

SECONDARY EDUCATION - STEM - ASSOCIATE OF SCIENCE DEGREE (AS)

Explore More About This Program: <https://cwi.edu/program/education-secondary>

Degree Quick Facts

- **Instructional School:** Social Sciences and Public Affairs
- **Department:** Education
- **Program Code:** EDSEC-STEM.AS
- **Program Type:** Academic Transfer
- **Available Fully Online:** No
- **Eligible for Federal Financial Aid:** Yes

NOTE: Courses required for this program *may* have an additional fee; more information can be found on the [Special Course Fees](#) web page.

Degree Requirements

Course	Course Title	Min Credits
General Education Requirements		
CWI 101	Connecting With Ideas	3
EDUC 200	Education Around the World (Global Perspectives)	3
ENGL 101	Writing and Rhetoric I (GEM 1)	3
ENGL 102	Writing and Rhetoric II (GEM 1)	3
<u>GEM 2 - Oral Communication course</u>		3
<u>GEM 3 - Mathematical Ways of Knowing course</u>		3
<u>GEM 4 - Scientific Ways of Knowing course</u> ¹		4
<u>GEM 4 - Scientific Ways of Knowing course</u> ²		3
PHIL 101 or PHIL 103	Introduction to Philosophy (GEM 5) ³ Introduction to Ethics	3
<u>GEM 5 - Humanistic & Artistic Ways of Knowing course</u> ²		3
EDUC 120	Foundations of Education (GEM 6)	3
<u>GEM 6 - Social & Behavioral Ways of Knowing course</u> ²		3
Major Requirements		
EDUC 220	Diversity in the Schools	3
EDUC 230	Introduction to Special Education	3
EDUC 280	Integrated Teaching and Field Experience	2
EDUC 290	Education Capstone	1
STEM Electives	Select elective credits from the STEM course list below to bring the total credits earned to a minimum of 60	14
Minimum Credit Hours Required		60

¹ Must include a lab component.

² Course must come from a different discipline.

³ This course fulfills the Ethical Reasoning requirement for an associate degree from CWI.

STEM Elective Courses

The following list notes the courses that, in addition to the Mathematical Ways of Knowing (GEM 3) and Scientific Ways of Knowing (GEM 4) courses, will count as approved STEM courses. Students should choose **13-14 credits** (to bring the total credits earned to a minimum of 60) of coursework from the GEM 3, GEM 4, or STEM course list below:

Course	Course Title	Min Credits
AMET 121	DC Circuits and Application	5
AMET 231	Industrial Robotics	5
AMET 236	Fluid Power Systems	2
BIOL 112	Biology II	3
BIOL 112L	Biology II Lab	1
BIOL 113	Biology III: Principles of Structure and Function	3

BIOL 113L	Biology III: Principles of Structure and Function Lab	1
BIOL 228	Human Anatomy and Physiology II	3
BIOL 228L	Human Anatomy and Physiology II Lab	1
BIOL 280	Pathophysiology	4
CHEM 112	General Chemistry II	3
CHEM 112L	General Chemistry II Lab	2
CHEM 253	Quantitative Analysis	3
CHEM 253L	Quantitative Analysis Lab	2
CHEM 298	Organic Chemistry I	3
CHEM 298L	Organic Chemistry I Lab	2
CHEM 299	Organic Chemistry II	3
CHEM 299L	Organic Chemistry II Lab	2
CPSC 111	Introduction to Python Programming	3
CPSC 121	Computer Science I	4
CPSC 221	Computer Science II	3
ENGR 210	Engineering Mechanics: Statics	3
ENGR 220	Engineering Mechanics: Dynamics	3
ENVI 260	General Ecology	3
ENVI 260L	General Ecology Lab	1
ENVI 280L	Field Biology	3
EXHS 243	Applied Kinesiology	3
FERM 110	Grapes and Hops: Specialty Crops	3
GEOS 208	Hydrology and Water Resources	4
GEOS 275	Field Geology	4
GIS 126	Fundamentals of GIS	3
GIS 226	Spatial Analysis With GIS	3
GIS 240	Python Scripting for GIS	3
MATH 175	Calculus II	4
MATH 176	Discrete Mathematics	4
MATH 230	Introduction to Linear Algebra	3
MATH 275	Calculus III	4
MMBS 260	Introduction to Cell Biology	3
MMBS 260L	Introduction to Cell Biology Lab	1
MMBS 280	Genetics	3
MMBS 280L	Genetics Lab	1
NURS 100	Fundamentals of Nursing and Health Assessment	3
NURS 103	Nursing and Health Assessment Skills Lab/Clinical	3
NURS 106	Basic Pharmacology for Nursing	3
NURS 201	Nursing Specialties Clinical	2
NURS 203	Advanced Medical Surgical Nursing Lab/Clinical	4
PHYS 212	Physics for Scientists and Engineers II	4
PHYS 212L	Physics for Scientists and Engineers II Lab	1
SCIE 200	Vertically Integrated Projects (VIP)	1
SMT 200	Programming for Semiconductor Manufacturing	2
SMT 210	Nanofabrication I	2
SMT 220	Quality Control and Statistical Processing	3
SMT 260	Nanofabrication II	2
SWDV 105	Introduction to Programming	4