

# Biomedical Engineering – Summer Arch Template

## First Year

Fall		Credit hours	Spring		Credit hours
ENGR 1100	Intro to Eng. Analysis	4	ENGR 1300	Engineering Processes	1
CHEM 1100	Chemistry I	4	MATH 1020	Calculus II	4
MATH 1010	Calculus I	4	PHYS 1100	Physics I	4
	HASS Elective <sup>1</sup>	4	BIOL 2120	Intro to Cell & Mol Biology	4
ENGR 1200	Eng Graphics & CAD <sup>6</sup>	1		HASS Elective <sup>1</sup>	4

## Second Year

Fall		Credit hours	Spring		Credit hours
CSCI 1190	Begin. Prog. for Engrs.	1	ENGR 2600	Mod. & Analysis of Uncertainty	3
PHYS 1200	Physics II	4	BMED 2100	Biomaterials Science and Eng	4
MATH 2400	Intro to Differential Eq	4	BMED 2540	Biomechanics	4
ENGR 2050	Intro to Eng Design	4	BMED 2300	Bioimaging and Bioinstrument	4
MATH 2010	Multi. Calc and Mat Alg.	4			

## Third Year

### Summer Arch Semester

Course	Credit hours	Spring	Credit hours	
BMED 4200	Modeling of Biomed Sys	4	4	
BMED 4010	Bioengineering Lab <sup>3</sup>	4	4	
BMED XXX	Concentration I	4	4	
	HASS Elective	4	4	
		BMED 4500	Advanced Systems Physiology	4
			Concentration II	4
			Free Elective <sup>4</sup>	3
			HASS Elective <sup>1</sup>	4
			Professional Development II <sup>2</sup>	2

## Fourth Year

Fall		Credit hours	Spring		Credit hours
BMED 4260	BME Prod. Dev & Com	3	BMED 4600	BME Design <sup>5</sup>	3
	Concentration III	3	ENGR 4010	Professional Development III	1
	Concentration IV	3		Concentration V	3
	Free Elective <sup>4</sup>	3		HASS Elective <sup>1</sup>	4
	Free Elective <sup>4</sup>	3		Free Elective <sup>4</sup>	3

The minimum number of credit hours for the degree is 128

<sup>1</sup> Placement of humanities and social science electives can be varied with free electives. The courses counted as free electives must show a minimum of twelve (12) credit hours.

<sup>2</sup> Professional Development II will be fulfilled from a published list at the start of each semester and can be taken either semester. Professional Development III may be taken either semester of the senior year. Professional Development I is part of ENGR 2050.

<sup>3</sup> BMED 4010 may be taken in either Spring Year 3 or Fall Year 4.

<sup>4</sup> The minimum total credit hours of free electives is twelve (12), with no restrictions on the included number of 3 and 4 credit hour courses.

<sup>5</sup> Capstone writing-intensive course.

<sup>6</sup> ENGR 1400 may be taken as alternative to ENGR 1200. This course may be taken either semester.