Note: The number of electives you take will depend on your program. Please check your advisement report.

General Stream:
  • General stream students take any courses from the full list of approved technical electives (see next page)

Mechanics and Design Stream:
Minimum 3 courses from this list:
  • CHEM ENG 4T03*:* Applications of Chemical Engineering in Medicine, 2nd term
  • ENGINEER 4EX3: Experiential Engineering Design, both terms
  • MATLS 4MS4: Materials Selection in Design and Manufacturing, 1st term
  • MATLS 4T03: Properties and Processing of Composites, 2nd term
  • ME 4B03: Product Development, 1st term (Dr. Hassan)
  • ME 4BB3: Biomechanics, 1st term (Dr. Wohl)
  • ME 4BF3: Biofluid Mechanics Systems (Dr. Motamed) (n/a in 2024-25)
  • ME 4CC3: Experimental and Computational Biomechanics, 2nd term (Dr. Quenneville)
  • ME 4H03: Mechatronics, 2nd term (Dr. Bone)
  • ME 4I03: Noise Analysis and Control, 1st term (TBD)
  • ME 4K03: Robotics, 1st term (Dr. Yan)
  • ME 4N03: NanoBio Engineering (Dr. Didar) (n/a in 2024-25)
  • ME 4T03: Finite Element Applications, 1st term & 2nd term (Dr. Wu)
  • ME 4Y03: Internal Combustion Engines, 1st term (Dr. Yan)
  • ME 4Z03: Computer Aided Design, 2nd term (TBD)
  • ME 4X04: Independent Project, both terms

Manufacturing Stream:
Minimum 3 courses from this list:
  • MATLS 3MF3: Materials Fabrication, 2nd term
  • MATLS 4MS4: Materials Selection in Design and Manufacturing, 1st term
  • CHEM ENG 4X03: Polymer Processing, 1st term
  • MATLS 4T03: Properties and Processing of Composites, 2nd term
  • ME 4B03: Product Development, 1st term (Dr. Hassan)
  • ME 4D03: Manufacturing Processes (Metal Removal), 2nd term (Dr. Koshy)
  • ME 4DD3: Introduction to Surface Engineering in Manufacturing, 2nd term (Dr. Aramesh)
  • ME 4H03: Mechatronics, 2nd term (Dr. Bone)
  • ME 4K03: Robotics, 1st term (Dr. Yan)
  • ME 4N03: NanoBio Engineering (Dr. Didar) (n/a in 2024-25)
  • ME 4T03: Finite Element Applications, 1st term & 2nd term (Dr. Wu)
  • ME 4Z03: Computer Aided Design, 2nd term (TBD)
  • ME 4X04: Independent Project, both terms

Thermofluids and Energy Systems:
Required course:
  • ME 4S03: Incompressible flow, 1st term (Dr. Salaudeen)
Plus minimum 2 courses from this list:
  • CHEM ENG 4X03: Polymer Processing, 1st term
  • ENG PHYS electives (see next page for full list)
  • ME 4AA3: Aerodynamics, 2nd term (Dr. Tullis)
  • ME 4BF3: Biofluid Mechanics Systems (Dr. Motamed) (n/a in 2024-25)
  • ME 4ES3: Energy Storage, 2nd term (Dr. Trowell)
  • ME 4FM3: Advanced Instrumentation and Sensing for Fluid Mechanics, 2nd term (Dr. Morton)
  • ME 4I03: Noise Analysis and Control, 1st term (TBD)
  • ME 4J03: Introduction to Computational Fluid Dynamics and Heat Transfer (Dr. Hamed) (n/a in 2024-25)
  • ME 4O04: Sustainable Energy Systems, 2nd term (Dr. Cotton)
  • ME 4T03: Finite Element Applications, 1st term & 2nd term (Dr. Wu)
  • ME 4U03: Compressible Flow and Turbomachinery, 1st term (Dr. Tullis)
  • ME 4W03: Air Conditioning and Refrigeration Systems, 2nd term (Dr. Shankar)
  • ME 4Y03: Internal Combustion Engines, 1st term (Dr. Yan)
  • ME 4X04: Independent Project, both terms

Smart Systems:
Minimum 3 courses from this list:
• ME 4AI3: Applied Artificial Intelligence, 2nd term (Dr. Ahmed)

- ME 4FM3: Advanced Instrumentation and Sensing for Fluid Mechanics, 2nd term (Dr. Morton)
- ME 4H03: Mechatronics, 2nd term (Dr. Bone)
- ME 4I03: Noise Analysis and Control, 1st term (TBD)
- ME 4K03: Robotics, 1st term (Dr. Yan)
- ME 4SS3: Smart Systems, 1st term (Dr. Gadsden)
- ME 4X04: Independent Research Project, both terms
- SMRTTECH 4ID3: IoT Devices and Networks, 2nd term
- SMRTTECH 4AI3: Artificial Intelligence and Machine Learning, 1st term
- PROCTECH 4MH3: Machine Health and Remote Monitoring, 1st term
- SFWRTECH 4DA3: Data analytics and Big Data, virtual
- SFWRTECH 4ES3: Real-Time Systems, virtual
- ENGTECH 4AI3: Artificial Intelligence, virtual

FULL LIST OF APPROVED TECHNICAL ELECTIVES:
- CHEM ENG 4T03 Applications of Chemical Engineering in Medicine, 2nd term
- CHEM ENG 4X03: Polymer Processing, 1st term
- CIV ENG 3K03: Introduction to Transportation Engineering, 1st term
- COMMERCE 4QA3: Operations Modelling and Analysis, 1st or 2nd term
- ELECENG 3N03: Electronics and Instrumentation, 2nd term
- ENGINEER 4EX3: Experiential Engineering Design, both terms
- MATLS 3MF3: Materials Fabrication, 2nd term
- MATLS 4MS4: Materials Selection in Design and Manufacturing, 1st term
- MATLS 4T03: Properties and Processing of Composites, 2nd term
- ENG PHYS 3D03: Principles of Nuclear Engineering, 2nd term
- ENG PHYS 3SP3: Space Systems Engineering
- ENG PHYS 4D03: Nuclear Reactor Analysis, 1st term (Note: pre-req. is ENG PHYS 3D03)
- ENG PHYS 4NE3: Advanced Nuclear Engineering, 2nd term (Note: pre-req. is ENG PHYS 3D03)
- ENG PHYS 4P03: Nuclear Power Plant Systems & Operations, 2nd term
- SMRTTECH 4ID3: IoT Devices and Networks, 2nd term
- SMRTTECH 4AI3: Artificial Intelligence and Machine Learning, 1st term
- PROCTECH 4MH3: Machine Health and Remote Monitoring, 1st term
- SFWRTECH 4DA3: Data analytics and Big Data, virtual
- SFWRTECH 4ES3: Real-Time Systems, virtual
- ME 4AA3: Aerodynamics, 2nd term (Dr. Tullis)
- ME 4AI3: Applied Artificial Intelligence, 2nd term (Dr. Ahmed)
- ME 4B03: Topics in Product Development, 1st term (Dr. Hassan)
- ME 4BB3: Biomechanics, 1st term (Dr. Wohl)
- ME 4BF3: Biofluid Mechanics Systems (Dr. Motamed) (n/a in 2024-25)
- ME 4CC3: Experimental and Computational Biomechanics, 2nd term (Dr. Quenneville)
- ME 4D03: Manufacturing Processes (Metal Removal), 2nd term (Dr. Koshy)
- ME 4DD3: Introduction to Surface Engineering in Manufacturing, 2nd term (Dr. Aramesh)
- ME 4ES3: Energy Storage, 2nd term (Dr. Trowell)
- ME 4FM3: Advanced Instrumentation and Sensing for Fluid Mechanics, 2nd term (Dr. Morton)
- ME 4H03: Mechatronics, 2nd term (Dr. Bone)
- ME 4I03: Noise Analysis and Control, 1st term (TBD)
- ME 4J03: Introduction to Computational Fluid Dynamics and Heat Transfer (Dr. Hamed) (n/a in 2024-25)
- ME 4K03: Robotics, 1st term (Dr. Yan)
- ME 4N03: NanoBio Engineering (Dr. Didar) (n/a in 2024-25)
- ME 4O04: Sustainable Energy Systems, 2nd term (Dr. Cotton)
- ME 4SS3: Smart Systems, 1st term (Dr. Gadsden)
- ME 4S03: Incompressible flow, 1st term (Dr. Salaudeen)
- ME 4T03: Finite Element Applications, 1st term & 2nd term (Dr. Wu)
- ME 4U03: Compressible Flow and Turbomachinery, 1st term (Dr. Tullis)
- ME 4W03: Air Conditioning and Refrigeration Systems, 2nd term (Dr. Shankar)
- ME 4X04: Independent Research Project, both terms
- ME 4Y03: Internal Combustion Engines, 1st term (Dr. Yan)
- ME 4Z03: Computer Aided Design, 2nd term (TBD)