



ASSOCIATE OF APPLIED SCIENCE
INDUSTRIAL PROCESS OPERATION
TECHNOLOGY

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog
Effective Summer 2020

4312

Engineering Technologies Division

Oil and Gas Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EST230	Electrical Circuits and Devices [^]	4	(MTH025 or Proficiency) or MTH107	
MST221	Mechanical Drive Components	3		
PET132	Petroleum Instrumentation	3		
ARL234	Gas Compression and Flow Dynamics	3		
ARL239	Large Line Unit Compressor Assembly	3		
EET227	PLCs and Industrial Controls I	3	EET120 or EST230	
EET228	PLCs and Industrial Controls II	3	EET227	
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2		
MST134	Hydraulic and Pneumatic Systems [^]	6	MTH022 or MTH023 or Proficiency	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar ^{^^}	1	<i>Take first semester</i>	
PET101	Introduction to the Petroleum Industry	3		
ITD122	Computer Applications for Professionals [^]	3	ITD100 or Proficiency	
CHM101	Introduction to Chemistry ^{^▲}	4	(MTH022 or MTH023 or Proficiency) or MTH105 or MTH107	
MTH107 or MTH125	Industrial Math [^] or College Algebra ^{^Ω}	3 or 4	<i>Check for prerequisites</i>	
ENG124	College Composition [^]	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENV221	OSHA 40-Hour HAZWOPER	2		
COM121 or COM122 or COM123	Effective Speaking or Interpersonal Communication or Small Group Communication [^]	3 or 3 or 3	IDS102 or Proficiency	
MST121 or DET125	Blueprint Reading or Basic AutoCAD	2 or 3		
MST125	Basic Pumps	3		
	<i>Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective from the list below^l</i>	3		
	Total	30-32		
	TOTAL CREDIT HOURS	60-62		

See footnotes on next page.

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FULL-TIME STUDENT ADVISING NOTES

Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- or Co-requisites</u>
SSC101	Student Success Seminar^^	1	<i>Take first semester</i>
MST121	Blueprint Reading	2	
or	or	or	
DET125	Basic AutoCAD	3	
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency
PET101	Introduction to the Petroleum Industry	3	
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or MTH107
		16-17	
<u>Second Semester</u>			
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2	
EET227	PLCs and Industrial Controls I	3	EET120 or EST230
ARL234	Gas Compression and Flow Dynamics	3	
ARL239	Large Line Unit Compressor Assembly	3	
MST221	Mechanical Drive Components	3	
		14	
<u>Third Semester</u>			
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
CHM101	Introduction to Chemistry^▲	4	(MTH022 or MTH023 or Proficiency) or MTH105 or MTH107
MTH107	Industrial Math^	3	
or	or	or	<i>Check for prerequisites</i>
MTH125	College Algebra^ Ω	4	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
EET228	PLCs and Industrial Controls II	3	EET227
		16-17	
<u>Fourth Semester</u>			
MST125	Basic Pumps	3	
PET132	Petroleum Instrumentation	3	
COM121	Effective Speaking	3	
or	or	or	
COM122	Interpersonal Communication	3	
or	or	or	
COM123	Small Group Communication^	3	IDS102 or Proficiency
ENV221	OSHA 40-Hour HAZWOPER	2	
<i>Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective from the list below^l</i>		3	<i>Check for prerequisites</i>
		14	
	TOTAL CREDITS	60-62	

^Based on SSC placement scores

^^To promote student success, this course should be taken in the first semester

ΩMTH125 should be taken by students planning to transfer to a four-year institution

▲ Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

^lSocial & Behavioral Sciences or Arts & Humanities electives: BUS122, BUS221, BUS222, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 (recommended), PSC121, PSY121, PSY123, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225