

# **Department of Biological Sciences**

## **Bachelor of Science**

### **Major in Biology – Pre-Physical Therapy Curriculum**

A. Pre-physical therapy is not a degree program. It consists of courses which are required for admission to professional physical therapy programs at other institutions. Most of the information on this sheet is directed toward the physical therapy programs at the University of Kansas Medical Center (KUMC) and Wichita State University (WSU). Students who are interested in physical therapy programs outside the state should write for information to the appropriate institution or access the homepage for the American Physical Therapy Association on the Internet.

B. A student must have a bachelor's degree to be eligible for admission. Therefore, a student interested in applying to these programs should pursue requirements for a degree at ESU as well as pre-physical therapy courses requirements. For the Bachelor of Science degree (BS), the student must select a major. The courses marked "B" on this sheet are for a biology major with an emphasis in general biology. However, any major is acceptable as long as the basic requirements are met.

C. Both KUMC and WSU have 3 year Doctor of Physical Therapy (DPT) programs. Students applying to either physical therapy school must take the General Test of the Graduate Record Examination (GRE). Arrangements for taking this test should be made in the spring prior to making application to KUMC.

D. The pre-physical therapy student must complete the appropriate General Education requirements as listed in the current course schedule book. Some of these requirements will be fulfilled with the listed courses. Students entering ESU fall of 2003 and thereafter must complete 45 hours of upper division courses for graduation.

E. Admission to schools of physical therapy is extremely competitive. ESU cannot guarantee that students will be accepted. For current information, the student should consult with the pre-physical therapy adviser early in his/her career.

F. Useful Websites:

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|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| 1. ESU Dept. of Biological Sciences<br><a href="http://biology.emporia.edu/">http://biology.emporia.edu/</a> | 2. American Physical Therapy Assoc.<br><a href="http://www.apta.org">www.apta.org</a>                 |
| 3. Wichita State University<br><a href="http://www.chp.wichita.edu/pt">http://www.chp.wichita.edu/pt</a>     | 4. Univ. of Kansas Medical Center<br><a href="http://www.kumc.edu/SAH/pted">www.kumc.edu/SAH/pted</a> |

#### **Pre-Physical Therapy Courses and BS Degree Requirements**

The courses listed on page two are required for a biology major and for the physical therapy programs at WSU and KUMC. In parts A - D, the designated requirements are indicated by "B" for biology major, "K" for KUMC, and "W" for WSU. The information listed for the University of Kansas and for Wichita State University are current as of Spring 2006.

**(OVER)**

**A. Biology Requirements**

GB 140-141.....	Principles of Biology and Lab (B, K, W).....	4 hrs.
MC 350-351.....	Molecular & Cellular Biology & Lab (B).....	4 hrs.
BO 212-213.....	Biology of Plants and Lab (B).....	4 hrs.
ZO 214-215.....	Biology of Animals and Lab (B).....	4 hrs.
MC 316-317.....	Microbiology and Lab (B).....	4 hrs.
ZO 362-363.....	Human Anatomy & Physiology and Lab (B, K, W)	5 hrs.
EB 480.....	Principles of Ecology (B).....	3 hrs.
GB 425.....	General Genetics (B).....	3 hrs.
PE 360.....	Exercise Physiology (W).....	3 hrs.
GB 325.....	Bioscientific Terminology (W).....	1 hr.
ZO 515-516.....	Vertebrate Structure & Development & Lab (5 hrs)	
OR	.....	3-5 hrs
ZO 570.....	Mammalian Physiology (3 hrs)(K)	
	Upper division electives in Biology (B).....	<u>5-7 hrs.</u>
		45 hrs

**B. Mathematics and Physical Science Requirements (33 hrs. listed)**

MA 110.....	College Algebra (K).....	3 hrs.
MA 112.....	Trigonometry (K, W).....	2 hrs.
PY 520.....	Statistics (B, K, W).....	3 hrs.
PH 140-141.....	College Physics I and Lab (B, K, W).....	5 hrs.
PH 143-144.....	College Physics II and Lab (K, W).....	5 hrs.
CH 123-124.....	Chemistry I and Lab (B, K, W).....	5 hrs.
CH 126-127.....	Chemistry II and Lab (B, K, W).....	5 hrs.
CH 370-371.....	General Organic Chemistry & Lab (B).....	5 hrs.

**C. Additional Requirements**

PY 100.....	Introductory Psychology (K, W).....	3 hrs.
PY 211.....	Developmental Psychology (K).....	3 hrs.
SO 101.....	Introduction to Sociology (K).....	3 hrs.
IS 113 .....	Introduction to Microcomputer Applications (W*)...	3 hrs.
PY 427.....	An advanced psychology course (K,W) .....	3 hrs.
HL 155 .....	First Aid and Personal Safety (K*) .....	2 hrs.

\*Proficiency or current certification may cover requirement

**D. Recommended Requirements**

PE 362.....	Kinesiology (K,W).....	3 hrs.
PE 360.....	Exercise Physiology (K).....	3 hrs.
PI 255.....	Ethics (K) .....	3 hrs.
IS 113 .....	Introduction to Microcomputer Applications (K)...	3 hrs.
ZO 365 .....	Pathophysiology (W) .....	3 hrs.

**E. Additional KU Requirements**

CPR and first aid certificate, current at time of application  
 Graduate Record Examination (GRE) general test  
 32 hours of observation with a physical therapy clinic with at least 16 hours in an inpatient hospital setting (written verification require).

**F. Additional WSU Requirements**

Minimum GPA of 3.0 in each of the following: last 60 hours of academic work, required math and science courses, all pre-requisite courses.  
 Pre-requisite courses must be taken for a grade.  
 Graduate Record Examination (GRE) general test.  
 Evidence of 20 hours of observation or work in one or more physical therapy settings.

(Updated October 3, 2006)