Wheaton College - Illinois Tech Joint Dual-degree Program

THIS PROGRAM PLAN IS FOR GUIDANCE ONLY. GRADUATION REQUIREMENTS ARE FOUND IN CATALOGS.

Engineering Major
General Education

Biomedical Engineering
Neural Engineering

Fall Semester

Sem	Code	Name	Hrs.
1	MATH 231	Calculus I	4
	PHYS 231	Introductory Physics I	4
	ENGR 101	Introduction to Engineering	1
	CHEM 231	General Chemistry I	4
	CORE 101	First Year Seminar	4
		Total	17
3	PHYS 334	Computer Modeling of Physical Systems	2
	CHEM 341	Organic Chemistry I	4
	SELECT	Old Testament Literature	4
	LANG	Foreign Language	4
	COMM	Oral Communication (0-2)	2
	SELECT	Visual & Performing Arts (1 of 2)	2
		Total	18
5	MATH 333	Differential Equations	4
	SELECT	Christian Thought	4
	SELECT	Thematic Core (2 of 3)	4
	SELECT	Thematic Core (3 of 3)	4
	SELECT	Visual & Performing Arts (2 of 2)	2
		Total	18
		years 1 - 3 credit hours =	*104*

Spring Semester

Sem	Code	Name	Hrs.
2	MATH 232	Calculus II	4
	PHYS 232	Introductory Physics II	4
	CHEM 232	General Chemistry II	4
	ENGW	Writing (0-4)	4
	AHS 101	Wellness (0-2)	2
		Total	18
4	MATH 331	Vector Calculus	2
	CHEM 342	Organic Chemistry II	4
	BITH	New Testament Literature	4
	SELECT	Thematic Core (1 of 3)	4
	CORE 3xx	Advanced Seminar (with Thematic Core tag)	4
		Total	18
6	IIT BIOL 115	Human Biology	3
	IIT BIOL 117	Human Biology Laboratory	1
	IIT BME 315	Instrumentation & Measurement Laboratory	2
	IIT ECE 211	Circuit Analysis 1	3
	IIT ECE 218	Digital Systems	4
	ENGR 394	Engineering Ethics Capstone	2
		Total	15

All courses below this line are based on completion at IIT

7	BME 100	Introduction to the Profession	2
	BME 309	Biomedical Imaging & Sensing	3
	ECE 308	Signals and Systems	3
	BME 422	Mathematical Methods for Biomedical Engineers	3
	BME 433	Biomedical Applications of Statistics	3
	ECE 213	Circuit Analysis 2	4
		Total	18
9	BME 405	Physiology Laboratory	2
	BME 419	Introduction to Design Concepts in Biomedical Engineering	2
	BME 453	Quantitative Physiology	3
	BME	Technical Elective 2	3
	IPRO	IPRO Elective 2	3
		Total	13
		years 4 - 5 credit hours =	56
		TOTAL credit hours =	160

8	BME 310	Biomaterials	3
	BME 325	Bioelectronics Laboratory	1
	BME 443	Biomedical Instrumentation & Electronics	3
	BME	Technical Elective 1	3
	IPRO	IPRO Elective 1	3
		Total	13
10	BME 420	Design Concepts in Biomedical Engineering	3
	BME 438	Neuroimaging	3
	BME 445	Quantitative Neural Function	3
	BME	Technical Elective 3	3
	EXAM	Fundamentals of Engineering (Passing is not required)	
		Total	12

last updated 8/2/2021

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Biomedical Engineering - Neural

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