

# North Carolina State University

## Biomedical Engineering Curriculum (Effective 01-01-2013)

### 1 + 3 Program with UNC Asheville

#### FALL SEMESTER

#### SPRING SEMESTER

#### Freshman Year (UNC Asheville)

MATH 191	Calculus I	4	MATH 192	Calculus II	4
LANG 120	Academic Writing & Crit Inquiry	4	ECON 102	Prin of Microeconomics (GEP)	3
E 101	Intro to Engr & Prob Solv	1	CHEM 231	Organic Chemistry I	3
CHEM 111	General Chemistry Lab	1	PHYS 221	Physics I	4
CHEM 132	General Chemistry	3	XXX	GEP Course	<u>3</u>
XXX	GEP Course	<u>3</u>			<u>17</u>
		16			

#### Sophomore Year (NC State)

MA 242	Calculus III	4	BIO 183	Intro Bio Cell/Mol	4
PY 208	Physics for Engrs & Sci II	3	BME 203	Intro Mat Sci of Biomat	3
PY 209	Physics for Engrs & Sci II Lab	1	BME 210	BME Electronics	4
BME 201	Comp Meth BME	3	BME 252	BME Design & Mfg I	1
MAE 206a	Engineering Statics	3	MAE 208	Engineering Dynamics	<u>3</u>
BME 204	Biomedical Measurements	3			<u>15</u>
CH 222	Organic Chemistry I Lab	1			
E 115	Intro to Computing Environ	<u>1</u>			
		19			

#### Junior Year (NC State)

BME 301	Human Physiology Engr I	3	BME 302	Human Physiology Engr II	3
BME 311	Linear Systems BME	3	XXX	BME Elective B	3
MA 341	Applied Differential Equations I	3	XXX	BME Elective C	3
XXX	BME Elective A	3	BME 352	BME Design & Mfg II	2
ST 370	Prob & Stat for Engineers	3	ENG 331b	Commun for Engr & Tech	3
HES XXX	Health Exercise Studies	<u>1</u>	HESF XXX	Health Exercise Studies	<u>1</u>
		16			<u>15</u>

#### Senior Year (NC State)

BME 451	BME Senior Design I	3	BME 452	BME Senior Design II	3
XXX	BME Elective D	3	XXX	BME Elective F	3
XXX	BME Elective E	3	XXX	GEP Course	3
MAE 201c	Engineering Thermodynamics I	3	XXX	GEP Course	3
XXX	GEP Course	<u>3</u>	XXX	GEP Course	<u>3</u>
		15			<u>15</u>

Total hours shown: 128

*Italics* indicates the course is received from NC State by distance education (none).

a or CE 214 (3)                      b or ENG 333(3)                      c or MSE 301(3)

The BME program has a high demand and a unique application process. Interested students should contact the NC State BME advisor as early as possible.