

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
Cell & Tissue**

Fall Semester

Spring Semester

Sem	Code	Name	Hrs.
1	MATH 235	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
<i>Total</i>			17

Sem	Code	Name	Hrs.
2	MATH 236	Calculus II	4
	PHYS 232	Introductory Physics II	4
	CHEM 232	General Chemistry II	4
	ENGW	Writing (0-4)	4
<i>Total</i>			16

3	PHYS 334	Computer Modeling of Physical Systems	2
	CHEM 341	Organic Chemistry I	4
	SELECT	Old Testament Literature	4
	LANG	Foreign Language	4
	SELECT	Thematic Core (1 of 3)	4
<i>Total</i>			18

4	MATH 237	Calculus III	4
	MATH 333	Differential Equations	4
	BITH	New Testament Literature	4
	COMM	Oral Communication (0-2)	2
	CORE 3xx	Advanced Seminar (with Thematic Core tag)	4
<i>Total</i>			18

5	ENGR 204	Innovative Design in Engr.	4
	SELECT	Christian Thought	4
	SELECT	Thematic Core (2 of 3)	4
	SELECT	Visual & Performing Arts (1 of 2)	2
	SELECT	Visual & Performing Arts (2 of 2)	2
<i>Total</i>			16

6	IIT BME 315	Instrumentation & Measurement Laboratory	2
	IIT BIOL 115	Human Biology	3
	IIT BIOL 117	Human Biology Laboratory	1
	IIT ECE 211	Circuit Analysis 1	3
	ENGR 394	Engineering Ethics Capstone	2
	SELECT	Thematic Core (3 of 3)	4
	<i>Total</i>		

years 1 - 3 credit hours = 100

All courses below this line are based on completion at IIT

7	BME 100	Introduction to the Profession	2
	ECE 308	Signals and Systems	3
	BME 422	Mathematical Methods for Biomedical Engineers	3
	BME 433	Biomedical Engineering Applications of Statistics	3
	CHE 202	Material Energy Balances	3
	MMAE 202	Mechanics of Solids	3
<i>Total</i>			17

8	BIOL 403	Biochemistry	4
	BME 301	Bio-fluid Mechanics	3
	BME 310	BioMaterials	3
	BME 320	Fluids Laboratory	1
	BME 335	Thermodynamics of Living Systems	3
	I PRO	I PRO Elective 1	3
<i>Total</i>			17

9	BME 405	Physiology Laboratory	2
	BME 418	Reaction Kinetics for BME	3
	BME 419	Introduction to Design Concepts in BME	2
	BME 453	Quantitative Physiology	3
	BME 482	Mass Transport for Biomedical Engineers	3
	BME	Technical Elective 1	3
<i>Total</i>			16

10	BME 420	Design Concepts in BME	3
	BIOL 424	Quantitative Aspects of Cell & Tissue Engineering	3
	BME	Technical Elective 2	3
	I PRO	I PRO Elective 2	3
	EXAM	Fundamentals of Engineering (Passing is not required)	3
<i>Total</i>			12

years 4 - 5 credit hours = 62

TOTAL credit hours = 162

last updated 8/21/2023

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Updated August 2023

