LABORATORY ANIMAL MEDICINE

Graduate Program Head: Ronald P. Wilson
Program Code: LAM
Campus(es): Hershey (M.S.)
Degrees Conferred: Master of Science (M.S.)
The Graduate Faculty: View (https://secure.gradsch.psu.edu/gpms/index.cfm?searchType=fac&prog=LAM)

All students entering the program must have completed a professional degree program in veterinary medicine and must hold the degree of D.V.M., V.M.D., or equivalent. This program is only offered at the Penn State College of Medicine, Milton S. Hershey Medical Center.

The Department of Comparative Medicine is a basic science, academic department of the College of Medicine. It is concerned with the range of variation of normal and abnormal structure, function, and behavior in a variety of species of animals used for teaching, testing, and research. Its faculty, staff, and students work in a multidisciplinary and collaborative fashion with all other departments in the college to advance the research mission.

Graduate study in laboratory animal medicine consists of advanced training in biology, medicine and methodology pertinent to animal-based research, and the development of scholarship and research capabilities within the specialty. The general plan is one that provides a broad, basic foundation upon which the individual can build a career in teaching and research and/or in the professional direction of research animal facilities.

Admission Requirements
Applicants apply for admission to the program via the Graduate School application for admission (http://gradschool.psu.edu/prospective-students/how-to-apply). Requirements listed here are in addition to Graduate Council policies listed under GCAC-300 Admissions (http://gradschool.psu.edu/graduate-education-policies).

Degree Requirements
Master of Science (M.S.)
Requirements listed here are in addition to Graduate Council policies listed under GCAC-600 Research Degree Requirements (http://gradschool.psu.edu/graduate-education-policies).

To earn the master's degree, each student must complete at least 30 credits of course work at the 500 or 600 levels.

The curriculum of this training program includes:

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CMED 501</td>
<td>Biology and Care of Laboratory Animals</td>
<td>3</td>
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<tr>
<td>CMED 503</td>
<td>Laboratory Animal Genetics</td>
<td>3</td>
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<tr>
<td>CMED 507</td>
<td>Techniques of Laboratory Animal Experimentation</td>
<td>3</td>
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<tr>
<td>CMED 515</td>
<td>Experimental Surgery of Laboratory Animals</td>
<td>3</td>
</tr>
<tr>
<td>CMED 530</td>
<td>Diseases of Laboratory Animals I</td>
<td>3</td>
</tr>
<tr>
<td>CMED 531</td>
<td>Diseases of Laboratory Animals II</td>
<td>3</td>
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<tr>
<td>CMED 535</td>
<td>Comparative Pathology</td>
<td>3</td>
</tr>
<tr>
<td>CMED 590</td>
<td>Colloquium (1 credit per semester)</td>
<td>4</td>
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<tr>
<td>CMED 596</td>
<td>Individual Studies</td>
<td>1:3</td>
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<tr>
<td>BMS 591</td>
<td>Biomedical Research Ethics</td>
<td>1</td>
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Culminating Experience
Students completing a thesis enroll in CMED 600; students in the non-thesis option enroll in CMED 596. ¹

| CMED 600 | Thesis Research (for M.S. thesis) ² | 9 |
| or CMED 596 | Individual Studies              |   |

Total Credits: 36-38

¹ A non-thesis option may be elected by the student but must be approved in writing by the Program Director. A scholarly paper on a topic relevant to the fields of laboratory animal medicine or laboratory animal science must be written and presented. Up to 9 credits of independent study (CMED 596) may be earned for this work.

² The submission and defense of a thesis based on an original hypothesis-driven research project is required. A minimum of 9 credits of thesis research (CMED 600) are required (a maximum of 6 credits may receive a quality grade).

Students may, with the approval of the Program Director, enroll in graduate level courses offered at the Penn State College of Medicine, Penn State Harrisburg, University Park, or Penn State's World Campus.

Student Aid
Graduate assistantships available to students in this program and other forms of student aid are described in the Tuition & Funding (http://gradschool.psu.edu/graduate-funding) section of The Graduate School's website. Students on graduate assistantships must adhere to the course load limits (http://gradschool.psu.edu/graduate-education-policies/gsad/gsad-500/gsad-501-credit-loads-graduate-assistants) set by The Graduate School.

Courses
Graduate courses carry numbers from 500 to 699 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

Comparative Medicine (CMED) Course List (https://bulletins.psu.edu/university-course-descriptions/graduate/cmedge)
Contact

Campus: Hershey Med Ctr
Graduate Program Head: Ronald Paul Wilson
Director of Graduate Studies (DGS) or Professor-in-Charge (PIC): Tiffany Lynn Whitcomb
Program Contact: Nannette Marie Kirst
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Program Website: View (http://med.psu.edu/laboratory-animal-medicine-ms)