Dental schooling is four years of graduate level, professional education. Students usually complete undergraduate coursework and then attend dental school. Some dental schools require additional mathematics, psychology, and/or biology courses. For more information, visit the website (https://prehealth.ku.edu/dentistry/).

**Predentistry**

Predentistry is a career interest, usually developed together with completing a bachelor's degree and major. Students prepare by taking courses to meet dental school entry requirements, studying to learn concepts and perform well academically, shadowing or working in dental practices, and volunteering to serve people in need. They take the Dental Admission Test (https://www.ada.org/education/testing/exams/dental-admission-test-dat/) (DAT) and apply for admission to dental schools, usually in the summer between the junior and senior year.

Dental schooling is four 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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition or ENGL 101 Honors Introduction to English</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing or ENGL 201 Freshman-Sophomore Honors Proseminar: _____</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 151</td>
<td>Principles of Molecular and Cellular Biology, Honors</td>
<td></td>
</tr>
<tr>
<td>BIOL 154</td>
<td>Introductory Biology Lab for STEM Majors</td>
<td></td>
</tr>
<tr>
<td>BIOL 152</td>
<td>Principles of Organismal Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 153</td>
<td>Principles of Organismal Biology, Honors</td>
<td></td>
</tr>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 135</td>
<td>General Chemistry II</td>
<td></td>
</tr>
<tr>
<td>CHEM 170</td>
<td>Chemistry for the Chemical Sciences I</td>
<td></td>
</tr>
<tr>
<td>CHEM 175</td>
<td>Chemistry for the Chemical Sciences II</td>
<td></td>
</tr>
<tr>
<td>CHEM 190</td>
<td>Foundations of Chemistry I, Honors</td>
<td></td>
</tr>
<tr>
<td>CHEM 195</td>
<td>Foundations of Chemistry II, Honors</td>
<td></td>
</tr>
<tr>
<td>CHEM 330</td>
<td>Organic Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 331</td>
<td>Organic Chemistry I Laboratory</td>
<td></td>
</tr>
</tbody>
</table>

The UMKC School of Dentistry also requires:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 380</td>
<td>Organic Chemistry I, Honors &amp; CHEM 331 and Organic Chemistry I Laboratory</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 335</td>
<td>Organic Chemistry II &amp; CHEM 336 and Organic Chemistry II Laboratory</td>
<td></td>
</tr>
<tr>
<td>CHEM 385</td>
<td>Organic Chemistry II, Honors &amp; CHEM 336 and Organic Chemistry II Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHSX 114</td>
<td>College Physics I</td>
<td>4-5</td>
</tr>
<tr>
<td>PHSX 211</td>
<td>General Physics I &amp; PHSX 216 and General Physics I Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHSX 213</td>
<td>General Physics I Honors</td>
<td></td>
</tr>
<tr>
<td>PHSX 214</td>
<td>General Physics II Honors</td>
<td></td>
</tr>
</tbody>
</table>

For more information, visit the website (https://prehealth.ku.edu/).

**Premedicine**

Premedicine is a career interest, usually developed together with completing a bachelor's degree and major. Students prepare by taking courses to meet medical school entry requirements, studying to learn concepts and perform well academically, shadowing or working in health care settings, and serving people in need. 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.

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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition or ENGL 101 Honors Introduction to English</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing or ENGL 201 Freshman-Sophomore Honors Proseminar: _____</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 150</td>
<td>Principles of Molecular and Cellular Biology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 151</td>
<td>Principles of Molecular and Cellular Biology, Honors</td>
<td></td>
</tr>
<tr>
<td>BIOL 154</td>
<td>Introductory Biology Lab for STEM Majors</td>
<td></td>
</tr>
<tr>
<td>BIOL 152</td>
<td>Principles of Organismal Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 153</td>
<td>Principles of Organismal Biology, Honors</td>
<td></td>
</tr>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 135</td>
<td>General Chemistry II</td>
<td></td>
</tr>
<tr>
<td>CHEM 170</td>
<td>Chemistry for the Chemical Sciences I</td>
<td></td>
</tr>
<tr>
<td>CHEM 175</td>
<td>Chemistry for the Chemical Sciences II</td>
<td></td>
</tr>
<tr>
<td>CHEM 190</td>
<td>Foundations of Chemistry I, Honors</td>
<td></td>
</tr>
<tr>
<td>CHEM 195</td>
<td>Foundations of Chemistry II, Honors</td>
<td></td>
</tr>
<tr>
<td>CHEM 330</td>
<td>Organic Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 331</td>
<td>Organic Chemistry I Laboratory</td>
<td></td>
</tr>
<tr>
<td>CHEM 335</td>
<td>Organic Chemistry II</td>
<td></td>
</tr>
<tr>
<td>CHEM 336</td>
<td>Organic Chemistry II Laboratory</td>
<td></td>
</tr>
<tr>
<td>CHEM 385</td>
<td>Organic Chemistry II, Honors</td>
<td></td>
</tr>
<tr>
<td>CHEM 386</td>
<td>Organic Chemistry II Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHSX 114</td>
<td>College Physics I</td>
<td>4-5</td>
</tr>
<tr>
<td>PHSX 211</td>
<td>General Physics I &amp; PHSX 216 and General Physics I Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHSX 213</td>
<td>General Physics I Honors</td>
<td></td>
</tr>
<tr>
<td>PHSX 214</td>
<td>General Physics II Honors</td>
<td></td>
</tr>
</tbody>
</table>

For more information, visit the website (https://prehealth.ku.edu/mcataadmissions/).
Some also require:

Calculus. Satisfied by:

### Code	| Title | Hours
---|---|---
ENGL 101 | Composition | 3
or ENGL 101Honors Introduction to English | 3

English Composition II. Satisfied by:

### Code	| Title | Hours
---|---|---
ENGL 102 | Critical Reading and Writing | 3
or ENGL 202Freshman-Sophomore Honors Proseminar: ______ | 5

Biology I with Lab. Satisfied by:

### Code	| Title | Hours
---|---|---
BIOL 150 | Principles of Molecular and Cellular Biology | 5
or BIOL 151 Principles of Molecular and Cellular Biology, Honors | 5

BIOL 154 | Introductory Biology Lab for STEM Majors | 4

Biology II with Lab. Satisfied by:

### Code	| Title | Hours
---|---|---
BIOL 152 | Principles of Organismal Biology | 4
or BIOL 153 Principles of Organismal Biology, Honors | 4

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

### Code	| Title | Hours
---|---|---
CHEM 130 | General Chemistry I | 5
CHEM 170 | Chemistry for the Chemical Sciences I | 5
CHEM 190 | Foundations of Chemistry I, Honors | 5

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

### Code	| Title | Hours
---|---|---
CHEM 135 | General Chemistry II | 5
CHEM 175 | Chemistry for the Chemical Sciences II | 5
CHEM 195 | Foundations of Chemistry II, Honors | 5

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

### Code	| Title | Hours
---|---|---
CHEM 330 | Organic Chemistry I | 5
& CHEM 331 and Organic Chemistry I Laboratory | 5
CHEM 380 | Organic Chemistry I, Honors | 5
& CHEM 331 and Organic Chemistry I Laboratory | 5

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

### Code	| Title | Hours
---|---|---
CHEM 335 | Organic Chemistry II | 5
& CHEM 336 and Organic Chemistry II Laboratory | 5

CHEM 385 | Organic Chemistry II, Honors | 5
& CHEM 336 and Organic Chemistry II Laboratory | 5

(The KU School of Medicine accepts CHEM 331 as meeting their organic lab requirement without needing CHEM 336.)

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

### Code	| Title | Hours
---|---|---
PHSX 114 | College Physics I | 4-5
PHSX 211 | General Physics I | 4-5
& PHSX 216 General Physics I Laboratory | 4-5
PHSX 213 | General Physics I Honors | 4-5

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

### Code	| Title | Hours
---|---|---
PHSX 115 | College Physics II | 4
PHSX 212 | General Physics II | 4
& PHSX 236 General Physics II Laboratory | 4
PHSX 214 | General Physics II Honors | 4

Some also require:

Biochemistry. Satisfied by:

### Code	| Title | Hours
---|---|---
BIOL 600 | Introductory Biochemistry, Lectures | 3-4
or BIOL 636 Biochemistry I | 3-4

Calculus. Satisfied by:

### Code	| Title | Hours
---|---|---
MATH 115 | Calculus I | 3-5
MATH 125 | Calculus I | 3-5

Genetics. Satisfied by:

### Code	| Title | Hours
---|---|---
BIOL 350 | Principles of Genetics | 4
or BIOL 360 Principles of Genetics, Honors | 4

Statistics. Satisfied by one of the following:

### Code	| Title | Hours
---|---|---
PSYC 210 | Statistics in Psychological Research | 3
PSYC 211 | Statistics in Psychological Research, Honors | 3
MATH 365 | Elementary Statistics | 3

The MCAT also requires knowledge from:

### Code	| Title | Hours
---|---|---
CHEM 330 | Organic Chemistry I | 5
& CHEM 331 and Organic Chemistry I Laboratory | 5
CHEM 380 | Organic Chemistry I, Honors | 5
& CHEM 331 and Organic Chemistry I Laboratory | 5

Sociology. Satisfied by one of the following:

### Code	| Title | Hours
---|---|---
SOC 104 | Elements of Sociology | 3
SOC 105 | Elements of Sociology, Honors | 3
SOC 160 | Social Problems and American Values | 3
SOC 161 | Social Problems and American Values, Honors | 3

And, the KU School of Medicine also strongly encourages candidates to complete an immunology course before entering medical school:

### Code	| Title | Hours
---|---|---
Biol 503 | Immunology | 3

Biol 503 has a pre-requisite of Biol 400: Fundamentals of Microbiology, which is also recommended by most medical schools.

For more information, visit the website (https://prehealth.ku.edu/medicine/).

**Preoptometry**

Preoptometry is a career interest, usually developed together with completing a bachelor's degree and major. Students prepare by taking courses to meet optometry school admission requirements, studying to learn concepts and perform well academically, shadowing or working in optometry practices, and volunteering to serve people in need. They take the Optometry Admission 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.

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:

### Code	| Title | Hours
---|---|---
ENGL 101 | Composition | 3

Biochemistry. Satisfied by:

### Code	| Title | Hours
---|---|---
BIOL 600 | Introductory Biochemistry, Lectures | 3-7
BIOL 636 | Biochemistry I | 3-7
& BIOL 638 and Biochemistry II | 3-7

Psychology. Satisfied by one of the following:

### Code	| Title | Hours
---|---|---
PSYC 104 | General Psychology | 3
or PSYC 105General Psychology, Honors | 3

Sociology. Satisfied by one of the following:

### Code	| Title | Hours
---|---|---
SOC 104 | Elements of Sociology | 3
SOC 105 | Elements of Sociology, Honors | 3
SOC 160 | Social Problems and American Values | 3
SOC 161 | Social Problems and American Values, Honors | 3

For more information, visit the website (https://prehealth.ku.edu/medicine/).
or ENGL 10Honors Introduction to English

English Composition II. Satisfied by: 3

ENGL 102 Critical Reading and Writing
or ENGL 20Freshman-Sophomore Honors Proseminar: _____

Biology I with Lab. Satisfied by: 5

BIOL 150 Principles of Molecular and Cellular Biology
or BIOL 151 Principles of Molecular and Cellular Biology, Honors

BIOL 154 Introductory Biology Lab for STEM Majors

Biology II with Lab. Satisfied by: 4

BIOL 152 Principles of Organismal Biology
or BIOL 153 Principles of Organismal Biology, Honors

General Chemistry I with Lab. Satisfied by one of the following: 5

CHEM 130 General Chemistry I
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: 5

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

Physics I with Lab. Satisfied by one of the following: 4-5

PHSX 114 College Physics I
PHSX 211 General Physics I
& PHSX 216 and General Physics I Laboratory

PHSX 213 General Physics II Honors

Physics II with Lab. Satisfied by one of the following: 4

PHSX 115 College Physics II
PHSX 212 General Physics II
& PHSX 236 and General Physics II Laboratory

PHSX 214 General Physics II Honors

Calculus I. Satisfied by one of the following: 3-5

MATH 115 Calculus I
MATH 125 Calculus I

Microbiology with Lab. Satisfied by one of the following: 5

BIOL 400 Fundamentals of Microbiology
& BIOL 402 and Fundamentals of Microbiology Laboratory

BIOL 401 Fundamentals of Microbiology, Honors
& BIOL 402 and Fundamentals of Microbiology Laboratory

Organic Chemistry with Lab. Satisfied by one of the following: 5

CHEM 330 Organic Chemistry I
& CHEM 331 and Organic Chemistry I Laboratory
or CHEM 388 Organic Chemistry I, Honors

Psychology. Satisfied by: 3

PSYC 104 General Psychology
or PSYC 105General Psychology, Honors

Statistics. Satisfied by: 3

PSYC 210 Statistics in Psychological Research
PSYC 211 Statistics in Psychological Research, Honors
MATH 365 Elementary Statistics

BIOL 370 Introduction to Biostatistics

Most also require or recommend:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 240</td>
<td>Fundamentals of Human Anatomy &amp; BIOL 241 and Human Anatomy Observation Laboratory</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 600</td>
<td>Introductory Biochemistry, Lectures or BIOL 636 Biochemistry I</td>
<td>3-4</td>
</tr>
<tr>
<td>BIOL 246</td>
<td>Principles of Human Physiology &amp; BIOL 247 and Principles of Human Physiology Laboratory</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 546</td>
<td>Mammalian Physiology &amp; BIOL 547 and Mammalian Physiology Laboratory</td>
<td>5</td>
</tr>
</tbody>
</table>

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

For more information, visit the website (https://prehealth.ku.edu/optometry/).

**Preveternary Medicine**

Preveternary medicine is a career interest, usually developed together with completing a bachelor's degree and major. Students prepare by taking courses to meet veterinary school admission requirements, studying to learn concepts and perform well academically, shadowing or working in veterinary practices, and volunteering to help people and other animals in need. 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.

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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Composition or ENGL 10Honors Introduction to English</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing or ENGL 20Freshman-Sophomore Honors Proseminar: _____</td>
<td>3</td>
</tr>
<tr>
<td>COMS 130</td>
<td>Speaker-Audience Communication or COMS 13 Speaker-Audience Communication, Honors</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 130</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 170</td>
<td>Chemistry for the Chemical Sciences I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 190</td>
<td>Foundations of Chemistry I, Honors</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 135</td>
<td>General Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 175</td>
<td>Chemistry for the Chemical Sciences II</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 195</td>
<td>Foundations of Chemistry II, Honors</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 246</td>
<td>Principles of Human Physiology</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 247</td>
<td>Principles of Human Physiology Laboratory</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 580</td>
<td>Mammalian Physiology</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 581</td>
<td>Mammalian Physiology Laboratory</td>
<td>5</td>
</tr>
</tbody>
</table>

Some require additional mathematics, psychology, and/or other courses.
<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 380 &amp; CHEM 331</td>
<td>Organic Chemistry I, Honors and Organic Chemistry I Laboratory</td>
</tr>
</tbody>
</table>

General Biochemistry. Satisfied by one of the following: 3-6
- BIOL 600 Introductory Biochemistry, Lectures
- BIOL 636 Biochemistry I
- BIOL 638 & BIOL 638 Biochemistry II

Physics I with Lab. Satisfied by one of the following: 4-5
- PHSX 114 College Physics I
- PHSX 211 General Physics I
- PHSX 216 & PHSX 216 General Physics I Laboratory
- PHSX 213 General Physics I Honors

Physics II with Lab. Satisfied by one of the following: 4
- PHSX 115 College Physics II
- PHSX 212 General Physics II
- PHSX 236 & PHSX 236 General Physics II Laboratory
- PHSX 214 General Physics II Honors

Biology I with Lab. Satisfied by: 5
- BIOL 150 Principles of Molecular and Cellular Biology
- BIOL 151 Principles of Molecular and Cellular Biology, Honors
- BIOL 154 Introductory Biology Lab for STEM Majors

Microbiology with Lab. Satisfied by one of the following: 5
- BIOL 400 Fundamentals of Microbiology
- BIOL 400 & BIOL 402 Fundamentals of Microbiology Laboratory
- BIOL 401 Fundamentals of Microbiology, Honors
- BIOL 401 & BIOL 402 Fundamentals of Microbiology Laboratory

Genetics. Satisfied by: 4
- BIOL 350 Principles of Genetics
- BIOL 360 Principles of Genetics, Honors

12 credit hours of social sciences and/or humanities 12

And, enough electives to reach a total of 64 credit hours

For more information, visit the website (https://prehealth.ku.edu/veterinary/).