

State University of New York at Binghamton
Thomas J. Watson College of Engineering and Applied Science
BS in Mechanical Engineering-Four-Year Program

Application Curriculum Code: 0268 (If undecided use: 0229)

Fall 2024

Engineering Common Core (Year 1)

<u>Fall</u>	<u>Spring</u>
MATH 224/225 Calculus I	MATH 226/227 Calculus II (MATH 224/225)
CHEM 111 Chemical Principles (w/lab)	PHYS 131 General Physics I (w/lab) (MATH 224/225)
EDD 111 Intro. to Engineering Design	EDD 112 Intro. Engr. Analysis (EDD 111)
EDD 103 Engineering Communications I	EDD 104 Engr. Comm. II (EDD 103)
General Education Elective (G, D, A, N, H)	General Education Elective (G, D, A, N, H)
(16 cr.)	(16 cr.)

Foundational Math, Science and Engineering Courses (Year 2)

<u>Fall</u>	<u>Spring</u>
MATH 323 Calculus III (MATH 226/227)	MATH 324 ODEs for Sci/Engrs (MATH 226/227)
PHYS 132 General Physics II (w/lab) (PHYS 131)	ME 211 Solid Mechanics ⁽¹⁾ (ME 273 ⁽¹⁾)
ME 212 ME Programming (EDD 112)	ME 274 Dynamics ⁽¹⁾ (ME 273 ⁽¹⁾)
ME 273 Statics ⁽¹⁾ (PHYS 131)	EECE 260 Circuits (w/lab) (PHYS 132)
General Education Elective (G, D, A, N, H)	Body/Wellness
(17 cr.)	(16 cr.)

Advanced Mechanical Engineering Core Courses (Years 3 & 4)

	<u>Credits</u>	<u>Offered in</u>
ME 302 Engineering Analysis (MATH 323 & MATH 324)	3	Fall
ME 303 Engr. Computation Methods (ME 212 & ME 302)	3	Spring
ME 331 Thermodynamics ⁽²⁾ (PHYS 131)	3	Fall
ME 351 Fluid Mechanics (ME 274 ⁽¹⁾ & ME 302)	3	Spring
ME 362 & 363 Materials Science & Lab (CHEM 111 & PHYS 132)	4	Fall
ME 381 Computer-Aided Engineering (ME 211 ⁽¹⁾ & ME 212 ⁽³⁾)	3	Fall
ME 391 Measurements & Instrumentation (ME 211 ⁽¹⁾ , ME 212 ⁽³⁾ & EECE 260)	3	Fall Spring
ME 392 ME Design (ME 362 & 381)	3	Spring
ME 421 Mechanical Vibrations (ME 274 ⁽¹⁾ & 302)	3	Spring
ME 424 Control Systems in ME (ME 303 & ME 421 ⁽³⁾)	3	Fall
ME 441 Heat Transfer (ME 331 & ME 351)	3	Fall
ME 491 ME Lab (ME 391, ME 421 ⁽³⁾ , ME 424 ⁽³⁾ & ME 441 ⁽³⁾)	3	Fall Spring
ME 493 & 498 Senior Project I & Lab (ME 392, ME 421, ME 424 ⁽³⁾ & ME 441 ⁽³⁾)	3	Fall
ME 494 & 499 Senior Project II & Lab (ME 391 & ME 493)	3	Spring

General Education, Technical & Mechanical Engineering Electives (Years 3 & 4)

- 2 additional general education electives (G, D, A, N, H) – 4 credits each
- 2 technical electives ⁽⁴⁾ – minimum 3 credits each
- 2 mechanical engineering electives (ME 400-level or above, non-required courses) ⁽⁴⁾ – 3 credits each

⁽¹⁾ Must be completed with a grade of C- or better to satisfy pre-requisites.

⁽²⁾ Can be taken in Year 2.

⁽³⁾ Pre-requisites that can be taken concurrently.

⁽⁴⁾ See ME Tech Elective Requirements Document.