## **ME Technical Elective Courses Schedule**

ME 42700 Sustainable Energy Sources & Systems  ME 43200 Manufacturing Processes  ME 43200 Manufacturing Processes  ME 54700 Mechatronics, Robotics, & Automation  ME 54500 Finite Element Analysis: Advanced Theory & Applications  ME 42100 Heating and Air Conditioning I  ME 47100 Vibration Analysis  ME 47100 Vibration Analysis  ME 55000 Advanced Stress Analysis  Spring 2023  ME 42400 Design & Opt. of Thermal Systems  ME 48000 Finite Element Analysis  ME 48000 Finite Element Analysis  ME 55000 Advanced Stress Analysis  Spring 2023  ME 54000 Intermediate Heat Transfer  ME 50500 Intermediate Heat Transfer  ME 50500 Intermediate Heat Transfer  ME 54000 CAD/CAM Theory and Advanced Applications  ME 42700 Sustainable Energy Sources & Systems  ME 42700 Vibration Analysis  ME 42700 Sustainable Energy Sources & Systems  ME 42800 Research in Mech. Engineering  ME 71100 Vibration Analysis  ME 42700 Sustainable Energy Sources & Systems  ME 42800 Research in Mech. Engineering  ME 42700 Sustainable Energy Sources & Systems  ME 49800 Research in Mech. Engineering  ME 42700 Sustainable Energy Sources & Systems  ME 49800 Research in Mech. Engineering  ME 47100 Vibration Analysis  ME 43200 Manufacturing Processes  ME 54500 Finite Element Analysis: Advanced Theory & Applications  ME 54500 Finite Element Analysis: Advanced Theory & Applications  ME 54500 Finite Element Analysis  ME 42900 Research in Mech. Engineering  ME 42100 Heating and Air Conditioning I  ME 42100 Heating and Air Conditioning I  ME 42000 Finite Element Analysis  ME 43500 Basic Machining  Spring 2024  ME 54400 Modeling & Simulation of Mechanical Engineering Systems  ME 43500 Basic Machining  ME 54600 CAD/CAM Theory and Advanced Applications  SE 52000 Engineering Economics
ME 54700 Mechatronics, Robotics, & Automation   MET 33500 Basic Machining     ME 54500 Finite Element Analysis: Advanced Theory & Applications   STAT 51100 Statistical Methods
ME 54500 Finite Element Analysis: Advanced Theory & Applications  ME 42100 Heating and Air Conditioning I  ME 47100 Vibration Analysis  ME 54400 Modeling & Simulation of Mechanical Engineering Systems  ME 54400 Modeling & Simulation of Mechanical Engineering Systems  ME 55000 Advanced Stress Analysis  Spring 2023  Spring 2023  ME 48000 Finite Element Analysis  ME 48000 Finite Element Analysis  ME 49800 Research in Mech. Engineering Management  ME 49800 Research in Mech. Engineering Systems  ME 49800 Research in Mech. Engineering MET 33500 Basic Machining  ME 50500 Intermediate Heat Transfer  ME 50500 Intermediate Heat Transfer  ME 50500 Intermediate Heat Transfer  ME 54600 CAD/CAM Theory and Advanced Applications  ME 42700 Sustainable Energy Sources & Systems  ME 49800 Research in Mech. Engineering  ME 47100 Vibration Analysis  ME 43200 Manufacturing Processes  ME 54500 Finite Element Analysis: Advanced Theory & Applications  ME 55000 Advanced Stress Analysis  ME 42100 Heating and Air Conditioning I  ME 42100 Finite Element Analysis  ME 48000 Finite Element Analysis  ME 48000 Finite Element Analysis  ME 48000 Research in Mech. Engineering  ME 54400 Modeling & Simulation of Mechanical Engineering Systems  ME 53500 Basic Machining
ME 42100 Heating and Air Conditioning I  ME 47100 Vibration Analysis  ME 54400 Modeling & Simulation of Mechanical Engineering Systems  ME 55000 Advanced Stress Analysis  ME 42400 Design & Opt. of Thermal Systems  ME 48000 Research in Mech. Engineering Management  ME 49800 Research in Mech. Engineering Management  ME 42400 Design & Opt. of Thermal Systems  ME 48000 Finite Element Analysis  ME 48000 Research in Mech. Engineering  ME 50500 Intermediate Heat Transfer  ME 50500 Intermediate Heat Transfer  ME 54600 CAD/CAM Theory and Advanced Applications  ME 42700 Sustainable Energy Sources & Systems  ME 49800 Research in Mech. Engineering  ME 47100 Vibration Analysis  ME 43200 Manufacturing Processes  ME 54500 Finite Element Analysis: Advanced Theory & Applications  ME 55000 Advanced Stress Analysis  ME 42100 Heating and Air Conditioning I  ME 48000 Finite Element Analysis  ME 49800 Research in Mech. Engineering
Fall 2022  ME 47100 Vibration Analysis  ME 54400 Modeling & Simulation of Mechanical Engineering Systems  ME 55000 Advanced Stress Analysis  ME 42400 Design & Opt. of Thermal Systems  ME 48000 Finite Element Analysis  ME 48000 Finite Element Analysis  ME 42700 Sustainable Energy Sources & Systems  ME 42700 Sustainable Energy Sources & Systems  ME 47100 Vibration Analysis  ME 43200 Manufacturing Processes  ME 43200 Manufacturing Processes  ME 50500 Advanced Stress Analysis  ME 43200 Heating and Air Conditioning I  ME 42100 Heating and Air Conditioning I  ME 48000 Finite Element Analysis  ME 48000 Research in Mech. Engineering  ME 49800 Research in Mech. Engineering  ME 49800 Research in Mech. Engineering  ME 49800 Research in Mech. Engineering  ME 43200 Manufacturing Processes  ME 54500 Finite Element Analysis: Advanced Theory & Applications  ME 49800 Research in Methods  ME 49800 Research in Mech. Engineering
Fall 2022  ME 54400 Modeling & Simulation of Mechanical Engineering Systems  ME 55000 Advanced Stress Analysis  ME 42400 Design & Opt. of Thermal Systems  ME 48000 Finite Element Analysis  ME 48000 Finite Element Analysis  ME 50500 Intermediate Heat Transfer  ME 50500 Intermediate Heat Transfer  ME 50500 Intermediate Heat Transfer  ME 42700 Sustainable Energy Sources & Systems  ME 49800 Research in Mech. Engineering  ME 42700 Sustainable Energy Sources & Systems  ME 49800 Research in Mech. Engineering  ME 47100 Vibration Analysis  ME 47100 Vibration Analysis  ME 43200 Manufacturing Processes  ME 54500 Finite Element Analysis: Advanced Theory & Applications  ME 55000 Adv. Manuf. Systems & Processes  STAT 51100 Statistical Methods  STAT 51100 Statistical Methods  STAT 51100 Statistical Methods  CS 38400 Numerical Analysis  ME 48000 Finite Element Analysis  ME 48000 Research in Mech. Engineering
ME 54400 Modeling & Simulation of Mechanical Engineering Systems  ME 55000 Advanced Stress Analysis  ME 42400 Design & Opt. of Thermal Systems  ME 48000 Finite Element Analysis  ME 48000 Finite Element Analysis  ME 50500 Intermediate Heat Transfer  ME 54600 CAD/CAM Theory and Advanced Applications  ME 42700 Sustainable Energy Sources & Systems  ME 47100 Vibration Analysis  ME 43200 Manufacturing Processes  ME 54500 Finite Element Analysis: Advanced Theory & Applications  ME 55000 Adv. Manuf. Systems & Processes  ME 54500 Finite Element Analysis: Advanced Theory & Applications  ME 42100 Heating and Air Conditioning I  ME 48000 Finite Element Analysis  ME 49800 Research in Mech. Engineering  ME 49800 Research in Mech. Systems & Processes  STAT 51100 Statistical Methods  STAT 51100 Statistical Methods  ME 54000 Finite Element Analysis  ME 49800 Research in Mech. Engineering
ME 42400 Design & Opt. of Thermal Systems  ME 48000 Finite Element Analysis  ME 50500 Intermediate Heat Transfer  ME 54600 CAD/CAM Theory and Advanced Applications  ME 49800 Research in Mech. Engineering  MET 33500 Basic Machining  STAT 51100 Statistical Methods  ME 49700 Sustainable Energy Sources & Systems  ME 497100 Vibration Analysis  ME 43200 Manufacturing Processes  ME 43200 Manufacturing Processes  ME 54500 Finite Element Analysis: Advanced Theory & Applications  ME 55000 Advanced Stress Analysis  ME 42100 Heating and Air Conditioning I  ME 48000 Finite Element Analysis  ME 49800 Research in Mech. Engineering  CS 38400 Numerical Analysis  ME 49800 Research in Mech. Engineering
Spring 2023  ME 48000 Finite Element Analysis  ME 50500 Intermediate Heat Transfer  ME 54600 CAD/CAM Theory and Advanced Applications  ME 42700 Sustainable Energy Sources & Systems  ME 49800 Research in Mech. Engineering  SE 55000 Adv. Manuf. Systems & Processes  STAT 51100 Statistical Methods  TAT 51100 Statistical Methods  ME 55000 Advanced Stress Analysis  ME 42100 Heating and Air Conditioning I  ME 48000 Finite Element Analysis  ME 49800 Research in Mech. Engineering  ME 49800 Research in Mech. Engineering  ME 54400 Modeling & Simulation of Mechanical Engineering Systems  MET 33500 Basic Machining
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Fall 2023  ME 43200 Manufacturing Processes  ME 54500 Finite Element Analysis: Advanced Theory & Applications  ME 55000 Advanced Stress Analysis  ME 42100 Heating and Air Conditioning I  ME 48000 Finite Element Analysis  ME 48000 Finite Element Analysis  ME 54400 Modeling & Simulation of Mechanical Engineering Systems  ME 33500 Basic Machining
ME 54500 Finite Element Analysis: Advanced Theory & Applications ME 55000 Advanced Stress Analysis  ME 42100 Heating and Air Conditioning I  ME 48000 Finite Element Analysis  ME 49800 Research in Mech. Engineering  ME 54400 Modeling & Simulation of Mechanical Engineering Systems  MET 33500 Basic Machining
ME 55000 Advanced Stress Analysis  ME 42100 Heating and Air Conditioning I  ME 48000 Finite Element Analysis  Spring 2024 ME 54400 Modeling & Simulation of Mechanical Engineering Systems  ME 49800 Research in Mech. Engineering  MET 33500 Basic Machining
ME 42100 Heating and Air Conditioning I  ME 48000 Finite Element Analysis  ME 49800 Research in Mech. Engineering  Spring 2024 ME 54400 Modeling & Simulation of Mechanical Engineering Systems  MET 33500 Basic Machining
ME 48000 Finite Element Analysis  ME 49800 Research in Mech. Engineering  ME 54400 Modeling & Simulation of Mechanical Engineering Systems  MET 33500 Basic Machining
Spring 2024 ME 54400 Modeling & Simulation of Mechanical Engineering Systems MET 33500 Basic Machining
Spring 2027
ME 5/600 CAD/CAM Theory and Advanced Applications SE 52000 Engineering Economics
ME 34000 CAD/CAM THEORY and Advanced Applications 3E 32000 Engineering Economics
STAT 51100 Statistical Methods
ME 42400 Design & Opt. of Thermal Systems  ME 49800 Research in Mech. Engineering
ME 47100 Vibration Analysis  MET 33500 Basic Machining
Fall 2024 ME 43200 Manufacturing Processes SE 53000 Systems Engineering Management
ME 54700 Mechatronics, Robotics, & Automation STAT 51100 Statistical Methods
ME 55000 Advanced Stress Analysis
ME 42700 Sustainable Energy Sources & Systems  CS 38400 Numerical Analysis
ME 47100 Vibration Analysis  ME 49800 Research in Mech. Engineering
Spring 2025 ME 48000 Finite Element Analysis MET 33500 Basic Machining
ME 50500 Intermediate Heat Transfer STAT 51100 Statistical Methods
ME 54500 Finite Element Analysis: Advanced Theory & Applications

## Note:

- 1. This schedule is subject to change.
- 2. Other courses in Group 2 of the Mechanical Engineering Technical Elective Courses list are also offered, however, there isn't a set schedule.
- 3. For information about the combined BSME/MSE degree contact Dr. Hosni Abu-Mulaweh (mulaweh@ipfw.edu).
- 4. For information about the Advanced Manufacturing Engineering Certificate program contact Dr. Don Mueller (don.mueller@ipfw.edu)