<u>UC San Diego</u>

JACOBS SCHOOL OF ENGINEERING

SNAPSHOT

WE MAKE BOLD POSSIBLE

We solve the tough challenges no lab, discipline, or company can take on alone.

How we do it

When we collaborate with industry, government and academia, **we actually listen**.

The result: deep interactions and bold collaborations within UC San Diego's **\$1.54 billion** research enterprise, throughout San Diego's tech ecosystems, across California, the nation and the world.

We are a **top 10 engineering school** with the creativity and openness necessary to tackle the toughest shared challenges for the public good.

In Franklin Antonio Hall, we created a national model for innovation ecosystems with local roots and international reach.

We are transforming engineering education, at scale

How we do it

We empower one of the largest — and strongest — cohorts of students in the nation to apply engineering and computer science theory to **real-world problems**.

#10!!! ENGINEERING SCHOOL IN THE USA

*2023 U.S.News Rankings of Best Engineering Schools

#2	#2 Public engineering school in California* #6 Public engineering school in the USA*
\$218M	Total research expenditures for 2020-2021 at the Jacobs School of Engineering
1⁄3	One third of our research expenditures come from university-industry research partnerships that drive relevance
16	Industry-sponsored centers and institutes launched in the last 8 years
#1	The Jacobs School of Engineering at UC San Diego is the largest engineering school in California, and #2 on the West Coast, according to the latest enrollment data from ASEE.
9,617	Engineering Students (Fall 2022) 5,986 BS / 2,224 MS / 1,407 PhD
2,598	Engineering Degrees (2021-2022) 1,608 BS / 773 MS / 217 PhD
279	11 New faculty hired 2021-2022 150+ faculty hired in the last 9 years

UC San Diego JACOBS SCHOOL OF ENGINEERING

ACADEMIC DEPARTMENTS

MECHANICAL & AEROSPACE ENGINEERING

BIOENGINEERING

- 28 Faculty
- 557 Undergraduates
- 408 Graduate students



- autodigestion
- bioinformatics
- biomaterials / biomechanics
- cell / tissue mechanics biophotonics / biosensors
- cardiac mechanics
- cardiovascular engineering and imaging
- cartilage / tissue engineering
- genomic engineering
- metabolic bioengineering
- microcirculation / transfusion medicine
- molecular / cellular bioengineering
- nanotechnology
- neuroengineering
- regenerative medicine / stem cells
- systems bioengineering
- translational bioengineering

COMPUTER SCIENCE & ENGINEERING

- 71 Faculty 1,873 Undergraduates
- 980 Graduate students



- artificial intelligence / machine learning
- bioinformatics
- computer architecture
- computer science pedagogy databases and info mgmt.
- embedded systems, VLSI/CAD
- graphics and vision
- human-computer interaction
- programming languages
- robotics
- security and cryptography
- software engineering
- systems and networking
- theoretical computer science

applied electromagnetics

bioinformatics / bionanotech

ELECTRICAL & COMPUTER ENGINEERING

University of California San Diego | Jacobs School of Engineering

- 65 Faculty
- 1,374 Undergraduates
- Graduate students 938



- brain imaging / mapping communications systems
- cyber-physical systems security
- electronic circuits / systems
- embedded systems
- intelligent systems / robotics
- machine learning and data science
- magnetic and optical storage
- medical devices and systems
- nanoelectronics
- network infrastructure
- neural interfaces
- photonics / nanophotonics
- power engineering
- signal/image/video processing
- systems energy engineering
- wearable sensors

NANOENGINEERING

29 Facultv

57 Faculty

631

1,311 Undergraduates

Graduate students

- 622 Undergraduates
- Graduate students 180



STRUCTURAL ENGINEERING

- 25 Faculty
- 547 Undergraduates
- Graduate students 173



- aerospace technologies
- biomaterials, bio-inspired tech cell / membrane mechanics
- control and optimization
- combustion
- high-energy materials processing
- materials for extremes medical device technologies
- MEMS for extremes
- networked control systems
- renewable and carbon-neutral energy technologies
- robotics and design solid and soft matter mechanics of metamaterials
- thermo-physics, heat and mass transfer
- tribology for memory storage turbulence, geophysical flows,
- macro/microfluidić flows
- advanced nanomaterials
- computational materials science
- nanobiotechnology
- nanomanufacturing
- nanomedicine
- nanophotonics
- nanorobotics
- . nanosensors
- nanotechnologies for energy storage and conversion
- stretchable, flexible electronics
- sustainable nanoengineering
- wearable devices
- aerospace structures / aviation safety
- bioméchanics

prediction

research

geomechanics

optimization

 composites / nanomaterials computational fluid-structure

computational mechanics

for extreme events damage

earthquake engineering and infrastructure renewal

geotechnical engineering /

large-scale experimental

multi-hazard mitigation for

risk analysis / visualization /

earthquakes, blasts and more

structural health monitoring /

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nondestructive evaluation

interaction analysis