### Major: PHYSICS/ASTROPHYSICS

**Importance of an early start:**
This is a course-intensive and/or highly sequential program, and students who intend to pursue this major must begin taking classes for the major in their first term at UCSC.

**Qualification requirements and/or prerequisites for the major:**
To qualify for any of the physics majors, students must achieve a cumulative GPA of 2.7 or greater in the following courses or their equivalents:

- Phys 5A
- Phys 5B
- Phys 5C

Frosh who intend to pursue this major should do the following things prior to the beginning of fall term...

- Determine your math placement by completing an assessment in ALEKS as soon as possible, and by July 23 at the very latest. See [https://mathcoach.sites.ucsc.edu](https://mathcoach.sites.ucsc.edu) for information about ALEKS. If you completed a college-level math course, or scored 3 or better on an AP calculus exam, or 5 or better on an IBH mathematics exam, you may be able to use that for placement instead of the ALEKS assessment. See [https://mathcoach.sites.ucsc.edu/courses/course-credit/](https://mathcoach.sites.ucsc.edu/courses/course-credit/) for information on placement based on college courses or AP/IBH.

- Students who have taken college-level transferable classes that may apply to the requirements of this major should submit an unofficial transcript to the adviser prior to July 1, in addition to the official transcript that is required by the UCSC Admissions Office.

...and should take these courses their first term:

**Sample first year plan:**

- **Fall:** Physics 5A/L: *Intro to Physics I* and Lab, and Math 19B: *Calculus for Science, Engineering, and Mathematics*
- **Winter:** Physics 5B/M: *Intro to Physics II* and Lab, and Math 23A: *Multivariable Calculus*
- **Spring:** Physics 5C/N: *Intro to Physics III* and Lab, and Math 23B: *Multivariable Calculus*

**Skills important for success in this major:**
Critical and logical thought, complex problem solving using scientific rules and methods, deductive and inductive reasoning.

**Other information:**
It is important to place into Math 19 as Math 19AB are prerequisites and co-requisites to Physics 5A/L, 5B/M and 5C/N. Students who do not place into Math 19 may take more than four years to complete degree requirements. Students in this major should not take the Math 11 calculus series.

**Links to More Information:**
- [http://admissions.ucsc.edu/academics/majors/](http://admissions.ucsc.edu/academics/majors/) (general info)
- [http://registrar.ucsc.edu/catalog/programs-courses/](http://registrar.ucsc.edu/catalog/programs-courses/) (major requirements, course descriptions, etc.)

**Questions? Contact an Adviser!**
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