We are not accepting applications for the M.S./D.V.M. program at this time.

Joint Degree Programs
Students accepted into the Veterinary Medical Scholars Program (https://vetmed.illinois.edu/education/doctor-veterinary-medicine-degree/research-opportunities-dvm-students/veterinary-medical-scholars-program) can complete a D.V.M. and Ph.D. simultaneously.

Graduate Teaching Experience
Experience in teaching is considered a vital part of the graduate program and is required as part of the academic work of all M.S. and Ph.D. candidates in this program.

Faculty Research Interests
Experimental models range from stem cells to rodent models to domestic animals, wildlife, and human patients. Exciting research is being conducted by CB faculty in the areas of:

- endocrine/reproductive biology and toxicology
- environmental and ecological toxicology
- uterine and placental biology
- aortic mesangial stem cells
- stem cells for assessment of small molecule and nanoparticle pharmacology and toxicology
- nanodisks as platforms for the study of membrane proteins
- mouse and frog models of development
- the impact of environmental and dietary compounds on neurodevelopment and on addictive potential of substances of abuse
- circadian rhythms in animal models of shift work and jet lag
- immunopharmacology and drug allergy
- obesity and diabetes mellitus
- cancer chemotherapy
- the interplay between infectious agents and contaminants with wildlife populations
- comparative drug disposition and pharmacokinetics

Research techniques range from micro-RNA to animal and human patient epidemiology to ecological assessments.

Training Programs, Centers and Institutes
Our faculty provide graduate instruction in stem cell research, molecular genetics, pharmacology and toxicology. They also participate in interdisciplinary training programs including the NIEHS-funded Environmental Toxicology Training Program (http://vetmed.illinois.edu/cb/nhtox), the Interdisciplinary Environmental Toxicology Training Program (https://vetmed.illinois.edu/ietp), the Reproductive Biology Program (https://vetmed.illinois.edu/peer), the Neuroscience Program (http://neuroscience.illinois.edu), the Nutritional Sciences Division (http://www.nutrsci.illinois.edu), Beckman Institute (http://www.beckman.uiuc.edu), and the Institute for Genomic Biology (http://www.igb.illinois.edu).

CB faculty also lead the Veterinary Clinical Pharmacology Residency Program (https://vetmed.illinois.edu/college-organization/comparative-biosciences/graduate-study-training-programs), which prepares graduate veterinarians for the certifying examination of the American College of Veterinary Clinical Pharmacology (ACVCP). In addition, together with the Animal Poison Control Center in Urbana, we jointly offer a Veterinary Clinical Toxicology Control Center in Urbana, we jointly offer a Veterinary Clinical Toxicology
residency (https://vetmed.illinois.edu/college-organization/comparative-biosciences/graduate-study-training-programs) to prepare veterinarians for board certification by the American Board of Veterinary Toxicology (ABVT) and the American Board of Toxicology (ABT).

**Financial Aid**

A limited number of research and teaching assistantships or associate positions are available.

*for the degree of Doctor of Philosophy in Comparative Biosciences*

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CB 590</td>
<td>Seminar (Thesis Defense seminar 1 hour and Prospectus Exam 1 hour)</td>
<td>2</td>
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<tr>
<td>CB 591</td>
<td>Biosciences Seminar Series (May be repeated for up to 4 hours of credit)</td>
<td>2</td>
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<tr>
<td>CB 592</td>
<td>Special Problems (min/max applied toward degree. Limit of 12 credit hours total. This limit includes credits accrued during the MS degree.)</td>
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<tr>
<td>CB 599</td>
<td>Thesis Research (min/max applied toward degree)</td>
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</tbody>
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Students must select ONE of the following courses with the advice of his/her dissertation committee:

- MCB 354 Biochem & Phys Basis of Life
- MCB 401 Cell & Membrane Physiology
- MCB 402 Sys & Integrative Physiology
- MCB 410 Developmental Biology, Stem Cells and Regenerative Medicine
- MCB 450 Introductory Biochemistry
- MCB 480 Eukaryotic Cell Signaling
- MCB 501 Advanced Biochemistry

Select one of the following: ⁴

- PATH 524 Biostatistics
- VCM 572 Clinical Epidemiology
- CPSC 440 Applied Statistical Methods I

**Total Hours** 64

¹ For additional details and requirements refer to the department’s degree programs information (http://chbe.illinois.edu/graduate-program) and the Graduate College Handbook (http://www.grad.illinois.edu/gradhandbook).

**Other Requirements** ¹

Other requirements may overlap

Students may be required to take additional courses as recommended by Advisory Committee or Department Divisions.

64 hours (including thesis research) earned in courses meeting on the Urbana-Champaign campus, on the Chicago campus, or in other locations approved by the Graduate College for graduate credit.

Teaching experience is required

| Masters Degree Required for Admission to PhD? | No, but Masters-level requirements must be met (32 hours min.) |
| Qualifying Exam Required | Yes |

Information listed in this catalog is current as of 12/2019