

SCIENCE

NYU ABU DHABI



  nyuad_science
#NYUADScience

WELCOME TO THE DIVISION OF SCIENCE AT NYUAD

NYU Abu Dhabi is home to a diverse, growing and thriving community of world-class faculty, researchers, undergraduate and graduate students from around the world. It is committed to excellent teaching; advancing our understanding of nature and the universe; and harnessing multidisciplinary research to respond to vital local and global challenges.



Our faculty belong to one of six divisional programs – **Biology, Chemistry, Computer Science, Mathematics, Physics and Psychology** – each offering undergraduate majors, some offering graduate degrees, and all housing disciplinary labs and projects.

In addition to our disciplinary research programs, NYUAD has identified and established **areas of excellence** in the form of conceptual multidisciplinary **research clusters**. Within these clusters, collaborating faculty with relevant expertise from a range of disciplines engage with one another, and with our state-of-the-art **core technology platforms and facilities**, to ask questions and tackle problems from a multidisciplinary perspective. The clusters also infuse and engage with our **Research Institute Centers** and **graduate programs**.



Building on the strength and excellence of our individual programs, we offer exceptional interdisciplinary research opportunities that advance knowledge and positively impact our society.

-- Marta Losada, Dean of Science



Our scientists, researchers and strong alumni networks have also established robust collaborations with **local and international** academics, experts and institutions. Together, with a **curiosity-driven and collaborative approach**, we strive to advance the frontiers of knowledge and respond in powerful and **interdisciplinary ways** to the myriad global challenges.

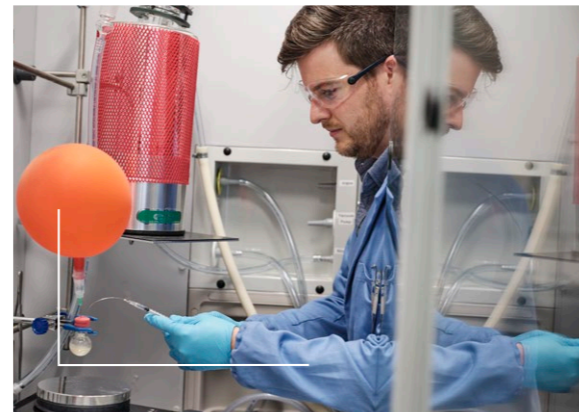
DIVISIONAL PROGRAMS

There are six divisional programs within Science, each offering undergraduate majors, some offering graduate degrees, and all housing disciplinary labs and projects.

BIOLOGY



CHEMISTRY



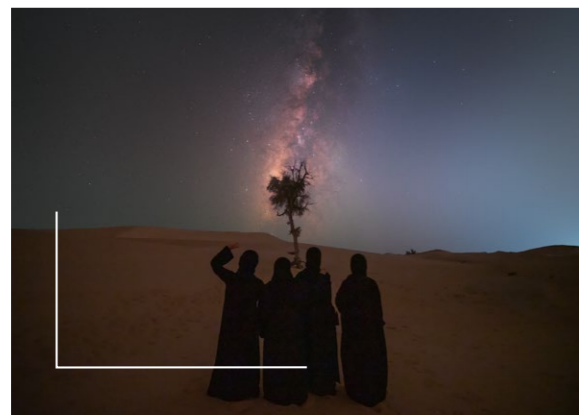
COMPUTER SCIENCE



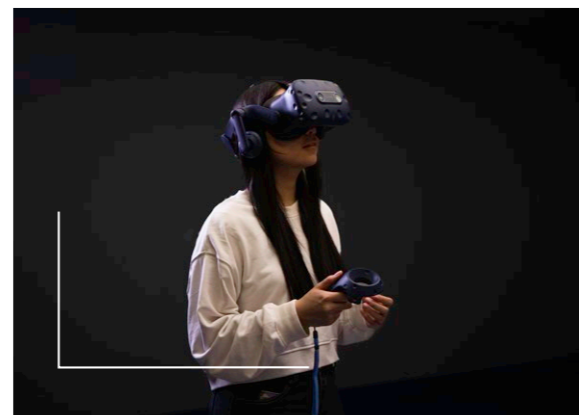
MATHEMATICS



PHYSICS



PSYCHOLOGY



TEACHING

UNDERGRADUATE

Though the program structure differs slightly for each of the undergraduate majors in Science, there are consistent elements:

GRADUATE

The Division of Science offers Global PhD Fellowships across many of its programs. Though the program structures differ, there are some consistent elements:

FOUNDATIONS OF SCIENCE

An innovative and integrated program that all Biology, Chemistry and Physics undergraduates are required to take. It fosters interdisciplinarity and an experimental approach to learning.

4-5 YEARS IN TOTAL

Students carry out their research within the cutting-edge labs and research groups at NYU Abu Dhabi.

GLOBAL EDUCATION

A careful sequence of interrelated academic and intercultural experiences over four years, including the opportunity to spend one semester abroad. It encourages greater intercultural understanding towards social responsibility, both globally and locally.

1-2 YEARS IN NEW YORK

The programs generally involve classwork in New York. Our students have access to the extraordinary resources within NYU's network of prestigious Graduate Schools.

CAPSTONE PROJECT

A demanding, year-long endeavor that every science student completes in their fourth year at NYU Abu Dhabi. Students work closely with one of our many research labs or groups to produce a significant piece of research that is presented at the annual Science Capstone Festival.

NYU DEGREE

Students are awarded an NYU Degree.



RESEARCH

DIVISIONAL RESEARCH

The six divisional programs in science are home to a plethora of **disciplinary labs and projects**. Some of our divisional research strengths include:

BIOLOGY

- ❖ Biomedical Research
- ❖ Environmental Biology
- ❖ Genome Science
- ❖ Regenerative Biology

CHEMISTRY

- ❖ Chemical Biology
- ❖ Materials Science
- ❖ Soft Matter
- ❖ Structural Biology

COMPUTER SCIENCE

- ❖ Artificial Intelligence
- ❖ Cyber Security
- ❖ Human Data Interaction
- ❖ Technology for Social Good

MATHEMATICS

- ❖ Analysis, PDEs and Applications
- ❖ Geometry, Topology and Algebra
- ❖ Probability Theory and Statistical Mechanics

PHYSICS

- ❖ Astrophysics and Cosmology
- ❖ Biophysics and Soft Matter
- ❖ Cultural Heritage
- ❖ Particle Physics

PSYCHOLOGY

- ❖ Cognition
- ❖ Developmental
- ❖ Perception
- ❖ Social

Find a full list of faculty labs and projects here:



MULTIDISCIPLINARY RESEARCH

The **NYUAD Research Institute** is a world-class center of cutting-edge and innovative research, scholarship, and cultural activity. It supports centers that address questions of **global significance and local relevance** and allows leading faculty members from **across the disciplines** to carry out creative scholarship and high-level research on a range of complex issues.

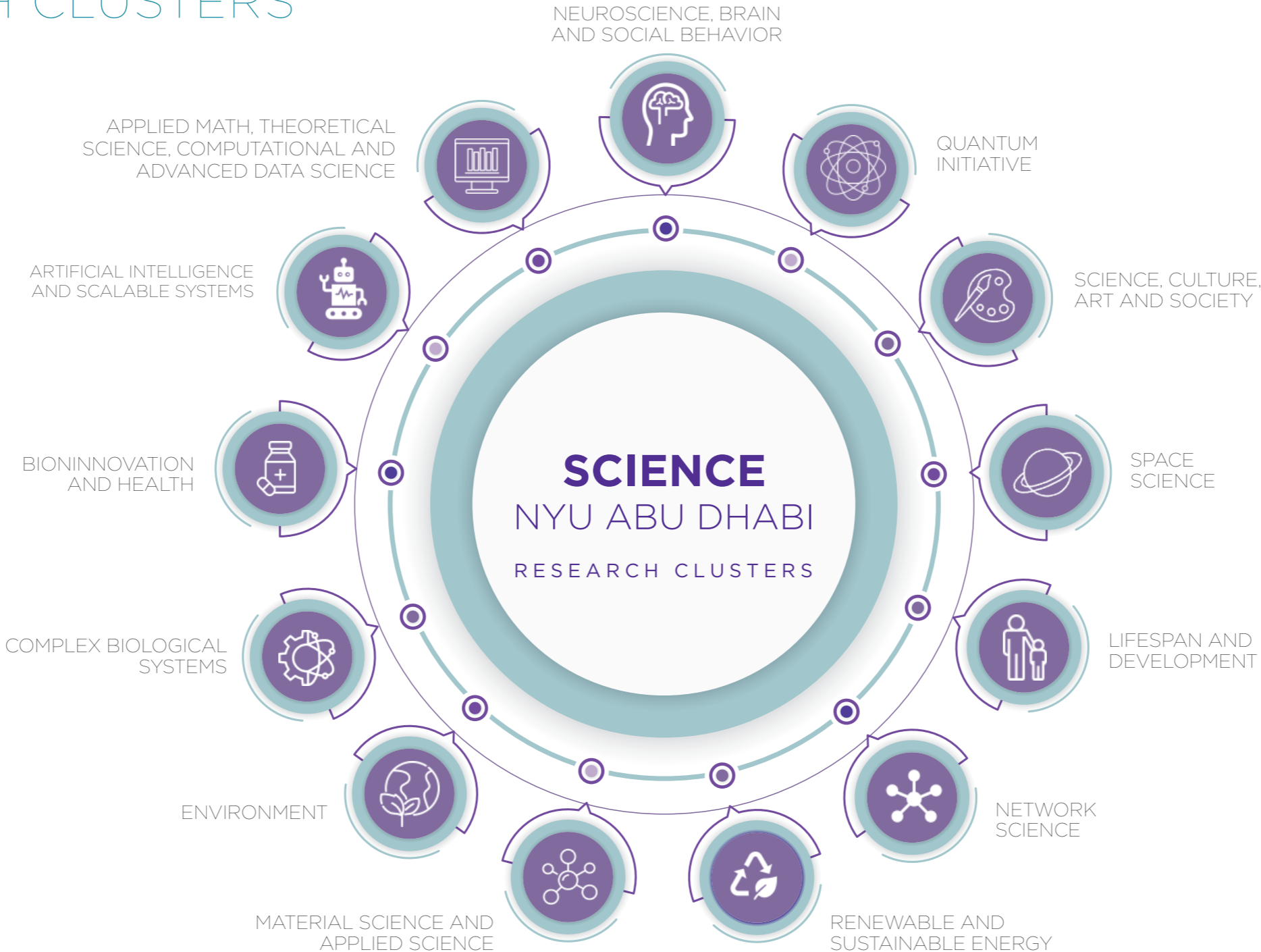
SOME OF THE RESEARCH INSTITUTE CENTERS INVOLVING FACULTY FROM THE DIVISION OF SCIENCE INCLUDE:



Find a full list of Research Institute Centers here:



DIVISION OF SCIENCE RESEARCH CLUSTERS

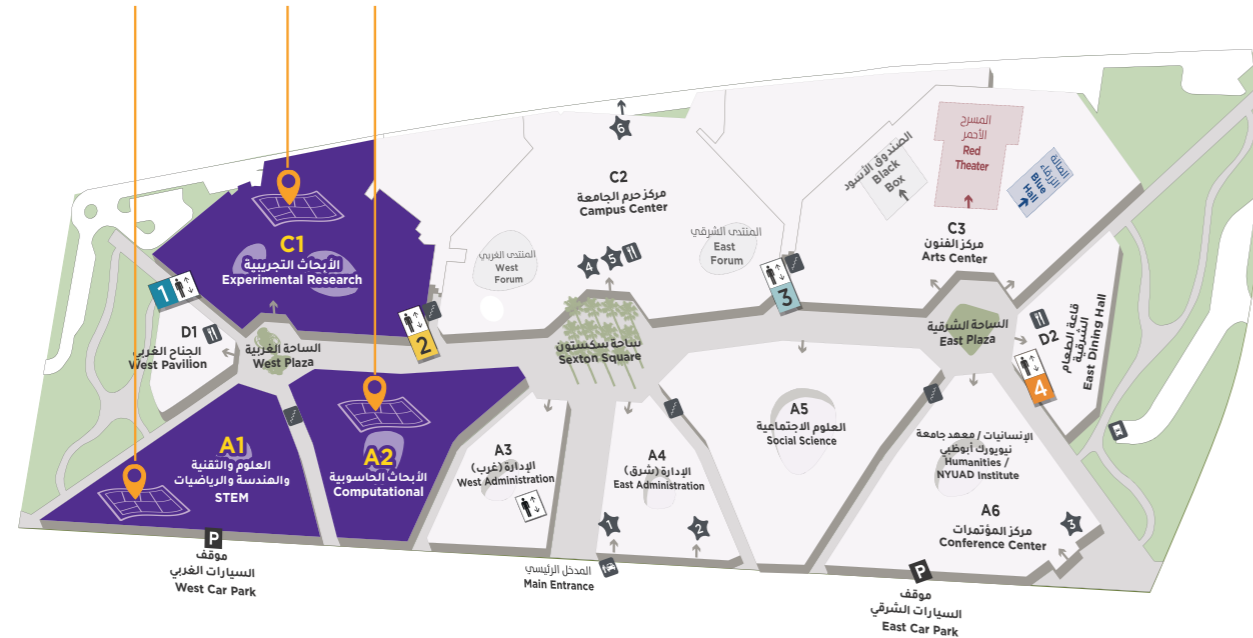


The Division of Science has identified and established areas of excellence in the form of **conceptual multidisciplinary research clusters**. Within these clusters, collaborating faculty with relevant expertise from a **range of disciplines** engage with one another - and with our state-of-the-art core technology platforms and facilities - to ask questions and tackle problems from a **multidisciplinary perspective**. The clusters also infuse and engage with our Research Institute Centers and Graduate Programs.

FACILITIES AND INFRASTRUCTURE

NYUAD is home to more than 80 faculty labs and designated multidisciplinary Research Institute Centers.

FIND US HERE



EXPERIMENTAL RESEARCH BUILDING (ERB)

The ERB is home to many faculty labs and research groups, each one equipped with state-of-the-art technology and equipment. It also houses many Core Technology Platforms, including:

- ❖ Analytical and Materials Characterization
- ❖ High-Throughput Screening
- ❖ Kinesis
- ❖ Light Microscopy
- ❖ Micro-Fabrication
- ❖ Molecular and Cell Biology
- ❖ Spectrometry and Spectroscopy
- ❖ Sequencing



COMPUTATIONAL RESEARCH BUILDING (CRB)

The CRB also houses many faculty labs and research groups, in addition to:

- ❖ The Brain Imaging Core Technology Platform that is equipped with a state-of-the-art 3T Siemens MAGNETOM Prisma MRI scanner.
- ❖ The Center for Research Computing that serves our faculty, researchers, and students with High Performance Computing (HPC) and research computing services.

