

Bachelor of Science Degree in Human Medicine

Purpose

1. To teach and train undergraduates in the areas of human biology, human medicine and human pathophysiology. Nationally, human oriented biology-medicine (human medicine) programs are limited in number. For this reason, many pre-med students major in other areas (chemistry, physics, mathematics, computer science) with only a minimum of significant biology coursework.
2. To give pre-medicine students, etc., the opportunity to work directly with physicians and dentists. After only two semesters, students can be working side-by-side with physicians during surgery, autopsies, dental procedures, medical imaging, patient consultations, etc., in such areas of medicine as: surgery (including neurosurgery, cardiovascular surgery, vascular surgery, oral surgery and orthopedic surgery), pathology, emergency medicine, obstetrics and gynecology, pediatrics, and podiatric surgery.
3. To successfully prepare students for future education and training in the areas human medicine, including osteopathy (M.D., D.O.), dentistry (D.D.S., D.M.D.), veterinary medicine (D.V.M.), optometry (OP.) and podiatry (P.M.).
4. To successfully prepare students for admission to M.S. level Physician's Associate (PA) programs.
5. To successfully train students for studies in graduate education and training (M.S., Ph.D.) in human biology related specialties (anatomy, cell biology, physiology, biochemistry, pathophysiology, forensic science, pathology, to name a few). Students will be well-prepared for advanced studies in these subject areas. Ultimately, such students generally pursue academic and scholarly endeavors in college/university, industrial or clinical instruction and research.
6. To prepare students for careers in public and private school instruction, community college instruction, etc., as well qualified biology teachers" specializing in human biology. Teachers qualified to teach human biology, at these levels, remain in demand across the country.
7. In the human medicine B.S. degree program, instructional emphasis is placed on human biology, especially human anatomy and physiology as well as pathophysiology. It is strongly anticipated that this will better prepare students for medical school training, especially during the basic science instruction years, typically years one and two.
8. To train students for careers in medical missions through the provision of a Christian environment during their pre-medical studies. The need for medical missionaries, especially in third world and underdeveloped countries, is extreme. Children are most affected, especially because of hunger and disease.

Objectives

1. To educate pre-clinical students in the areas of human biology, human medicine, and human disease.
2. To develop analytical, critical thinking, and reading skills of students enrolled in a premedicine program.
3. To expose students to course work related to human clinical medicine.
4. To introduce students to human disease, causes, etc (pathophysiology). Information will be presented in such fields as: cancer, diabetes, cardiovascular disease, musculoskeletal disease, pathology, immunology, pathogenic microprobes, endocrine disorders, neurological disease etc.
5. To introduce students to a broad spectrum of laboratory research techniques related to clinical determinations and analyses. Such studies will require the development of analytical and interpretive skills. Statistics will be utilized.
6. To develop critical and analytical reading skills through the use of biomedical research journals, scientific journals, the *Internet*, etc.
7. To develop the ability of students to collect information, prepare and write quality research articles and papers, i.e., scientific writing. This will also require the presentation and interpretation of scientific data.
8. To better prepare studies for their MCAT examinations.
9. To better prepare students for the post-graduate studies and investigation in clinical fields related to human biology.

Admission Requirements

1. Students must apply for admission to the Bachelor of Science Degree in Human Medicine program prior to completing the final 60 credit hours required for the degree. However, earlier application, especially during the freshman year, is strongly encouraged. Requirements for acceptance into the program are the same as for acceptance to Our Lady of the Lake College.
2. Applicants to the program MUST MEET with a faculty advisor to develop a degree plan. The Dean of Arts and Sciences must approve all degree plans.
3. Also, students MUST MEET with the program advisor every semester prior to pre-registering for subsequent course work.

RECOMMENDED CURRICULUM SEQUENCE

Curriculum Plan for the Bachelor of Science Degree in Human Medicine			
Course	Number	Title	Credit Hours
Freshman Year		Semester I	
ACSM	100	Academic Seminar	1
BIOL	111	General Biology I	3
BIOL	113	General Biology I Lab	1
CHEM	101	General Chemistry I	3
CHEM	103	General Chemistry I Lab	1
ENGL	101	English I	3
MATH	112	College Algebra	3
CSCI	100	Introduction to Computers	<u>3</u>
			18
Freshman Year		Semester II	
ASCM	101	Introduction to Baccalaureate	3
BIOL	112	General Biology II	3
BIOL	114	General Biology II Lab	1
CHEM	102	General Chemistry II	3
CHEM	104	General Chemistry II Lab	1
ENGL	102	English II	3
PSYC	100	Introduction to Psychology	<u>3</u>
			17
Sophomore Year		Semester I	
BIOL	210	Anatomy & Physiology I	3
BIOL	212	Anatomy & Physiology I Lab	1
CHEM	201	Organic Chemistry I	3
CHEM	203	Organic Chemistry I Lab	1
HIST	101 or 103	World History I or American History I	3
MATH	120	Trigonometry	3
PSYC	230	Psychology Across the Life Span	<u>3</u>
			17
Sophomore Year		Semester II	
BIOL	211	Anatomy & Physiology II	3
BIOL	213	Anatomy & Physiology II Lab	1
CHEM	202	Organic Chemistry II	3
CHEM	204	Organic Chemistry II Lab	1
HIST	102 or 104	World History II or American History II	3
MATH	250	Calculus	3
BIOL	280	Microbiology	3
BIOL	281	Microbiology Lab	<u>1</u>
			18

Junior Year		Semester I	
PHYS	121	General Physics I	3
PHYS	123	General Physics I Lab	1
BIOL	301	History of Biology & Medicine	3
BIOL	460	Cardiovascular Anatomy and Physiology	3
BIOL	330	Histology	3
LANG	101 Level	Spanish, French, or Latin	3
General Elective		PSYC, SOCI, PHIL, ENGL, ART, MUSI, RELS, LING, or ANTH	<u>3</u>
			19
Junior Year		Semester II	
PHYS	122	General Physics II	3
PHYS	124	General Physics II Lab	1
BIOL	320	Medical/surgical Observation	3
BIOL	346	Cellular, Molecular & Developmental Biology	3
LANG	Level 102	Spanish, French, or Latin	3
General Elective		PSYC, SOCI, PHIL, ENGL, ART, MUSI, RELS, LING, or ANTH	<u>3</u>
			16
Senior Year		Semester I	
MATH	252	General Statistics	3
CHEM	335	Biochemistry	3
BIOL	480	Pathogenic Microbes w/Lab	4
BIOL	300 or 400 Level	Biology Elective	3
General Elective		PSYC, SOCI, PHIL, ENGL, ART, MUSI, RELS, LING, or ANTH	<u>3</u>
			16
Senior Year		Semester II	
BIOL	310 331 or 482	Fundamentals of Immunology, Microscopic Anatomy, or Introduction to Virology	3
BIOL	450	Endocrinology	3
BIOL	496	Human Medicine/Biology Seminar	3
General Elective		PSYC, SOCI, PHIL, ENGL, ART, MUSI, RELS, LING, or ANTH	<u>3</u>
			12

Total Biology Credit Hours

51

Total Chemistry Credit Hours

19

Total Credits for the Bachelor of Science Degree in Human Medicine

133

Requirements for Graduation

1. Completion of one hundred thirty-three (133) semester hours in the required courses.
2. An overall grade point average of 2.00 (out of 4.00), including all transfer courses.
3. Fulfillment of the residency requirement of the College for the baccalaureate degree, which is 36 Credit Hours.

4. Clearance of all indebtedness to the College including the return of all borrowed materials from the Center for Information and Learning.