PREMEDICAL PROFESSIONS PREPARATION

Premedical Professions Advising

Predentistry, premedicine, preoptometry, and preveterinary medicine are career interests rather than majors or formal programs. Students prepare by taking courses required for entry, studying to learn concepts and perform well academically, volunteering and shadowing to get experience, taking a standardized admissions test, and applying for admission to graduate-level professional schools.

For more information, visit the website (https://medadvising.ku.edu). Call 785-864-2834 to schedule an orientation or application meeting with a premedical advisor.

Predentistry

Predentistry is a career interest rather than a major or formal program. Students prepare by taking courses to meet dental school admission requirements, studying to learn concepts and perform well academically, and shadowing or working in dental practices. They take the Dental Admission Test (http://www.ada.org/dat.aspx) (DAT) and apply for admission to dental schools, usually in the summer between the junior and senior year. Most people complete an undergraduate bachelor’s degree and major before entering dental school.

Dental schooling is 4 years of graduate-level, professional education and training. There is no dental school in Kansas, however, there is an agreement for some seats for Kansas residents at the University of Missouri–Kansas City (UMKC) School of Dentistry.

Most dental schools require:

English Composition I. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Satisfied by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition</td>
</tr>
<tr>
<td>or ENGL 105</td>
<td>Freshman Honors English</td>
</tr>
</tbody>
</table>

English Composition II. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Satisfied by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
</tr>
<tr>
<td>or ENGL 205</td>
<td>Freshman-Sophomore Honors Proseminar: _____</td>
</tr>
</tbody>
</table>

Biology I with Lab. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Satisfied by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology</td>
</tr>
<tr>
<td>or BIOL 151</td>
<td>Principles of Molecular and Cellular Biology, Honors</td>
</tr>
</tbody>
</table>

Biology II with Lab. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Satisfied by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 152</td>
<td>Principles of Organismal Biology</td>
</tr>
<tr>
<td>or BIOL 153</td>
<td>Principles of Organismal Biology, Honors</td>
</tr>
</tbody>
</table>

General Chemistry I with Lab. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Satisfied by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHEM 170</td>
<td>Chemistry for the Chemical Sciences I</td>
</tr>
<tr>
<td>CHEM 190</td>
<td>Foundations of Chemistry I, Honors</td>
</tr>
</tbody>
</table>

General Chemistry II with Lab. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Satisfied by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 135</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHEM 175</td>
<td>Chemistry for the Chemical Sciences II</td>
</tr>
<tr>
<td>CHEM 195</td>
<td>Foundations of Chemistry II, Honors</td>
</tr>
</tbody>
</table>

Organic Chemistry I with Lab. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Satisfied by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 330</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>&amp; CHEM 331</td>
<td>and Organic Chemistry I Laboratory</td>
</tr>
</tbody>
</table>

Organic Chemistry II with Lab. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Satisfied by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 335</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>&amp; CHEM 336</td>
<td>and Organic Chemistry II Laboratory</td>
</tr>
</tbody>
</table>

Organic Chemistry II, Honors

<table>
<thead>
<tr>
<th>Course</th>
<th>Satisfied by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 385</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>&amp; CHEM 336</td>
<td>and Organic Chemistry II Laboratory</td>
</tr>
</tbody>
</table>

Physics I with Lab. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Satisfied by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 114</td>
<td>College Physics I</td>
</tr>
<tr>
<td>PHSX 211</td>
<td>General Physics I</td>
</tr>
<tr>
<td>&amp; PHSX 216</td>
<td>and General Physics I Laboratory</td>
</tr>
</tbody>
</table>

Physics II with Lab. Satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Satisfied by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 115</td>
<td>College Physics II</td>
</tr>
<tr>
<td>PHSX 212</td>
<td>General Physics II</td>
</tr>
<tr>
<td>&amp; PHSX 236</td>
<td>and General Physics II Laboratory</td>
</tr>
</tbody>
</table>

The UMKC School of Dentistry also requires:

Anatomy with lab. Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Satisfied by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 240</td>
<td>Fundamentals of Human Anatomy</td>
</tr>
<tr>
<td>&amp; BIOL 241</td>
<td>and Human Anatomy Observation Laboratory</td>
</tr>
</tbody>
</table>

Physiology with lab, satisfied by one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Satisfied by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 246</td>
<td>Principles of Human Physiology</td>
</tr>
<tr>
<td>&amp; BIOL 247</td>
<td>and Principles of Human Physiology Laboratory</td>
</tr>
<tr>
<td>BIOL 646</td>
<td>Mammalian Physiology</td>
</tr>
<tr>
<td>&amp; BIOL 647</td>
<td>and Mammalian Physiology Laboratory</td>
</tr>
</tbody>
</table>

Cell biology: Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Satisfied by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 416</td>
<td>Cell Structure and Function</td>
</tr>
</tbody>
</table>

Biochemistry: Satisfied by:

<table>
<thead>
<tr>
<th>Course</th>
<th>Satisfied by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 600</td>
<td>Introductory Biochemistry, Lectures</td>
</tr>
<tr>
<td>or BIOL 636</td>
<td>Biochemistry I</td>
</tr>
</tbody>
</table>

Some dental schools require additional mathematics, psychology, and/or biology courses.

For more information, visit the website (https://medadvising.ku.edu). Call 785-864-2834 to schedule an orientation or application meeting with a premedical advisor.

Premedicine

Premedicine is a career interest rather than a major or formal program. Students prepare by taking courses to meet medical school admission requirements, studying to learn concepts and perform well academically, and volunteering or working in health care settings. They take the Medical College Admission Test (https://www.aamc.org/students/applying/mcat) (MCAT) and apply for admission to medical schools, usually in the summer between the junior and senior year. Most people complete an undergraduate bachelor’s degree and major before entering medical school. Medical schooling is four years of graduate-level, professional education and training, followed by a three- to six-year residency program. The only medical school in Kansas is the KU School of Medicine.

Most medical schools require:

English Composition I. Satisfied by:
ENGL 101 Composition 3
or ENGL 105 Freshman Honors English

English Composition II. Satisfied by:
ENGL 102 Critical Reading and Writing 3
or ENGL 205 Freshman-Sophomore Honors Proseminar: ____

Biology I with Lab. Satisfied by:
BIOL 150 Principles of Molecular and Cellular Biology 4
or BIOL 151 Principles of Molecular and Cellular Biology, Honors

Biology II with Lab. Satisfied by:
BIOL 152 Principles of Organismal Biology 4
or BIOL 153 Principles of Organismal Biology, Honors

General Chemistry I with Lab. Satisfied by one of the following:
CHEM 130 General Chemistry I 5
CHEM 170 Chemistry for the Chemical Sciences I
CHEM 190 Foundations of Chemistry I, Honors

General Chemistry II with Lab. Satisfied by one of the following:
CHEM 135 General Chemistry II 5
CHEM 175 Chemistry for the Chemical Sciences II
CHEM 195 Foundations of Chemistry II, Honors

Organic Chemistry I with Lab. Satisfied by one of the following:
CHEM 330 Organic Chemistry I
& CHEM 331 and Organic Chemistry I Laboratory
CHEM 380 Organic Chemistry I, Honors
& CHEM 331 and Organic Chemistry I Laboratory

Organic Chemistry II with Lab. Satisfied by one of the following:
CHEM 335 Organic Chemistry II
& CHEM 336 and Organic Chemistry II Laboratory
CHEM 385 Organic Chemistry II, Honors
& CHEM 336 and Organic Chemistry II Laboratory

(For the KU School of Medicine accepts CHEM 310 as a substitute for CHEM 330, BIOL 600 or BIOL 636 as a substitute for CHEM 335, and CHEM 331 meets their organic lab requirement without CHEM 336.)

Physics I with Lab. Satisfied by one of the following: 4-5
PHSX 104 College Physics I
PHSX 211 General Physics I
& PHSX 216 and General Physics I Laboratory
PHSX 213 General Physics I Honors

Physics II with Lab. Satisfied by one of the following: 4
PHSX 114 College Physics II
PHSX 212 General Physics II
& PHSX 236 and General Physics II Laboratory
PHSX 214 General Physics II Honors

Some also require:

Biochemistry. Satisfied by:
BIOL 600 Introductory Biochemistry, Lectures 3
or BIOL 636 Biochemistry I

Calculus. Satisfied by: 3-5
MATH 115 Calculus I
MATH 125 Calculus I
MATH 141 Calculus I: Honors

Genetics. Satisfied by:
BIOL 350 Principles of Genetics 4

or BIOL 360 Principles of Genetics, Honors

Statistics. Satisfied by one of the following: 3
PSYC 210 Statistics in Psychological Research
PSYC 211 Statistics in Psychological Research, Honors

MATH 365 Elementary Statistics

BIOL 570 Introduction to Biostatistics

The MCAT also requires knowledge from:

Biochemistry. Satisfied by one of the following:
BIOL 600 Introductory Biochemistry, Lectures 3-4
or BIOL 636 Biochemistry I

Psychology. Satisfied by one of the following:
PSYC 104 General Psychology 3
or PSYC 105 General Psychology, Honors

Sociology. Satisfied by one of the following: 3
SOC 104 Elements of Sociology
SOC 105 Elements of Sociology, Honors

SOC 160 Social Problems and American Values
SOC 161 Social Problems and American Values, Honors

For more information, visit the website (https://medadvising.ku.edu). Call 785-864-2834 to schedule an orientation or application meeting with a premedical advisor.

Preoptometry

Preoptometry is a career interest rather than a major or formal program. Students prepare by taking courses to meet optometry school admission requirements, studying to learn concepts and perform well academically, and shadowing or working in optometry practices. They take the Optometry Admissions Test (http://www.ada.org/en/oat) (OAT) and apply for admission to optometry schools, usually in the summer between the junior and senior year. Most people complete an undergraduate bachelor’s degree and major before entering optometry school.

Optometry schooling is four years of graduate-level, professional education and training. There is no optometry school in Kansas, however, there are agreements for some seats for Kansas residents at the University of Missouri—St. Louis School of Optometry, Northeastern State University of Oklahoma College of Optometry, and the Southern College of Optometry in Tennessee.

Most optometry schools require:

English Composition I. Satisfied by:
ENGL 101 Composition 3
or ENGL 105 Freshman Honors English

English Composition II. Satisfied by:
ENGL 102 Critical Reading and Writing 3
or ENGL 205 Freshman-Sophomore Honors Proseminar: ____

Biology I with Lab. Satisfied by:
BIOL 150 Principles of Molecular and Cellular Biology 4
or BIOL 151 Principles of Molecular and Cellular Biology, Honors

Biology II with Lab. Satisfied by:
BIOL 152 Principles of Organismal Biology 4
or BIOL 153 Principles of Organismal Biology, Honors

General Chemistry I with Lab. Satisfied by one of the following: 5
CHEM 330 Organic Chemistry I
& CHEM 331 and Organic Chemistry I Laboratory
CHEM 380 Organic Chemistry I, Honors
& CHEM 331 and Organic Chemistry I Laboratory

CHEM 335 Organic Chemistry II
& CHEM 336 and Organic Chemistry II Laboratory
CHEM 385 Organic Chemistry II, Honors
& CHEM 336 and Organic Chemistry II Laboratory

(For the KU School of Medicine accepts CHEM 310 as a substitute for CHEM 330, BIOL 600 or BIOL 636 as a substitute for CHEM 335, and CHEM 331 meets their organic lab requirement without CHEM 336.)

MATH 365 Elementary Statistics

BIOL 570 Introduction to Biostatistics

The MCAT also requires knowledge from:

Biochemistry. Satisfied by one of the following:
BIOL 600 Introductory Biochemistry, Lectures 3-4
or BIOL 636 Biochemistry I

Psychology. Satisfied by one of the following:
PSYC 104 General Psychology 3
or PSYC 105 General Psychology, Honors

Sociology. Satisfied by one of the following: 3
SOC 104 Elements of Sociology
SOC 105 Elements of Sociology, Honors

SOC 160 Social Problems and American Values
SOC 161 Social Problems and American Values, Honors

For more information, visit the website (https://medadvising.ku.edu). Call 785-864-2834 to schedule an orientation or application meeting with a premedical advisor.
Most also require or recommend:

**Physiology with lab. Satisfied by one of the following:**

- BIOL 600

**Biochemistry:** Satisfied by:

- & BIOL 241
- BIOL 240

**Anatomy with lab. Satisfied by one of the following:**

- Statistics. Satisfied by:
  - PSYC 104
  - or PSYC 105

**Statistics. Satisfied by:**

- PSYC 210
- PSYC 211
- MATH 365
- BIOL 570

**Microbiology with lab. Satisfied by one of the following:**

- BIOL 400
- & BIOL 402
- BIOL 401
- & BIOL 402

**Organic Chemistry with lab. Satisfied by one of the following:**

- CHEM 310
- & CHEM 331
- CHEM 330
- & CHEM 331
- CHEM 380
- & CHEM 331

**Psychology. Satisfied by:**

- PSYC 104
- or PSYC 105

**Statistics. Satisfied by:**

- PSYC 210
- PSYC 211
- MATH 365
- BIOL 570

Most also require or recommend:

**Anatomy with lab. Satisfied by one of the following:**

- BIOL 240
  - Fundamentals of Human Anatomy
  - & BIOL 241
    - Fundamentals of Human Anatomy Observation Laboratory

**Biochemistry:** Satisfied by:

- BIOL 600
  - Introductory Biochemistry, Lectures
  - or BIOL 636
    - Biochemistry I

**Physiology with lab. Satisfied by one of the following:**

- BIOL 246
  - Principles of Human Physiology
  - & BIOL 247
    - Principles of Human Physiology Laboratory

**Physics I with lab. Satisfied by one of the following:**

- PHSX 114
  - College Physics I
- PHSX 211
  - General Physics I
  - & PHSX 216
    - General Physics I Laboratory
- PHSX 213
  - General Physics I Honors

**Physics II with lab. Satisfied by one of the following:**

- PHSX 115
  - College Physics II
- PHSX 212
  - General Physics II
  - & PHSX 236
    - General Physics II Laboratory
- PHSX 214
  - General Physics II Honors

**Calculus I: Satisfied by one of the following:**

- MATH 115
  - Calculus I
- MATH 125
  - Calculus I
- MATH 141
  - Calculus I: Honors

**Microbiology with lab. Satisfied by one of the following:**

- BIOL 400
  - Fundamentals of Microbiology
  - & BIOL 402
    - Fundamentals of Microbiology Laboratory
- BIOL 401
  - Fundamentals of Microbiology, Honors
  - & BIOL 402
    - Fundamentals of Microbiology Laboratory

**Organic Chemistry with lab. Satisfied by one of the following:**

- CHEM 310
  - Fundamentals of Organic Chemistry
  - & CHEM 331
    - Organic Chemistry I Laboratory
- CHEM 330
  - Organic Chemistry I
  - & CHEM 331
    - Organic Chemistry I Laboratory
- CHEM 380
  - Organic Chemistry I, Honors
  - & CHEM 331
    - Organic Chemistry I Laboratory

**Psychology. Satisfied by:**

- PSYC 104
  - General Psychology
  - or PSYC 105
    - General Psychology, Honors

**Statistics. Satisfied by:**

- PSYC 210
  - Statistics in Psychological Research
- PSYC 211
  - Statistics in Psychological Research, Honors
- MATH 365
  - Elementary Statistics
- BIOL 570
  - Introduction to Biostatistics

Some require additional mathematics, psychology, and/or other courses.

For more information, visit the website (https://medadvising.ku.edu). Call 785-864-2834 to schedule an orientation or application meeting with a premedical advisor.

**Preveterinary Medicine**

Preveterinary medicine is a career interest rather than a major or formal program. Students prepare by taking courses to meet veterinary school admission requirements, studying to learn concepts and perform well academically, and shadowing or working in veterinary practices. They take the Graduate Record Examination (http://www.ets.org/gre) (GRE) and apply for admission to veterinary schools, usually in the summer between the junior and senior year. Most people complete an undergraduate bachelor’s degree and major before entering veterinary school.

Veterinary schooling is four years of graduate-level, professional education and training. The only veterinary school in Kansas is the Kansas State College of Veterinary Medicine.

The Kansas State College of Veterinary Medicine requires:

**Microbiology with lab. Satisfied by one of the following:**

- BIOL 400
  - Fundamentals of Microbiology
  - & BIOL 402
    - Fundamentals of Microbiology Laboratory
- BIOL 401
  - Fundamentals of Microbiology, Honors
  - & BIOL 402
    - Fundamentals of Microbiology Laboratory

**Organic Chemistry with lab. Satisfied by one of the following:**

- CHEM 310
  - Fundamentals of Organic Chemistry
  - & CHEM 331
    - Organic Chemistry I Laboratory
- CHEM 330
  - Organic Chemistry I
  - & CHEM 331
    - Organic Chemistry I Laboratory
- CHEM 380
  - Organic Chemistry I, Honors
  - & CHEM 331
    - Organic Chemistry I Laboratory

**Psychology. Satisfied by:**

- PSYC 104
  - General Psychology
  - or PSYC 105
    - General Psychology, Honors

**Statistics. Satisfied by:**

- PSYC 210
  - Statistics in Psychological Research
- PSYC 211
  - Statistics in Psychological Research, Honors
- MATH 365
  - Elementary Statistics
- BIOL 570
  - Introduction to Biostatistics

**English Composition I. Satisfied by:**

- ENGL 101
  - Composition
  - or ENGL 105
    - Freshman Honors English

**English Composition II. Satisfied by:**

- ENGL 102
  - Critical Reading and Writing
  - or ENGL 205
    - Freshman-Sophomore Honors Proseminar: _____

**Public Speaking. Satisfied by:**

- COMS 130
  - Speaker-Audience Communication
  - or COMS 131
    - Speaker-Audience Communication, Honors

**Chemistry I with lab. Satisfied by one of the following:**

- CHEM 130
  - General Chemistry I
- CHEM 170
  - Chemistry for the Chemical Sciences I
- CHEM 190
  - Foundations of Chemistry I, Honors

**Chemistry II with lab. Satisfied by one of the following:**

- CHEM 135
  - General Chemistry II
- CHEM 175
  - Chemistry for the Chemical Sciences II
- CHEM 195
  - Foundations of Chemistry II, Honors

**Organic Chemistry with lab. Satisfied by one of the following:**

- CHEM 310
  - Fundamentals of Organic Chemistry
  - & CHEM 331
    - Organic Chemistry I Laboratory
- CHEM 330
  - Organic Chemistry I
  - & CHEM 331
    - Organic Chemistry I Laboratory
- CHEM 380
  - Organic Chemistry I, Honors
  - & CHEM 331
    - Organic Chemistry I Laboratory

**Biochemistry:** Satisfied by:

- BIOL 646
  - Mammalian Physiology
  - & BIOL 647
    - and Mammalian Physiology Laboratory

For more information, visit the website (https://medadvising.ku.edu). Call 785-864-2834 to schedule an orientation or application meeting with a premedical advisor.
Premedical Professions Preparation

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 211 &amp; PHSX 216</td>
<td>General Physics I and General Physics I Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>PHSX 213</td>
<td>General Physics I Honors</td>
<td></td>
</tr>
<tr>
<td>PHSX 215</td>
<td>College Physics II</td>
<td></td>
</tr>
<tr>
<td>PHSX 212 &amp; PHSX 236</td>
<td>General Physics II and General Physics II Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHSX 214</td>
<td>General Physics II Honors</td>
<td></td>
</tr>
<tr>
<td>PHSX 115</td>
<td>College Physics II</td>
<td></td>
</tr>
<tr>
<td>PHSX 212 &amp; PHSX 236</td>
<td>General Physics II and General Physics II Laboratory</td>
<td></td>
</tr>
<tr>
<td>Biology I with Lab. Satisfied by:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology</td>
<td>4</td>
</tr>
<tr>
<td>or BIOL 151</td>
<td>Principles of Molecular and Cellular Biology, Honors</td>
<td></td>
</tr>
<tr>
<td>Microbiology with Lab. Satisfied by one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 400 &amp; BIOL 402</td>
<td>Fundamentals of Microbiology and Fundamentals of Microbiology Laboratory</td>
<td></td>
</tr>
<tr>
<td>BIOL 401 &amp; BIOL 402</td>
<td>Fundamentals of Microbiology, Honors and Fundamentals of Microbiology Laboratory</td>
<td></td>
</tr>
<tr>
<td>Genetics. Satisfied by:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 350</td>
<td>Principles of Genetics</td>
<td>4</td>
</tr>
<tr>
<td>or BIOL 360</td>
<td>Principles of Genetics, Honors</td>
<td></td>
</tr>
<tr>
<td>12 credit hours of social sciences and/or humanities</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>And, enough electives to reach a total of 64 credit hours</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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