Are you a transfer student interested in majoring in physics while at UNC Chapel Hill? Here are a few helpful tips:

**General information about the Physics Program**
(UNC-CH Chapel Hill Undergraduate Bulletin, 2016)
Physics is the study of fundamental questions about nature and the universe. It spans scales across time and space, examining the movements of the tiniest things on earth – sub-atomic particles – to the largest – celestial bodies and black holes. Physics majors gain a foundation in understanding and thinking about how the world works and how we apply this knowledge to enhance our daily lives via technology and innovation. Students have opportunities to specialize in Astronomy, Biological Physics, Energy, or Qualitative Finance. Physics majors can also get involved by joining societies such as the Society of Physics Students or Women in Physics, attending departmental events, and participating in cutting-edge research.

**Careers and Skills** // A degree in physics will prepare you for a variety of careers.
A degree in physics provides access to many opportunities because physicists are trained to solve interesting and complex problems. For example, physicists can work in medical physics to deliver radiation treatments safely and effectively to patients, or in quantitative finance, where physicists build mathematical models of investments to guide financial decisions. Those interested in writing may pursue a career in science journalism. Those interested in law can pursue a career in patent law. Most physics students become competent in programming and electronics, which can lead to opportunities in computer science or instrumentation design. A physics degree is a gateway to virtually any engineering field.

**Does it matter if I get a Bachelor of Science or a Bachelor of Arts?**
The decision to select a BS or a BA degree depends on a combination of factors:
- Do you have strong preparation coming in?
- Is your goal to go into industry, grad school, or professional school?
- What are your financial considerations in financing a 9th semester?

We strongly recommend investigating the time and effort necessary to complete a physics degree at UNC, prior to transferring. The BA degree provides more flexibility in scheduling classes and managing the transition to UNC. If your goal is to go into industry or medical school, there is little downside to the BA degree. If your goal is to go to graduate school for physics and astronomy, do research, or specialize (e.g., health physics), you may perceive the BA to provide less preparation. However, there are creative ways to add to your resume. For example, entering a post-baccalaureate program will accomplish the same goals as the BS degree and help you navigate scheduling conflicts that often complicate completion of the BS. In the end, what matters are the courses taken, the grades, and other pertinent experiences, not the specific degree obtained.
Transfer QuickGuide

Physics at UNC

Major Requirements // If you plan to transfer with junior status and graduate with a BA or BS from UNC, we recommend completing these courses prior to transferring.

☐ MATH 231 – Calculus I
☐ MATH 232 – Calculus II
☐ MATH 233 – Calculus III
☐ MATH 383 – Differential Equations
☐ CHEM 101 & 101L – General Chemistry I
☐ CHEM 102 & CHEM 102L – General Chemistry II
☐ PHYS 116 – Mechanics
☐ PHYS 117 – Electromagnetism and Optics
☐ Note: The UNC Physics and Astronomy Department will count PHYS 116/117 toward PHYS 118/119. Students who do not have credit for PHYS 116/117 are required to take PHYS 118/119 after transferring to UNC before taking any upper level physics courses.

In addition to the courses mentioned above, you will need to complete the following courses by the time you graduate from UNC.

To pursue the Standard BA in Physics, complete:
☐ PHYS 281L – Experimental Techniques
☐ PHYS 201 or 401 – Basic Mechanics or Classical Mechanics
☐ PHYS 211 or 311 – Intermediate Electromagnetism or Electromagnetism I
☐ PHYS 331 – Numerical Techniques in Physics
☐ 3 additional courses chosen from ASTR > 300 and PHYS > 200 courses
☐ Note: Concentrations in specific sub-fields of physics (e.g. Biological Physics) require additional courses. Visit the physics department website if you are interested in a specific concentration.

To pursue the Standard BS in Physics, complete:
☐ PHYS 281L – Experimental Techniques
☐ PHYS 401 – Classical Mechanics
☐ PHYS 311 and 412 – Electromagnetism I and II
☐ PHYS 331 and 358 – Numerical Techniques in Physics and Physical Modeling
☐ PHYS 321 and 521 – Quantum Mechanics I and II
☐ PHYS 351 – Electronics
☐ PHYS 441 – Thermal Physics
☐ PHYS 395 – Independent Research
☐ 2 Electives from ASTR > 300 and PHYS 231 and PHYS > 200 courses
Transfer QuickGuide

Physics at UNC

Please note: We recommend that new transfer students take no more than two science courses during their first semester at UNC. Transfer students matriculating to UNC in Fall 2016 or later will have a total of 9 semesters to complete their degree. We strongly encourage students to consider planning their course schedule with this in mind. For more information and guidance, please consult with UNC Admissions prior to transferring or visit Academic Advising once you are a UNC student.

Why major in Physics at UNC?

Study the most interesting questions in the universe, and get involved in many cutting edge research opportunities!

“I chose Carolina because I believed that the program and courses offered here would better prepare me and provide me with more opportunities than I would have elsewhere. My experience has been great, and the department has been very helpful in giving me a chance to accomplish all my goals. The biggest challenge as a transfer student has been the amount of required courses and the limited time frame you have to do them. Having the 9th semester will definitely make this more manageable!” — Corey Dearing, 2016

“Studying physics at UNC has allowed me to become a part of a tight knit community. I have received so much support from the people around me that not only helped me to overcome a very steep learning curve but also made me feel like I can accomplish anything. I spent a great deal of time with my professors through office visits, really getting to know them. Our conversations often extended beyond just what was said in class. I learned a lot about research and future career options in physics.” — Evan Gertis, 2016

Important Links

If you are a prospective transfer student and have additional questions about majoring in physics at UNC, please refer to one of the links below or contact the UNC admissions office (admissions.unc.edu/contact-us/).

Physics Department Homepage: physics.unc.edu/undergraduate-program/
Undergraduate Bulletin: unc.edu/ugradbulletin/depts/physics.html
Resources for Student Success: studentsuccess.unc.edu
Transfer Resources: transfers.unc.edu
Summer School at UNC: summer.unc.edu
What Can I Do with This Major? careers.unc.edu/students/explore-majors-and-careers
Will my courses transfer? admissions.unc.edu/credit/credit/transfer-equivalencies/

You can also connect with the Physics and Astronomy Department on Facebook (UNC Physics & Astronomy), online at physics.unc.edu, or with the department’s undergraduate advisor via email at duane.deardorff@unc.edu.