Master of Science in Cell Biology and Anatomy

The Master of Science (M.S.) program in Anatomy and Cell Biology prepares the student for a career at the advanced technical level in academia, industry, or government. Graduating students may also find teaching positions at the secondary or junior college level. Incoming students may not directly enroll in the M.S. program; entry will only be granted by the Departmental Director of Graduate Education upon the recommendation of the student’s Research Advisory Committee.

The application process is an online process. Application to this graduate program is facilitated through the Interdisciplinary Graduate Program in Biomedical Sciences (IGPBS). (http://catalog.ku.edu/medicine/graduate-program-biomedical-sciences) Detailed instructions on how to apply and the application deadlines are posted on the Interdisciplinary Graduate Program in Biomedical Sciences website http://www.kumc.edu/igpbs/how-to-apply.html.

Admission requirements:

- Bachelor’s degree from a regionally accredited institution documented by submission of official transcript indicating the degree has been conferred before entering the program. Official transcripts from institutions attended post-baccalaureate are also required. Students with degrees from outside the U.S. may be subject to transcript evaluation indicating the degree is equivalent to a U.S. degree and meets the minimum cumulative GPA requirements.
- A cumulative grade-point average (GPA) of at least a 3.0 on a 4.0 scale for the bachelor’s degree.
- Applicants who are not native speakers of English, whether domestic or international, must demonstrate they meet the Minimum English Proficiency Requirement (http://catalog.ku.edu/graduate-studies/kumc/#admissiontext).
- A background check (http://catalog.ku.edu/graduate-studies/kumc/#admissiontext) is required during the admission process; it may affect the student’s eligibility to enter the program.
- An official copy of the Graduate Record Examination (GRE) score sent from Educational Testing Service (ETS) to University of Kansas Medical Center - ETS institutional code 6895.
- Three letters of recommendation.
- Prerequisite coursework:
  - One year of general chemistry
  - One year of organic chemistry or one semester of organic chemistry and one semester of biochemistry
  - One year of biological sciences
  - One semester of calculus
  - One semester of physics
- Research experience (beyond labs associated with lecture courses) is strongly suggested.
- Interview - the most qualified applicants will receive an invitation for an interview.

Applicants will be assessed based on a combination of GPA, research experience, interview and GRE scores. Students not meeting the above requirements may be eligible for provisional admission. After an applicant has been admitted, a program may defer an applicant’s admission for one year after which time the applicant must submit a new application.

Admission requirements are subject to change. In most cases, use the catalog of the year student entered the program. Other years' catalogs».

Degree Requirements:

- Degree requirements are normally completed within 3 years of admission to the degree program although a maximum of 7 years is allowed.
- Cumulative grade-point average (GPA) of at least a 3.0 for all KU graduate coursework.
- Completion of a minimum of 30 credit hours.
- Enrollment in a minimum of one (1) credit hour the semester the student will graduate.
- Successful completion of either a thesis defense or general examination (http://catalog.ku.edu/graduate-studies/kumc/#programstext) the semester the student will graduate.
- If thesis option is chosen, then enrollment in a minimum of one (1) credit hour of ANAT 899 Master's Thesis and successful thesis submission and publication (http://catalog.ku.edu/graduate-studies/kumc/#programstext) (according to Office of Graduate Studies policy.)
- Successful completion of the following Interdisciplinary Graduate Program in Biomedical Science (IGPBS) (http://catalog.ku.edu/medicine/graduate-program-biomedical-sciences) courses (or their equivalent):
  - GSMD 850 Proteins and Metabolism
  - GSMD 851 Molecular Genetics
  - GSMD 852 Introduction to Biomedical Research I
  - GSMD 853 Cellular Structure
  - GSMD 854 Cell Communication
  - GSMD 855 Introduction to Biomedical Research II
  - GSMD 856 Introduction to Research Ethics
  - GSMD 857 Biographics
  - GSMD 858 Introduction to Faculty Research
  - GSMD 859 Research Rotations

- Successful completion of the following Anatomy and Cell Biology courses:
  - ANAT 845 Graduate Histology
  - ANAT 885 Seminar
  - ANAT 890 Graduate Research
  - ANAT 900 Analysis of Scientific Papers
  - ANAT 899 Master’s Thesis (if thesis option chosen)

- Students must be continually enrolled in ANAT 885 Seminar and ANAT 900 Analysis of Scientific Papers each fall and spring semester beginning with fall semester of their second year. These two courses may be waived for one semester after the student has completed all departmental requirements other than the general exam or thesis defense.
- Successful completion of optional elective coursework as determined in consultation with the student's advisor.

Degree requirements and course descriptions are subject to change. Any courses taken as an equivalent must be approved by the Graduate
Typical Plan of Study

**Year 1**

<table>
<thead>
<tr>
<th></th>
<th>Fall Hours</th>
<th>Spring Hours</th>
<th>Summer Hours</th>
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<tbody>
<tr>
<td>GSMC 850</td>
<td>2 GSMC 853</td>
<td>2 GSMC 859</td>
<td>1-4</td>
</tr>
<tr>
<td>GSMC 851</td>
<td>2 GSMC 854</td>
<td>2 May take an elective course from the student's chosen degree program in consultation with the student's advisor.</td>
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<tr>
<td>GSMC 852</td>
<td>2 GSMC 855</td>
<td>2</td>
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<tr>
<td>GSMC 856</td>
<td>1 GSMC 859</td>
<td>1-4</td>
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<tr>
<td>GSMC 857</td>
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<td>GSMC 858</td>
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<tr>
<td>GSMC 859</td>
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Total Hours: 19-30

**Year 2**

<table>
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<tbody>
<tr>
<td>ANAT 885</td>
<td>1 ANAT 845</td>
<td>3 ANAT 890</td>
<td>1-3</td>
</tr>
<tr>
<td>ANAT 890</td>
<td>1-6 ANAT 885</td>
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<tr>
<td>ANAT 900</td>
<td>1 ANAT 890</td>
<td>1-6</td>
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<tr>
<td>Form and schedule first meeting with Research Advisory Committee</td>
<td>ANAT 900</td>
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Total Hours: 3-8

**Year 3**

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<th>Summer Hours</th>
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<tbody>
<tr>
<td>ANAT 885</td>
<td>1 ANAT 885</td>
<td>1 ANAT 890 or 899</td>
<td>1-3</td>
</tr>
<tr>
<td>ANAT 890 or 899</td>
<td>1-6 ANAT 890 or 899</td>
<td>1-6</td>
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<tr>
<td>ANAT 900</td>
<td>1 ANAT 900</td>
<td>1</td>
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Thesis defense or general examination may be scheduled as early as this semester if approved by committee to graduate.

ANAT 885 and ANAT 900 may be waived for one semester after the student has completed all departmental requirements other than the general exam or thesis defense.

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<tr>
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<th>3-8</th>
<th>3-8</th>
<th>1-3</th>
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<tbody>
<tr>
<td>Total Hours: 17-41</td>
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