Systems Architecting and Engineering

DEN@Viterbi Orientation

Spring 2021

AGENDA

- Welcome
- Department Overview
- Degree Requirements
- Department Policies, Procedures, Tips
- ASTE DEN
- Academic Advising
- Questions?

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SAE DEPARTMENT OVERVIEW

- Master of Science in Systems Architecting and Engineering (MS SARE)

- Graduate Certificate in Systems Architecting and Engineering (GCRT SARE)

**SAE programs are housed
In Astronautical Engineering
Department within Viterbi School
of Engineering .**

Executive Director of SAE
Dr. Azad Madni

Welcome to USC and DEN@Viterbi

Luis Saballos, SAE Student Advisor

Contact Information

Email   Lsaballo@usc.edu
Phone   (213) 821-4234

- Advise undergraduate, certificate, master, and doctoral students
- Advise for the Astronautical Engineering (ASTE) and the Systems Architecting and Engineering (SAE) degree programs

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Master of Science in Systems Architecting and Engineering (MSSARE)

Requirements for Graduation: A total of 30 units (10 classes) with a 3.0 GPA.

- 15 units of Required Courses
- 3 units in the Technical Management Area (choose from specific list of courses)
- 3 units in the General Technical Area (choose from specific list of courses)
- 9 units in the Technical Specialization Area

Course Planning Tips:

- Create a course plan to stay on track: https://16yvut3lcf341mbymkpwo7zt-wpengine.netdna-ssl.com/wp-content/uploads/2017/04/Master-Plan-after-2014.pdf

- **SAE 549 is recommended to be taken in your first enrolled semester**

Complete list of required courses for completing the MS SARE program are here: https://catalogue.usc.edu/preview_program.php?catoid=11&poid=10946&hl=sae&returnto=search

Degree Requirements for the SAE Master's Program

Required Courses – 5 Courses (3 units each)

1. ISE 460 Engineering Economy
   or
   SAE 560 Economic Considerations for Systems Engineering

2. SAE 541 Systems Engineering Theory and Practice

3. SAE 542 Advanced Topics in Systems Engineering

4. SAE 547 Model-Based Systems Architecting and Engineering
   or
   SAE 548 Systems/System-of-Systems Integration and Communication

5. SAE 549 Systems Architecting

Degree Requirements for the
SAE Master's Program

Technical Management Area – Pick 1 course (3 units)

CE 556 Project Controls — Budgeting and Estimating

DSO 580 Project Management

ISE 515 Engineering Project Management

ISE 517 Modern Enterprise Systems

ISE 544 Management of Engineering Teams

ISE 562 Value and Decision Theory

ISE 585 Strategic Management of Technology

MOR 561 Strategies in High-Tech Businesses

SAE 550 Systems Architecting and the Political Process

General Technical Area– Pick 1 course (3 units)

CSCI 510 Software Management and Economics

CSCI 577a Software Engineering

CSCI 577b Software Engineering

ISE 506 Lean Operations

ISE 580 Performance Modeling with Simulation

SAE 543 Case Studies in Systems Engineering and Management

SAE 550 Systems Architecting and the Political Process

Degree Requirements for the SAE Master's Program

Technical Specialization Area – (9 units)

Courses are intended to complement the student's prior education and experience toward becoming a well-rounded systems architect-engineer or architect-manager. With a few exceptions, the courses should come from the recommended list from the catalogue:
https://catalogue.usc.edu/preview_program.php?catoid=11&poid=10946&hl=sae&returnto=search

The student may choose from a large variety of technical specializations spanning all departments in the Viterbi School of Engineering. Flexibility is emphasized in this choice.

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Graduate Certificate in Systems Architecting and Engineering (GCRTSARE)

Requirements for Graduation: A total of 15 units (5 classes) with a 3.0 GPA. The courses taken for the certificate may be applied later to the Master of Science in Systems Architecting and Engineering.

Create a course plan to stay on track:
https://16yvut3lcf341mbymkpwo7zt-wpengine.netdna-ssl.com/wp-content/uploads/2017/04/Certificate-Plan-after-2014.pdf

Complete list of required courses for completing the GCRT SARE program are here:
https://catalogue.usc.edu/preview_program.php?catoid=11&poid=10947&hl=sae&returnto=search

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Degree Requirements for the SAE Certificate Program

Required Courses – Choose 5 (3 units each)

ISE 460 Engineering Economy
or
SAE 560 Economic Considerations for Systems Engineering

ISE 515 Engineering Project Management
ISE 544 Management of Engineering Teams
SAE 541 Systems Engineering Theory and Practice
SAE 542 Advanced Topics in Systems Engineering
SAE 547 Model-Based Systems Architecting and Engineering
SAE 548 Systems/System-of-Systems Integration and Communication
SAE 549 Systems Architecting
SAE 574 Net-Centric Systems Architecting and Engineering

Master of Science Program in Systems Architecting and Engineering- Common Questions

Typical time to complete the program:
-Full time students: 3-4 semesters (2-3 courses/semester)
-Part-time students: 3-4 yeard)1-2 courses per semester)

Course Sequencing:
-Course sequence is entirely up to the student. Advisors help as needed.
Exceptions: courses with pre-requisites.

Course Substitutions:
-Accepted on a case by case basis (please see me for further details)

Technical Specialization courses not listed in catalog:
-Accepted on a case by case basis; subject to Program Director approval (please see me for further details)

SAE Policies, Procedures, Tips

- Maintain a 3.0 grade point average

- USC requires graduate students to maintain continuous enrollment every Fall and Spring semester.

- You have 5 years to complete your degree program from the term of your first course.

- Review your STARS Report every semester.
  - The STARS Report includes the degree and major you are currently pursuing, GPA, Catalogue year, admission term, the number of units and course required to fulfill your degree requirements.
  - You can access it through the "OASIS" section of the myUSC portal (http://my.usc.edu).
  - Your STARS Report is manually activated after you enroll in your first course as an officially admitted student.

- Transfer Credit – it is possible to transfer in up to 6 units (two courses). Please email me directly for more information.

- If you desire to change majors, you can do so after your first semester if you receive a 3.0 of higher (contact the other department for the transfer procedures)

- **Check your USC email regularly!**

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SAE Policies, Procedures, Tips – Cont'd

- Refer to the USC Schedule of Classes for planning purposes
  http://classes.usc.edu/

- SAE Study Plans:
  https://sae.usc.edu/programs/

- If you will be working full-time, we strongly recommend only taking 1 class in your first semester
- You have 5 years to complete your degree program from the term of your first course.
- Core required courses are offered every fall and spring semester, and selected courses are offered in the summer term.
- In summer, some courses are offered in a fast-paced 6 week format. It is not recommend that you take two courses that overlap in the summer.
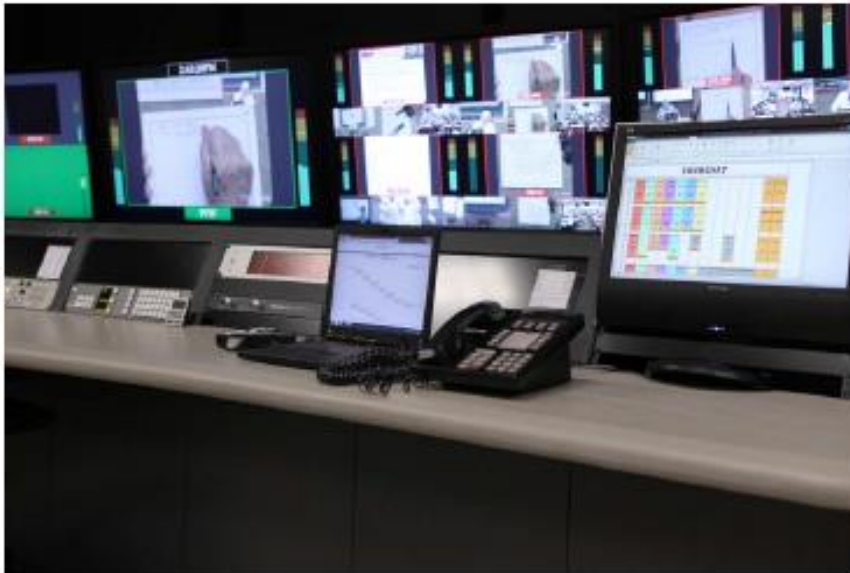- All DEN section require Departmental Clearance (D-Clearance) prior to registering for classes

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SAE DEN
(Distance Education Network)

VSOE's Distance Education Network (DEN@Viterbi)

Broadcast master control

Distance Education Network (DEN)

– webcast over the Internet, with lectures viewed anywhere in the world on PC (standard high-speed connection; no special software)

– on-campus students attend lectures in class

– password-protected lectures can be viewed asynchronously any time during the entire semester

– class notes, homework assignments, and handouts transmitted electronically

– exams: on campus for students in the Greater Los Angeles area and proctored (e.g., at local community colleges) for remote students

VSOE's Distance Education Network (DEN@Viterbi)

DEN classrooms

Student view

Instructor view

Instructor

Control room

Control room

- face camera
- overhead camera
- laptop connection
- broad(web)cast monitor

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DESIRE2LEARN LOGIN & TRAINING

https://courses.uscden.net/d2l/login

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USC Viterbi School of Engineering — DEN@Viterbi

Log in to view your courses offered through DEN@Viterbi, explore tools and features, and customize your eLearning experience for programs and courses supported by **DEN@Viterbi**. Students must be registered and approved to view select courses. If you are having problems logging on, please try the forgot password link.

If you have problems logging on or seeing your courses, please contact DEN@Viterbi Technical Support Center office at dentsc@usc.edu or 213-740-9356.

DEN@Viterbi Students: First Time Logging in?

You must create a profile first before you can log in.

On-campus students don't need to create a profile as it is generated automatically.

Note: DEN Blackboard users logging into DEN Desire2Learn for the first time should use the "forgot your password" link below to set your password before trying to log-in.

Username *

Password *

Log In   Forgot your password?

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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?"

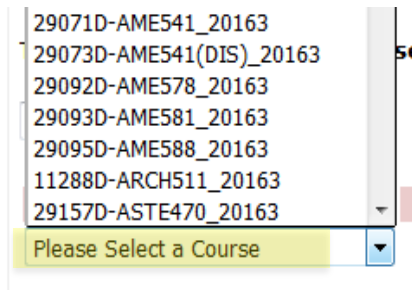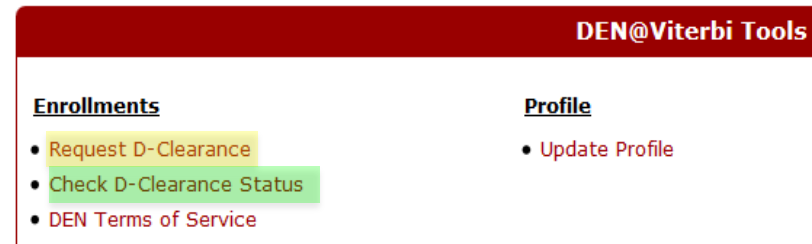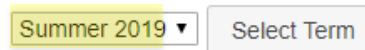Sign up for an exclusive one-on-one training session inside a virtual classroom to learn all about Desire2Learn: https://viterbigrad.usc.edu/technical-support/training-options/

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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

DEN@Viterbi Contacts

Viterbi Admission & Student Engagement Office
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/
DEN d-clearance inquiries den@vase.usc.edu

DEN@Viterbi Support	Contact Information	Staff
Technical support, Desire2Learn training, Homework	dentsc@usc.edu 213-740-9356	Bianca Richter
DEN d-clearance inquiries	den@vase.usc.edu	
Exams	denexam@usc.edu 213-740-9356	Shirley Schutt
VASE Advisor • **General advisement** • **Policies & Procedures**	ptrinida@usc.edu 213-740-0116	Patty Rinehart

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Academic Advising Appointments

Luis Saballos, SAE Student Advisor

Email: Lsaballo@usc.edu Phone: (213) 821-4234

- **I am available by email.**

- **If you send an email, please include your 10-digit USC ID number and we can schedule a zoom meeting.**

THANK YOU!

HAVE A GREAT SPRING 2021 SEMESTER!
FIGHT ON!

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

https://viterbigrad.usc.edu/academic-services/new-student-information/.