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*  
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<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Aug 23</td>
<td>Last day to register and pay without late fee</td>
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<tr>
<td>Aug 26</td>
<td>Fall semester classes begin</td>
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<td>Aug 26-30</td>
<td>Late registration and change of schedule</td>
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<td>Sept 2</td>
<td>Labor Day, University Holiday</td>
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<td>Sept 13</td>
<td>Deadline to purchase or show proof of health insurance</td>
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<td>Sept 13</td>
<td>Last day to drop a class <strong>without</strong> a mark of &quot;W,&quot; except for</td>
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<td>Monday-only classes, <strong>and</strong> receive a 100% refund</td>
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<tr>
<td>Sept 13</td>
<td>Last day to register and add classes</td>
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<td>Sept 13</td>
<td>Last day to purchase or waive tuition refund insurance</td>
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UNIVERSITY CALENDAR – FALL 2019 (continued)

Sept 17  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 11  Last day to drop a course without a mark of “W” (no refund)

Nov 15  Last day to drop a class with a mark of “W”

Nov 27–Dec 1  Thanksgiving recess

Dec 6  Fall semester classes end

Dec 11-18  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)

Fall 2019 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 – *Currently full*
- 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 2019 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 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](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@gapp.usc.edu](mailto:den@gapp.usc.edu)
# CONTACT INFO

**OFFICE OF GRADUATE AND PROFESSIONAL PROGRAMS**

**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>
<td>Technical support,</td>
<td><a href="mailto:dentsc@usc.edu">dentsc@usc.edu</a></td>
<td>Rebecca Lee</td>
</tr>
<tr>
<td>Desire2Learn training,</td>
<td>213-740-9356</td>
<td>Bianca Richter</td>
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<td>Homework</td>
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<tr>
<td></td>
<td><a href="mailto:den@gapp.usc.edu">den@gapp.usc.edu</a></td>
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<tr>
<td></td>
<td><a href="mailto:denexam@usc.edu">denexam@usc.edu</a></td>
<td>Shirley Schutt</td>
</tr>
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<td>213-740-9356</td>
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<th><strong>GAPP Advisor</strong></th>
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<tr>
<td>• General advisement</td>
<td><a href="mailto:ptrinida@usc.edu">ptrinida@usc.edu</a></td>
<td>Patty Rinehart</td>
</tr>
<tr>
<td>• Policies &amp; Procedures</td>
<td>213-740-0116</td>
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THANK YOU!

HAVE A GREAT SEMESTER!

FIGHT ON!

A recording of this online orientation and presentation will be available for viewing and download on the GAPP website.