

# YOU'RE READY TO BE A BEAR. WHAT SHOULD YOU DO NEXT?

## Visit in person or take a virtual tour

We'd love to welcome you to campus. You can see where you will be learning, living and hanging out. We also offer a virtual tour online. Any time you want, you can explore 360-degree views of indoor and outdoor sites. You will be able to go inside academic buildings and campus landmarks.

 [MissouriState.edu/Visit](https://MissouriState.edu/Visit)

## Apply for admission

The earlier you apply, the better your chances to be considered for the maximum amount of financial aid. Everything you need is online.


 [MissouriState.edu/Apply](https://MissouriState.edu/Apply)

## Have any questions?

Contact the physics department advisors or department head.

 [Physics.MissouriState.edu](https://Physics.MissouriState.edu)

 [Physics@MissouriState.edu](mailto:Physics@MissouriState.edu)

 417-836-5131

## We're social

 [MSUPAMS2](https://www.instagram.com/MSUPAMS2)

 [PAMS@MSU](https://twitter.com/PAMS@MSU)

 [Blogs.MissouriState.edu/Physics](https://Blogs.MissouriState.edu/Physics)

**Missouri  
State**

DEPARTMENT of  
PHYSICS, ASTRONOMY  
AND MATERIALS SCIENCE



**IT'S TIME  
TO RESEARCH  
YOUR FUTURE.**

**MAKE YOUR MISSOURI STATEMENT.**

**[Physics.MissouriState.edu](https://Physics.MissouriState.edu)**



Are you curious about matter, space and time? Are you interested in solving problems? If so, physics may be the field for you! Physics turns knowledge into advancements. Physicists make a difference. Their innovations may be used in health care, space travel, technology, energy, environmental protection, food and more. Get ready to use science, math and creativity to discover why and how almost everything in the world works.



## Your program options

We offer several track options for students earning a bachelor's degree in physics:

- **Astronomy and astrophysics**

This is the study of the things that make up our universe. This includes planets, stars, galaxies and cosmology, which is the study of the universe as a whole.

- **Career prep physics**

Physics studies how the physical world operates. Physicists study motion, energy, electricity, magnetism, light and time, to name just a few things.

- **Materials physics**

This deals with the substances that make up everything in the world. Materials scientists use existing materials and invent new ones to solve many different kinds of problems. They are often on the cusp of scientific advances.

- **Teaching prep physics**

This option prepares you to teach high school physics. To receive certification to teach in a public school, you will also need to earn a Master of Arts in Teaching or equivalent degree. You may complete an MAT program at MSU.

## Why you should choose MSU for this program

- **We focus on you.** What really sets us apart from many physics programs is the attention you can expect as an undergraduate student. You can receive one-on-one time with your professors and advisors. We have strong ties with local companies, who offer internship opportunities and jobs to students. Our alumni go on to careers around the world, and are fully prepared for graduate studies.
- **You will learn how to create, organize and conduct research.** You can have hands-on experiences. Some students have been listed as co-authors of publications, or presented at the American Physical Society's annual meeting.
- **You will have access to the laboratories and equipment you need.** Do cutting-edge work in some of the most advanced physics, astronomy and materials sciences facilities in the Midwest. We also have Baker Observatory off campus, with telescopes that let you explore space and capture amazing astronomical images.
- **You can have field experiences.** You could go to locations such as Argonne National Laboratory in Illinois (a large federal research and development center), Fermi National Accelerator Laboratory near Chicago (the site of an energy particle accelerator) and to national space observatories.
- **You can make a difference and give back.** Our students are able to serve in the community. They have been judges for science fairs and shared their knowledge with younger students.



**Missouri State  
University is a partner  
in the Missouri Space  
Grant, which receives  
funding from NASA.**

**Student interns get paid for their research efforts, just like professional astronomers!**

# What can you do with this degree?

## Our graduates often join these careers or industries:

- Aerospace
- Astronomy
- Biotechnology
- Defense/military
- Education
- Engineering
- Materials engineering
- Medical diagnostics and instrumentation
- Medicine
- Nuclear physics
- Particle/high-energy physics
- Product development
- Research
- Science museums
- Technology/electronics
- University and government laboratories

## A sample of the places where graduates work:

- 3M
- The Boeing Company
- Brewer Science
- Dynatek Laboratory Inc.
- EaglePicher Technologies
- GlobalFoundries
- Google
- Honeywell International Inc.
- IBM
- Intel
- John Deere
- Lockheed Martin Corporation
- National Institutes of Health
- Northrop Grumman
- NorthStar Battery



## CAREER OUTLOOK

**8%**  
**expected job growth  
for physicists and  
astronomers through 2031  
(faster than average)**

### Most physicists and astronomers are employed in:

- **Scientific research.**
- **Development services.**
- **Education/colleges and universities.**

Source: U.S. Bureau of Labor Statistics

The United States has a severe shortage of qualified physics teachers.

**The need for physics teachers is greater than nearly any other subject area, according to an annual survey of school districts.**

Source: PhysTEC, a partnership between the American Physical Society and the American Association of Physics Teachers

**Median national starting salary  
for those with a bachelor's degree  
in physics:**

**\$74,000**

Source: National Association of Colleges and Employers winter 2022 salary survey



## STUDENT ORGANIZATIONS

- American Astronomical Society
- American Physical Society
- Materials Research Society
- Missouri Association of Physics Teachers
- Ozarks Amateur Astronomer Club
- Sigma Pi Sigma physics honors society
- Society of Physics Students



## Academic programs

What types of classes will you take?

Find descriptions online:

**Physics.MissouriState.edu/Courses**

### UNDERGRADUATE

#### Major

Physics

*With options in astronomy and astrophysics; career prep; materials physics or teaching prep physics*

#### Minors

Astronomy/Astrophysics

Environmental Physics Technology

Physics

#### Certificates

Biomedical Physics

Computational Science

### GRADUATE

#### Master's degrees

Materials Science\*

Master of Natural and Applied Science with an emphasis in Physics\*

Secondary Education with an option in Physics

*\* These master's degrees have an accelerated option. If you are an undergraduate student who meets certain requirements, you can enroll in graduate-level courses at the same time you are earning your bachelor's degree. You could earn both a bachelor's and master's together in just five years with some accelerated options!*



## You can be part of our annual research day

**All undergraduate students in the College of Natural and Applied Sciences can participate in CNAS Undergraduate Research Day. You could submit your work, which is then displayed and judged. Cash awards are given for the judges' top picks!**



## WANT TO LIVE WITH OTHER BEARS WHO LOVE WHAT YOU LOVE?

In our residence hall living-learning communities, or LLCs, students with similar academic interests live, study and socialize together. We have a STEM LLC for science, technology, math and engineering majors in a selected hall. It doesn't cost you any more to live in the LLC and get all the educational and personal benefits!







## MEET MISSOURI STATE

Missouri State University is a public university system with an enrollment of more than 20,000 students who come from around the state and the world. The main campus is in Springfield, Missouri. There are three other physical campuses, two in Missouri — West Plains and Mountain Grove — and one in Dalian, China.

What makes Missouri State different? We're a big state university, but it doesn't feel that way. Just visit our campus. You'll experience a close-knit, friendly community.

When you're here, you're a Citizen Bear. You'll learn how to see the world differently, and follow your path with integrity. When you graduate, you're prepared to be a global citizen in the truest sense of the word. You'll bring more to your career and your community.

You'll be ready to Make Your **Missouri Statement**.

**You make your statement.  
We'll put the cost within reach.**

Missouri State's philosophy: A quality college education should be within the financial reach of all students. Our total costs are lower than most other universities in the state and well below the national average. We invite you to compare.

If you are from outside Missouri and will be an entering freshman or transfer student, you may qualify for a full waiver of nonresident fees if you meet ACT, GPA or class-rank qualifications.

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departmental scholarships and other financial awards just for students pursuing a degree in physics, astronomy or materials science



## WHY IS MISSOURI STATE A GREAT VALUE?

Find out! **MissouriState.edu/Costs**