



**DEN@Viterbi**  
**Ming Hsieh Dept. of**  
**ELECTRICAL and COMPUTER ENGINEERING**  
**ORIENTATION**

*Ryan Pineda, Gabby Garcia, Jaimie Zelada & Sam Graves*

*ECE Graduate Student Advisors*

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*Location: EEB 102*



# AGENDA

- ECE Department Contact Information
- Important Dates & Deadlines
- Programs & Degree Requirements
- ECE Department Policies, Procedures & Tips
- DEN D-clearance & Contact Information
- Q & A



## EE Graduate Student Advisors

**Ryan Pineda**



[rcpineda@usc.edu](mailto:rcpineda@usc.edu)

Advises students whose last name begins with the letters A - G

**Gabby Garcia**



[garc635@usc.edu](mailto:garc635@usc.edu)

Advises students whose last name begins with the Letters H - L

**Jaimie Zelada**



[zelada@usc.edu](mailto:zelada@usc.edu)

Advises students whose last name begins with the Letters M - V

**Sam Graves**



[smgraves@usc.edu](mailto:smgraves@usc.edu)

Advises students whose last name begins with the Letters W - Z



# UNIVERSITY CALENDAR – Fall 2022

- Aug 19 Last day to register and settle account without late fee
- Aug 22 Fall semester classes begin
- Sept 5 Labor Day, University Holiday
- Sept 9 Last day to register & add classes
- Sept 9 Last day to drop a class and receive a full tuition refund
- Oct 7 Last day to drop a class without a mark of “W” on transcript
- Oct 13-14 Fall Recess
- Nov 11 Last day to drop a class with a mark of “W”
- Nov 11 Veteran's Day, non-instructional day
- Nov 23-27 Thanksgiving Break
- Dec 2 Fall semester classes end
- Dec 7-14 Final Examinations



# PROGRAMS OFFERED ON DEN

- Masters of Science in Electrical Engineering
- Masters of Science in Computer Engineering
- Masters of Science in Electrical Engineering (Computer Networks)
- Masters of Science in Electrical Engineering/Engineering Mgmt.
- Masters of Science in Electrical Engineering (Electric Power)
- Masters of Science in Financial Engineering
- Masters of Science in Green Technologies
- Masters of Science in Electrical Engineering (VLSI Design)



## Other programs in our department

- Masters of Science in Electrical Engineering (Computer Architecture)
- Masters of Science in Applied Physics
- Masters of Science in ECE (Analog Mixed-Signal and Radio Frequency)
- Masters of Science in ECE (Machine Learning and Data Science)
- Masters of Science in Electrical Engineering (Wireless Networks)
- Masters of Science in Quantum Information Science

*These programs cannot currently be completed through DEN. Unfortunately, a large portion of the required coursework are labs that are only offered on campus.*

*If you are interested in joining this program and will eventually be able to complete courses on campus, please contact us directly and we'll advise you on how to proceed.*



# Masters of Science in Electrical Engineering

“Build your own degree” program. No required courses. Students should complete at least 15-16 units from one of our academically related areas: Computer Networks, Computer Architecture, Communications, Controls, Data Science, Electric Power, Electromagnetics, Optics, Photonics, Mixed-Signal Integrated Circuits, Signal and Image Processing, and VLSI/CAD.

- *Minimum number of units to earn your degree: **28 units**.*
- *Minimum GPA required for Graduation: **3.0 GPA**.*
- *Minimum number of units at the 500 level or above: **19 units**.*
- *Minimum number of units in electrical engineering: **20 units**.*

Read more about our degree programs and our academically related areas (flowcharts) here:

<https://minghsiehece.usc.edu/academics/ms/master-of-science-electrical-engineering-program-details/>



# Masters of Science in Computer Engineering

The MS in Computer Engineering degree is earned by completing an integrated program of at least 28 units of approved coursework emphasizing three key areas: **Computer Architecture, Networks** and **VLSI/CAD**. Students must take at least one course from two of the three areas. Here is a listing of the most commonly registered DEN courses in the Computer Engineering program.

- *Minimum number of units to earn your degree: **28 units.***
- *Minimum GPA required for Graduation: **3.0 GPA.***
- *Minimum number of units at the 500 level or above: **19 units.***
- *Minimum number of units in Electrical Engineering: **20 units.***

## ***Computer Architecture:***

- EE 457 - Computer Systems Organization
- EE 532 - Wireless Internet and Pervasive Computing
- EE 542 - Internet and Cloud Computing
- EE 557 - Computer Systems Architecture





# Masters of Science in Computer Engineering cont.

## **Networks:**

- EE 450 - Introduction to Computer Networks
- EE 550 - Design and Analysis of Computer Communication Networks
- EE 555 - Broadband Network Architectures
- EE 597 - Wireless Networks

## **VLSI/CAD:**

- EE 477 - MOS VLSI Circuit Design
- EE 536a/b - Mixed-Signal Integrated Circuit Design
- EE 537 - Modern Solid-State Devices
- EE 577a/b - VLSI System Design
- EE 658 - Diagnosis and Design of Reliable Digital Systems

**Recommended first term courses - EE 450 (4), EE 457 (4), EE 477 (4), EE 503 (4), EE 451 (4)**

\*Note: Approved Computer Science coursework can also be applied toward the Computer Engineering degree. Please speak to your respective advisor for more information.



# Masters of Science in EE Computer Networks

- *Minimum number of units to earn your degree: 27 units.*
- *Minimum GPA required for Graduation: 3.0 GPA.*
- *Minimum number of units at the 500 level or above: 18 units.*
- *Minimum number of units in Electrical Engineering: 15 units.*

## ***Fundamental Courses (3 Courses Required\*)***

- CSCI 402 - Operating Systems
- EE 450 - Introduction to Computer Networks\*
- EE 503 - Probability for Electrical and Computer Engineers
- EE 457 - Computer Systems Organization \*

*\*The fundamental course may also be satisfied by passing EE placement exams.  
No units, however will be earned for passing a placement exam*



# Masters of Science in EE Computer Networks cont.

## *Required Courses (3 of the following 4 courses)*

- CSCI 551 - Computer Communications
- EE 550 - Design & Analysis of Computer Communication Networks
- EE 555 - Broadband Network Architectures
- EE 597 - Wireless Networks

*Recommended first term courses: EE 450 (4), EE 457 (4), EE 503 (4)*

*Remaining units to be completed from list of approved electives. Read more here:*

<https://minghsiehece.usc.edu/academics/ms/>



# Masters of Science in Electrical Engineering/Engineering Management

*This dual degree program is designed for graduate electrical engineers whose career objectives lead to increasing technical management responsibilities.*

- *All applicants must meet EE and ISE admissions requirements.*
- *Minimum number of units to earn your degree: **48 units**.*
  - *EE units: 24*
  - *ISE units: 18*
  - *Approved elective units: 6*
- *All courses counted toward dual degree must be taken at the 500-level, except those 400-level courses required by the MSEE degree.*
- *Minimum GPA required for Graduation: 3.0 GPA.*
- **Recommended first term courses -Follow the MSEE-general degree and ISE degree requirements per catalogue policy. Please contact your academic advisor for specific details**



# Masters of Science in EE Electric Power

- *Minimum number of units to earn your degree: **28 units.***
- *Minimum GPA required for Graduation: **3.0 GPA.***

## ***Fundamental Courses (All 4 Required)***

- EE 443 - Introduction to Power Systems
- EE 444 - Power Systems Technology
- EE 521 - Power System Analysis and Design
- SAE 515 - Sustainable Infrastructure Systems

***Recommended first term courses EE 443 (4), EE 444 (4)***

*Remaining units to be completed from list of approved electives. Read more here:  
<https://minghsiehece.usc.edu/academics/ms/>*



# Masters of Science in Financial Engineering

- *Minimum number of units to earn your degree: **33 units**.*
- *Minimum GPA required for Graduation: 3.0 GPA.*
- *Minimum number of units at the 500 level or above: 22 units.*

***Required Courses*** (All courses are required with the option of taking either ISE 563 or FBE 559).

- GSBA 548 - Corporate Finance (Spring on DEN)
- ISE 563 - Financial Engineering **or** FBE 559 - Management of Financial Risks
- EE 503 - Probability for Electrical and Computer Engineers
- EE 512 - Stochastic Processes
- EE 518 - Mathematics and Tools for Financial Engineers
- EE 590 - Directed Research



# Masters of Science in EE Financial Engineering cont.

*The Remaining coursework must be completed from two areas of electives:  
**Finance, Business & Economics** and **Optimization, Simulations & Stochastic Processes**.  
Students must take 2 courses from each area.*

*If you have questions about requirements, you can also email our faculty advisor  
Prof. Petros Ioannou at [msfine@usc.edu](mailto:msfine@usc.edu)*

*Recommended first term courses EE 503 (4), EE 518 (4)*

*<https://minghsiehece.usc.edu/academics/ms/>*



# Masters of Science in Green Technologies

Students pursuing the MS in Green Technologies are required to take two courses in each of the three topical areas: **Green Systems and the Environment**, **Energy Technology and Efficiency**, and **Sustainability and Society**. Students are also required to select three approved elective courses.

- *Minimum number of units to earn your degree: 27 units.*
- *Minimum GPA required for Graduation: 3.0 GPA.*
- *Minimum number of units at the 500 level or above: 18 units.*
- ***Minimum number of units in the Viterbi School of Engineering: 18 units.***

## **Green Systems and the Environment:**

- ISE 576 - Industrial Ecology: Technology-Environment Interaction (Spring)
- SAE 515 - Sustainable Infrastructure Systems (Fall)





# Masters of Science in Green Technologies cont'd.

## ***Energy Technology and Efficiency:***

- CHE 510: Energy and Process Efficiency (Fall) **or**  
AME 577: Survey of Energy and Power for a Sustainable Future (Spring)
- EE 526: Renewable Energy in Power Systems (Spring) **or**  
ENE: 505 Energy and the Environment (Fall)

## ***Sustainability and Society:***

- CE 469: Sustainable Design and Construction (Fall)
- ENE 502: Environmental and Regulatory Compliance (Spring)

***Electives within area of interest – will need to be approved by Prof Ed Maby (faculty advisor)***

***Recommended first term courses – CE 469 (2), ENE 527 in lieu of EE 505 (4)***

Read more here:

<https://minghsiehece.usc.edu/academics/ms/>



# Masters of Science in EE VLSI

- *Minimum number of units to earn your degree: 27 units.*
- *Minimum GPA required for Graduation: 3.0 GPA.*
- *Minimum number of units at the 500 level or above: 18 units.*
- *Minimum number of units in Electrical Engineering: 18 units.*

*All courses are required with the option of taking either EE 577b or EE 536b (though both can be taken if desired\*):*

- EE 577a - VLSI System Design
- ~~EE 479 - Analog Integrated Circuit Design~~ **or** EE 536a - Mixed-Signal Integrated Circuit Design
- EE 552 - Asynchronous VLSI Design
- EE 577b - VLSI System Design **or** EE 536b - Mixed-Signal Integrated Circuit Design\*

**Recommended first term courses-EE 457 (4), EE 477 (4)**

- *Remaining units to be completed from list of approved electives. Read more here:*
- <https://minghsiehece.usc.edu/academics/ms/>



# EE Department Policies, Procedures & Tips

- Refer to the USC Schedule of Classes for planning purposes <http://classes.usc.edu/>.
- We waive 300-level or below pre-requisites for graduate students upon request.
- Cross-listed courses may qualify for credit as EE courses (i.e. CSCI 455x is EE 455).
- Transfer Credit – possible to transfer up to 4 units.
- If this is your first semester or if you're working full-time, we recommend only taking 1 course but you are welcome to take more.
- Check your USC email regularly! Forward to another email account if necessary.
- When sending an e-mail, please always include your USC ID # in all messages.
- Special Request Form- non-EE coursework to be reviewed for approval

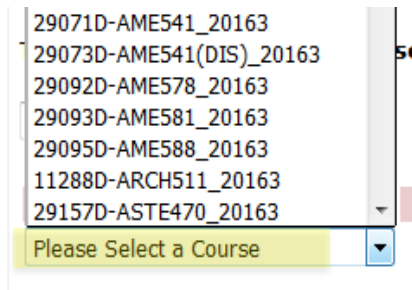
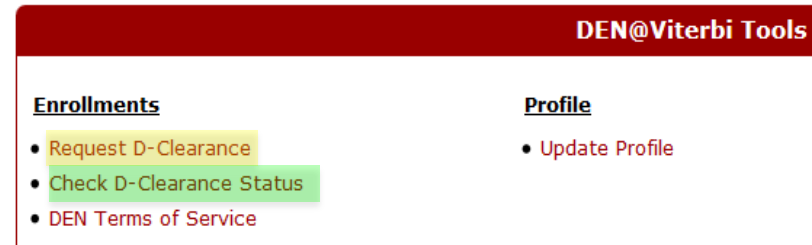


# HOW TO REQUEST D-CLEARANCE FROM DEN

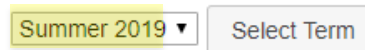
All DEN courses require D-clearance.



Student FAQ **DEN@Viterbi Tools**



To begin D-Clearance, Please select a term to apply for 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](mailto:den@vase.usc.edu)



# DESIRE2LEARN LOGIN & TRAINING

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

**USC Viterbi**  
School of Engineering

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](mailto: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 \*  
 [Forgot your password?](#)

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/>

# 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/>

DEN@Viterbi Support	Contact Information	Staff
Technical support, Desire2Learn training, Homework	<a href="mailto:dentsc@usc.edu">dentsc@usc.edu</a> 213-740-9356	Daniel Cueva Bianca Richter
DEN d-clearance inquiries	<a href="mailto:den@vase.usc.edu">den@vase.usc.edu</a>	
Exams	<a href="mailto:denexam@usc.edu">denexam@usc.edu</a> 213-740-9356	Shirley Schutt
VASE Advisor	<a href="mailto:ptrinida@usc.edu">ptrinida@usc.edu</a>	Patty Rinehart
<ul style="list-style-type: none"><li>• General advisement</li><li>• Policies &amp; Procedures</li></ul>	213-740-0116	



# QUESTIONS?

**Please unmute you audio and ask your question.**



**THANK YOU!**

*HAVE A GREAT SEMESTER!*

*FIGHT ON!*