DEN@Viterbi ORIENTATION
Aerospace and Mechanical Engineering

Brian Zimmerman
Assistant Director, AME Student Affairs

Chrissy Franks
Director, AME Student Affairs
Agenda

• Welcome to DEN@Viterbi & USC
• Important Dates & Deadlines
• Degree Requirements
• Department Policies, Procedures & Tips
• Desire2Learn Login & Training
• Advisement: DEN D-clearance
• DEN Contact Information
• Q & A
Welcome to DEN@Viterbi and USC!

AME Advising

Chrissy Franks
Director, AME Student Affairs

Brian Zimmerman
Assistant Director, AME Student Affairs
M.S. advising
Email amegrad@usc.edu
UNIVERSITY CALENDAR – FALL 2020 (Grad. Level)

AUG 21  Last day to register and pay without late fee
AUG 24  Fall semester classes begin
SEPT 7   Labor Day, University Holiday
SEPT 11  Deadline to purchase or show proof of health insurance
SEPT 11  Last day to drop a class without a mark of "W," except for
          Monday-only classes, and receive a 100% refund
SEPT 11  Last day to register and add classes
SEPT 11  Last day to purchase or waive tuition refund insurance
UNIVERSITY CALENDAR – FALL 2020 (continued)

SEPT 11  Last day to drop a Monday-only class without a mark of “W” and receive a 100% refund or change to Pass/No Pass or Audit

OCT 9   Last day to drop a course without a mark of “W” (no refund)

NOV 13  Last day to drop a class with a mark of “W”

NOV 24  Fall semester classes end

NOV 25-29 Thanksgiving Recess

DEC 2-9 Final examinations
Program Review

• Master of Science in Mechanical Engineering (MSME)
• Master of Science in Aerospace Engineering (MSAE)

• Master of Science in Mechanical Engineering – Energy Conversion (MSMEEC)
• Master of Science in AME – Dynamics and Control (MSAMDC)
• Master of Science in AME – Computational Fluid and Solid Mechanics (MSAMFS)
• Master of Science in Product Development Engineering – Technology Track (MSPDE)

• Dual Degrees
  • MS in Mechanical Engineering/MS Engineering Management (MSMEMT)
  • MS in Aerospace Engineering/MS Engineering Management (MSAEMT)
Master of Science in Mechanical Engineering (MSME)
Master of Science in Aerospace Engineering (MSAE)

Requirements for Graduation Without Thesis, 27 units total with 3.0 GPA overall:
• AME 525 (4 units)
• 15 units of coursework in AME (including AME 525)
  - Cross-listed courses count as AME
• 18 units minimum in 500-level coursework
  - No more than 9 units at 400-level

*No required tracks or specializations, only areas of interest. May mix and match from different areas as long as overall requirements are met.

List of recommended classes by areas of interest are here:
https://ame.usc.edu/academics/master-science-mechanical-engineering/
https://ame.usc.edu/academics/master-science-aerospace-engineering/
Master of Science in Mechanical Engineering (MSME)

Courses by Area of Interest

Thermal and Fluid Sciences
- AME 513a Fundamentals and Applications of Combustion
- AME 515 Advanced Heat and Mass Diffusion
- AME 530a Dynamics of Incompressible Fluids

Dynamics and Controls
- AME 521 Engineering Vibrations II
- AME 522 Nonlinear Dynamical Systems, Vibrations, and Chaos
- AME 524 Advanced Engineering Dynamics
Master of Science in Mechanical Engineering (MSME)

Courses by Area of Interest

Design
- AME 541 Linear Control Systems II
- SAE 549 System Architecting ↔
- AME 451 Linear Controls Systems I (ELECTIVE)

Mechanics and Materials
- MASC 551 Mechanical Behavior of Engineering Materials ↔
- MASC 560 Fatigue and Fracture ↔

Energy
- AME 514 Applications of Combustion and Reacting Flows
- AME 581 Intro to Nuclear Engineering
Master of Science in Aerospace Engineering (MSAE)

Courses by Area of Interest

Aerospace Control
- AME 541 Linear Control Systems II
- AME 544 Computer Control of Mechanical Systems
- AME 545 Modeling and Control of Distributed Dynamic Systems
- AME 451 Linear Controls Systems I (ELECTIVE)

Aerospace Design
- AME 527 – Elements of Vehicle and Energy Systems Design
- ASTE 520 – Spacecraft System Design (ELECTIVE)
Master of Science in Aerospace Engineering (MSAE)

Courses by Area of Interest

Aerospace Structures
- AME 521 Engineering Vibrations II
- CE 507 Mechanics of Solids I ↔
- AME 403 (ELECTIVE) – prereq AME 204
- AME 420 (ELECTIVE) – prereq MATH 245
Master of Science in Aerospace Engineering (MSAE)

Courses by Area of Interest

Computational Fluid Dynamics
  • AME 511

Aerodynamics/Fluid Dynamics
  • AME 511
  • AME 516 – prereq AME 457

Propulsion
  • AME 511
  • AME 514 – rec prep AME 513
  • AME 436 (ELECTIVE) – prereq AME 310 and (CE 309 or AME 309)
Master of Science in Mechanical Engineering – Energy Conversation (MSMEEC)

Requirements for Graduation Without Thesis, 27 units total with 3.0 GPA overall:
• AME 525 (4 units)
• Required core courses (16 units)
• Approved Energy Conversion electives (7-8 units)

Required Courses
• AME 430 Thermal Systems Design (3 units)
• AME 577 Survey of Energy and Power for a Sustainable Future (3 units)
• AME 578 Modern Alternative Energy Conversion Devices (3 units)
• CE 501 Construction Practices (4 units)
• SAE 515 Sustainable Infrastructure Systems (3 units)
Master of Science in Aerospace and Mechanical Engineering – Dynamics and Control (MSAMDC)

Requirements for Graduation Without Thesis, 27 units total with 3.0 GPA overall:
• AME 525 (4 units)
• Required core courses (20 units)
• Approved 400- or 500-level elective course (3-4 units)

Required Courses
• AME 521
• AME 522
• AME 524
• AME 541
• AME 552
Master of Science in Aerospace and Mechanical Engineering – Computational Fluid and Solid Mechanics (MSAMFS)

Requirements for Graduation Without Thesis, 27 units total with 3.0 GPA overall:
• AME 525 (4 units)
• Required core courses (13-16 units)
• Core Elective in Fluid/Solid Dynamics (1 course = 4 units)
• Core Elective in Numerical Methods (1 course = 3-4 units)

Courses
• AME 525
• AME 530a
• AME 535a
• CE 507
• CE529a
Master of Science in Product Development Engineering – Technology Track (MSPDE)

Requirements for Graduation Without Thesis, 27 units total with 3.0 GPA overall:

- AME 503 and ISE 545 (6 units)
- Required Technology Track courses (6 units)
- Required Technology Technical Elective courses (6 units)
- Approved 400- or 500-level electives (8-9 units)

Required Courses

- AME 503
- ISE 501/AME 501 – TECHNOLOGY TRACK
- AME 525 – TECHNOLOGY TRACK
- ISE 545 – TECHNOLOGY TRACK
DUAL DEGREE:
MS Mechanical Engineering & MS Engineering Management
MS Aerospace Engineering & MS Engineering Management

Requirements for Graduation Without Thesis, 48 units total with 3.0 GPA overall:
• AME 525 (4 units)
• ISE 500, ISE 515, ISE 544, and ISE 561 (12 units)
• Approved AME graduate-level course work (11-12 units)
• Approved ISE graduate-level course work (6 units)
• Approved 400- or 500-level elective course work approved by AME/ISE (14-15 units)
• No more than 15 units at 400-level may be taken as degree credit

Fall 2020 Courses
• AME 525
• ISE 500
AME Department Policies, Procedures & Tips

- Department Worksheets
  - ame.usc.edu - Current Students - Graduate Student Resources

- Check and read your USC email regularly
  - Always include your USC ID number

- Change of Majors
  - Must wait until after you complete your first semester with 3.0.

- AME 525
  - Only required class for general MS.AE and MS.ME
  - Offered every semester
    - Summer offered as fast-paced six-week sessions
AME Department Policies, Procedures & Tips

- Refer to the Schedule of Classes for planning purposes
  - [http://classes.usc.edu](http://classes.usc.edu)

- Cross-listed courses
  - Count as AME courses, not outside the department

- Prerequisite Waivers
  - Email amegrad@usc.edu for AME courses

- Transfer Credit - up to 6 units
  - [https://arr.usc.edu/services/degree-progress/graduatetransfercredit.html](https://arr.usc.edu/services/degree-progress/graduatetransfercredit.html)

- Research as DEN student

- Linear Algebra Tutorial
  - [https://viterbigrad.usc.edu/workshops-tutorials/](https://viterbigrad.usc.edu/workshops-tutorials/)
1. Bookmark https://courses.uscden.net
2. Your D2L username is your full USC Email Address
3. If you do not remember your D2L password, click “Forgot your password?”

Sign up for an exclusive one-on-one training session inside a virtual classroom to learn all about Desire2Learn:
https://viterbigrad.usc.edu/technical-support/training-options/
How To Request D-clearance From DEN

All DEN courses require D-clearance.

1. Login to DEN Desire2Learn: http://courses.uscden.net
2. Go to DEN@Viterbi Tools on the navigation bar
3. Select “Request D-clearance” link, select the term, and select a course
4. Approval process takes 1-2 business days. To view the status of a request, click on “Check D-Clearance Status”
5. You can register once your request has been processed. D-clearances expire 7 days from when it is issued so register as soon as you obtain it to secure a seat in a course.

For questions on D-Clearance status, contact den@vase.usc.edu
## Contact Info

**VITERBI ADMISSION & STUDENT ENGAGEMENT (VASE)**

**Location:** Olin Hall of Engineering (OHE), Rm. 106  
**Hours:** Mon. - Fri. 8:30 am - 5 pm (Pacific Time)  
**Phone:** (213) 740-4488 | **Fax:** (213) 821-0851  
[https://viterbigrad.usc.edu/](https://viterbigrad.usc.edu/)

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<tr>
<th>DEN@Viterbi Support</th>
<th>Contact Information</th>
<th>Staff</th>
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<td>• General advisement • Policies &amp; Procedures</td>
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**USC Viterbi**  
**School of Engineering**  
**University of Southern California**
THANK YOU!

HAVE A GREAT SEMESTER!

FIGHT ON!

A recording of this online orientation and this presentation will be available for viewing and download on the VASE website. 
https://viterbigrad.usc.edu/academic-services/new-student-information/