Premedical Professions Preparation

Premedical Professions Advising

Predentistry, premedicine, preoptometry, and preveterinary medicine are career interests, usually developed together with completing a bachelor's degree. 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).

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 (http://www.ada.org/dat.aspx) (DAT) and apply for admission to dental schools, usually in the summer between the junior and senior year.

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:		3
ENGL 101	Composition	
or ENGL 105	Freshman Honors English	
English Composition II. Satisfied by:		3
ENGL 102	Critical Reading and Writing	
or ENGL 205	Freshman-Sophomore Honors Proseminar: _____	
Biology I with Lab. Satisfied by:		4
BIOL 150	Principles of Molecular and Cellular Biology	
or BIOL 151	Principles of Molecular and Cellular Biology, Honors	
Biology II with Lab. Satisfied by one of the following:		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	
Organic Chemistry I with Lab. Satisfied by one of the following:		5
CHEM 330 & CHEM 331	Organic Chemistry I and Organic Chemistry I Laboratory	
CHEM 380 & CHEM 331	Organic Chemistry I, Honors and Organic Chemistry I Laboratory	
Organic Chemistry II with Lab. Satisfied by one of the following:		5
CHEM 335 & CHEM 336	Organic Chemistry II and Organic Chemistry II Laboratory	
CHEM 385 & CHEM 336	Organic Chemistry II, Honors and Organic Chemistry II Laboratory	
Physics I with Lab. Satisfied by one of the following:		4-5
PHSX 114	College Physics I	
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	

The UMKC School of Dentistry also requires:

Anatomy with lab. Satisfied by:		5
BIOL 240 & BIOL 241	Fundamentals of Human Anatomy and Human Anatomy Observation Laboratory	
Physiology with lab. Satisfied by one of the following:		5
BIOL 246 & BIOL 247	Principles of Human Physiology and Principles of Human Physiology Laboratory	
BIOL 546 & BIOL 647	Mammalian Physiology and Mammalian Physiology Laboratory	
Cell biology. Satisfied by:		3
BIOL 416	Cell Structure and Function	
Biochemistry. Satisfied by one of the following:		3-4
BIOL 600	Introductory Biochemistry, Lectures	
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, 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, volunteering 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:

English Composition I. Satisfied by:		3
ENGL 101	Composition	
or ENGL 105	Freshman Honors English	
English Composition II. Satisfied by:		3
ENGL 102	Critical Reading and Writing	

or ENGL 205	Freshman-Sophomore Honors Proseminar: _____	
Biology I with Lab. Satisfied by:		4
BIOL 150	Principles of Molecular and Cellular Biology	
or BIOL 151	Principles of Molecular and Cellular Biology, Honors	
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	
Organic Chemistry I with Lab. Satisfied by one of the following:		5
CHEM 330 & CHEM 331	Organic Chemistry I and Organic Chemistry I Laboratory	
CHEM 380 & CHEM 331	Organic Chemistry I, Honors and Organic Chemistry I Laboratory	
Organic Chemistry II with Lab. Satisfied by one of the following:		5
CHEM 335 & CHEM 336	Organic Chemistry II and Organic Chemistry II Laboratory	
CHEM 385 & CHEM 336	Organic Chemistry II, Honors and Organic Chemistry II Laboratory	
(The KU School of Medicine accepts 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 114	College Physics I	
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	

Some also require:

Biochemistry. Satisfied by:		3-4
BIOL 600	Introductory Biochemistry, Lectures	
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:		4
BIOL 350	Principles of Genetics	
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:		3-7
BIOL 600	Introductory Biochemistry, Lectures	
BIOL 636 & BIOL 638	Biochemistry I and Biochemistry II	
Psychology. Satisfied by one of the following:		3
PSYC 104	General Psychology	
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	

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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:

English Composition I. Satisfied by:		3
ENGL 101	Composition	
or ENGL 105	Freshman Honors English	
English Composition II. Satisfied by:		3
ENGL 102	Critical Reading and Writing	
or ENGL 205	Freshman-Sophomore Honors Proseminar: _____	
Biology I with Lab. Satisfied by:		4
BIOL 150	Principles of Molecular and Cellular Biology	
or BIOL 151	Principles of Molecular and Cellular Biology, Honors	
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 & 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	
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 & BIOL 402	Fundamentals of Microbiology and Fundamentals of Microbiology Laboratory	
BIOL 401 & BIOL 402	Fundamentals of Microbiology, Honors and Fundamentals of Microbiology Laboratory	
Organic Chemistry with Lab. Satisfied by one of the following:		5
CHEM 330 & CHEM 331	Organic Chemistry I and Organic Chemistry I Laboratory	
or CHEM 380	Organic Chemistry I, Honors	
Psychology. Satisfied by:		3
PSYC 104	General Psychology	
or PSYC 105	General Psychology, Honors	
Statistics. Satisfied by:		3
PSYC 210	Statistics in Psychological Research	
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:		5
BIOL 240 & BIOL 241	Fundamentals of Human Anatomy and Human Anatomy Observation Laboratory	
Biochemistry. Satisfied by:		3-4
BIOL 600	Introductory Biochemistry, Lectures	
or BIOL 636	Biochemistry I	
Physiology with lab: Satisfied by one of the following:		5
BIOL 246 & BIOL 247	Principles of Human Physiology and Principles of Human Physiology Laboratory	
BIOL 546 & BIOL 647	Mammalian Physiology 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, 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:

English Composition I. Satisfied by:		3
ENGL 101	Composition	
or ENGL 105	Freshman Honors English	
English Composition II. Satisfied by:		3
ENGL 102	Critical Reading and Writing	
or ENGL 205	Freshman-Sophomore Honors Proseminar: _____	
Public Speaking. Satisfied by:		3
COMS 130	Speaker-Audience Communication	
or COMS 13	Speaker-Audience Communication, Honors	
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	
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	
General Organic Chemistry with Lab. Satisfied by one of the following:		5
CHEM 330 & CHEM 331	Organic Chemistry I and Organic Chemistry I Laboratory	
CHEM 380 & CHEM 331	Organic Chemistry I, Honors and Organic Chemistry I Laboratory	
General Biochemistry. Satisfied by one of the following:		3-6
BIOL 600	Introductory Biochemistry, Lectures	
BIOL 636 & BIOL 638	Biochemistry I and Biochemistry II	
Physics I with Lab. Satisfied by one of the following:		4-5
PHSX 114	College Physics I	
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:		4
BIOL 150	Principles of Molecular and Cellular Biology	
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	Fundamentals of Microbiology, Honors	
& BIOL 402	and Fundamentals of Microbiology Laboratory	
Genetics. Satisfied by:		4
BIOL 350	Principles of Genetics	
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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