



Fisk-Vanderbilt Master's-to-Ph.D. Bridge Program



Jedidah Isler, astrophysics

*Nothing worthwhile is ever easy.
We just help make it possible.*

you can
Reach for the Ph.D.
tú puedes

Who should apply

- Students with undergraduate majors in physics, biology, chemistry, computer science, math, and other science disciplines
- Students motivated to pursue the Ph.D., but who require additional course work, training, and/or research experience

How the program works

- Earn a master's degree at Fisk University, with full funding support.
- Along the way, receive valuable research experience with caring, dedicated mentors.
- Get fast-track admission to one of the participating Vanderbilt Ph.D. programs, with full funding support.

www.physics.vanderbilt.edu/bridge



VANDERBILT



Helen Jackson, imaging science



John Rigueur, materials science



Vincent Alexander, biophysics

physics and astronomy

biomedical sciences • materials science • imaging science

Get the preparation you need to earn a Ph.D.

Are you passionate about a career in the physical or biomedical sciences but need additional course work, training, or research experience before beginning Ph.D.-level work? By completing a master's degree under the guidance of caring faculty mentors, students in the Fisk-Vanderbilt Master's-to-Ph.D. Bridge program develop the strong academic foundation,



Melissa Harrison, materials science

research skills, and one-on-one mentoring relationships that will foster a successful transition to the Ph.D. The program, which usually requires two years, is flexible and is individualized to the goals and needs of each stu-

dent. Courses are selected to address any gaps in undergraduate preparation, and research experiences are provided that allow students to develop—and to demonstrate—their full scientific talent and potential. The program provides:

- full access to instructional opportunities at both Fisk University and Vanderbilt University, leading to the completion of most or all course work required for the Ph.D.;
- research performed with Fisk and Vanderbilt faculty, leading to the selection of a Vanderbilt Ph.D. adviser;
- a nurturing, friendly academic environment and a warm social network with other Bridge students, postdocs, and faculty;
- full funding support, including tuition waiver, monthly stipend, and insurance.

Areas of Study

All students in the Master's-to-Ph.D. Bridge program begin by working toward a master's degree in physics. Thus all students complete a common core of graduate-level physics courses. In addition, electives are chosen in consultation with the student's Fisk and Vanderbilt advisers based upon the intended area of Ph.D. study. The areas of Ph.D. study currently available to Bridge program students are listed here, along with the Vanderbilt department, program, or research center corresponding to each:

Physics and Astronomy Department

- Astronomy, astrophysics, cosmology
- Biological physics
- Condensed matter physics
- Nuclear and particle physics
- Medical and health physics

Interdisciplinary Program in Materials Science and Nanophysics

- Carbon nanostructures
- Cellular-nanostructure interface

- Nanoscale devices and nanocrystals
- Spintronics in nano-structured materials
- Linear and non-linear optical properties of nanoparticles

Biomedical Sciences Research and Education Training Program

- Biophysics
- Chemical and physical biology
- Computational biology
- Molecular biology and physiology
- Structural biology

Institute of Imaging Science

- Cancer and cardiovascular imaging
- Cellular and molecular imaging
- Functional and structural neuro-imaging
- Image processing and analysis
- Physics of imaging and spectroscopy



Yilen Gomez, astrophysics

How to Apply and Whom to Contact

Admission to the Master's-to-Ph.D. Bridge program begins with an application to the master's degree program in physics at Fisk University. We urge all prospective Bridge applicants to contact one of the program coordinators before applying. We will gladly speak with you about the program, answer any questions you may have, help you determine whether the program is right for you, and guide you through the application process.

An application to the Master's-to-Ph.D. Bridge program consists of the following:

- Fisk master's degree application form
- Undergraduate transcript(s)
- Personal statement
- General GRE scores

Application forms and instructions are available online from the Bridge program Web site: www.physics.vanderbilt.edu/bridge

Primary faculty contacts:

Professor Keivan Stassun
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(615) 322-2828

Professor Arnold Burger
Fisk University
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Enrique Jackson, materials science

www.physics.vanderbilt.edu/bridge

Life in Nashville

Nashville has emerged as a vibrant, progressive, modern city, dubbed variously as "Music City USA" and "Athens of the South." The city boasts fourteen colleges and universities, attracting some 30,000 students from the United States and around the world. Nashville has been consistently ranked one of America's most liveable cities.

The city claims one of the largest urban parks and greenway systems in the United States.

The arts flourish, too. The Frist Center for the Visual Arts presents exhibitions of the world's greatest art. The Tennessee Performing Arts Center hosts perform-

ances by the symphony, opera, ballet, and theater groups.

Nashville is home to the NFL Tennessee Titans and the NHL Nashville Predators. The Gaylord Entertainment Center is the venue for many rock and pop concerts and other events.

Downtown living in high-rise apartment buildings and stylish lofts is also on the upswing. Historic Second Avenue offers a lively nightlife, with restaurants, coffee houses, and nightclubs in renovated warehouses that echo Nashville's history of river commerce.

