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 **$1.45 billion** research enterprise, throughout San Diego's tech ecosystems, across California, the nation and the world.

We are a **top 9 engineering school** with the creativity and openness necessary to tackle the toughest shared challenges for the public good.

In Franklin Antonio Hall, we are creating a national model for innovation ecosystems with geographical roots and national reach.

#9 Engineering School in the USA
*2022 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*
$222M	Total research expenditures for 2019-2020 at the Jacobs School of Engineering
$69M	Industry-sponsored research expenditures; and funding from gift + endowment income
14	Industry-sponsored centers and institutes launched in the last 7 years

We are transforming engineering education, at scale

How we do it

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

In 2020, we initiated and strengthened a series of **culture-building programs** at the Jacobs School. Our goal is to create and support environments in which all of our students can do the creative and innovative technical work they are so capable of.

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#1	The Jacobs School of Engineering at UC San Diego is the largest engineering school on the West Coast, according to the latest enrollment data from ASEE
9,174	Engineering Students (Fall 2020) 6,276 BS / 1,581 MS / 1,317 PhD
2,647	Engineering Degrees (2019-2020) 1,409 BS / 1,018 MS / 220 PhD
281	24 New faculty hired for Fall 2020 130+ faculty hired in the last 7 years

BIOENGINEERING

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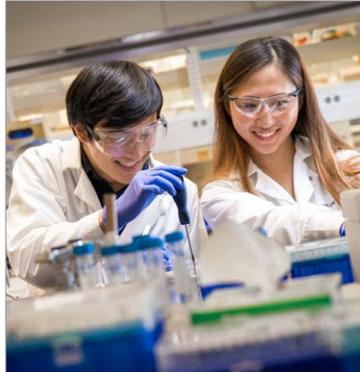
- autodigestion
- bioinformatics
- biomaterials / biomechanics
- cell / tissue mechanics
- biophotonics / biosensors
- cardiac mechanics
- cardiovascular engineering and imaging
- cartilage / tissue engineering
- genomic engineering
- metabolic bioengineering
- microcirculation / transfusion medicine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

MECHANICAL & AEROSPACE ENGINEERING

57	Faculty
1,205	Undergraduates
548	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
1,959	Undergraduates
767	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

31	Faculty
621	Undergraduates
176	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

63	Faculty
1,459	Undergraduates
869	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

25	Faculty
457	Undergraduates
189	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