us to engage in the discussions on these topics. These courses have helped me not only to get a better understanding and appreciation of the different positions in this context but have also provided me with the opportunity to reflect on my position and to improve my skills in presenting my views in a well reasoned and logical way.

Unfortunately, the Bioethics course is not that focused on distance learning when compared to the Animal Breeding and Management Units and thus might be more of interest for those of you that are based in the proximity of Sydney. However, some of the units have combined full-day intensives with online learning activities and could thus still be an option (e.g. BETH5202). If you want to find out more about any of the units check out the Bioethics website at http://www.usyd.edu.au/bioethics/ or feel free to contact me to talk about my experiences from a student’s point of view.

More Options for broadening your study
Bioethics and Animal Breeding
By Dr Imke Tammen
The Animal Breeding Management degree allows for students to participate in a wide range of electives offered in different areas of animal and veterinary science or by other faculties at the University of Sydney.

One of the electives offered in the area of Animal Science is a unique, hands-on intensive unit of study, usually entitled ART - Advanced Reproduction Technologies. For those who can take out 4 weeks to study on-campus, a wonderful opportunity waits them - to learn first hand the latest that is offered, from the very best in this field.

The unit is run by Dr Chris Grupen in the first month of first Semester and requires students to divide their time between the Camden and Sydney campuses for practical workshops and lectures. The experience is better explained by Jacqui King, one of our students who put her life in Queensland on temporary hold to take this unit in 2009.

“The subject combined lectures, field work and laboratory work to enable an overall understanding to be gained of new artificial reproduction techniques being used in the cattle and sheep industries. The laboratory and field work involved actually undertaking these techniques, such as surgical artificial insemination and embryo recovery in sheep and artificial insemination and embryo recovery in cattle. This included the protocols for preparing these animals for these programmes. The lab work provided an overall understanding of the work required behind the scenes to enable these techniques to work. There was also an introduction to conservation genetics, molecular genetics, biotechnology and the ethical considerations of these newer techniques. It was fabulous introduction into the field of Advanced Reproduction Techniques.

My favourite prac was actually recovering embryos from mice who had been bred days before and viewing these embryos under the microscope. That was amazing!!”

For many other students in this program, it could really be worth finding the time to undertake this unique learning opportunity!
Meet our ABMgt Students

ASHE BRISCOE

A she Briscoe is one of our two students from Western Australia, and it has been wonderful to meet her on her trips over to the east for our Leadership and Management residential this year.

Q. Can you tell us a bit about yourself, and your background in animal breeding.

I live on a farm in Wandering, Western Australia with my partner Dougal and two little ones – Lachlan (almost 4) and Cleo (2). We farm with Dougal’s folks and are predominately wool producers, running a performance bred Merino flock and SAMM stud. This practical experience in sheep breeding has balanced the more theoretical aspect of my previous work as a Development Officer in sheep production and genetics with the WA Ag Dept, with whom I worked for about 10 years. In recent years whilst on farm, I have been involved in facilitating groups in the Sheepsback program.

Q. What initially inspired you to apply for a place in the Animal Breeding Management programme?

Actually Dougal was the one who spotted the course and was fairly keen; however after much discussion it seemed more apt for me to take the plunge! Having a working background in sheep genetics (and more spare time!) along with the need for some personal stimulation and a bit of a challenge was the initial inspiration.

Q. What are you hoping to achieve with this study?

Initially this study will assist with improving our sheep breeding program – an excellent opportunity to hone newfound skills. However there is scope for me to offer services in sheep genetics to sheep producers throughout WA further down the track… particularly as funding cuts to this type of service/information has resulted in limited avenues of independent genetics information available for sheep producers to access.

Q. What are the areas so far that you are finding of use and inspiration in the course?

To date I have only completed 2 units which have not been in the field of genetics (PM & Leadership units). Surprisingly they have been really enlightening as they require a lot of introspection about your role in your business. Very handy skills that will translate into any realm!

The crux of online learning is learning from your peers and this has been a revelation, sharing everyone’s knowledge and experiences enables you to not only learn from your mistakes or successes but theirs as well.

Q. What unexpected benefits are you seeing from this commitment?

I think after not studying for so long and being removed from my professional field meant this step was quite daunting… after the completion of my first year of study, I realise that I am capable and can do this course whilst contributing to both my own and others learning. The postgrad admin crew have made this transition back into study such a breeze – an extremely user friendly bunch.

Q. What challenges are you facing, and what wisdom would you like to pass on to others considering joining the ABMgt programme?

My biggest challenge has been looking after 2 littlies full time (along with other on-farm activities) whilst trying to apply myself to study…late nights become the norm, and broken sleep from toddlers wreaks further havoc. We live quite a distance from our nearest town (40km) and so I can’t tap into facilities such as daycare etc. In hindsight maybe I started a year too early and it would’ve been considerably easier if my eldest child had started kindy, but I made it through this year…so roll on next year!

I still marvel at the thought that I am on our farm in rural WA and yet mixing, discussing and learning with a group of people from all over the world… I rave about this course all the time and this comes from someone who swore black and blue never to study again after my first foray into tertiary education!

ASHE BRISCOE

THE BRISCOE FAMILY
It was our great pleasure to again host the Project Management Residential held in July this year as part of our postgraduate coursework program and facilitated by international project management speaker, writer and consultant Juergen Oschadleus. This year students arrived from all reaches of the globe, some meeting each other for the first time, others having met at previous residential or having forged relationships within our online classrooms.

The Residential was held at the Veterinary Science Conference Centre at the university’s Camperdown campus and although Juergen had the students working hard from the outset, some time was set aside to allow students to acquaint themselves with the university grounds and facilities.

Dr Michael Ward, Chair of the Veterinary Public Health Program (VPH) welcomed students to the residential and was on hand to answer any questions on the first day of the program. Dr Navneet Dhand, Research Project Coordinator for VPH led a two hour workshop introducing students to the use of Microsoft Access databases for data collection and management. Students were separated into groups on day one, launching in and beginning their project management plan which they would continue to work on throughout the remainder of the course. Juergen guided students, taking a collaborative approach to learning and encouraging interaction and teamwork.

The residential rounded off with an evening at the local “Nags Head” pub - Juergen, students and PGC staff enjoyed a hearty meal, a drink or two and some good company!
What are the four ‘bases (Nucleotides) in DNA? (From Page 2)
Answer: Adenine, thymine, cytosine and guanine.

DATES FOR THE DIARY

February Residentials in 2010
This February we will be holding three residentials:
Leadership People and Organisations
Leadership Managing Change

Wendy Grusin and Greg Cartan will facilitate the Leadership People and Organisations residential and Shashanna Evans will facilitate Leadership Managing Change. For more information contact the postgraduate coursework office.

Virtual open day goes live
13 October to 31 January 2010
The Veterinary Science Postgraduate Coursework Office is hosting a Virtual Open Day aimed at providing future students with the opportunity to experience an online classroom. The site also contains extensive information about our different programs and visitors are able to post questions and download sample study guides. You do not need to be a current student, the site is open to everyone! Click on the following link for further information and to gain access to the site:

Biostats Refresher Course
27 January to 16 February
We are offering a biostatistics refresher course this January for students who wish to refresh their skills in this area. The course will be run online and will be facilitated by Dr Navneet Dhand and Associate Professor Peter Thomson. The course is open to both honours and postgraduate students.
For more information contact Emmeline Yeo
Email: eyeo@usyd.edu.au Tel: +61 2 9036 6364

News Flash
Two of our first ABMgt students, Sam Gill and Greg Popplewell are finally throwing off the shackles of study and finishing their Research Projects this semester, in order to become our first graduates!

We know how hard these busy family men have worked over the years to juggle their competing responsibilities and we just want to say - YOU DID IT!
More details - and graduation photos - next year...
2010 Scholarship Recipients

MLA and AWI have awarded 3 new ABMgt scholarships for Semester 1, 2010. Please speak to our PGC administration if you are interested in applying for one of these scholarships. They cover all tuition fees and are awarded by a panel of stakeholders on merit and potential contribution to the industry.

Program Team & Contributors

Professor Julius van der Werf, Professor of Animal Genetics and Breeding, University of New England (Animal Breeding Program Design, Advanced Applications of Animal Breeding) (pictured right)

Professor Chris Moran, Professor of Animal Genetics, University of Sydney (Advanced Animal Genetics, Advanced Animal Biotechnology)

Dr Sally Isberg, Porosus Pty Ltd, Northern Territory (Advanced Animal Genetics)

Dr Jaime Gongora, Lecturer in Conservation Biology & Wildlife Genetics, University of Sydney (Advanced Animal Genetics)

Dr Imke Tammen, Senior Lecturer Animal Biotechnology (Advanced Animal Biotechnology - pictured left)

Juergen Oschadleus, Project Management Consultant, Act Knowledge Pty Ltd (Project Management)

Wendy Grusin, Adjunct Faculty, Australian Graduate School of Management (AGSM) (Leadership, People & Organisations)

Shashanna Evans, Adjunct Faculty, Behavioural Insights (Leadership: Managing Change, Leadership Skills)

Dr Merran Govendir, Associate Dean of Postgraduate Studies, Faculty of Veterinary Science University of Sydney (pictured left)

Romi Dupont Louis, Administrative Assistant, Postgraduate Coursework, Faculty of Veterinary Science, University of Sydney

Jann Merchant, Teaching and Student support, PGC programs (ABMgt, MAnSci and MVetStud) Faculty of Veterinary Science University of Sydney

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The University reserves the right to make alterations to any information contained within this publication without notice.
1: Designed for busy people working full time, based anywhere in Australia or the world
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: Recognition with a University of Sydney degree
ABMgt is a collaboration between the University 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: Relevant subjects to 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: Costs involved
In 2010 fees will be: local students $505 per credit point, international (offshore only) students $640 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.

5: Flexible use of time
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: Setting your own pace.
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: Help with 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: Application dates
We will accept late applications up until 20th January 2010, although you are best to contact us to talk about it straight away. We have a lot of experience with postgraduate students with unique and busy lifestyles and we can help you think through all the issues you may need to consider before you apply.

10. Scholarships available in 2010
With many thanks to program sponsors, MLA and AWI, a few scholarships will be available to Australian students for the ABMgt program in Semester 1, 2010. Scholarships cover course fees (a special fee rate for scholarship holders) for the duration of your study. Please contact us for more details.

Contact us
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.

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University of Sydney CRICOS Number: 00026A

Program Summary
Graduate Certificate in Animal Science (Animal Breeding Management) includes:
- Advanced Animal Genetics (6 credit points)
- Animal Breeding Program Design (6 credit points)
- Leadership, People & Organisations (6 credit points)
- Leadership: Managing Change (3 credit points)
- Leadership Skills (3 credit points)

Graduate Diploma in Animal Science (Animal Breeding Management) includes all of the above plus 12 credit points of electives, selected from:
- Advanced Animal Biotechnology (6 credit points)
- Advanced Applications of Animal Breeding (6 credit points)
- Project Management (6 credit points)

or other relevant units offered by Sydney and UNE

Master of Animal Science (Animal Breeding Management) includes all of the above plus:
- One elective & a small research project (6 credit points each)
- or one larger research project (12 credit points)