



# Bachelor of Science Biomedical Engineering 2003-2004

Curriculum A: Traditional BME Program

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

First Year	Qtr	Grd	(51 credit hours)	Fa	Wi	Sp	Su				
BIO	112	4.0	_____	_____	_____	_____	_____	•	x	•	•
BME	195	2.0	_____	_____	_____	_____	_____	•	x	•	•
CEG	220	4.0	_____	_____	_____	_____	_____	a	a	x	a
CHM	121	5.0	_____	_____	_____	_____	_____	x	a	•	a
CHM	122	5.0	_____	_____	_____	_____	_____	•	x	a	a
ENG	101	4.0	_____	_____	_____	_____	_____	x	a	a	a
ENG	102	4.0	_____	_____	_____	_____	_____	a	a	x	a
EGR	190	4.0	_____	_____	_____	_____	_____	x	a	•	•
MTH	229	5.0	_____	_____	_____	_____	_____	x	a	a	a
MTH	230	5.0	_____	_____	_____	_____	_____	a	x	a	a
MTH	231	5.0	_____	_____	_____	_____	_____	a	a	x	a
_____	_____	4.0	_____	_____	_____	_____	_____	a	a	x	a
<b>Credit Hours per Quarter in the Model Program</b> -----				<b>18</b>	<b>16</b>	<b>17</b>					

Second Year	Qtr	Grd	(51 credit hours)	Fa	Wi	Sp	Su				
BIO	278	4.5	_____	_____	_____	_____	_____	•	x	•	•
BIO	279	4.5	_____	_____	_____	_____	_____	•	•	x	•
ME	212	4.0	_____	_____	_____	_____	_____	x	a	a	a
ME	213	4.0	_____	_____	_____	_____	_____	a	x	a	a
MTH	232	5.0	_____	_____	_____	_____	_____	x	a	a	a
MTH	233	5.0	_____	_____	_____	_____	_____	a	a	x	a
PHY	240	4.0	_____	_____	_____	_____	_____	x	a	a	•
PHY	200	1.0	_____	_____	_____	_____	_____	x	a	a	•
PHY	242	4.0	_____	_____	_____	_____	_____	a	x	•	•
PHY	202	1.0	_____	_____	_____	_____	_____	a	x	•	•
PHY	244	5.0	_____	_____	_____	_____	_____	•	a	x	•
PHY	204	1.0	_____	_____	_____	_____	_____	•	a	x	•
_____	_____	4.0	_____	_____	_____	_____	_____	a	x	a	a
_____	_____	4.0	_____	_____	_____	_____	_____	x	a	a	a
<b>Credit Hours per Quarter in the Model Program</b> -----				<b>18</b>	<b>17.5</b>	<b>15.5</b>					

**NOTES:**

1. 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.
2. 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.
3. Course numbers in parentheses denote a prerequisite course. Course numbers followed by "c" indicate a co-requisite course.

Program Guide 2003-2004 Biomedical Engineering (Curriculum A - continued)

Third Year	Qtr	Grd	(48 credit hours)	Fa	Wi	Sp	Su		
BME	419	3.0	___	___	Biofluid Mechanics ----- (ME 212, MTH 233, ME 315)	•	x	•	•
BME	420	3.0	___	___	Biomedical Heat and Mass Transfer----- (BME 419)	•	•	x	•
BME	422	4.0	___	___	Engineering Biophysics ----- (EE 321)	•	•	x	•
BME	460	5.0	___	___	Biomedical Electronics ----- (CEG 220, EE 301)	•	x	•	•
BME	464	4.0	___	___	Microprocessors for Biomedical Engineering ----- (BME 460)	•	•	x	•
EE	301	4.0	___	___	Circuit Analysis I ----- (MTH 233, PHY 242, EE 302c)	x	a	a	•
EE	302	1.0	___	___	Circuit Analysis I Laboratory ----- (EE 301c)	x	a	a	•
EE	321	4.0	___	___	Linear Systems I ----- (EE 301, EE 302)	a	x	a	a
ISE	301	4.0	___	___	Statistical Methods for Testing, Development and Manuf. I ----- (MTH 230)	x	a	a	•
ME	315	4.0	___	___	Thermodynamics I ----- (PHY 244, MTH 232c)	x	a	a	a
___	___	4.0	___	___	History -----	x	a	a	a
___	___	4.0	___	___	Human Behavior -----	a	a	x	a
___	___	4.0	___	___	Non-Western World -----	a	x	a	a
<b>Credit Hours per Quarter in the Model Program-----</b>				<b>17</b>	<b>16</b>	<b>15</b>			

Fourth Year	Qtr	Grd	(44 credit hours)	Fa	Wi	Sp	Su		
BME	428	3.0	___	___	Biomechanics and Biothermodynamics ----- (ME 212, ME 315)	•	•	x	•
BME	439	4.0	___	___	Biotransport and Artificial Organs ----- (BME 420)	•	x	•	•
BME	440	4.0	___	___	Biomaterials ----- (ME 213, EE 321)	x	•	•	•
BME	461	4.0	___	___	Bioinstrumentation I ----- (BIO 279, BME 460, EE 321)	x	•	•	•
BME	462	4.0	___	___	Bioinstrumentation II ----- (BME 461)	•	x	•	•
BME	470	4.0	___	___	Photon Radiation ----- (BIO 279, PHY 244, PHY 204)	x	•	•	•
BME	471	4.0	___	___	Medical Imaging----- (BME 470)	•	x	•	•
BME	491	3.0	___	___	Biomedical Engineering Design I ----- (BME 420, BME 464, BME 440c, BME 461c)	x	•	•	•
BME	492	1.0	___	___	Biomedical Engineering Design II ----- (BME 491, BME 402c)	•	x	•	•
BME	402	2.0	___	___	Biomedical Engineering Design II Lab ----- (BME 492c)	•	x	•	•
BME	493	1.0	___	___	Biomedical Engineering Design III ----- (BME 492, BME 403c)	•	•	x	•
BME	403	2.0	___	___	Biomedical Engineering Design III Lab ----- (BME 493c)	•	•	x	•
ISE	307	4.0	___	___	Industrial Ergonomics-----	a	•	x	•
___	___	4.0	___	___	General Education -----	a	a	x	a
<b>Credit Hours per Quarter in the Model Program-----</b>				<b>15</b>	<b>15</b>	<b>14</b>			

**TOTAL PROGRAM CREDIT HOURS----- 194**

**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.