DEN@Viterbi ORIENTATION
Aerospace and Mechanical Engineering

Brian Zimmerman
Assistant 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

Natalie Guevara
Director, AME Student Affairs
PhD advising
Phone 213-740-5353
Email nguevara@usc.edu

Brian Zimmerman
Assistant Director, AME Student Affairs
M.S. advising
Phone 213-821-3105
Email brianzim@usc.edu
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAN 10</td>
<td>Last day to register and pay without late fee</td>
</tr>
<tr>
<td>JAN 13</td>
<td>Spring semester classes begin</td>
</tr>
<tr>
<td>JAN 13-17</td>
<td>Late registration and change of schedule</td>
</tr>
<tr>
<td>JAN 20</td>
<td>MLK Day, University Holiday</td>
</tr>
<tr>
<td>JAN 31</td>
<td>Deadline to purchase or show proof of health insurance</td>
</tr>
<tr>
<td>JAN 31</td>
<td>Last day to drop a class without a mark of &quot;W,&quot; except for Monday-only classes, and receive a 100% refund</td>
</tr>
<tr>
<td>JAN 31</td>
<td>Last day to register and add classes</td>
</tr>
<tr>
<td>JAN 31</td>
<td>Last day to purchase or waive tuition refund insurance</td>
</tr>
</tbody>
</table>
UNIVERSITY CALENDAR – SPRING 2020 (continued)

FEB 4  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

FEB 17  President's Day, University holiday

FEB 28  Last day to drop a course without a mark of “W” (no refund)

MAR 15-22  Spring recess

APR 3  Last day to drop a class with a mark of “W”

MAY 1  Spring semester classes end

MAY 6-13  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

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 specialization

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 specialization

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 specialization

**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 specialization

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 specialization

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

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

• Consider only taking one course in your first semester

• 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](mailto: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](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/](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](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/)**

<table>
<thead>
<tr>
<th>DEN@Viterbi Support</th>
<th>Contact Information</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical support, Desire2Learn training, Homework</td>
<td><a href="mailto:dentsc@usc.edu">dentsc@usc.edu</a></td>
<td>Rebecca Lee</td>
</tr>
<tr>
<td></td>
<td>213-740-9356</td>
<td>Bianca Richter</td>
</tr>
<tr>
<td>DEN d-clearance inquiries</td>
<td><a href="mailto:den@vase.usc.edu">den@vase.usc.edu</a></td>
<td></td>
</tr>
<tr>
<td>Exams</td>
<td><a href="mailto:denexam@usc.edu">denexam@usc.edu</a></td>
<td>Shirley Schutt</td>
</tr>
<tr>
<td></td>
<td>213-740-9356</td>
<td></td>
</tr>
<tr>
<td>VASE Advisor</td>
<td><a href="mailto:ptrinida@usc.edu">ptrinida@usc.edu</a></td>
<td>Patty Rinehart</td>
</tr>
<tr>
<td>• General advisement</td>
<td>213-740-0116</td>
<td></td>
</tr>
<tr>
<td>• Policies &amp; Procedures</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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/