Wheaton College - Illinois Tech Joint Dual-degree Program

THIS PROGRAM PLAN IS FOR GUIDANCE ONLY. SEE CATALOG FOR OFFICIAL REQUIREMENTS.

Engineering Major
General Education

Biomedical Engineering
Cell & Tissue

Fall 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
		Total	17
3	ENGR 334	Computer Modeling of Physical Systems	2
	CHEM 341	Organic Chemistry I	4
	SELECT	Old Testament Literature	4
	LANG	World Languages	4
	SELECT	Thematic Core (1 of 3)	4
		Total	18
5	MATH 237	Calculus III	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
		Total	16
		years 1 - 3 credit hours =	99

Spring Semester

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
		Total	16
4	MATH 333	Differential Equations	4
	ENGR 214	Innovative Design in Engr.	3
	BITH	New Testament Literature	4
	COMM	Oral Communication (0-2)	2
	CORE 3xx	Advanced Seminar (with Thematic Core tag)	4
		Total	17
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 494	Engineering Ethics Capstone	2
	SELECT	Thematic Core (3 of 3)	4
		Total	15

All courses below this line are based on completion at IIT

Sem	Code	Name	Hrs.
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
		Total	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
		Total	16
		years 4 - 5 credit hours =	62
		TOTAL credit hours =	161

Sem	Code	Name	Hrs.
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
	IPRO	IPRO Elective 1	3
		Total	17
10	BME 420	Design Concepts in BME	3
	BIOL 424	Quantitative Aspects of Cell & Tissue Engineering	3
	BME	Technical Elective 2	3
	IPRO	IPRO Elective 2	3
	EXAM	Fundamentals of Engineering (Passing is not required)	
		Total	12

last updated 3/7/2024

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Updated March 2024