

PREMEDICAL PROFESSIONS PREPARATION

Premedical Professions Advising

Pre dentistry, 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.

Pre dentistry

Pre dentistry 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:

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 one of the following:

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	5
& 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:		5
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	
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 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	and General Physics II Laboratory	
PHSX 214	General Physics II Honors	

The UMKC School of Dentistry also requires:

Anatomy with lab. Satisfied by:		5
BIOL 240	Fundamentals of Human Anatomy	
& BIOL 241	and Human Anatomy Observation Laboratory	
Physiology with lab, satisfied by one of the following:		5-6
BIOL 246	Principles of Human Physiology	
& BIOL 247	and Principles of Human Physiology Laboratory	
BIOL 646	Mammalian Physiology	
& BIOL 647	and Mammalian Physiology Laboratory	
Cell biology: Satisfied by:		
BIOL 416	Cell Structure and Function	3
Biochemistry: Satisfied by:		
BIOL 600	Introductory Biochemistry, Lectures	3-4
or BIOL 636	Biochemistry I	

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

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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	5
& 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	5
& CHEM 336	and Organic Chemistry II Laboratory	
CHEM 385	Organic Chemistry II, Honors	
& CHEM 336	and Organic Chemistry II Laboratory	
(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:		
PHSX 114	College Physics I	4-5
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:		
PHSX 115	College Physics II	4
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:		
MATH 115	Calculus I	3-5
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:		
PSYC 210	Statistics in Psychological Research	3
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:		
SOC 104	Elements of Sociology	3
SOC 105	Elements of Sociology, Honors	
SOC 160	Social Problems and American Values	
SOC 161	Social Problems and American Values, Honors	

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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 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. 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:		
CHEM 130	General Chemistry I	5
CHEM 170	Chemistry for the Chemical Sciences I	
CHEM 190	Foundations of Chemistry I, Honors	

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 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	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	
MATH 141	Calculus I: Honors	
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 310	Fundamentals of Organic Chemistry	
& CHEM 331	and Organic Chemistry I Laboratory	
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	
Psychology. Satisfied by:		
PSYC 104	General Psychology	3
or PSYC 105	General Psychology, Honors	
Statistics. Satisfied by:		
PSYC 210	Statistics in Psychological Research	3
PSYC 211	Statistics in Psychological Research, Honors	
MATH 365	Elementary Statistics	
BIOL 570	Introduction to Biostatistics	
Most also require or recommend:		
Anatomy with lab: Satisfied by one of the following:		
BIOL 240	Fundamentals of Human Anatomy	5
& BIOL 241	and Human Anatomy Observation Laboratory	
Biochemistry: Satisfied by:		
BIOL 600	Introductory Biochemistry, Lectures	3
or BIOL 636	Biochemistry I	
Physiology with lab: Satisfied by one of the following:		
BIOL 246	Principles of Human Physiology	5-6
& BIOL 247	and Principles of Human Physiology Laboratory	

BIOL 646	Mammalian Physiology
& BIOL 647	and Mammalian Physiology Laboratory

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

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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:

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: _____	
Public Speaking. Satisfied by:		
COMS 130	Speaker-Audience Communication	3
or COMS 131	Speaker-Audience Communication, Honors	
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	
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	
General Organic Chemistry with Lab. Satisfied by one of the following:		
CHEM 310	Fundamentals of Organic Chemistry	5
& CHEM 331	and Organic Chemistry I Laboratory	
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	
General Biochemistry. Satisfied by one of the following:		
BIOL 600	Introductory Biochemistry, Lectures	3-6
BIOL 636	Biochemistry I	
& BIOL 638	and Biochemistry II	
Physics I with Lab. Satisfied by one of the following:		
PHSX 114	College Physics I	4-5

PHSX 211 & PHSX 216	General Physics I and 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 & PHSX 236	General Physics II and General Physics II Laboratory	
PHSX 214	General Physics II Honors	
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	
Microbiology with Lab. Satisfied by one of the following:		5
BIOL 400 & BIOL 402	Fundamentals of Microbiology and Fundamentals of Microbiology Laboratory	
BIOL 401 & BIOL 402	Fundamentals of Microbiology, Honors and Fundamentals of Microbiology Laboratory	
Genetics. Satisfied by:		
BIOL 350	Principles of Genetics	4
or 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		

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