MISSION

The College of Natural Sciences and Mathematics is committed to the success of our students, the pursuit of knowledge through fundamental and applied research, and continued engagement in community and professional service. The College is dedicated to cultivating an environment of intellectual growth and serving as a leader in innovative research.

DEAN

Dan E. Wells, Ph.D.

RESEARCH EXPENDITURES

$30 Million (Grants & Contracts)

ACADEMIC DEPARTMENTS

Biology & Biochemistry
Computer Science
Mathematics
Chemistry
Earth & Atmospheric Sciences
Physics

CORE VALUES

• Dedication to student success through academic excellence
• Outstanding teaching informed by research
• Innovative science and education with global impact
• Dynamic environment fosters academic freedom and growth
• Diverse community of faculty, staff and students

OUR FACULTY

Tenured or Tenure Track: 203

OUR STUDENTS

Undergraduate Majors: 4,923
Graduate Students: 952
Post-Baccalaureate Students: 175

DEGREES AWARDED

Bachelor’s: 1,111  Master’s: 172  Doctoral: 118

DEMOGRAPHICS

African-American: 7%  Asian-American: 33%
Hispanic: 24%  International: 13%
White: 19%  Other: 4%

RECENT STUDENT AWARDS

Department of Defense SMART Scholarship:
Ozzy Tirmizi (2022)

Fulbright English Teaching Assistant Grants:
Ashley Cruz, Ana Gutiérrez, Olivia Lee, Shailee Modi (2021)

Fulbright Study/Research Grants:
Carl Suerte (2021); Fernando Flor (2020)

Goldwater Scholarships:
Gabrielle Olinger (2021); Debora Mroczek, Brian Vu (2019)

NSF Graduate Research Fellowships:
Jakob Joachin (2022); True Furrh, Alejandro Ramirez, Laura Taylor (2021); Debora Mroczek, Brian Vu (2020); Jose Daniel Velasco-Garcia, Stephanie Suarez & Erin Miller (2019)

RECENT FACULTY AWARDS

American Chemical Society Fellow:
Eva Harth (2021)

American Geophysical Union Fellow:
John Suppe (2019)

American Physical Society Fellow:
Claudia Ratti (2021)

American Statistical Association Fellow:
Mikyoung Jun (2021)

Association for Computing Machinery, Distinguished Members:
Zhigang Deng (2021); Albert Cheng (2020)

Geological Society of America Fellow:
Julia Wellner (2020)

J. Clarence Karcher Award, Society of Exploration Geophysicists:
Jiajia Sun (2021)

National Academy of Engineering:
Leon Thomsen (2022)

National Academy of Inventors:
Fellows: Alex Ignatiev (2021); Seamus Curran (2019)
Senior Member: James Flynn (2022)

NSF CAREER Awards:
Andreas Mang, Panruo Wu (2022); Pavan Hosur (2021);

Piper Professor:
Nouhad Rizk (2022)

Alfred P. Sloan Research Fellows:
Jakoah Brgoch, Judy Wu (2020)

Society of Exploration Geophysicists Maurice Ewing Medal:
Leon Thomsen (2020)

SPIE Fellow:
Mini Das (2022)

W. T. & Idalia Reid Prize, SIAM:
Roland Glowinski (2020)

UH Teaching Excellence Awards:
84 faculty recipients (2010–2022)
INNOVATIVE UNDERGRADUATE PROGRAMS

Research Opportunities for Students
NSM offers a wide range of research opportunities for undergraduates at all levels. NSM students conduct research all over campus, as well as at the Texas Medical Center, the UH Coastal Center, and in industry labs. From programming computers, to pure and applied mathematics, to extended field work, wet lab experiments, and even marine research in the Galápagos Islands, NSM students gain valuable experiences that prepare them for medical school, graduate school, and their careers. Many NSM students spend multiple years working with a faculty mentor. NSM and the University offer competitive scholarships to support student researchers.

Increasing Student Success in Entry-Level Math and Sciences Classes
With the goal of increasing student success in STEM courses, NSM faculty implemented a comprehensive redesign of introductory chemistry, biology, physics, and mathematics courses. The efforts are changing the way the material is presented and increasing the amount of hands-on learning in the classroom. Students also have access to peer-led learning sessions designed to reinforce difficult topics and improve study skills. The initiative was funded with an initial $1.5 million grant from the Howard Hughes Medical Institute.

Scholar Enrichment Program (SEP)
This program focuses on improving the academic experience and performance of NSM students. Through peer-to-peer workshops that improve learning and problem-solving skills, SEP helps nearly 1,500 students each year succeed in basic science and math courses. SEP also has tutoring programs and funding to assist students with paying for school. SEP also offers the TC Energy Summer Scholars Academy annually. The program prepares high school students for their first semester of college and beyond.

teachHOUSTON
A partnership between NSM and the College of Education, teachHOUSTON is changing the way future secondary math and science teachers are trained. Students participate in classroom teaching throughout their four years at UH with rotations at local elementary, middle, and high schools. They learn valuable teaching skills from mentor teachers at public schools and master teachers at UH. Ninety percent of the graduates continue as public school teachers beyond two years.

RECENT SIGNIFICANT GRANTS

“Development of Spectral Phase Contrast Micro-CT”
Investigator: Mini Das, Ph.D.
Funding: $3.1 Million from the National Institute of Biomedical Imaging

“DarkSide-20K-Urania Project”
Investigator: Andrew Renshaw, Ph.D.
Funding: $2.9 Million from the National Science Foundation

“Proinflammatory Lung Epithelial Variants in Cystic Fibrosis”
Investigator: Frank McKeon, Ph.D.
Funding: $2.7 Million from the National Heart, Lung, and Blood Institute

“Pathogenic Heterogeneity in Mucosal Stem Cells in Pediatric Crohn’s Disease”
Investigator: Wa Xian, Ph.D.
Funding: $2 Million from the National Institute of Diabetes and Digestive and Kidney Diseases

“Elucidating Molecular-Level Roles of Essential Metals in Gut Bacteria with New Fluorescent Protein-Based Metal Ion Sensors”
Investigator: Melissa Zastrow, Ph.D.
Funding: $1.9 Million from the National Institute of General Medical Sciences