

**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 2020**

**ENGINEERING DESIGN DIVISION**

**Fall**

MATH 224/225 Calculus I  
 CHEM 111 Chemical Principles (w/lab)  
 EDD 111 Intro. to Engineering Design  
 EDD 103 Engineering Communications I  
 General Education Elective (G, P, A, N, H)

**(16)**

**Spring**

MATH 226/227 Calculus II (MATH 224/225)  
 PHYS 131 General Physics I (w/lab)  
 (MATH 224/225)  
 EDD 112 Intro. Engr. Analysis (EDD 111)  
 EDD 104 Engr. Comm. II (EDD 103)

General Education Elective (G, P, A, N, H) **(16)**

**Final three years of Mechanical Engineering Major**

Pre- or Co-requisites shown in parentheses.

**Year 2**

**Fall**

MATH 323 Calculus III (MATH 226/227)  
 PHYS 132 General Physics II (w/lab) (PHYS 131)  
 ME 212 ME Programming (EDD 112)  
 ME 273 Statics<sup>(1)</sup> (PHYS 131)  
 General Education Elective (G, P, A, N, H) **(17)**

**Spring**

MATH 324 ODEs for Sci/Engrs (MATH 226/227)  
 ME 211 Solid Mechanics<sup>(1)</sup> (ME 273<sup>(1)</sup>)  
 ME 274 Dynamics<sup>(1)</sup> (ME 273<sup>(1)</sup>)  
 EECE 260 Circuits (w/lab) (PHYS 132)  
 Body/Wellness

**(16)**

**Year 3**

**Fall**

ME 302 Engr. Analysis (MATH 323 & 324)  
 ME 331 Thermodynamics (PHYS 131)  
 ME 362 Materials Science (CHEM 111, PHYS 132, co: ME 363)  
 ME 363 Materials Laboratory (co: ME 362)  
 ME 381 Computer-Aided Engineering (w/lab) (ME 211<sup>(1)</sup>, co: ME 212)  
 General Education Elective (G, P, A, N, H)

**(17)**

**Spring**

ME 303 Engr. Computational Methods (ME 212 & 302)  
 ME 351 Fluid Mechanics (ME 274<sup>(1)</sup> & 302)  
 ME 391 Measurements & Instrumentation (w/lab) (EECE 260, MATH 324)  
 ME 392 ME Design (ME 362 & 381)  
 ME 421 Mechanical Vibrations (ME 274<sup>(1)</sup> & 302)

**(15)**

**Year 4**

**Fall**

ME 424 Control Systems in ME (ME 421)  
 ME 441 Heat Transfer (ME 331 & 351)  
 ME 491 ME Lab<sup>(3)</sup> (ME 351 & 391, co: ME 424 & 441)  
 ME 493 Senior Project I (ME 303, 391 & 392, co: ME 424, 441 & 498)  
 ME 498 Senior Project I Lab (co: ME 493)  
 Technical Elective<sup>(2)</sup> **(15)**

**Spring**

ME 494 Senior Project II (ME 493, co: ME 499)  
 ME 499 Senior Project II Lab (co: ME 494)  
 ME Elective<sup>(2)</sup> (ME 400 or above)  
 ME Elective<sup>(2)</sup> (ME 400 or above)  
 Technical Elective<sup>(2)</sup>  
 General Education Elective (G, P, A, N, H)

**(16)**

<sup>(1)</sup> Must be completed with a grade of C- or better to satisfy pre-requisites

<sup>(2)</sup> See ME Tech Elective Requirements Document

<sup>(3)</sup> Offered both fall and spring