UC San Diego
JACOBS SCHOOL OF ENGINEERING

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 ten engineering school with the creativity and openness necessary to tackle the toughest shared challenges for the public good.

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 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.

#9 Engineering School in the USA
(U.S.News Rankings of Best Engineering Schools; March 2020)

|	
$212M	Total research expenditures for 2018-2019 at the Jacobs School of Engineering
$63M	Industry-sponsored research expenditures; and funding from gift + endowment income
13	Industry-sponsored centers and institutes launched in the last 5 years
75	Member companies in our Corporate Affiliates Program
136	Jacobs School technologies licensed in the last 5 years
#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

BIOENGINEERING

31	Faculty
580	Undergraduates
339	Graduate students
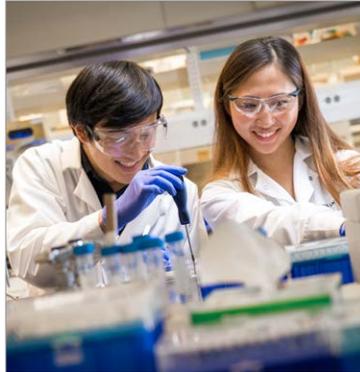
- autodigestion
- bioinformatics
- biomaterials / biomechanics
- cell / tissue mechanics
- biophotonics / biosensors
- cardiac mechanics
- cardiovascular engineering and imaging
- cartilage / tissue engineering
- genomic engineering
- metabolic bioengineering
- microcirculation / transfusion medicine
- 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