# **Department of Physical Therapy and Rehabilitation Sciences**

The University of Kansas Medical Center

# **Description of Prerequisite Courses**

For your reference, examples of University of Kansas (KU) courses that meet the prerequisite requirements are listed in parentheses at the end of each course listing. Other courses may also be acceptable.

### **BASIC SCIENCES**

- **2 semesters (or equivalent) of chemistry with laboratory.** These courses must be college level. The courses may be inorganic chemistry or they may be a combination of organic, inorganic or biochemistry. Introductory courses that cannot be used as prerequisites for more advanced courses are not acceptable. (CHEM 184, CHEM 188)
- **2 semesters (or equivalent) of physics with laboratory.** These courses must be college level and cover a broad background in physics, including the principles and application of mechanics, fluids, heat, thermodynamics, sound waves, electricity, magnetism and light. (PHSX 114, PHSX 115)
- **2 semesters (or equivalent) of biology with laboratory.** It is preferred that students enroll in a general biology course and an upper level course (200 level or above). For those students who have already taken two or more 200 level or above biology courses, the general course is not necessary. Recommended upper level courses include microbiology, molecular biology, or cellular biology. (BIOL 104/106, BIOL 416/426)
- **1 semester (or equivalent) of anatomy with laboratory.** This course may be human or mammalian, although human is preferred. A dissection laboratory is not required, but the course must contain some type of laboratory experience to be acceptable. A combined human anatomy/physiology course is generally not sufficient to fulfill the anatomy requirement (see below). (BIOL 300/301 or 302)
- **1 semester (or equivalent) of human physiology with laboratory.** This course should introduce the student to basic human physiological principles. A combined human anatomy/physiology course (with laboratory) may be used to fulfill the physiology requirement. If the combined human anatomy/physiology course (with laboratory) is 6 semester credits or greater, it will fulfill both the anatomy and physiology requirements. (BIOL 305/306)

#### **MATHEMATICS**

- 1 course in college algebra and 1 course in trigonometry. A single course in algebra/trigonometry, or a single course in pre-calculus (MATH 104), or a single course in calculus (MATH 115) can be used to fulfill the math requirement (instead of the courses listed above). (MATH 101, MATH 103)
- **1 course in statistics.** This course should include the following content areas: elementary descriptive statistics on a sample of measurements, probability, binomial and normal distributions, sampling from populations, and simple problems of statistical inference. Biomedical statistics, education statistics or business statistics courses are acceptable. (MATH 365)

#### **HUMANITIES**

- **2 courses in English composition.** These courses should develop the student's reading and writing skills. Courses must have a primary emphasis in writing. Literature courses may be used only if the course includes a significant writing component. (ENG 101, ENG 102)
- **1 course in speech.** This course should provide the student with an introduction to communication theory, process and skill. The class should include activities to improve the student's own communication skills when interacting in small groups or speaking in public. (COMS 130)

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### SOCIAL SCIENCES

**2 courses in psychology.** It is preferred that students enroll in a general psychology course (that includes content in basic psychology theory and research) and an upper level course (200 level or above). For those students who have already taken two or more 200 level or above psychology courses, the general course is not necessary. Abnormal psychology is strongly recommended. (PSYC 104, PSYC 350)

**1 course in sociology.** The course should include content in the areas of person and society, group dynamics and interactions of groups and societies. A cultural anthropology course will be accepted as an alternate. (SOC 104)

**1 course in human development.** The course should include content about human growth and development across a period of time. Ideally, the course should cross multiple domains, such as physiological, sociological, biological and psychological. Courses that often meet this intent are: Human Growth and Development, Child Psychology, and Adult Development and Aging. (HDFL 160)

### RECOMMENDED COURSES

The following courses are not required for admission, and grades from these courses will not be included in any science/math or prerequisite GPA calculations. However, our faculty believes that incoming students will benefit tremendously from having taken these courses. Therefore, we strongly recommend these courses to prospective applicants.

**1 course in first aid.** This may through college coursework or through community courses offered by the American Red Cross, the American Heart Association, or the National Safety Council.

**1 course in kinesiology.** This course should introduce the student to the anatomical and mechanical principles of human movement. (HSES 670)

**1 course in exercise physiology.** This course should introduce the student to the basic metabolic, cardiorespiratory, and muscular responses to exercise and to the physiological adaptations to chronic activity. (HSES 672)

**1 course in ethics.** This course should introduce the student to the language and principles of ethical thought. It may include the nature of morality or the philosophical bases for the assessment of actions, agents and institutions. A course in medical ethics is preferred. (PHIL 160 or PHIL 370)