VMS - COMPARATIVE BIOSCIENCES, MS

for the degree of Master of Science in Veterinary Medical Science - Comparative Biosciences

dean of the college of veterinary medicine: Peter D. Constable
head of department: Uwe Rudolph
director of graduate studies: Megan Mahoney
assistant director of graduate studies: Juanmahel Davila
department website: https://www.vetmed.illinois.edu/c (https://www.vetmed.illinois.edu/path/)
department faculty: Comparative Biosciences Faculty (https://vetmed.illinois.edu/directory/?dept=873&type=Faculty)
overview of admissions & requirements: Comparative Biosciences Graduate Program (https://vetmed.illinois.edu/coll******************************************************************************
college website: College of Veterinary Medicine (http://www.vetmed.illinois.edu/)
email: cbgradprogram@vetmed.illinois.edu (compbiosciogradprog@vetmed.illinois.edu)
graduate office: 3519 Veterinary Medicine Basic Sciences Building, 2001 South Lincoln Avenue, Urbana, IL 61802
phone: (217) 333-2506

Graduate Degree Programs in Comparative Biosciences
VMS - Comparative Biosciences, MS (p. 1)
VMS - Comparative Biosciences, PhD (http://catalog.illinois.edu/graduate/veterinary/medical-science-comparative-biosciences-phd/)
Joint Degree Programs: Veterinary Medical Scholars Program
DVM and VMS - Comparative Biosciences, PhD (http://catalog.illinois.edu/graduate/veterinary/joint-degree/dvm-veterinary-medical-scholars/)

Admission
Applicants for graduate study in Comparative Biosciences must have a minimum grade point average of 3.0 (A = 4.0). Grade point averages will be calculated on the last 60 hours of undergraduate studies for those without the D.V.M. degree and on the entire professional curriculum for those with the D.V.M., or equivalent degree. Applicants with a graduate degree or with some graduate coursework will be evaluated on the basis of their graduate work as well as their undergraduate or professional records. Qualifications of students must be approved by the department’s Graduate Studies Committee.

The Graduate Record Examination (GRE) is required and must have been taken within the last five years prior to application.

Domestic and international applicants whose native language is not English must take the Test of English as a Foreign Language (TOEFL). A score of at least 600 on the paper-based test, or 250 on the computer-based test, is required. Those applicants who gain admission on the basis of their academic credentials, but score below 600 on the TOEFL, will be admitted on limited status and required to take the English Placement Test (EPT) upon their arrival. Students are exempt from the TOEFL requirement if they have completed at least two academic years of full-time study at an institution where the language of instruction is English during the five-year period prior to the proposed date of enrollment. Students also need to take the Test of Spoken English (TSE) oral exam and score at least 50.

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

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

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

- endocrine/reproductive biology
- developmental and stem cell research
- neurobiology
- comparative pharmacology and toxicology
- biochemistry

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/nihtox/), the Interdisciplinary Environmental Toxicology Training Program (https://vetmed.illinois.edu/iertp/), 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/).

Financial Aid
A limited number of research and teaching assistantships or fellowship positions are available.

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For additional details and requirements refer to the department’s graduate degree requirements (https://vetmed.illinois.edu/coll******************************************************************************)
and the Graduate College Handbook (http://www.grad.illinois.edu/gradhandbook/).

Code  Title  Hours
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MCB 450  Introductory Biochemistry  3-4
MCB 354  Biochem & Phys Basis of Life (credits cannot be used towards degree)
MCB 401  Cellular Physiology

Information listed in this catalog is current as of 11/2021
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MCB 402</td>
<td>Sys &amp; Integrative Physiology</td>
<td></td>
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<tr>
<td>MCB 410</td>
<td>Developmental Biology, Stem Cells and Regenerative Medicine</td>
<td></td>
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<tr>
<td>MCB 480</td>
<td>Eukaryotic Cell Signaling</td>
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<tr>
<td>MCB 501</td>
<td>Advanced Biochemistry</td>
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Select one of the following: 4

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>PATH 524</td>
<td>Biostatistics</td>
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<tr>
<td>VCM 572</td>
<td>Clinical Epidemiology</td>
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<tr>
<td>CPSC 440</td>
<td>Applied Statistical Methods I</td>
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or approved equivalent

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CB 590</td>
<td>Seminar</td>
<td>1</td>
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<tr>
<td>CB 591</td>
<td>Biosciences Seminar Series (may be repeated for up to 2 hours of credit)</td>
<td>1</td>
</tr>
<tr>
<td>CB 592</td>
<td>Special Problems (4 max applied toward degree)</td>
<td>4</td>
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Electives 5-11

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CB 599</td>
<td>Thesis Research (min/max applied toward degree)</td>
<td>12</td>
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Total Hours 32

**Other Requirements**

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<tr>
<th>Requirement</th>
<th>Description</th>
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<td>Other requirements may overlap</td>
<td>Students may be required to take additional courses as recommended by Advisory Committees or Department Divisions</td>
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Minimum Hours Required Within the 8 (500 level) Unit: 12

Minimum 500-level Hours Required Overall: 12

Final Exam/Thesis Defense Required

Thesis Deposit Required

Minimum GPA: 3.00