Materials and Manufacturing

- MEEN 451 – Viscoelastic Materials. Prerequisite: CVEN 305. || MEEN 657 - Viscoelasticity of Solids and Structures
- MEEN 467 – Mechanical Behavior of Materials. Prerequisite: MEEN360. || MEEN 625 - Mechanical Behavior of Materials
- MEEN 471 – Elements of Composite Materials. Prerequisites: MEEN 368 and 360. || MEEN 686 - Composite Materials Processing and Performance

Dynamics and Controls

- MEEN 408 – Introduction to Robotics. Prerequisite: MEEN 364 or equivalent. || MEEN 612 - Mechanics of Robot Manipulators
- MEEN 433 – Mechatronics. Prerequisite: MEEN 364 or equivalent. || MEEN 667 - Mechatronics
- MEEN 434 – Dynamics and Modeling of Mechatronic Systems. Prerequisite: MEEN 364. || MEEN 634 - Dynamics and Modeling of Mechatronic Systems

Thermo-fluid and Energy Systems

- MEEN 410 – Internal Combustion Engines. Prerequisites: MEEN 344 or equivalent. || MEEN 689 – Advanced I.C. Engines
- MEEN 414 – Principles of Turbomachinery. Prerequisite: MEEN 421. || MEEN 646 - Aerothermodynamics of Turbomachines
- MEEN 463 – Cogeneration Systems. Prerequisite: MEEN 421. || MEEN 663 - Cogeneration Systems
- MEEN 469 - Alternative Energy Conversion. Prerequisite: MEEN 315. || MEEN 669 – Alternative Energy Conversion
- MEEN 472 – Gas Dynamics. Prerequisite: MEEN 344. || MEEN 605 – Gas Dynamics

Design

- MEEN 442 – Computer Aided Engineering. Prerequisite: MEEN 363 and MEEN 368. || MEEN 632 - Advanced Computer-Aided Engineering
- MEEN 444 – Finite Element Analysis in Mechanical Engineering. Prerequisite: MEEN 357 and MEEN 368. || MEEN 689 – Applications of Finite Element Analysis
- MEEN 459 – Mechanical Vibrations. Prerequisites: MEEN 363; MATH 308. || MEEN 659 - Vibration Measurement in Rotating Machinery and Machine Structures

Course descriptions can be viewed in the course catalog: [http://catalog.tamu.edu/undergraduate/course-descriptions/meen/](http://catalog.tamu.edu/undergraduate/course-descriptions/meen/).