

Certificate Program in Swine Medicine

Thanks in part to the cooperation of swine producers and veterinarians, the swine industry is thriving worldwide, and there is a need for additional veterinarians with expertise in swine medicine. In partnership with practicing veterinarians and swine producers, swine faculty members at the University of Minnesota College of Veterinary Medicine have developed a certificate program to supply the veterinary profession with veterinarians having expertise in swine medicine and to meet the emerging needs of the swine industry.

The Certificate Program in Swine Medicine is offered to D.V.M. students at the University of Minnesota, students at other accredited colleges of veterinary medicine in the United States, and to international students who have a D.V.M. or equivalent degree.

The program consists of a minimum of 10 semester credits, two 12-week internships, and a formal seminar presentation. Students enrolled in the program are responsible for all tuition and fees related to the program. International applicants will be encouraged to stay in the United States for a full year, thereby completing their program in a 12-month period.

For more information, please contact 612-624-4719 or leary011@umn.edu

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College of Veterinary Medicine
University of Minnesota
Veterinary Population Medicine
1988 Fitch Avenue, #385
St. Paul, MN 55108
Address Service Requested

Certificate Program in Swine Medicine



Program requirements:

To successfully complete the program and receive the certificate, the student must:

- A. Complete five or more 2 credit elective swine courses (listed below)
- B. Complete two of the following clinical experiences:
 - 1) Summer clinical research program
 - 2) Internship at a cooperating swine vet clinic
 - 3) Internship at a cooperating large production system
- C. Satisfactorily pass an open seminar presentation

Swine medicine courses and tentative schedule: The student will take a **minimum of five courses*** from the following 2-week rotations:

*For students from other universities, academic achievements with courses acceptable to the following topics at their university may be proposed in lieu of these specific rotations. The swine group faculty will review and approve the proposed courses.

All courses are in 2-week blocks

CVM 6502 Necropsy (swine focus) any two-week block

Students perform necropsies, collect tissues for lab analysis, interpret clinicopathologic findings, prepare reports on animals submitted to the Veterinary Diagnostic Lab, and apply basic/clinical science to diseases of animals and populations of animals. Students may participate in history-taking. Case findings are discussed daily. Student groups present case reports at weekly departmental seminar.

CVM 6506 Directed Study in Large Animal Medicine any two-week block

Under the guidance of a faculty member, students complete a special project addressing an issue in swine medicine. Project proposals include hypothesis, objectives, plan of study, and product for evaluation by adviser and approval by CVM's curriculum committee.

CVM 6515 Externship (performed in a foreign country) any two-week block

Students spend two weeks doing a rotation in a practice or other professional setting in collaboration with a faculty in a foreign university.

CVM 6706 Epidemiology and Biostatistics (swine focus) mid-April

How to formulate questions, analyze problems, and develop solutions relating to food animal production systems. Excel, Access, and basic statistical programs. Design/evaluation of field trials. Epidemiology. Statistical process control. Field trips to apply data/results and consult with people in field.

CVM 6709 Advanced Building Design and Herd Evaluation mid-October

Design of animal housing systems. Evaluation of operating production units. Natural/mechanical ventilation systems. Ventilation and building placement. Classroom presentations, on-farm evaluations.

CVM 6842 Swine Disease Diagnostics, Therapeutics, and Prevention early-October

Major diseases and high-health technologies. Field trips of high-/low-health farms, abattoir for slaughter check. Problem-solving, discussion of on-farm disease cases. In-clinic diagnostic techniques.

CVM 6844 Swine Production Systems late-March to early-April

Didactic lectures, labs, special projects. Information management systems, building and equipment designs, health, genetics nutritional systems, marketing alternatives, and alternative systems of swine production. Influence of production systems on biological and financial endpoints. Upon completion, present project completed on design of various components of integrated swine production system.

CVM 6845 Training in Swine Production any two-week block

Day-to-day management of modern swine farm. Students assist with all techniques, protocols, and practices encountered daily in swine unit, conduct any necessary necropsies or surgeries, investigate production/health problems. On final day of rotation, students lead herd visit, summarize findings with producer and course coordinator, and write a herd report.

CVM 6848 Swine Economics, Financial Management, and Marketing late-November to early-December

Basic accounting and financial skills to help analyze simple agricultural problems and communicate findings. Financial statement, budgeting, partial and capital budgets, time value of money, methods for assessing return on investment. Most of examples from pork production, but other scenarios welcome. Second emphasis on gaining understanding on becoming personally financially independent.

CVM 6850 Swine Records mid-November

How to interpret performance measures, monitor productivity, capture data, and generate reports in managing production in swine industry. Using records to troubleshoot problems and manage production.

VMED 7842 Advanced Swine Diseases any two-week block

Advanced lectures and discussion of swine diseases

VMED 7846 Advanced Swine Nutrition any two-week block

Nutrition and feeding management of pigs. Nutrient requirements, feeds and feed delivery, and feeding management. Computer laboratories. Farm visits.