



GS-VMAS Newsletter

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September, 2020

We at GS-VMAS have finished the first PhD-course call of the year and we are happy to announce that so far 18 courses are planned for 2021. Thank you to all course leaders for your efforts in planning and executing these interesting courses. We still have some room for a few additional courses, so don't forget to apply no later than 16th of November.

Planned courses 2021

For 2021 we have the following planned courses:

GS-VMAS PhD-Courses 2021	Code	Credits (hp)	Dep.	Course leader
Construction of trial protocols for controlled clinical trials	PVG0039	1,5	KV	Malin Gustavsson
Quantitative microbial risk assessment	PVS0167	3	KV	Johanna Lindahl
Reproductive biotechnologies, genomics and production diseases in sheep and goats	PVS0164	2	KV	Jane Morrell
Equitation Science	PVS0166	4	HMH	Elke Hartmann
Spectral techniques for animal, agricultural and veterinary sciences		4	NJV	Mårten Hetta
Animal Welfare and the UN Sustainable Development Goals	PVS0155	3	HMH	Anna Wallenbeck
Quality assurance for laboratory work in PhD-projects	PVG0041	2	KV	Emma Strage
How to write your first grant application	PVG0043	1	KV	Jane Morrell
In vitro toxicology, effect-based methods and toxicological modelling		3	BVF	Johan Lundqvist
How to read and write a scientific paper	PVG0035	1	KV	Malin Gustavsson
Introduction to Python for data science		2	HGEN	Christos Palaiokostas
Animal Assisted Interventions	PVS0153	3	HMH	Lena Lidfors
Introduction to programming in R	PVG0025	2	HGEN	Anna Maria Johansson
Genome analysis	PVS0137	10	HGEN	Sofia Mikko
Environmental impact from animal production	PVS0136	2	HUV	Torsten Eriksson
Flow cytometry, cell analysis and sorting	PVS0150	5	KV	Anders Johannisson
Advanced use in excel	PVG0024	2	HUV	Torsten Eriksson
Bioinformatics	PVS0141	10	HGEN	Erik Bongcam
Presentation techniques and current research in veterinary medicine and animal science	PVG0044	4	BVF	Magnus Åbrink

More information on when each course will take place will follow and will be updated at the web www.slu.se/gs-vmas-planned-courses.

During the autumn there will be a 2nd call for interest to arrange a PhD course during 2021, so there may be courses added to this list after that.

2nd call for organising GS-VMAS PhD course 2021

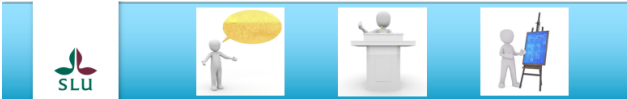
New from this year is that we have a 2nd call for organizing GS-VMAS PhD course 2021. We are further planning our activities during 2021 and are therefore keen to hear what PhD-courses you would like to organize next year. We need to receive your suggestions no later than 16th of November.

If you wish to organize a course please attach a notice of interest, a budget and an estimation of the number of post-graduate students who are potentially interested to attend according to the instructions at GS-VMAS homepage, www.slu.se/gs-vmas-guide-course-organiser.

Presentation technique course at the VH Faculty

The new VH-faculty seminar and presentation technique course, started in April 2020, with Magnus Åbrink from BVF as course leader. The course can be joined continuously by visiting <https://slu-se.instructure.com/courses/1809> and clicking "Join the course" and logging in with your SLU account.

The course will include different workshops related to research presentation techniques - both to a scientific and a non-scientific audience. In addition, research students will also have practical training in giving seminars through presenting at the VH-faculty seminar series.



PVG0044 Presentation techniques and current research in veterinary medicine and animal science, 4 credits

PhD course arranged by Graduate School for Veterinary Medicine and Animal Sciences (GS-VMAS)

Location: Uppsala (after the summer it will be possible to join by [videolink](#))
Course date: the course will run for at least three years and can be joined continuous

Aim of the course
After completion of the course the PhD-student or veterinary resident shall be able to:

- present their own research project in a pedagogic and scientifically sound way, to a scientific audience as well as a to broader general audience
- actively discuss background, study design and methodology of relevance for the presented project
- identify weaknesses and strengths of presented research projects
- moderate scientific seminars

The course has a dual format. One part is to actively participate in two workshops (4 hours per workshop) dealing with both oral and poster presentation techniques and the practical construction of a poster. Another part is to actively participate in >20 seminars given in the course seminar series. The seminar series will have weekly seminars during the spring and autumn semesters.

The workshops, will be arranged together with the pedagogic unit at SLU and aims to train the students in both oral and poster presentation techniques for dissemination of their research to different receivers – for example to researchers and to a public audience.

Prerequisites
Admitted to a postgraduate program in animal science, biology, veterinary medicine, food science, animal nutrition, veterinary nursing, or related subjects, or to a residency program in veterinary science


Information and application: <https://slu-se.instructure.com/courses/1809>
Course leader: Magnus Åbrink, magnus.abrink@slu.se

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Upcoming PhD courses autumn 2020

During autumn and winter 2020 we have the following upcoming courses:

- Statistical analysis of laboratory and clinical studies 1,5 credit
- Genome Analysis 10 credits
- Comparative reproductive biotechnologies 2 credits
- PVG0038 Reproducibility in Research with a focus on data analysis using the program R, 2.0 credits
- Infection and reproduction 3 credits



PVS0158 Statistical Analysis of laboratory and clinical studies, 1.5 credits

PhD course arranged by Graduate School for Veterinary Medicine and Animal Sciences (GS-VMAS)

Course date: October 12-16, 2020
Location: Uppsala

Content
This is a practical course in statistical analysis of own data or databases available from previous performed studies. JMP/SAS will be the basic software for statistical analysis. The course covers one week of studies (1.5 ECTS), including lectures, discussions, assignments and student presentations. The students are scheduled half days Monday-Friday and attendance is compulsory. An attendance record of at least 80% is required to pass this course. No video link is provided since discussions and other team efforts are important parts of the curriculum.


The overall objective of the course is to train students to plan and perform suitable statistical analysis of own data, and to have a general understanding of the basic principles for statistical analysis of data from clinical studies and thereby be able to evaluate results presented also in other studies.

Prerequisites
Admitted to a postgraduate program in animal science, biology, veterinary medicine, food science, nutrition, nursing, bioinformatics or similar subjects, or to a residency program in veterinary science. The basic models lectured in an introduction course in medical statistics are assumed knowledge.

Information and application: www.slu.se/gs-vmas-courses
Course leader: Malin Hagberg Gustavsson, malin.gustavsson@slu.se

Last date for application: September 14th 2020

Swedish University of Agricultural Sciences
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PVS0137 Genome analysis, 10 credits

PhD course arranged by Graduate School for Veterinary Medicine and Animal Sciences (GS-VMAS)

Course date: November 2, 2020 – January 17, 2021
Location: Uppsala

Content
The contents of the course are to a large extent built upon recent advances within the field of genome analyses in humans, animals and plants. A large part of the course is applicable also in e.g. human genetics. Genome science is evolving rapidly and the course is based on recent research developments in methodologies and theories.


Computer exercises and group discussions will cover:
- molecular evolution and phylogenetics-genomics,
- genetic variation, sequence analysis and primer design,
- gene mapping and genome-wide association analysis,
- QTL analysis,
- whole genome sequencing,
- epigenetics-genomics,
- copy-number variation analysis

Prerequisites
Admitted to a postgraduate program in animal science, biology, veterinary medicine, food science, nutrition, nursing, or related subjects, or to a residency program in veterinary science.

Information and application: www.slu.se/gs-vmas-courses
Course leader: Sofia Mikko, sofia.mikko@slu.se

Last date for application: October 5, 2020

Swedish University of Agricultural Sciences
Department of Agricultural Sciences
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PVS0163 Comparative reproductive biotechnologies, 2 credits

PhD course arranged by Graduate School for Veterinary Medicine and Animal Sciences (GS-VMAS), in collaboration with the Centre for Reproductive Biology in Uppsala, the Cell for Life Platform and the Developmental Biology Platform SLU.

Course date: November 8 – November 13, 2020
Location: Uppsala


Content
The contents will include the following topics (including comparative aspects): Overview on gamete production and collection, male and female. Update on how to prepare females for assisted reproductive technologies (ART). Gamete quality and factors affecting gamete quality. Sperm selection methods to improve sperm quality. Embryo production in vivo and in vitro. Transgenesis, cisgenesis, gene targeting and potential epigenetic effects. Reproductive strategies in wild populations and conservation breeding. Ethics and animal welfare. Pedagogical form: The course will include lectures, group discussions and practical sessions. A preliminary schedule is attached.

Prerequisites
Persons admitted to, or have completed, a postgraduate program in animal science, reproduction, biology, medicine, veterinary medicine, food science, nutrition, or related subjects, or to a specialist training program (e.g. resident) or equivalent within the same subjects. A basic understanding of reproductive biology is needed.

Information and application: www.slu.se/gs-vmas-courses
Course leader: Ylva Sjunnesson, ylva.sjunnesson@slu.se

Last date for application: October 12, 2020

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Department of Agricultural Sciences
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PVG0038 Reproducibility in Research with a focus on data analysis using the program R, 2.0 credits

PhD course arranged by Graduate School for Veterinary Medicine and Animal Sciences (GS-VMAS)

Course date: November 2-6, 2020
Location: Online (distance learning using digital tools)

Content
The course consists of five half-day meetings with lectures, computer exercises and discussions. In addition the students are expected to do individual work in between meetings. Aspects that will be covered will include the general question on how reproducibility is defined and why it is needed, including good scientific practice and requirements for scientific publication and funding bodies. Basic concepts will be covered as well as tools to ensure reproducibility during the analysis of experimental data using R as well as the use of public databases to access data and store information. Presentations of applications as well as exercises and discussions will help participants to make their research results reproducible in the future.


- Definition of reproducibility
- Creating reproducible results in R
- Databases for data storage
- Public databases for sharing of information
- Preparation of packages in R
- Course evaluation

Prerequisites
Admitted to a postgraduate program in animal science, biology, veterinary medicine, food science, nutrition, nursing, or related subjects, or to a residency program in veterinary science. Knowledge in using program R.

Information and application: www.slu.se/gs-vmas-courses
Course leader: Elisabeth Jonas, elisabeth.jonas@slu.se

Last date for application: October 12, 2020

Swedish University of Agricultural Sciences
Department of Agricultural Sciences
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PVS0162 Infection and Reproduction, 3 credits

PhD course arranged by Graduate School for Veterinary Medicine and Animal Sciences (GS-VMAS)

Course date: November 23 – December 4, 2020
Location: Uppsala

Content
The course will contain lectures and laboratories focussing on in vitro and cellular aspects of infection and reproduction. Techniques involved and taught to the students will include cell culture, immunological techniques, fluorescence microscopy and flow cytometry. Laboratories will contain cell culture, infections of cell lines with viruses, immunolabelling and visualisation by fluorescent microscopy. Laboratories on different aspects of sperm quality will also be performed. These will include evaluating membrane integrity using SYBR-14/PI staining followed by flow cytometry, performing the sperm chromatin structure assay (SCSA) using acridine orange staining evaluated by flow cytometry, and determining the mitochondrial membrane potential of the spermatozoa using the stain JC-1. The course will contain 16 h lectures, 40 h laboratories and 24 h own studies.

Prerequisites
Admitted to a postgraduate program in animal science, biology, veterinary medicine, food science, animal nutrition, veterinary nursing, or related subjects, or to a residency program in veterinary sciences.

Information and application: www.slu.se/gs-vmas-courses
Course leader: Anders Johannisson, anders.johannisson@slu.se

Last date for application: October 26, 2020

Swedish University of Agricultural Sciences
Department of Agricultural Sciences
www.slu.se

For more information and on-line application to courses, please visit: www.slu.se/gs-vmas-courses.

SLU's general courses for PhD students

For more information regarding SLU's general courses in transferable skills, please visit the [SLU webpage on Doctoral courses](#).

Do you have an idea for a seminar or a workshop?

GS-VMAS have funds available to grant money for seminars and/or workshops. If you have a visiting research partner or an opponent present for a dissertation it may be a great opportunity to combine this with arranging a seminar or workshop.

Please contact us at gs-vmas@slu.se and we will let you know whether there are funds available for your idea.

Administration of your PhD studies

If you have any questions regarding the administration of your PhD studies, such as registration, crediting for courses, all courses completed in Ladok, you may use Education Services' joint e-mail address for PhD matters: us-phd-vh@slu.se

All the best from the coordinators and administrators for GS-VMAS

Miia, Anne-Lie, Göran and Susanna