SOUTH SEATTLE COLLEGE

Pathway: **Computer Engineering and Electrical Engineering**
Area of Study: **Science, Technology, Engineering, and Math (STEM)**

Suggested Schedule to Earn an Associate Degree

The schedule below meets the requirements to earn an Associate in Science degree with an emphasis in Computer Engineering and Electrical Engineering. An MRP degree allows you to transfer in as a junior-level student at four-year institutions. If classes listed don't fit your schedule or interests, you can take alternate classes. Visit this website for instructions: www.southseattle.edu/pathway-map-help.
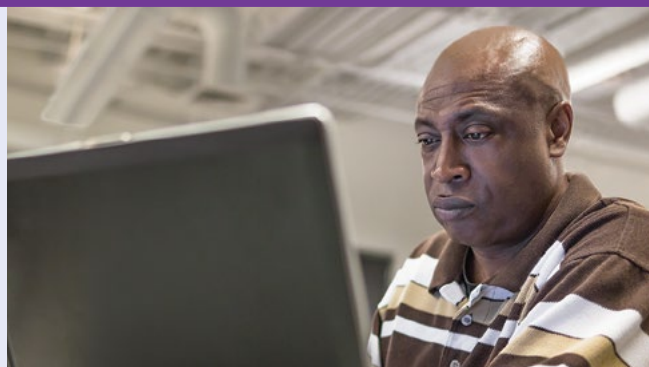
Year One

Quarter One *Credits*
- ☐ MATH102/&141 College Algebra and Precalculus I 10
- ☐ ENGR110: Intro to Engineering 2

Quarter Two
- ☐ MATH&142: Precalculus II 5
- ☐ CHEM&139: Chemical Concepts 5
- ☐ ENGL&101: English Composition 5

Quarter Three
- ☐ MATH&151: Calculus I 5
- ☐ CHEM&161: General Chemistry with Lab I 6
- ☐ ANTH&100: Survey of Anthropology, SOC&101: Intro to Sociology **-or-** POLS&203: International Relations 5

Year Two

Quarter Four
- ☐ MATH&152: Calculus II 5
- ☐ PHYS&221: Engineering Physics I 6
- ☐ ECON&201: Microeconomics **-or-** ENVS170: Energy and Resources: Now and Future 5

Quarter Five
- ☐ MATH&163: Calculus III 5
- ☐ PHYS&222: Engineering Physics II 5
- ☐ CSC110: Intro to Computer Programming 5

Quarter Six
- ☐ MATH220: Linear Algebra 5
- ☐ PHYS&223: Engineering Physics III 5
- ☐ CSC142: Computer Programming I 5

Year Three

Quarter Seven
- ☐ ENGL235: Technical Writing **-or-** CHEM&162: General Chemistry with Lab II .... 5 or 6
- ☐ CSC 143: Computer Programming II 5
- ☐ ENGR&214: Statics, ENGL&235 Technical Writing, **-or-** MATH224: Vector Calculus 5

Quarter Eight
- ☐ MATH238: Differential Equations 5
- ☐ ECON&201, ENGL256 **-or-** CMST220 5
- ☐ ENGL235: Technical Writing **-or-** MATH224: Vector Calculus 5

Quarter Nine
- ☐ ENGR&204: Electrical Circuits 5
- ☐ ENGR&214: Statics, ENGL235: Technical Writing **-or-** MATH224: Vector Calculus 5

Total Credits Required: 128

To Do List

Quarter 1
- ☐ Make an Ed Plan with an advisor
- ☐ Get involved on campus thru Student Life
- ☐ Tour the ctcLink class schedule/student portal

Quarter 2
- ☐ Apply for funding through FAFSA or WASFA
- ☐ Attend a transfer fair and research options
- ☐ Apply for Ready Set Transfer

Quarter 3
- ☐ Attend your major's info sessions at a transfer institution
- ☐ Attend a resume workshop at several transfer institutions

Quarter 4
- ☐ Update your Ed Plan with an advisor
- ☐ Attend transfer events, including personal statement workshops
- ☐ Meet with a Engineering Faculty member like Albert Engel (albert.engel@ seattlecolleges.edu)

Quarter 5
- ☐ Finalize your three top choices for transfer institutions and programs
- ☐ Apply to your transfer school
- ☐ Reapply for FAFSA or WASFA
- ☐ Apply for summer research or internship opportunities

Quarter 7
- ☐ Update your Ed Plan with an advisor

Quarter 8
- ☐ Reapply for FAFSA or WASFA if transferring
- ☐ Apply for summer research or internship opportunities

Quarter 9
- ☐ Apply for Associate degree from South
- ☐ Order cap and gown; attend graduation

Computer Engineering and Electrical Engineering

Computer and electrical engineers plan, develop, and prototype to turn nebulous ideas into something real. They use math and science to break down and solve complex problems and create new electronic and digital products and services. Professionals work with some of the most rapidly developing technology humankind has ever seen.

Electrical and computer engineers work with nanoelectronics and robotics to create biomedical instruments that save lives, create new robotic and artificial intelligence systems that can search disaster sites or remotely explore other planets, and make devices and systems that harvest clean energy from the sun, wind, and sea to power our energy grid and decrease the effects of Climate Change. Electrical engineers typically work on the hardware side of the spectrum, while computer engineers work at the interface between the hardware and software of electronics.

Completion of this degree opens doors to global career opportunities in software or hardware design, aerospace, robotics and other industries that rely on advanced computers and electronic systems. If you like to design and develop solutions to some of the world's most complex problems, this pathway could be the right choice for you.

Length of Program

128 credits = 9 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 generally offered M-TH (two days or four days a week) from 8am-4pm. We offer on-campus, online, or hybrid (part on-campus, part online) formats.

Career Opportunities

- Broadcast Engineer
- Electrical Engineer
- IT Consultant
- Software Developer
- Program Manager
- Network Engineer
- Nuclear Engineer
- Systems Analyst
- Computer Hardware Engineer
- Software Engineer

A bachelor's degree or higher degree is typically required for the careers listed above. For current employment and wage estimates, visit the Engineering program pages on South's website at https://southseattle.edu/programs/college-transfer/program-pathways

Future Education Opportunities

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

- A bachelor's degree in computer engineering, electrical engineering, or computer science.

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*...$1,550
Books, supplies, and miscellaneous fees $250

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

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