

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 **\$1.35 billion** research enterprise, throughout San Diego's growing tech ecosystems, across California, and beyond.

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

#9 Engineering School in the USA

*2021 U.S. News Rankings of Best Engineering Schools

#1

#1 in nation for research \$ per faculty member, among U.S. public engineering schools*

#2

#2 Public engineering school in California*
#5 Public engineering school in the USA*

\$212M

Total research funding for 2018-2019 at the Jacobs School of Engineering

\$63M

Industry-sponsored research funding; and funding from gift and endowment income

14

Industry-sponsored centers and institutes launched in the last 6 years

We are transforming engineering education, at scale.

How we do it

Hands-on undergraduate education all four years; team-based internships; vast research opportunities that often cross disciplines; world-class maker studios; bold student-led engineering project teams; a dynamic entrepreneurship ecosystem; and more.

We empower one of the largest cohorts of undergraduate students in the nation to apply theory to real-world problems.

#1

#1 on the West Coast for bachelor's degrees awarded in engineering and computer science (ASEE)

#2

#2 on the West Coast for bachelor's degrees in engineering and computer science awarded to women (ASEE)

9,225

Engineering Students (Fall 2019)
6,027 BS / 1,926 MS / 1,303 PhD

2,437

Engineering Degrees (2018-2019)
1,361 BS / 892 MS / 184 PhD

266

Faculty at the Jacobs School of Engineering
110 faculty hired in the last 6 years

ACADEMIC DEPARTMENTS

BIOENGINEERING

31 Faculty
580 Undergraduates
339 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

MECHANICAL & AEROSPACE ENGINEERING

52 Faculty
1,170 Undergraduates
537 Graduate students



- 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/microfluidic flows

COMPUTER SCIENCE & ENGINEERING

67 Faculty
1,933 Undergraduates
873 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

NANOENGINEERING

30 Faculty
634 Undergraduates
198 Graduate students



- advanced nanomaterials
- computational materials science
- nanobiotechnology
- nanomanufacturing
- nanomedicine
- nanophotonics
- nanorobotics
- nanosensors
- nanotechnologies for energy storage and conversion
- stretchable, flexible electronics
- sustainable nanoengineering
- wearable devices

ELECTRICAL & COMPUTER ENGINEERING

60 Faculty
1,279 Undergraduates
1,094 Graduate students



- applied electromagnetics
- bioinformatics / bionanotech
- 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
- signal/image/video processing
- systems energy engineering
- wearable sensors

STRUCTURAL ENGINEERING

26 Faculty
431 Undergraduates
188 Graduate students



- aerospace structures / aviation safety
- biomechanics
- composites / nanomaterials
- computational fluid-structure interaction analysis
- computational mechanics for extreme events damage prediction
- earthquake engineering and infrastructure renewal
- geotechnical engineering / geomechanics
- large-scale experimental research
- multi-hazard mitigation for earthquakes, blasts and more
- risk analysis / visualization / optimization
- structural health monitoring / nondestructive evaluation