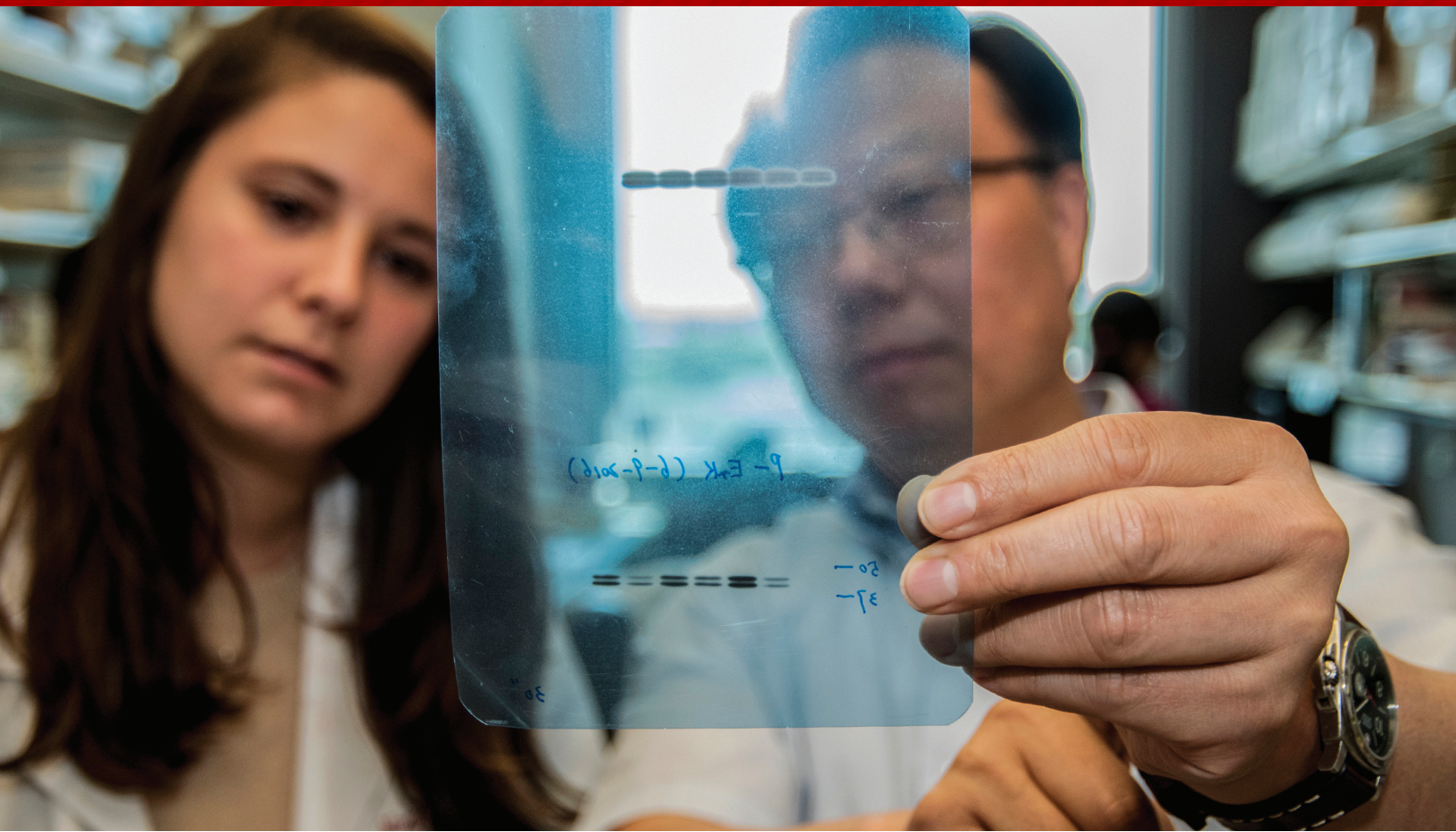


# NATURAL SCIENCES

*[louisville.edu/artsandsciences](http://louisville.edu/artsandsciences)*



As astrophysicist Neil deGrasse Tyson observed, “For me, I am driven by two main philosophies: know more today about the world than I knew yesterday. And along the way, lessen the suffering of others.” Students in the natural sciences will be at the forefront of exciting transformations that enhance our understanding of the physical world and improve the quality of human life. You will develop the ability to think critically, solve problems and develop new and innovative ideas. Our renowned faculty work with students throughout their undergraduate program through research opportunities, study abroad, publications and student organizations.

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The natural science programs are housed within the College of Arts and Sciences, UofL’s largest and most diverse academic unit. The three A&S divisions are humanities, natural sciences and social sciences. We offer 45 undergraduate degree programs, 59 minors, accelerated degree programs that can help you earn a master’s degree or a law degree more quickly, undergraduate certificates, undergraduate research and teaching assistant opportunities, study-abroad programs and more.



# Beyond the classroom

## RESEARCH

Undergraduates may participate in ongoing research with the faculty on both the Belknap and the Health Sciences campuses. Undergraduate research opportunities are available in astrophysics, atomic physics, biology, chemistry, condensed matter physics, and high-energy physics. Qualified students may also obtain undergraduate teaching assistantships in biology, chemistry, geosciences, math, and physics and astronomy.

## CO-OP & INTERNSHIP OPPORTUNITIES

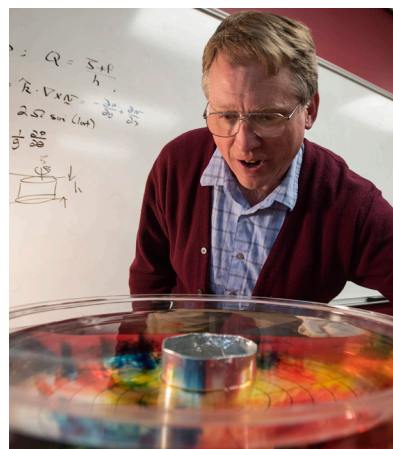
Natural science majors may pursue internship opportunities with several local organizations. You can gain real-world experience at the Horner Bird and Wildlife Sanctuary, the Ohio River, the Louisville Zoo and the Bernheim Arboretum and Research Forest. Chemistry and math offer co-op programs, through which you can work for college credit.

## STUDENT ORGANIZATIONS

You may be interested in joining academic honors societies or student organizations like the Actuarial Club, Math Club, Society of Physics Students or the undergraduate societies in biology, chemistry or physics.

## LIVE AND LEARN

Live and study in one of our Living-Learning or Themed Communities (LLC/TC)! Participants will have increased faculty and staff engagement, opportunities to actively engage in community-specific programs, and be exposed to campus resources relevant to their academic, personal, and/or professional endeavors. Visit [uofl.me/llc](http://uofl.me/llc) to learn more.



## DEGREE PROGRAMS

### BIOLOGY

Biology explores how plants, animals, fungi, and bacteria function, interact, evolve and behave and how they are affected by human activity. The Biology Department offers you bachelor degree tracks in genetics/molecular biology and ecology, as well as an accelerated BA/MA program. You will be able to participate in pre-medical and other undergraduate student organizations, internships and independent research projects with science faculty. Biology majors and minors articulate well with sustainability, neuroscience, psychology and other degrees.

### CHEMISTRY

The chemistry program prepares professional chemists for industrial, governmental, academic and research positions. The program offers broad pre-professional education. Specialized tracks in biochemistry and business are available.

### MATHEMATICS

Math covers a wide variety of topics such as algebra, calculus, geometry, abstract mathematics, numerical analysis, and probability. The department also offers a track in actuarial science. This breadth is well-suited for students interested in secondary certification in mathematics as well as students interested in pursuing graduate study. The department also offers accelerated BA/MA or BS/MA options.

### NEUROSCIENCE

The neuroscience program is an interdisciplinary degree with a STEM and health focus that trains you to critically assess and analyze ideas and concepts from the diverse disciplines of the field of neuroscience. You receive an in-depth understanding of nervous system function, from the molecular level to the cognitive sciences, and become familiar with the techniques used to measure nervous system function from the cellular level to the whole brain.

### PHYSICS

Physics is the study of matter and the observable universe through time and space. The department offers a BA degree, which offers pre-professional education for such fields as medicine, patent law, teaching, technical writing, and technical sales. The BS degree is intended as preparation for entry into the technical workforce or graduate programs in physics and other scientific or engineering fields. The department also offers an accelerated BS/MS option.

### PSYCHOLOGY

The psychology program explores the bases for human behavior at multiple levels, ranging from brain organization to interpersonal relationships. You will develop critical thinking and communication skills that allow you to apply psychological principles to address personal and societal issues. The psychology degree prepares you for bachelor's level professional work or for health-career graduate education by meeting prerequisite requirements for medical, dental and physician assistant schools.

## CAREER OPPORTUNITIES

Natural science majors pursue careers in many areas, including: actuarial science, business and industry, conservation, education, environmental policy and natural resources management, government, health care and medicine, research and science writing. If you are interested in dental, medical or veterinary school, a natural sciences major will prepare you for these professional schools.

## PRE-PROFESSIONAL PROGRAMS

- » Pre-Dentistry
- » Pre-Law
- » Pre-Medicine
- » Pre-Optometry
- » Pre-Pharmacy
- » Pre-Physical Therapy
- » Pre-Veterinary Medicine

## GUARANTEED ENTRANCE PROGRAMS

UofL offers special programs if you plan to pursue a professional degree: Guaranteed Entrance to Medical School (GEMS) and Guaranteed Entrance to Dental School (ULEAD). These programs will help you secure a spot in two of our most selective professional schools.

For more information about GEMS and ULEAD, please visit:  
[uofl.me/guaranteed-entrance](http://uofl.me/guaranteed-entrance)

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Are you interested in designing your own multidisciplinary major focused on your interests and goals? Qualified students may do so through the Liberal Studies/ Individualized Major program. For more information:  
[louisville.edu/liberalstudies](http://louisville.edu/liberalstudies)



## APPLY

Ready to join the Cardinal Family?  
Apply now at: [louisville.edu/apply](https://louisville.edu/apply)

The application process is easy. No letters of recommendation or essays are required. We'll do everything we can to help make your dream of attending and succeeding at UofL a reality.

Admission Guidelines: [uofl.me/ftf-adm-guidelines](https://uofl.me/ftf-adm-guidelines)

Transfer Admission Guidelines:  
[uofl.me/trf-admissions](https://uofl.me/trf-admissions)



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