

# LABORATORY ANIMAL MEDICINE

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## Degree Requirements

### Master of Science (M.S.)

Requirements listed here are in addition to Graduate Council policies listed under GCAC-600 Research Degree Policies. (<https://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:

| Code  | Title  | Credits      |
|---|--|--------------|
| <b>Required Courses</b>   |  |              |
| CMED 501  | Biology and Care of Laboratory Animals                               | 3            |
| CMED 503  | Laboratory Animal Genetics   | 3            |
| CMED 507  | Techniques of Laboratory Animal Experimentation                      | 3            |
| CMED 515  | Experimental Surgery of Laboratory Animals                           | 3            |
| CMED 530  | Diseases of Laboratory Animals I                                     | 3            |
| CMED 531  | Diseases of Laboratory Animals II                                    | 3            |
| CMED 535  | Comparative Pathology  | 3            |
| CMED 590  | (1 credit per semester)  | 4            |
| CMED 596  | Individual Studies   | 1-3          |
| BMS 591   | Biomedical Research Ethics   | 1            |
| <b>Culminating Experience</b>   |  |              |
| Students completing a thesis enroll in CMED 600; students in the non-thesis option enroll in CMED 596. <sup>1</sup> |  |              |
| CMED 600<br>or CMED 596   | Thesis Research (for M.S. thesis) <sup>2</sup><br>Individual Studies | 9            |
| <b>Total Credits</b>  |  | <b>36-38</b> |

<sup>1</sup> 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.

<sup>2</sup> 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.