

# Pathway: **Physics & Astronomy**Area of Study: **Science, Technology, Engineering & Math (STEM)**





#### **Suggested Schedule to Earn an Associate Degree**

The suggested schedule below meets the requirements to earn an Associate in Science Track 2 degree with an emphasis in Physics & Astronomy. If classes listed below don't fit your schedule or interests, you can take alternate classes! Visit this website for instructions: www.southseattle.edu/pathway-map-help.

## **Year One Ouarter One** Credits ☐ MATH&141: Pre-Calculus I......5 ☐ CHEM&139: General Chemistry Prep ......5 ☐ POLS&202: American Government -or-PSYC&100: General Psychology -or-ENV&150: Environmental Issues and Problems ......... 5 ☐ STEM 111: Science Skills (Recommended) (3cr) **Ouarter Two** ☐ MATH&142: Pre-Calculus II......5 ☐ CHEM&161: General Chemistry I with Lab......5 ☐ CSC&110: Intro to Computer Programming **-or-**ASTR&100: Survey of Astronomy -or-BIOL&160: General Biology with Lab......5 ☐ STEM 118: Science, Equity, and Social Justice (Recommended) (2cr) **Quarter Three** $\hfill \Box$ ENGL&101: English Composition I .......5 ☐ MATH&151: Calculus I......5 ☐ CSC&110: Intro to Computer Programming -or-CSC&142: Intro to Computer Programming -or-CHEM&162 General Chemistry II with Lab......5 **Year Two Credits Quarter Four** ☐ MATH&152: Calculus II......5 ☐ SOC&101: Intro to Sociology **-or-**ANTH&100: Survey of Anthropology -orany ENGL Literature course......5 **Quarter Five** ☐ MATH&163: Calculus III......5 ☐ CMST&220: Public Speaking -or-ART&101 Design......5 PHYS&223 Engineering Physics II ......5 ☐ MATH&224: Vector Calculus -or-MATH&220: Linear Algebra -or-ENGR&204: Electrical Circuits -or-ENGR&214: Statics -or-

CSC&143: Computer Programming II ......5

To Do List		
Qua	Irter 1 Make an Ed Plan with an advisor Get involved on campus thru Student Life Tour the MySouth student portal	
Qua	Apply for free money with FAFSA or WASFA Attend a transfer fair and research options Apply for Ready Set Transfer	
Qua	Attend your major's info sessions at transfer institution Attend a resume workshop	
Qua	Update your Ed Plan with an advisor Attend transfer events, including personal statement workshops	
Qua	Apply to your transfer school Re-apply for FAFSA or WASFA if transferring Apply for summer research or internship opportunities	
Qua	Apply for Associate degree from South Order cap and gown; attend graduation!	

# Pathway: Physics & Astronomy



#### **About the Physics & Astronomy Pathway**

If you are curious about the world around you, and want to make it a better place, this pathway could be a good choice for you!

This pathway is designed to meet Associate in Science Track 2 degree requirements with an emphasis in Physics & Astronomy. This pre-major pathway is designed to prepare you to transfer at the sophomore/junior-level into a bachelor's program at a four-year college or university.

In this pathway, you'll explore the expansive fields of physics and astronomy. The world around us is diverse and elaborate, so the problems physicists and astronomers work on reflect that complexity! South's program implements best practices in teaching, focusing on hands-on experiences, reflective learning, and collaborative engagement. Students pursuing this degree develop a foundational knowledge in critical thinking, working as a team, technical writing, problem-solving, and developing creative models and representations of the world.

A degree in this area provides opportunities for challenging and exciting careers in many professions, because physics and astronomy teaches skills that are transferable to almost any field. Some of the most exciting areas in physics are at the extremes that we don't usually experience, such as the high temperatures at the center of planets and stars or ultra-cold temperatures at which all matter becomes quantum mechanical waves. Physics and astronomy is always probing the world where we haven't gone before, so it tends to push technology. For example, basic research in physics led to the development of lasers, cell phones, and the internet, among many other things.

Physicists and astronomers have global opportunities to work in areas such as education, government, private industry, finance, medicine, law, public service, environmental efforts, and self-employment. It can also be excellent preparation for students planning to enter business school or medical school.

#### **Length of Program**

90 credits = 6 quarters if you take 15 credits\* each term.

\*Students who take 15 credits each quarter earn their degree faster, qualify for more financial aid, and earn more money over their lifetime because they complete their schooling faster.

#### **Which Quarter Can I Begin?**

Fall, Winter, Spring, or Summer.

# **Class Times/Delivery Format?**

Classes and labs are offered M-TH (2 days or 4 days a week) from 8am-4pm and in the evenings. We offer on-campus, online, or hybrid (part on-campus, part online) formats.

#### **Career Opportunities**

- Physicist/Astronomer
- Data Analyst
- Software Developer
- Engineer
- Teacher
- Consultant
- Research Scientist

A bachelor's or higher degree may be required for some careers listed above. For current employment and wage estimates, visit the Physics & Astronomy program page on South's website.

### **Future Education Opportunities**

Once you complete this Associate degree, additional education opportunities include:

- A bachelor's degree in physics, astronomy, applied physics, engineering, computer science or a related field at a fouryear college or university.
- A Bachelor of Applied Science (BAS) degree at one of the Seattle Colleges.

Program and admissions requirements vary from college to college. Contact an advisor to create an educational plan tailored to transfer to the institution of your choice.

#### **Approximate Costs Each Quarter**

Tuition*	\$1550
Books, supplies, and miscellaneous fees	\$200

\*Tuition based on WA resident rates. Rates for international students and non-residents may vary.

#### **Apply for Financial Aid**

Did you know that the average student at South spends 3 hours applying for financial aid and gets more than \$4000 per year?

Visit www.southseattle.edu/financial-aid/ to apply for financial aid, including grants and scholarships you don't have to pay back.

#### **Find Out More**

(206) 934-5387 • AdvisorSouth@SeattleColleges.edu • RSB 11