

Biomedical Engineering

1st Semester

NMC

MTU

Number	Course Name	Cr	Number	Course Name	Cr
ENG 111	English Composition	4	UN 1015 HU 1XXX	Composition HASS Elective	3 1
EGR 101	Intro to Engineering	1	ENG 1XXE	ENG Elective	1
EGR 113	Engineering Graphics I	3	ENG 1102	Engrg Modeling & Design	3
MTH 141	Calculus I	5	MA 1160 MA 1XXX	Calculus I STEM Math Elective	4 1
BIO 227, 227L	Human A&P I	4	BL2010/2011	Anatomy/Physiology I	4

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2nd Semester

NMC

MTU

Number	Course Name	Cr	Number	Course Name	Cr
CIT 110	Programming Design	3	ENG 1101	Engrg Analysis & Prob	3
CHM 150, 150R, 150L	General Chemistry I	5	CH 1150/51/53	University Chemistry I	5
MTH 142	Calculus II	5	MA 2160 MA 1XXX	Calculus II STEM Math Elective	4 1
BIO 228, 228L	Human A&P II	4	BL2020/2021	Anatomy/Physiology II	4

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3rd Semester

NMC

MTU

Number	Course Name	Cr	Number	Course Name	Cr
* PSY 101	Intro to Psychology	3	PSY 2000	Intro to Psychology	3
* PHL 101	Intro to Philosophy	3	HU 2700	Intro to Philosophy	3
* HST 101 /111/112	History	4	SS 2502 /00/01 SS1XXX	History HASS Elective	3 1

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4th Semester

NMC

MTU

Number	Course Name	Cr	Number	Course Name	Cr
MTH 241	Calculus III	5	MA 3160 MA 1XXX	Calculus III STEM Math Elective	4 1
PHY 221, 221R, 221L	P&P Physics I	5	PH 2100/1100 TRU XXXX	University Physics I Unassigned Transfer	4 1
EGR 201	Statics	3	BE 3300	Biomechanics I	3
* GEO 109	World Reg. Geography	3	UN 1025	Global Issues	3

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Biomedical Engineering

5th Semester

NMC

MTU

Number	Course Name	Cr	Number	Course Name	Cr
MTH 251	Diff. Eq.	4	MA 2320/3520	Diff. Eq. / Linear Alg.	4
PHY 222, 222R, 222L	P&P Physics II	5	PH 2200/1200 TRU XXXX	University Physics II Unassigned Transfer	4 1
EGR 221	Material Science	3	BE 2800	Biomaterials I	3
CHM 151, 151R, 151L	General Chemistry II	5	CH 1160/61/63	University Chemistry II	5
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* General Education required courses - some selected NMC courses may satisfy MTU Gen. Ed. requirements and Michigan Transfer Agreement. See an advisor for Gen. Ed. courses and applicable MTA requirements.

NMC 77 credits transfer to MTU 69 program + 8 credits electives.

3rd semester is summer term.

Up to 3 additional credits of Physical Education may transfer.

Courses at MTU

Junior year

6th Semester

BE 2700	Signals and Systems	3
EE 3010	Circuits & Instrumentation	3
BE 2400	Cell & Molecular Biology	3
BE 3400	Lab Techniques	2
BE 3800	Biomaterials II	3
		14

7th Semester

BE 2110	Stat Methods for BME	3
BE 3350	Human Biomechanics	3
BE 3700	Bio-Instrumentation	3
BE 3701	Bio-Instr. Lab	1
BE 3550	Fluid Mechanics	4
BE 4900	Design Fundamentals	2
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Senior Year

8th Semester

BE 4901	Design Project I	2
	Technical Elective I	3
	Technical Elective II	3
	Science Elective	3
	HASS Gen. Ed. (3000+)	3
		14

9th Semester

BE 4910	Design Project II	2
	Technical Elective III	3
	Technical Elective IV	3
	HASS Elective	3
	HASS Gen. Ed. (3000+)	3
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Biomedical Engineering

MTU 58 credits.

Program Total: 135 Credits

[Does not include 3 Credits of Physical Education required for Graduation.]

One additional Composition Course (NMC ENG 112) required for MTA completion. Once all MTA requirements are met, the student will receive an Associate Degree from Northwestern Michigan College. Any course not completed at NMC will require completion at MTU, including all prerequisite courses.

All program specific courses require a 2.0 (C) grade for transfer.

Students may require additional courses necessary to meet the minimum Mathematical and English Composition pre-requisites.

NMC and MTU course offerings and / or delivery methods are subject to change.

Students are required to meet with an academic advisor during each semester to maintain continuity with program requirements.