Dual Degree
AE & MSE Degree
Applies to New Students Admitted Fall 2012 & After
Updated: October 2014

AE curriculum = Black
Extra courses from MSE curriculum = Red

CHEM 124 – Principles of Chemistry I (4)
CS 104 – Introduction to Computer Programming I (2)
MATH 151 – Calculus I (5)
MATH 152 – Calculus II (5)
MATH 251 – Multivariate and Vector Calculus (4)
MATH 252 – Introduction to Differential Equations (4)
PHYS 123 – General Physics I: Mechanics (4)
PHYS 221 – General Physics II: Electricity & Magnetism (4)
MS 201 – Materials Science (3)
MMAE 100 – Introduction to the Profession (3)
MMAE 200 – Introduction to Mechanics (3)
MMAE 202 – Mechanics of Solids II (3)
MMAE 304 – Mechanics of Aerostructures (3)
MMAE 305 – Dynamics (3)
MMAE 311 – Compressible Flow (3)
MMAE 312 – Aerodynamics of Aerospace Vehicles (3)
MMAE 313 – Fluid Mechanics without Lab (3)
MMAE 315 – Aerospace Lab I (4)
MMAE 320 – Thermodynamics (3)
MMAE 350 – Computational Mechanics (3)
MMAE 365 – Structure & Properties of Materials I (3)
MMAE 370 – Materials Lab I (3)
MMAE 372 – Aerospace Materials Lab (3)
MMAE 410 – Aircraft Flight Mechanics (3)
MMAE 411 – Spacecraft Dynamics (3)
MMAE 412 – Spacecraft Design I or MMAE 414 – Aircraft Design I (3)
MMAE 413 – Spacecraft Design II or MMAE 416 – Aircraft Design II (3)
MMAE 415 – Aerospace Lab II (4)
MMAE 443 – Systems Analysis and Control (3)
MMAE 452 – Aerospace Propulsion (3)
MMAE 463 – Structure & Properties of Materials II (3)
MMAE 465 – Electrical, Magnetic, & Optical Properties of Materials (3)
MMAE 470 – Introduction to Polymer Science (3)
MMAE 472 – Advanced Aerospace Materials (3)
MMAE 476 – Materials Lab II (3)
IPRO I (3)
IPRO II (3)
7 x Hum/SS (21)

Full AE program = 127 credits
Full MSE program = 126 credits
Dual degree program = 15 credits more than original single degree = 142 credits

AE electives covered with ME courses = 6 credits
Extra MSE courses = 21 credits

127 (AE) + 15 (MSE) = 142 credits

Notes:
MMAE 485 is not required for the dual AE/MSE degree, as much of the material is covered in MMAE 472.