



# Bachelor of Science Biomedical Engineering 2004-2005

Curriculum B: Premedical Program

Student's Name \_\_\_\_\_ SSN \_\_\_\_\_

First Year	Qtr	Grd	(53 credit hours)	Fa	Wi	Sp	Su
BIO	112	4.0	___ ___ Principles of Biology: Cell Biology and Genetics	•	x	•	•
BME	195	2.0	___ ___ Fundamentals of Biomedical Engineering	•	•	x	•
CHM	121	5.0	___ ___ Submicroscopic Chemistry (High School Chemistry or CHM 101, MTH 127)	x	a	•	a
CHM	122	5.0	___ ___ Macroscopic Chemistry (CHM 121)	•	x	a	a
CHM	123	5.0	___ ___ Reaction Dynamics (CHM 122)	•	•	x	•
EGR	101	5.0	___ ___ Introductory Mathematics for Engineering Applications (MPL 5 + HS Trig or MTH 131)	x	a	a	a
EGR	190	4.0	___ ___ Fundamentals of Engineering and Computer Science (for freshmen only, others must take ISE 210)	x	a	a	•
ENG	101	4.0	___ ___ Academic Writing and Reading	x	a	a	a
ENG	102	4.0	___ ___ Writing in Academic Discourse (ENG 101)	a	x	a	a
PHY	240	4.0	___ ___ General Physics I (EGR 101 or MTH 229, PHY 200c)	a	a	x	a
PHY	200	1.0	___ ___ General Physics I Laboratory (PHY 240c)	a	a	x	•
MTH	229	5.0	___ ___ Calculus I (MTH 131 or MPL 7)	a	x	a	a
MTH	230	5.0	___ ___ Calculus II (MTH 229)	a	a	x	a
<b>Credit Hours Per Quarter in the Model Program</b>				<b>18</b>	<b>18</b>	<b>17</b>	

Second Year	Qtr	Grd	(55 credit hours)	Fa	Wi	Sp	Su
BIO	278	4.5	___ ___ Anatomy & Physiology I (BIO 112)	•	x	•	•
BIO	279	4.5	___ ___ Anatomy & Physiology II (BIO 278)	•	•	x	•
CEG	220	4.0	___ ___ Introduction to C Programming For Engineers (EGR 101 or MTH 229)	x	a	a	a
CHM	211	4.0	___ ___ Organic Chemistry I (CHM 123, CHM 215c)	x	•	a	•
CHM	215	2.0	___ ___ Organic Chemistry Lab (CHM 211c)	x	•	a	a
CHM	212	4.0	___ ___ Organic Chemistry II (CHM 211, CHM 216c)	•	x	•	a
CHM	216	2.0	___ ___ Organic Chemistry Lab (CHM 212c)	•	x	•	a
CHM	213	4.0	___ ___ Organic Chemistry III (CHM 212, CHM 217c)	•	•	x	•
CHM	217	2.0	___ ___ Organic Chemistry Lab (CHM 213c)	•	•	x	•
ME	212	4.0	___ ___ Statics (EGR 101 or MTH 231, PHY 240)	x	a	a	a
ME	213	4.0	___ ___ Dynamics (CEG 220, ME 212)	a	a	x	a
MTH	231	5.0	___ ___ Calculus III (MTH 230)	a	a	x	a
PHY	242	4.0	___ ___ General Physics II (MTH 230, PHY 240, PHY 204c)	x	a	a	•
PHY	202	1.0	___ ___ General Physics II Laboratory (PHY 242c)	x	a	a	•
PHY	244	5.0	___ ___ General Physics III (MTH 230, PHY 240, PHY 204c)	a	x	a	•
PHY	204	1.0	___ ___ General Physics III Laboratory (PHY 244c)	a	x	a	•
<b>Credit Hours Per Quarter in the Model Program</b>				<b>19</b>	<b>16.5</b>	<b>19.5</b>	

**NOTES:**

- Use this guide, advisor consultations, and the Undergraduate Catalog to carefully plan a program of study. Some courses are offered only once or twice a year. Complete mathematics and physics courses early since they are prerequisite to many engineering courses.
- In the right hand columns
  - (x) denotes courses in a model program with a non-conflicting schedule for a full-time student;
  - (a) denotes courses likely to be available;
  - (•) denotes courses normally not available. Check the Class Schedule for current information.
- Course numbers in parentheses denote a prerequisite course except when followed by "c" indicating a co-requisite course.

Program Guide: 2004-05 Biomedical Engineering (Curriculum B - continued)

Third Year	Qtr	Grd	(47 credit hours)	Fa	Wi	Sp	Su
BME 419	3.0	___	___				
BME 420	3.0	___	___				
*BME 422	4.0	___	___				
BME 460	5.0	___	___				
BME 463	2.0	___	___				
BME 464	4.0	___	___				
EE 301	4.0	___	___				
EE 302	1.0	___	___				
EE 321	4.0	___	___				
ISE 301	4.0	___	___				
ME 315	4.0	___	___				
MTH 232	5.0	___	___				
___	4.0	___	___				
<b>Credit Hours Per Quarter in the Model Program</b>				<b>16</b>	<b>16</b>	<b>15</b>	

Fourth Year	Qtr	Grd	(52 credit hours)	Fa	Wi	Sp	Su
BME 428	3.0	___	___				
*BME 439	4.0	___	___				
BME 440	4.0	___	___				
BME 461	4.0	___	___				
BME 462	4.0	___	___				
BME 491	3.0	___	___				
BME 492	1.0	___	___				
BME 402	2.0	___	___				
BME 493	1.0	___	___				
BME 403	2.0	___	___				
___	4.0	___	___				
___	4.0	___	___				
___	4.0	___	___				
___	4.0	___	___				
___	4.0	___	___				
___	4.0	___	___				
<b>Credit Hours Per Quarter in the Model Program</b>				<b>19</b>	<b>15</b>	<b>18</b>	

**TOTAL PROGRAM CREDIT HOURS** ----- **207**

**General Information:**

Two separate curricula are available for the B.S.E. degree in Biomedical Engineering:

- Curriculum A** prepares the graduate for the engineering industry employment. Graduates are also prepared for graduate training in biomedical engineering or in a traditional engineering area.
- Curriculum B** also satisfies the admission requirements for medical, osteopathic, dental, or veterinary schools. Graduates are also well prepared to pursue graduate training in engineering or the life sciences.
- Program Planning** - the student, in cooperation with his/her advisor, should use a Program Guide and the corresponding catalog to plan his/her program. Any problem, which arises in connection with a particular Program Guide, should be referred to the student's advisor.
- \*4. Students may substitute BME 470/471 for BME 422/439. If this option is selected, a 4 hr Gen Ed must be moved from Fall of the senior year to Spring of the junior year (replacing BME 422). BME 470 will then be taken in Fall of the senior year (replacing the 4 hr Gen Ed.)