### Pre/co-requisite Reference Sheet

#### Department of Mechanical & Aerospace Engineering (MAE)

**Course** | **Title** | **Prerequisites** | **Co-reqs** | **Offering**
---|---|---|---|---
201 | Engineering Thermodynamics I | MA 242, (PY 208 or PY 202) | | fall, spring, summer
206 | Engineering Statics | C or better in both MA 241 and PY 205 | | fall, spring, summer
208 | Engineering Dynamics | MA 242, C- or better in MAE 206 | | fall, spring, summer
214 | Solid Mechanics | MA 242, C- or better in MAE 206 | | fall, spring, summer
250 | Introduction to Aerospace Engineering | MAE 251 | | fall only
251 | Aerospace Vehicle Performance | C or better in MA 241 and PY 205 | MAE 252 | fall only
252 | Aerodynamics I | MA 242, C- or better MAE 251 | | spring only
253 | Experimental Aerodynamics I | MAE 252 | MAE 252 | spring only
254 | Aerodynamics II | MAE 252, C- or better in MAE 201 | MAE 351 | spring only
351 | Experimental Aerodynamics II | MAE 253 | MAE 351 | spring only
361 | Dynamics & Controls | MA 241, C- or better in MAE 208 | | fall only
371 | Aerospace Structures I | C- or better in MAE 214 or CE 225 | | fall only
372 | Aerospace Vehicle Structures Lab | MAE 371 | | fall only
405 | Controls Lab | MAE 371 | MAE 435 | fall, spring, summer
435 | Principles of Automatic Control | MAE 315 or MAE 361 | | fall, spring, summer
451 | Engineering Thermodynamics III | MAE 352 | MAE 458 | fall only
480 | Aerospace Vehicle Design I | MAE 252, MAE 371, (MAE 457 or 467) | | fall only
481 | Aerospace Vehicle Design II | MAE 480 | | spring only

**Prerequisites**
- MAE 252, MAE 253, MAE 361, MAE 315
- MAE 302, MAE 308, MAE 310, MAE 315, MAE 316
- MAE 482
- MAE 484
- MAE 483

**Course** | **Prerequisites** | **Co-reqs** | **Offering**
---|---|---|---
200 | Introduction to Mechanical Engineering Design | Sophomore or Junior standing in ME | | fall only
201 | Engineering Thermodynamics I | MA 242, (PY 208 or PY 202) | | fall, spring, summer
206 | Engineering Statics | C or better in both MA 241 and PY 205 | MA 242 | fall, spring, summer
208 | Engineering Dynamics | MA 242, C- or better in MAE 206 | | fall, spring, summer
214 | Solid Mechanics | MA 242, C- or better in MAE 206 | | fall, spring, summer
302 | Engineering Thermodynamics II | CSC 113, C- or better in MAE 201 | | fall, spring, summer
305 | Mechanical Engineering Lab I | PY 208, C- or better in MAE 206 | | fall, spring, summer
306 | Mechanical Engineering Lab II | MAE 305 | MAE 308, 310 | fall, spring, summer
308 | Fluid Mechanics | MA 242, C- or better in MAE 208 | | fall, spring, summer
310 | Heat Transfer Fundamentals | MA 341, C- or better in MAE 201 | | fall, spring, summer
315 | Dynamics of Machines | MA 341, C- or better in MAE 208 | | fall, spring, summer
316 | Strength of Mechanical Components | C- or better in MAE 214 or CE 225 | | fall, spring, summer
405 | Controls Lab | MAE 371 | MAE 435 | fall, spring, summer
415 | Analysis for Mechanical Engineering Design | MAE 302, MAE 308, MAE 310, MAE 315, MAE 316 | | fall only
416 | Mechanical Engineering Design | MAE 415 | | spring only
435 | Principles of Automatic Control | MAE 315 or MAE 361 | | fall, spring, summer
482 | Engineering Entrepreneurship and New Product Development I | MAE 302, MAE 308, MAE 310, MAE 315, MAE 316 | | fall only
483 | Engineering Entrepreneurship and New Product Development II | MAE 482 | MAE 484 | spring only
484 | Engineering Entrepreneurship Senior Design Lab | MAE 483 | MAE 483 | spring only

**Technical Electives (AE and ME)**

**Course** | **Prerequisites** | **Co-reqs** | **Offering**
---|---|---|---
342 | Automotive Engineering | MAE 201, MAE 308, MAE 315 | | spring only
403 | Air Conditioning | MAE 302, MAE 308, MAE 310 | | spring only
406 | Energy Conservation in Industry | MAE 302, MAE 310 | | fall only
407 | Steam and Gas Turbines | MAE 302, (MAE 308 or MAE 252) | | spring only
408 | Internal Combustion Engine Fundamentals | MAE 302 | | fall only
410 | Modern Manufacturing Processes | MAE 302, MAE 308, MAE 310 | | fall only
411 | Design of Thermal System | MAE 302, MAE 308, MAE 310 | | fall only
413 | Design of Mechanical Systems | MAE 315, MAE 316 | | fall only
420 | Dynamic Analysis of Human Movement | MAE 208 | | spring only
421 | Design of Solar Thermal Systems | MAE 302, MAE 310 | | spring only
426 | Fundamentals of Product Design | MAE 241 | | spring only
430 | Applied Finite Element Analysis | MAE 201, (MAE 316 or MAE 371) | | fall, spring
440 | Non-Destructive Testing and Evaluation | Junior or Senior standing in engineering | | fall only
455 | Boundary Layer Theory | MAE 252 or MAE 308 | | fall only
456 | Computational Methods in Aerodynamics | MAE 252, CSC 113 | | fall only
457 | Flight Vehicle Stability and Control | MAE 252, (MAE 361 or MAE 315) | | spring only
458 | Propulsion | MAE 351 | | fall only
467 | Introduction to Space Flight | MAE 351 | | spring only
472 | Aerospace Structures II | MAE 371 | | spring only
479 | Special Topics in Mechanical and Aerospace Engineering | | | varies
496 | Undergraduate Project Work in Mechanical and Aerospace Engineering | completion of some 300-level MAE courses | | fall, spring, summer

* Courses listed in italics are only available to students post-CODA.

* Tech elective offerings are subject to change and may not be offered every year.

(last updated 18 June 2020 CHT)