Mechanical Engineering – Technical Electives

ME TECHNICAL ELECTIVES

ME Courses	F26	S26	F27	S27	F28	S28	F29	S29	F30
ME 4123 – Failure of Engineering Materials	✓		✓		✓		✓		✓
ME 4133 – Mechanical Metallurgy	✓		✓		✓		✓		✓
ME 4193 – Automotive Engineering		✓		✓		✓		✓	
ME 4233 – Fundamentals of FEA		✓		✓		✓		✓	
ME 4343 – Intermediate Heat Transfer	✓		✓		✓		✓		✓
ME 4353 – Alternative Energy Sources		✓		✓		✓		✓	
ME 4373 – Air Conditioning	✓		✓		✓		✓		✓
ME 4393 – Power Generation Systems		✓		✓		✓		✓	
ME 4543 – Combustion Engines	✓		✓		✓		✓		✓
ME 4823 – Compressible Flow and Turbomachinery	✓		✓		✓		✓		✓
ME 4833 – Intermediate Fluid Mechanics		✓		✓		✓		✓	
ME 4990 – Special Topics In Mechanical Engineering									

ADDITIONAL TECH ELECTIVES

Ag & Bio Engineering
ABE 4523 – Biomedical Materials
ABE 4563 – Robotics for Biological Systems
ABE 4613 – Biomechanics
ABE 4633 – Biomedical Signals and Sensors

Aerospace Engineering
ASE 4233 – Structural Dynamics
ASE 4423 – Int. Comp Fluid Dynamics
ASE 4713 – Intro. to Unmanned Aircraft

Chemistry
CH 4513 – Organic Chemistry I
CH 4523 – Organic Chemistry II
CH 4554 – Integrated Organic I
CH 4564 – Integrated Organic II

Chemical Engineering
CHE 4143 – Adv Poly/Composite Materials
CHE 4733 – Intro. to Sustainability

Electrical & Computer Engineering
ECE 4443 – Sensor Processing for Avs
ECE 4923 – Fdbk Con Sys II

Engineering Mechanics
EM 4123 – Intro. To Finite Element Methods
EM 4133 – Mechanics of Composite Materials
EM 4213 – Advanced Mechanics of Materials

Industrial Engineering
IE 4113 – Human Factors
IE 4613 – Engineering Statistics I
IE 4624 – Engineering Statistics II
IE 4733 – Linear Programming
IE 4953 – Six Sigma Methods and Project

Civil Engineering
CE 4753 – Construction Cost Estimation

Mechanical Engineering
Courses listed above

Petroleum Engineering
PTE 4903 – Petr Reservoir Eng I
PTE 4913 – Petr Reservoir Eng II
PTE 4923 – Completion Design
PTE 4953 – Formation Eval
PTE 4963 – Oil Recovery Methods
PTE 4993 – Petroleum Econ Analysis

Special Topics
ASE 4990 – Aerospace Composites Manufacturing
CHE 4990 – Intro. to Nuclear Engineering
ECE 4990 – Power Systems Grounding

IMPORTANT NOTES:

1. At least one of three technical elective requirements must be a course offered by the ME Department (ME 4XXX).
2. The Topic for ME 4990 Will be announced during the semester the course will be offered.
3. These courses are outside of ME, and the schedule is subject to change.
4. Students are limited to ONE Directed Individual Studies (DIS) course to apply towards the three technical elective requirements.
5. A MA 4000 level course may be selected (MUST have “MA” prefix // not “ST”)