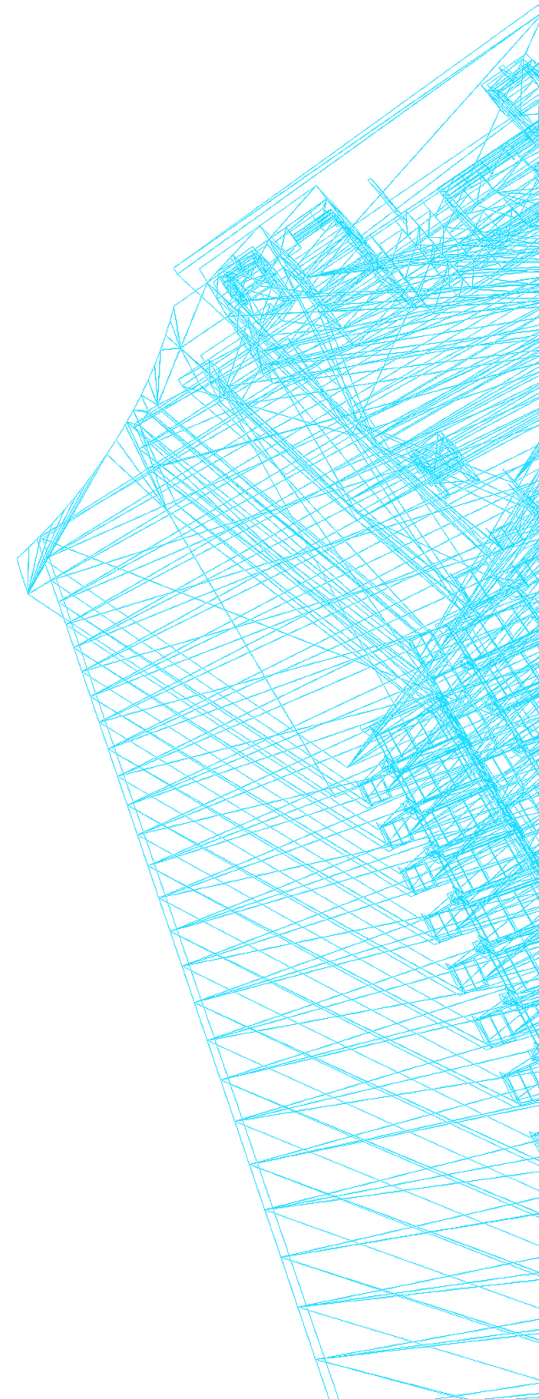


# WELCOME TO SESM

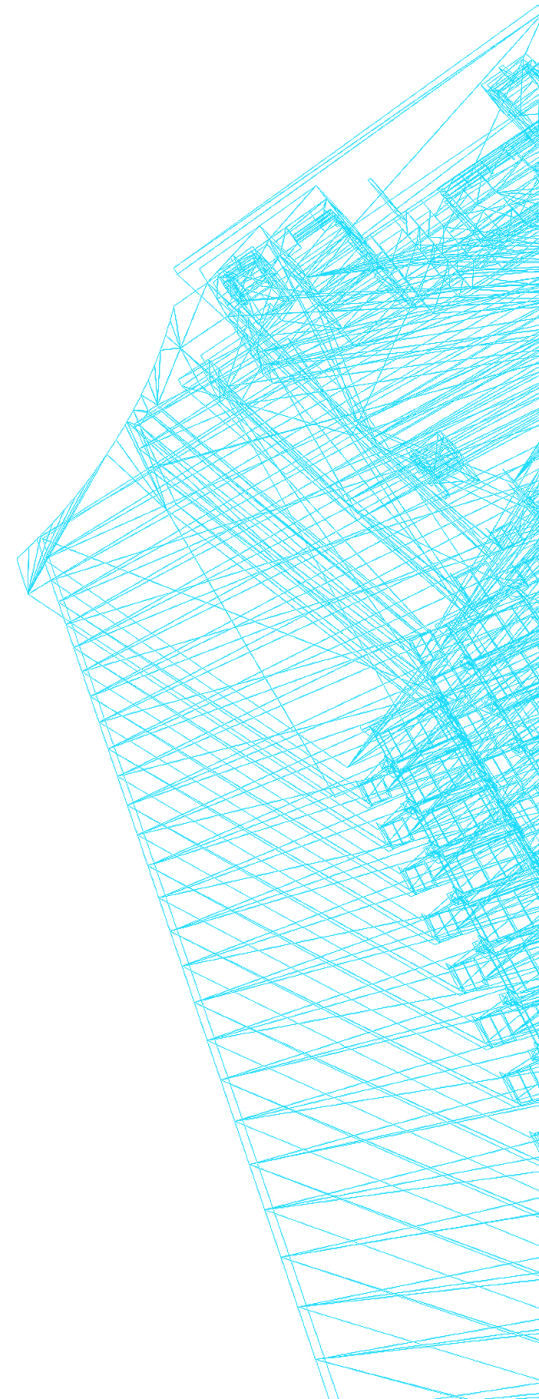
Graduate Student Orientation  
Fall 2020

# INTRODUCTIONS - STUDENTS



# FACULTY INTRODUCTIONS

1. Michele Barbato
2. John Bolander
3. Rob Chai
4. Lijuan (Dawn) Cheng
5. Yannis Dafalias
6. Amit Kanvinde
7. Sashi Kunnath
8. Sabbie Miller
9. Mark Rashid
10. Natarajan Sukumar





# MS DEGREE REQUIREMENTS

**Students without an engineering degree → Required Background Courses**

**ALL:** 36 total units

**DEFAULT:** Take 35 units of coursework (9 courses, of which 32 units must be graduate courses)

Take and pass comprehensive exam (offered Winter, Spring & Summer)

**ALTERNATIVES:**

(1) Complete a thesis under the supervision of an individual faculty member + 27 units of coursework

(2) Complete a project under the supervision of an individual faculty member + 31 units of coursework



# PHD DEGREE COURSE REQUIREMENTS

**Students without an engineering degree → Required Background Courses**

1. Clear any deficiencies identified at the time of admission to the graduate program
2. Prepare Preliminary Program of Study in consultation with Major Advisor by end of 1st quarter of study
3. Speaking requirement: approved courses (ECI 211, 233, 239) or speaking experience verified by faculty advisor
4. Complete 46 units of approved coursework beyond undergraduate degree
5. 24 units must be taken at UC Davis
6. After passing QE, be enrolled full time (12 units) every quarter, GPA  $\geq 3.25$
7. For QE and Dissertation info refer to  
<https://ucdavis.app.box.com/s/u03hmw79pfm0i73awngkrp0tg3164p30>



## DEGREE REQUIREMENTS – ADDITIONAL FACTS

- MUST EARN “C” OR HIGHER FOR CREDIT
- MINIMUM GPA FOR GRADUATION: 3.0 (MS)/3.25 (PhD)
- Make sure you have 12 units minimum each quarter
- For those taking less than 12 units, take additional units by signing up for variable units of ECI 299 (research) so you end up with at least 12 units (**This does not apply for the default MS degree option**)
- Need information? Check:

<https://cee.engr.ucdavis.edu/graduate-resources/>



# REQUIRED CORE COURSES

**TAKE 3 OUT OF FOLLOWING 4 COURSES**

- **ECI 201 – ELASTICITY**
- **ECI 211 (ECI 211A) – ADV MATRIX STRUCTURAL ANALYSIS**
- **ECI 213 – STRUCTURAL DYNAMICS**
- **ECI 212A – FINITE ELEMENT PROCEDURES**





# COURSE OFFERINGS 2020-21

- FALL 2020
  - ECI 201 – ELASTICITY (Sukumar)
  - ECI 211 (ECI 211A) – ADV MATRIX STRUC ANALYSIS (Chai)
  - ECI 213 – STRUC DYNAMICS (Kunnath)
  - ECI 235 – CEMENT COMPOSITES (Miller)
- WINTER 2021
  - ECI 205 – CONTINUUM MECHANICS (Rashid)
  - ECI 212A – FINITE ELEMENT PROCEDURES (Sukumar)
  - ECI 232 – ADV REINFORCED CONCRETE (Chai)
  - ECI 236 – DESIGN OF FRP STRUCTURES (Cheng)
  - ECI 238 – PERFORMANCE-BASED SEISMIC ENGINEERING (Kunnath)
- SPRING 2021
  - ECI 233 – ADV STEEL STRUCTURES (Kanvinde)
  - ECI 234 – PRESTRESSED CONCRETE (Bolander)
  - ECI 239 – DESIGN OF MATERIALS & SYSTEMS FOR SUSTAINABILITY (Miller)
  - ECI 289E (ECI 224) – STRUCTURAL RELIABILITY (Barbato)
  - ECI 289E (ECI 211B) – NONLINEAR STRUCTURAL ANALYSIS (Kanvinde)





# GRAD SEMINAR SERIES – ECI 298

- Weekly seminars (usually 8 per quarter)
- Attendance required
- **FALL SERIES – UC Davis faculty**
- **WINTER SERIES – Outside faculty**
- **SPRING SERIES - Prominent practicing structural engineers (usually from major consulting firms in the Bay Area and Sacramento)**
- Many of them are also looking to hire MS students
- Sample presentations from past years:
  - Salt Lake City Airport Expansion – Structural Engineering Challenges
  - Wilshire Grand Tower – Tallest Building in Western United States
  - Sacramento Kings Arena – Design & Construction Challenges
  - Facebook West Campus, Heavy green roof and other design challenges
  - Nonlinear Analysis: Case Studies in New Design and Seismic Retrofit
  - Progressive Failure Analysis of the I-35 Bridge Collapse



# MISCELLANEOUS

- MAJOR PROFESSOR
- FINANCIAL SUPPORT
  - Fellowships
  - Teaching Assistantships and Readers
  - Grad Student Researcher (GSR)
- FULL and PART-TIME status
- Planned Educational Leave Program (PELP)
- FILING FEE OPTION

# QUESTIONS?

