MANUFACTURING CONCENTRATION

IME 327 Test Design and Analysis in Manufacturing Engineering 4

ME 418 Implementation of Mechanical Controls 4
  or ME 419 Advanced Control Systems

ME 428 Senior Design Project I 1 2
ME 429 Senior Design Project II 1 2
ME 430 Senior Design Project III 1 2

Take all of the courses in one of the following emphasis areas: 8

Mechanical Manufacturing Emphasis Area
IME 330 Fundamentals of Manufacturing Engineering
IME 450 Manufacturing Process and Tool Engineering

Electronics Manufacturing Emphasis Area
IME/MATE 458 Microelectronics and Electronics Packaging
MATE 430 Micro/Nano Fabrication
  & MATE 435 and Microfabrication Laboratory

Design and Manufacturing Elective
Select from the following: 3-5
IME 330 Fundamentals of Manufacturing Engineering 2
IME 335 Computer-Aided Manufacturing I
IME 356 Manufacturing Automation
IME 416 Automation of Industrial Systems
IME 418 Product-Process Design
IME 428 Engineering Metrology
IME 430 Quality Engineering
IME 432 Additive Manufacturing
IME 457 Advanced Electronic Manufacturing
IME/MATE 458 Microelectronics and Electronics Packaging 2
IME 527 Design of Experiments
IME 543 Applied Human Factors
MATE 430 Micro/Nano Fabrication
  & MATE 435 and Microfabrication Laboratory 2
MATE 440 & MATE 445 Welding Metallurgy and Joining of Advanced Materials
  and Joining of Advanced Materials Laboratory
ME 305 Introduction to Mechatronics
ME 412 Composite Materials Analysis and Design

Total units 25-27

1 ENGR 459, ENGR 460 and ENGR 461 (6) may substitute for ME 428, ME 429 and ME 430 (6).

2 If a course is taken to meet a Emphasis Area requirement, it cannot be double-counted as a Design and Manufacturing Elective.