

## AME Capstone/Design/Core/Technical Electives

<b>AME Capstone Electives</b>	AME 409, AME 415, AME 430, AME 443
<b>AME Design Electives</b>	AME 305, AME 408, AME 410, AME 415, AME 430, AME 481
<b>AME Core Electives</b>	Upper division (300-400 level) AME courses (not already part of degree requirements)
<b>Technical Electives</b>	Upper division (300-400 level) Engineering, MATH, PHYS, CHEM, per approval

### Fall 2017 Course Suggestions

- ✓ Refer to the Schedule of Classes for more information. Course offerings, days/times are subject to change.
- ✓ For D-Clearance or pre-requisite waivers (if applicable), please contact the “owning” department.
- ✓ Courses cannot be applied to multiple AME requirements (i.e. AME 408 can apply as Design or Core, not both).
- ✓ Confirm any AME Core or Technical Electives with your academic advisor, beyond the courses listed below.

#### AME Capstone Electives

Course No.	Course Title	Units
AME 415	Turbine Design and Analysis	3.0
AME 430	Thermal Systems Design	3.0

#### AME Design Electives

Course No.	Course Title	Units
AME 305	Mechanical Design	3.0
AME 408	Computer-Aided Design of Mechanical Systems	3.0
AME 410	Engineering Design Theory and Methodology	3.0
AME 415	Turbine Design and Analysis	3.0
AME 430	Thermal Systems Design	3.0

#### AME Core Electives

Course No.	Course Title	Units
AME 305, 408, 410, 415, 430	<i>AME Capstone and Design Electives – additional courses taken, not applied towards the Capstone or Design requirement, can be used as AME Core Electives</i>	3.0
AME 404	Computational Solutions to Engineering Problems	3.0
AME 405	Functional Approach to Computational Methods	3.0
AME 451	Linear Control Systems I	3.0
AME 457	Engineering Fluid Mechanics	3.0
AME 459	Flight Mechanics	3.0
AME 485	Aerospace Structures I	3.0
AME 490x	Directed Research ( <i>D-clearance requested through myviterbi.usc.edu</i> )	3.0, max 12
AME 491	Undergraduate Design Projects II ( <i>View AME Design teams/instructors on the Schedule of Classes</i> )	1.0, max 4

#### Technical Electives

Course No.	Course Title	Units
ASTE 330	Introduction to Spacecraft Systems and the Space Environment	3.0
ASTE 470	Spacecraft Propulsion	3.0
BME 404	Biomechanics	3.0
CE 358	Theory of Structures I	3.0
CE 460	Construction Engineering	3.0
CE 469	Sustainable Design and Construction	3.0
CE 470	Building Information Modeling and Integrated Practice	3.0
CE 471	Principles of Transportation Engineering	3.0
CHE 301g	Introduction to Engineering Biology ( <i>*CHE 301 can apply as both Tech Elect and GE D</i> )	4.0
CSCI 455x	Introduction to Programming Systems Design	4.0
ENGR/BUAD 301	Technology Entrepreneurship ( <i>To register, enroll in BUAD 301</i> )	3.0
ENGR 345	Principles and Practices of Global Innovation	3.0
ENGR 395	Cooperative Education Work Experience ( <i>For more information/d-clearance, contact Diane Yoon: dyoon@usc.edu in Viterbi Career Services</i> )	Summer:1.0; Fall/Spring:2.0
ISE 370L	Human Factors in Work Design	4.0
ISE 440	Work, Technology, and Organization	3.0
ISE 460	Engineering Economy	3.0
ITP 310	Design for User Experience	3.0
ITP 320	Enterprise Wide Information Systems	4.0
ITP 322	Using GIS Technology for Social Impact	2.0
ITP 411	Multimedia and Video Production	3.0
ITP 466	Building the High Tech Startup	4.0
ITP 476	Technologies for Interactive Marketing	4.0
ITP 479	Cyber Law and Privacy	3.0
ITP 499	Special Topics: See Schedule of Classes	2.0, 3.0
MATH 445	Mathematics of Physics and Engineering II	4.0