MS in Biomedical Sciences with Emphasis in Biomedical Sciences

The MS in Biomedical Sciences with emphasis in Biomedical Sciences provides in-depth training to prepare scientists in interdisciplinary basic research (molecular, cellular, organ and integrative). Departmental faculty members represent diverse Medical-related basic science disciplines that provide a unique opportunity for biomedical research training. There is also an on-line MS degree option. Students can select either thesis or non-thesis options. Thesis option requires participation in an on-campus research project. Non-thesis option can be done remotely. Core courses include physiology, cell biology and an introduction to research methodology. The multidisciplinary focus of the program is also emphasized in the candidate's MS program committee.

Degree Requirements

To attain the master's degree, 30 hours of graduate credit must be completed.

- 15 hours or more must be at the 8000 level (exclusive of research, problems and independent study courses)
- 6 to 9 hours of 8090 Research.
- A grade of 3.0 or better is required in all core courses and serves as the qualifying examination for the degree.
- In additional to the departmental core courses, students may take courses specifically planned to meet the needs and strengths of the individual.

30 Hours of graduate credit must be completed to obtain the MS Degree; per the MU Graduate School, 15 hours or more shall be 8000 level. Each student in the Biomedical Sciences MS program must take all courses in the Core Curriculum (21 credits; see course list below). A "B" grade (3.0 or better) is required in all course courses in order to graduate. All MS candidates are evaluated semiannually by their MS thesis committee, or by Biomedical Sciences Graduate Program Advisory Committee (GPAC) (non-thesis students), for satisfactory progress as defined by prompt completion of core courses and/or progress on research activities as stipulated by the student's MS committee. the time limit for the MS degree is five years after it initiation.

In addition to the 21 hours of departmental core, courses, non-thesis students must take 9 hours of electives courses at or above 7000 level; courses will be chosen in consultation with GPAC.

In lieu of additional coursework, thesis students must complete 9 research hours. the candidate for a thesis MS must carry out original research culminating in a written thesis, present the thesis work at a departmental seminar, and defend the thesis in an oral examination by their MS committee.

V_BSCI 8420	Veterinary Physiology	5
V_BSCI 8421	Veterinary Physiology	4
V_BSCI 8100	Veterinary Neuroscience	2
V_BSCI 7333	Veterinary Cell Biology	4
V_BSCI 8200	Multidisciplinary Approaches to Biomedical Sciences	2
V_BSCI 8410	Seminar in Veterinary Biomedical Science	4
Example Online/face to face Electives:		
V_BSCI 8509	Veterinary Toxicology	3
V_BSCI 9435	Molecular Exercise Biology	3
V_BSCI 9462	Hormone Action	2
BIOMED 8100	Veterinary Online Course Development and Teaching	3
BIOMED 8310	Advanced Topics in Stress Physiology	3
BIOMED 8710	Essentials of Radiation Biology	2
V_PBIO 7120	Principles of Toxicology	3
V_BSCI 9467	Neural Cardiorespiratory Control	3

Evaluation

The master's candidate is evaluated semiannually for satisfactory rate of progress as defined by timely completion of course courses and progress on research activities as stipulated by the master's program committee. The master's candidate must carry out original research culminating in a written thesis, present the thesis work at a departmental seminar and defend the thesis in an oral examination by the master's program committee.

Length of Study

The time limit for the master's degree is five years after initiating the program.

Financial Aid from the Program

Some programs require an extra form or statement from those who wish to be considered for internal assistantships, fellowships or other funding packages. Check the program website or ask the program contact for details.

Admission Criteria

- Fall deadline: January 15
- Spring deadline: September 15
- Summer deadline: Not Applicable
- Minimum TOEFL scores:

Internet-based test (iBT)	Paper-based test (PBT)
100	600

- Minimum GRE scores:

When did you take the GRE?	Verbal + Quantitative
Prior to August 1, 2011	100 3.5
On or After August 1, 2011	300 3.5

- Minimum GPA: 3.0
- Required prerequisite courses: Biology (10 hrs), Physics (3 hrs), Biochemistry (3 hrs), Chemistry (10 hrs), Calculus (3 hrs)

NOTE: The GRE requirement may be waived for applicants with an MD or DVM. Prerequisite courses may be completed during the master's program.

Required Application Materials

To the Graduate School:

- All required Graduate School documents

To the Biomedical Sciences MS Program:

- Program-specific application
- Letter of intent
- GRE scores
- Copy of transcripts
- 3 letters of recommendation

Contact Information

Kevin Cummings, Ph.D.
Director of Graduate Studies
Associate Professor, Dept. of Biomedical Sciences
Resident Investigator, Dalton Cardiovascular Research Center
University of Missouri-Columbia
134 Research Park Dr.
Columbia, MO 65211
573-882-0283
Cummingske@missouri.edu