

ENGINEERING SPECIALIZATION - CHEMICAL TECHNOLOGY, ASSOCIATE IN SCIENCE

Program Code: CHASEGR

Meta-Major: STEM

Location(s): Cocoa, Melbourne, Palm Bay, Titusville

Delivery Method(s): On-Campus, Hybrid

Previous Degree Required: HS Diploma

Eligible for Financial Aid: Yes

Additional Limited Access Application Process Required: No

Program Testing Requirements: CPT - Common Placement Test (PERT, ACCUPLACER, SAT, ACT)

Classification of Instructional Programs (CIP) Code: 41.0301

Florida Department of Education CIP Code: 1641030100

Students can only select one major and one specialization. Students may receive a specific A.S./B.A.S. degree only one time. While students may take courses from multiple specializations, however, the degree will be awarded only once.

[Visit the program page for more details and how to apply.](#)

Specialization Requirements

Code	Title	Credit Hours
General Education Courses		
BSCC 1010	General Biology 1	4
ENC 1101	Composition 1	3
MAC 1105	College Algebra	3
SPC 2608	Fundamentals of Speech Communication	3
	Humanities Core Requirement	3
	Social/Behavioral Science/Core-Civic Literacy Requirement	3
Major Courses		
CHM 1045	General Chemistry 1	3
CHM 1046	General Chemistry 2	3
CHML 1045	General Chemistry 1 Laboratory	1
CHML 1046	General Chemistry 2 Laboratory	1
CGS 1000 or CGS 2100	Exploring Digital Technology Microcomputer Applications	3
Engineering Specialization		
Select 16 credits from the following:		16
EGN 1007	Engineering Concepts and Methodologies	
EGN 2312	Engineering Analysis - Statics	
EGN 2322	Engineering Analysis - Dynamics	
EGS 1006	Introduction to the Engineering Profession	
PHY 2048	General Physics 1	
PHY 2049	General Physics 2	
Technical Electives		18
BSCC 1427	Introduction to Biotechnology Methods 2	
BSCC 2910	Biological Research	
CHM 2941	Chemistry Internship	

CHMC 2910	Chemical Research
ECO 2023	Principles of Economics 2 (Microeconomics)
ENC 2210	Technical Writing
HSC 1531	Medical Terminology
HSCC 1000	Introduction to Healthcare
MAC 1114	College Trigonometry
MAC 1140	Precalculus Algebra
MAC 1147	Precalculus Algebra/Trigonometry
MAC 1233	Essentials of Calculus
MAC 2311	Calculus 1 with Analytic Geometry
MAC 2312	Calculus 2 with Analytic Geometry
MAC 2313	Calculus 3 with Analytic Geometry
MAP 2302	Differential Equations
MAT 1033	Intermediate Algebra
MCBC 2010	Microbiology for Health Sciences
PHY 2025	Introduction to Principles of Physics
PHYL 2048	General Physics 1 Laboratory
PHYL 2049	General Physics 2 Laboratory
STA 2023	Statistics

Total Credit Hours **64**

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Note: Courses in the four specializations above can be used as technical electives as long as they are not being used to fulfill the specialization requirement.

Learning Outcomes: Chemical Technology A.S.

- Produce valid written scientific records
 - Supports Core Ability: *Communicate Effectively*
- Manipulate data to construct and interpret appropriate graphs.
 - Supports Core Ability: *Process Information*
- Working in a group, explore a scientific topic of interest.
 - Supports Core Ability: *Work Cooperatively*
- Demonstrate basic foundational knowledge of scientific and chemical concepts.
 - Supports Core Ability: *Think Critically & Solve Problems*
- Select and utilize appropriate glassware, chemicals, and laboratory equipment to complete a common laboratory task.
 - Supports Core Ability: *Think Critically & Solve Problems*
- Solve Chemical Kinetics or Equilibrium Problems.
 - Supports Core Ability: *Think Critically & Solve Problems*
- Demonstrate appropriate interpersonal skills, decision-making strategies, and awareness of self-worth, ethics and values.
 - Supports Core Ability: *Model Ethical and Civic Responsibility*