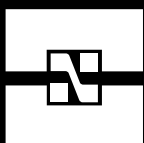




SCIENCE, TECHNOLOGY, ENGINEERING, & MATH (STEM)



North Lake College

DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

WHY STUDY STEM?

The STEM (Science, Technology, Engineering, and Mathematics) fields include a wide range of career fields which have the power to change the world. Scientists and technological innovators drive progress in every industry, and engineers design and build our machines, cars, and infrastructure. The broad skills taught in STEM courses – analytical thinking, the scientific method, math skills, and adaptability to new technology – are useful in every career field, and in everyday life as well.





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BIOLOGY



WHY STUDY BIOLOGY?

Biology courses can provide a foundation for careers in healthcare or the sciences. Many biology students go on to pursue advanced training in nursing, pharmacy, veterinary, or medical schools. Other students choose to focus on the science of biology itself, which can lead to careers in botany, health education, or research. Whichever career path a student takes, biology courses help to explain the structure and function of living organisms and how they interact with their environments.

WHAT CAN I DO WITH AN EDUCATION IN BIOLOGY?

Possible careers include:

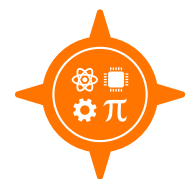
CAREER	AVG. SALARY
Certified radiographer	\$51,500
Respiratory therapist	\$56,260
Physical therapist's assistant	\$59,470
Registered nurse	\$73,550
Occupational therapist	\$84,640

Some career fields listed here require four-year degrees or graduate study. Salary information source: U.S. Bureau of Labor Statistics.

NORTH LAKE COLLEGE COURSE OFFERINGS

- Nutrition and Diet Therapy
- Biology for Science Majors
- Biology for Non-Science Majors
- General Botany
- Environmental Biology
- Anatomy
- Physiology
- Microbiology

Please see course catalog for a complete listing of courses offered.



**SCIENCE, TECHNOLOGY,
ENGINEERING AND MATH**



North Lake College

DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

THE NORTH LAKE EXPERIENCE

North Lake College biology students benefit from dedicated science labs and a full-time, free science learning center that offers tutoring and study rooms. North Lake biology students can also join the Green Club, which tends both outdoor and hydroponic gardens.

Courses are available in the classroom, online, and as dual credit for current high school students.

Many classes at North Lake College are part of the Core Curriculum, a group of courses recognized by public colleges and universities across Texas. Core Curriculum course credit is guaranteed to transfer to any public Texas four-year institution, as well as some private colleges.

Please refer to northlakecollege.edu/schedule for specific course descriptions, additional class options, and prerequisites.

**For more information:
northlakecollege.edu/stem**

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972-273-3239**

**Maria Serra
mserra@dcccd.edu
972-273-3235**

Choose North Lake College to get the courses you need to transfer to a four-year institution or get started on a new career path—at North Lake you can do both!

Begin your college career in a small supportive environment with classes offered days, nights, weekends, on campus and online.

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CHEMISTRY



WHAT CAN I DO WITH AN EDUCATION IN CHEMISTRY?

Possible careers include:

CAREER	AVG. SALARY
Agricultural and food science technician	\$39,910
Chemical technician	\$47,280
Military science and technology researcher	\$50,000
High school chemistry teacher	\$57,200
Technical sales and marketing representative	\$97,650

Some career fields listed here require four-year degrees or graduate study. Salary information source: American Chemical Society.

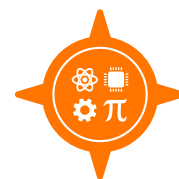
WHY STUDY CHEMISTRY?

Chemistry is the study of matter itself—the study of what the world is made of. Chemistry students explore properties of matter, chemical reactions, and the generation of energy, as well as learn fundamental analytical thinking skills. Graduates are in demand in nearly every technology and manufacturing industry, from oil and gas to perfume and hygiene products. Many chemistry students also find work as consultants, teachers, or technical sales representatives.

NORTH LAKE COLLEGE COURSE OFFERINGS

- Introductory Chemistry I and II
- General Chemistry I and II
- Organic Chemistry I and II

Please see course catalog for a complete listing of courses offered.



**SCIENCE, TECHNOLOGY,
ENGINEERING AND MATH**



North Lake College

DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

THE NORTH LAKE EXPERIENCE

North Lake College chemistry students benefit from dedicated science labs with state-of-the-art equipment, plus a full-time, free science learning center that offers tutoring and study rooms. At North Lake, professors are focused entirely on teaching, not research, giving personal attention to every student.

Courses are available in the classroom, online, and as dual credit for current high school students.

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**For more information:
northlakecollege.edu/stem**

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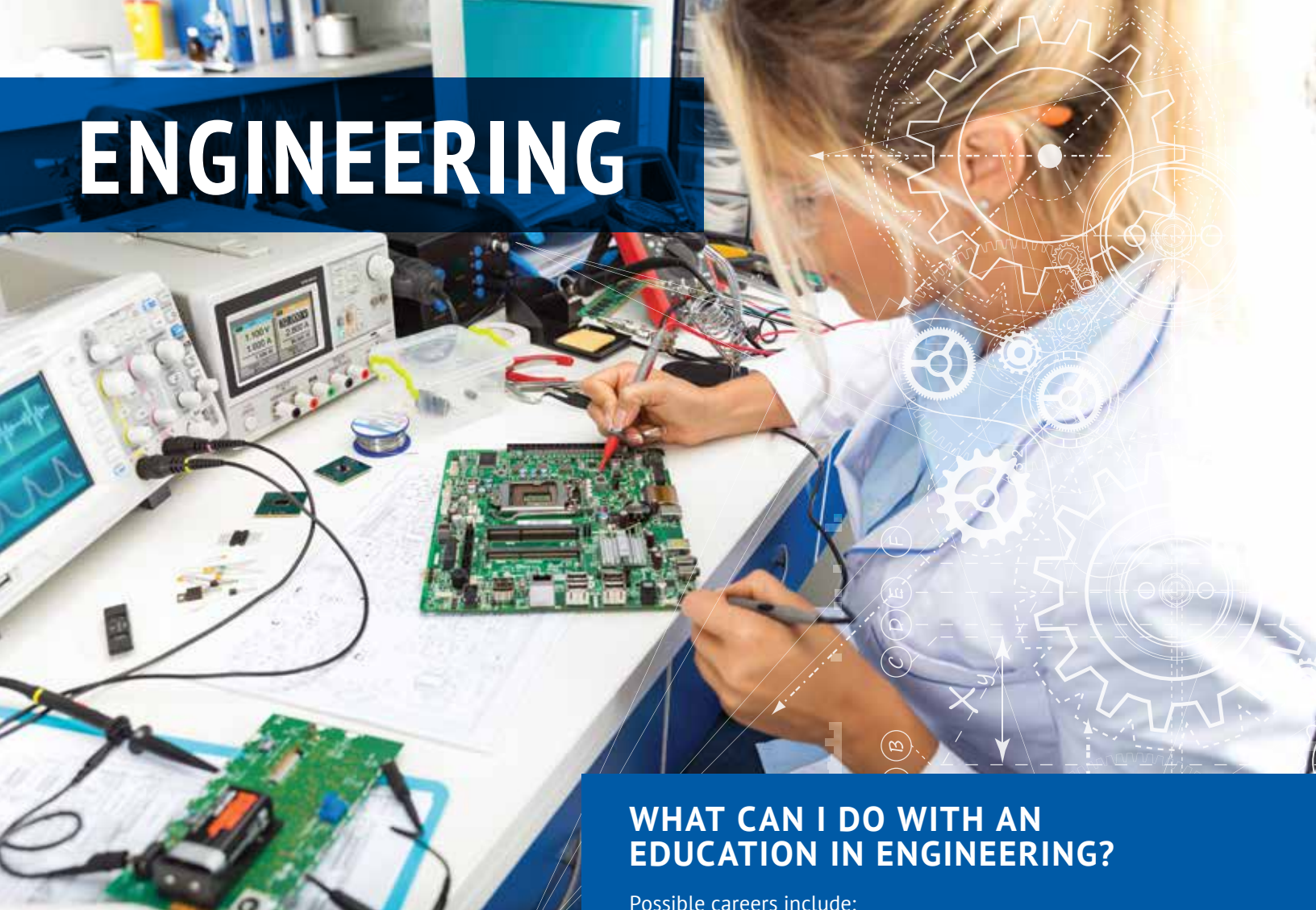
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ENGINEERING



WHAT CAN I DO WITH AN EDUCATION IN ENGINEERING?

Possible careers include:

CAREER	AVG. SALARY
Surveyor	\$43,340
Civil engineering technician	\$51,620
Electrical engineering technician	\$63,660
Agricultural engineer	\$74,780
Civil engineer	\$84,770

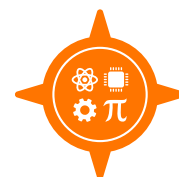
Some career fields listed here require four-year degrees or graduate study. Salary information source: U.S. Bureau of Labor Statistics.

WHY STUDY ENGINEERING?

Engineers are problem solvers who find practical solutions to technical problems while driving innovation. The study of engineering provides diverse opportunities, including careers in renewable energy, civil engineering, robotics design, and chemical engineering. Civil, environmental, and biomedical engineers are expected to be in especially high demand over the next decade.

NORTH LAKE COLLEGE COURSE OFFERINGS

North Lake College does not offer engineering-specific classes. However, NLC courses in physics, chemistry, geology, mathematics, and other fields help to form the foundation of engineering studies. Many students take required science and math classes at North Lake before transferring to a four-year university to complete their engineering degree.



**SCIENCE, TECHNOLOGY,
ENGINEERING AND MATH**



North Lake College

DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

THE NORTH LAKE EXPERIENCE

North Lake College engineering students experience hands-on learning with new technology, including designing and building their own robots. North Lake students also benefit from state-of-the-art classroom facilities and professors with decades of industry experience.

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**For more information:
northlakecollege.edu/stem**

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**Marie Kohrmann
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ENVIRONMENTAL SCIENCE



WHAT CAN I DO WITH AN EDUCATION IN ENVIRONMENTAL SCIENCE?

Possible careers include:

CAREER	AVG. SALARY
Environmental field technician	\$45,490
Conservation scientist	\$60,970
Wildlife biologist	\$62,290
Environmental scientist	\$69,400
Atmospheric scientist or meteorologist	\$92,070

Some career fields listed here require four-year degrees or graduate study. Salary information source: U.S. Bureau of Labor Statistics.

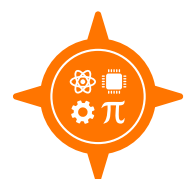
WHY STUDY ENVIRONMENTAL SCIENCE?

Environmental scientists will be some of the most important workers and thinkers of the coming century, as the world grapples with the challenges of climate change. Environmental science is an interdisciplinary field combines elements of biology, ecology, chemistry, and geology to study the earth's atmosphere, create renewable energy solutions, manage natural resources, and reduce pollution. Environmental scientists are problem-solvers who are in high demand around the globe.

NORTH LAKE COLLEGE COURSE OFFERINGS

- Environmental Science I and II

Please see course catalog for a complete listing of courses offered.



**SCIENCE, TECHNOLOGY,
ENGINEERING AND MATH**



North Lake College

DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

THE NORTH LAKE EXPERIENCE

North Lake College environmental science students benefit from dedicated science labs with state-of-the-art equipment, plus a full-time, free science learning center that offers tutoring and study rooms. Students also have the opportunity to volunteer with local environmental organizations, participate in the campus Green Club and community garden, and learn outside the classroom with field studies trips to the Texas Gulf Coast and Hawaii.

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**For more information:
northlakecollege.edu/stem**

**Charles Siegel
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FIELD STUDIES



WHAT CAN I DO WITH AN EDUCATION IN FIELD STUDIES?

Possible careers include:

CAREER	AVG. SALARY
Science teacher	\$59,170
Conservation scientist	\$60,970
Wildlife biologist	\$62,290
Environmental scientist	\$69,400
Geoscientist	\$89,850

Some career fields listed here require four-year degrees or graduate study. Salary information source: U.S. Bureau of Labor Statistics.

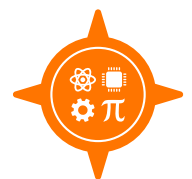
WHY PARTICIPATE FIELD STUDIES?

The classroom can be a great place to learn, but it doesn't compare to the experience of learning firsthand out in the ultimate laboratory: nature. For decades, North Lake College students have been studying biology in the wild and geology on volcanoes through field studies courses.

NORTH LAKE COLLEGE COURSE OFFERINGS

- Winter Term in Kauai, Hawaii: Biology and botany (8 credit hrs.)
- May Term in Port Aransas, Texas: Biology and botany (8 credit hrs.)
- Summer Term in Hawaii: Geology, biology, botany, photography, and fitness (16 credit hrs.)

Please see course catalog for a complete listing of courses offered.



**SCIENCE, TECHNOLOGY,
ENGINEERING AND MATH**



North Lake College

DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

THE NORTH LAKE EXPERIENCE

Field studies programs typically involve a series of lecture sessions on campus or online, followed by a trip to the Texas Gulf Coast or Hawaii to learn principles of biology, botany, geology, and more. Field studies trips are made possible by North Lake's partnerships with local colleges, nature preserves, and parks.

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Please refer to northlakecollege.edu/schedule for specific course descriptions, additional class options, and prerequisites.

**For more information:
northlakecollege.edu/stem**

Gulf Coast Field Studies/Winter Hawaii Field Studies

**Mike Huddleston
mhuddleston@dccd.edu
972-273-3528**

Summer Hawaii Field Studies

**Amanda Mello
hawaii@dccd.edu
972-273-3279**

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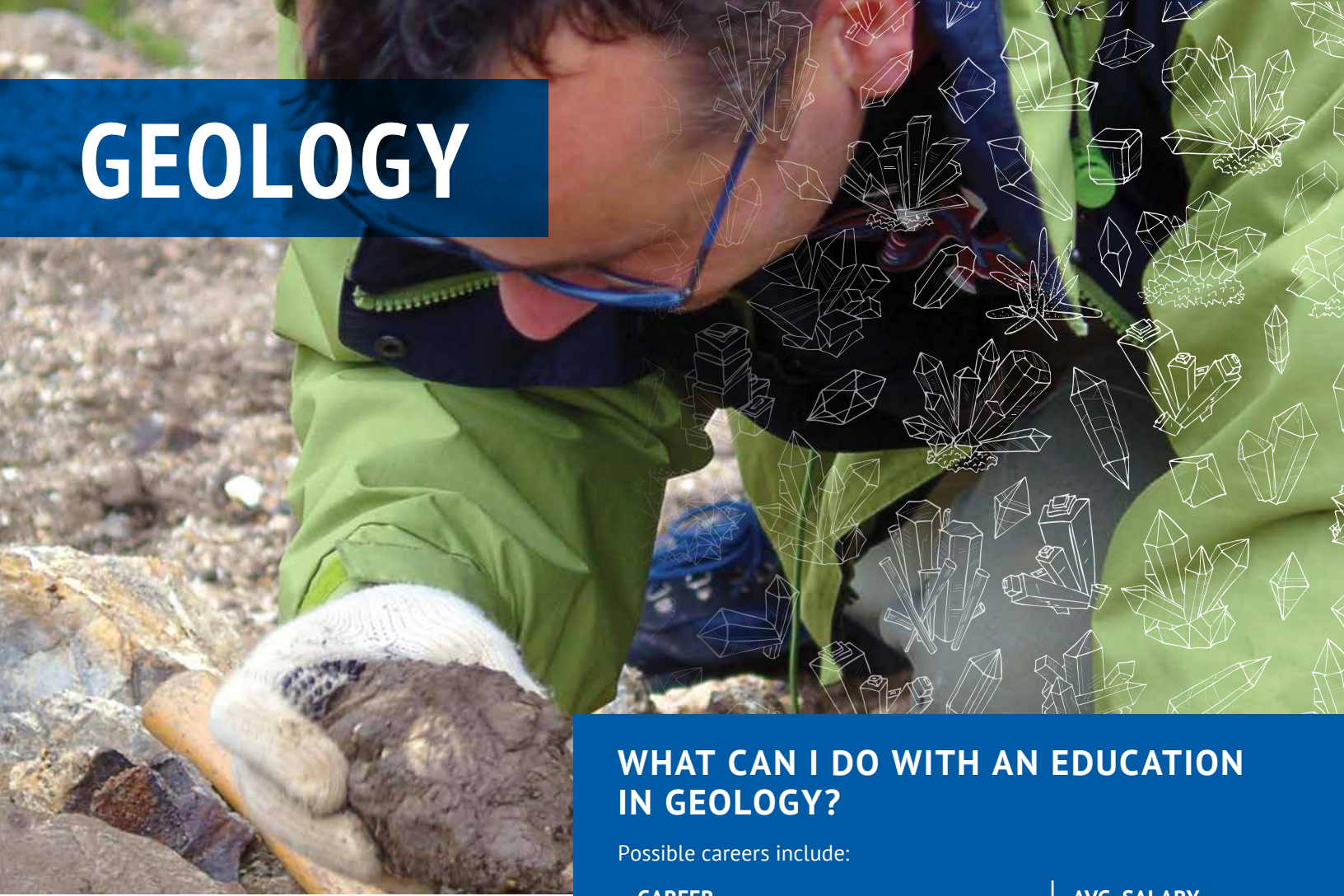
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GEOLOGY



WHAT CAN I DO WITH AN EDUCATION IN GEOLOGY?

Possible careers include:

CAREER	AVG. SALARY
Surveyor	\$43,340
Environmental field technician	\$45,490
Petroleum technician	\$54,190
Teacher	\$59,170
Conservation scientist	\$60,970
Geographer	\$76,860

Some career fields listed here require four-year degrees or graduate study. Salary information source: U.S. Bureau of Labor Statistics.

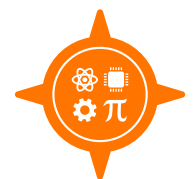
WHY STUDY GEOLOGY?

Geology is the study of the earth and its structure. Studying geology can be an entryway into a career in conservation, park management, climate research, water resource management, mining, or petroleum engineering. Some geologists also study in specialty fields like earthquakes, fossils, floods, meteorology, or mapping and surveying.

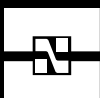
NORTH LAKE COLLEGE COURSE OFFERINGS

- Earth Sciences
- Physical Geology
- Historical Geology
- Oceanography
- Meteorology

Please see course catalog for a complete listing of courses offered.



**SCIENCE, TECHNOLOGY,
ENGINEERING AND MATH**



North Lake College

DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

THE NORTH LAKE EXPERIENCE

North Lake College geology students benefit from dedicated science labs with state-of-the-art equipment, plus a full-time, free science learning center which offers tutoring and study rooms. Students also have the opportunity to take introductory geology on a field study trip to Hawaii which also includes several other core science courses.

Courses are available in the classroom, online, and as dual credit for current high school students.

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**For more information:
northlakecollege.edu/stem**

**Len Kubicek
lenkubicek@dcccd.edu
972-273-3508**

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HEALTH PROFESSIONS



WHY STUDY HEALTH PROFESSIONS?

Healthcare professions attract compassionate individuals who want to spend their career improving the lives of others. Careers in healthcare are diverse and include more than doctors, surgeons, and nurses. Trained technicians operate lab and diagnostic machinery, physical therapists assist clients on the road to rehabilitation, and pharmacists fill prescriptions and explain medications to users. With other specialties like dental hygienists, occupational therapists, and veterinary technicians in high demand, health professions offer many ways to care for others.

WHAT CAN I DO WITH AN EDUCATION IN HEALTHCARE?

Possible careers include:

CAREER	AVG. SALARY
Veterinary technologist	\$33,400
Medical laboratory technician	\$51,770
Diagnostic sonographer	\$65,620
Dental hygienist	\$74,070
Radiation therapist	\$80,570

Some careers listed may require a bachelor's degree or higher. Salary information source: U.S. Bureau of Labor Statistics

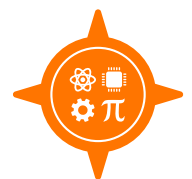
NORTH LAKE COLLEGE COURSE OFFERINGS

- Biology
- Chemistry
- Physics
- Anatomy
- Physiology
- Nutrition

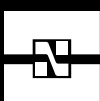
CONTINUING EDUCATION COURSE OFFERINGS

- CPR Training
- EKG Technician Training
- Electronic Health Records
- Medical Coding and Billing
- Medical Terminology
- Phlebotomy
- Pharmacy Technician Certification Review

Please see course catalog for a complete listing of courses offered.



**SCIENCE, TECHNOLOGY,
ENGINEERING AND MATH**



North Lake College

DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

THE NORTH LAKE EXPERIENCE

North Lake College healthcare students benefit from a broad background in sciences, the starting point for any health education. Students learn in dedicated science labs with state-of-the-art equipment, and have access to a full-time, free science learning center that offers tutoring and study rooms. Students can join the campus Health Professions Club to begin their professional networking. North Lake College also serves as a host for El Centro College's nursing program

Courses are available in the classroom, online, and as dual credit for current high school students.

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**For more information:
northlakecollege.edu/stem**

**Pius Aboloye
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972-273-3251**

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MATHEMATICS

WHY STUDY MATHEMATICS?

College-level study in mathematics provides students with skills that are prized in a variety of career fields, including business, entrepreneurship, accounting, engineering, statistics, and more. Logic and quantitative reasoning attained in mathematics courses can also assist with effective decision making in any career field. College math classes are frequently prerequisites for advanced studies in science, medicine, and management fields.

NORTH LAKE COLLEGE COURSE OFFERINGS

- College and Linear Algebra
- Plane Trigonometry
- Elementary Statistical Methods
- Differential Equations
- Mathematics for Business and Social Sciences
- Business Calculus
- STEM Calculus
- Contemporary Mathematics

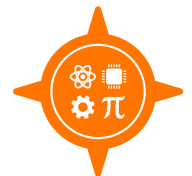
Please see course catalog for a complete listing of courses offered.

WHAT CAN I DO WITH AN EDUCATION IN MATHEMATICS?

Possible careers include:

CAREER	AVG. SALARY
Survey researcher	\$54,270
Cost estimator	\$63,110
Operation research analyst	\$81,390
Mathematician and statistician	\$84,760
Actuaries	\$101,560

Some career fields listed here require four-year degrees or graduate study. Salary information source: U.S. Bureau of Labor Statistics



**SCIENCE, TECHNOLOGY,
ENGINEERING AND MATH**



North Lake College

DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

THE NORTH LAKE EXPERIENCE

North Lake College mathematics students benefit from hands-on instruction and professors who are committed to excellence in teaching. The dedicated Math Center provides free resources and tutoring to all students enrolled in NLC math classes, with computers and graphing calculators available to students who need them.

Courses are available in the classroom, online, and as dual credit for current high school students.

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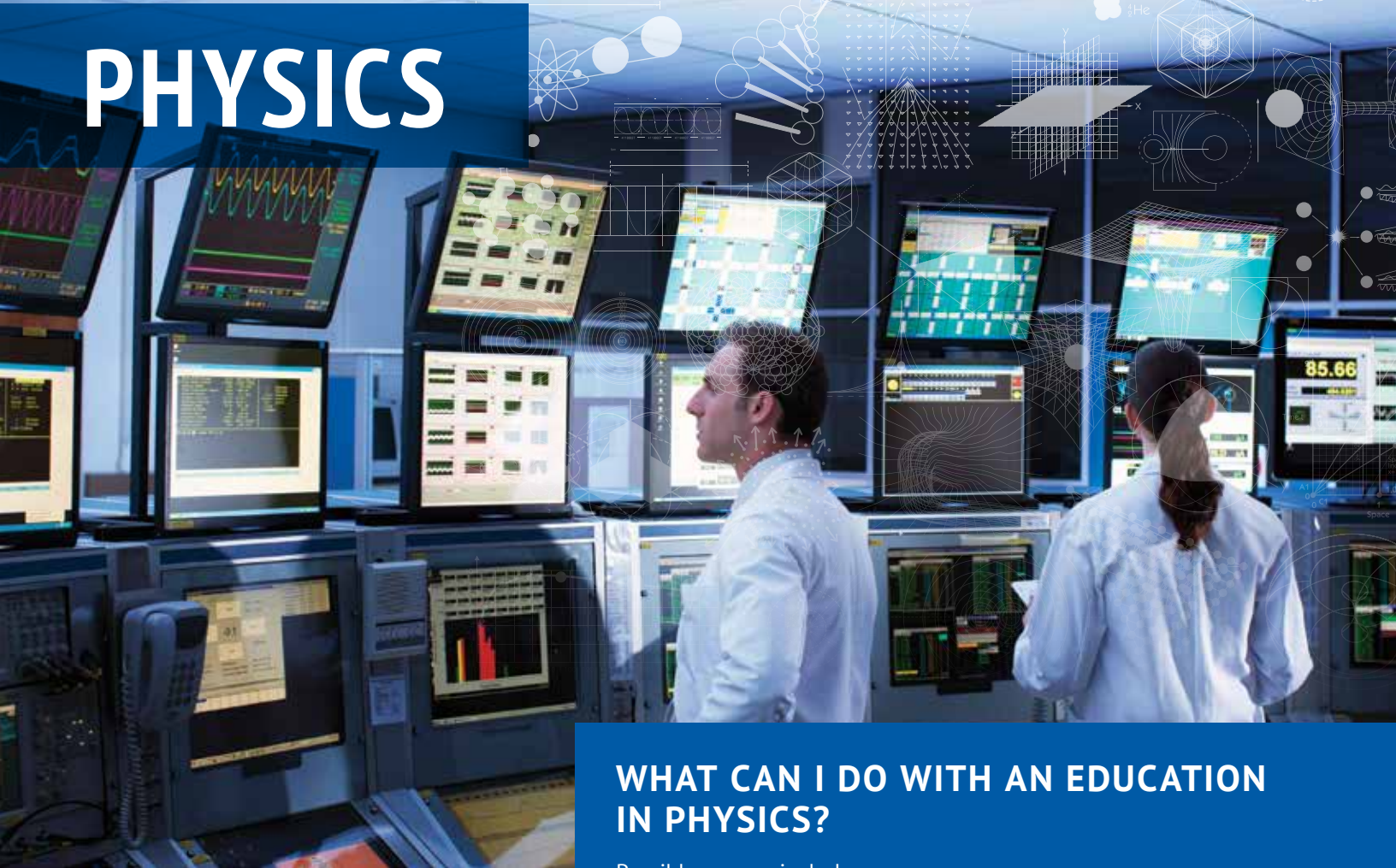
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PHYSICS



WHAT CAN I DO WITH AN EDUCATION IN PHYSICS?

Possible careers include:

CAREER	AVG. SALARY
Civil engineering technician	\$51,620
Aerospace operations technician	\$67,240
Mechanical engineer	\$85,880
Biophysicist	\$91,190
Computer hardware designer	\$115,120

Some careers listed may require a bachelor's degree or higher. Salary information source: U.S. Bureau of Labor Statistics and DEA.gov.

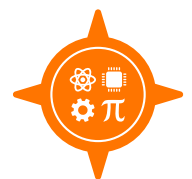
WHY STUDY PHYSICS?

Physics is the study of energy, matter, and the forces that shape the world. Physics courses are typically prerequisites for continued studies in many other scientific fields, including geology, energy-sector fields, and engineering. It can also be a gateway to employment in specialized fields such as acoustics, nanotechnology, research science, astronomy, and education.

NORTH LAKE COLLEGE COURSE OFFERINGS

- College Physics I and II
- Stars and Galaxies
- Solar System
- Elementary Physics I and II
- Physical Science I and II
- University Physics I and II

Please see course catalog for a complete listing of courses offered.



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**Maria Hossu
mhossu@dccd.edu
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