



## 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.*

1920 Catalog  
Effective Summer 2019

# 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 <sup>^</sup>	4	[(MTH093 and MTH094) or Proficiency] <b>or</b> MTH107	
MST221	Mechanical Drive Components	3		
PET132	Petroleum Instrumentation	3	EST230 <b>and</b> (CHM101 or ARL234)	
ARL234	Gas Compression and Flow Dynamics	3		
ARL239	Large Line Unit Compressor Assembly	3		
EET227	PLCs and Industrial Controls I	3	EET120 <b>or</b> EST230	
EET228	PLCs and Industrial Controls II	3	EET227	
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2		
MST134	Hydraulic and Pneumatic Systems <sup>^</sup>	6	(MTH091 and MTH092) <b>or</b> Proficiency	
<b>Total</b>		<b>30</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar <sup>^^</sup>	1	<i>Take first semester</i>	
PET101	Introduction to the Petroleum Industry	3		
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 <b>or</b> Proficiency	
CHM101	Introduction to Chemistry <sup>^▲</sup>	4	(MTH093 <b>or</b> MTH025 <b>or</b> Proficiency) <b>or</b> MTH105 <b>or</b> MTH106 <b>or</b> MTH107	
MTH107 <b>or</b> MTH125	Industrial Math <sup>^</sup> <b>or</b> College Algebra <sup>^Ω</sup>	3 <b>or</b> 4	<i>Check for prerequisites</i>	
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency	
ENV221	OSHA 40-Hour HAZWOPER	2		
COM121 <b>or</b> COM122 <b>or</b> COM123	Effective Speaking <b>or</b> Interpersonal Communication <b>or</b> Small Group Communication <sup>^</sup>	3 <b>or</b> 3 <b>or</b> 3	IDS102 <b>or</b> Proficiency	
MST121 <b>or</b> DET125	Blueprint Reading <b>or</b> Basic AutoCAD	2 <b>or</b> 3		
MST125	Basic Pumps	3		
	<i>Select one (1) Social &amp; Behavioral Sciences or Arts &amp; Humanities Elective from the list below<sup>l</sup></i>	3		
<b>Total</b>		<b>30-32</b>		
<b>TOTAL CREDIT HOURS</b>		<b>60-62</b>		

See footnotes on next page.

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PART-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 part-time associate degree students who plan to finish in eight semesters.

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
SSC101	Student Success Seminar^^	1	<i>Take first semester</i>
MTH107	Industrial Math^	3	
<b>or</b>	<b>or</b>	<b>or</b>	<i>Check for prerequisites</i>
MTH125	College Algebra^Ω	4	
PET101	Introduction to the Petroleum Industry	<u>3</u>	
		<b>7-8</b>	
<u>Second Semester</u>			
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2	
EST230	Electrical Circuits and Devices^	<u>4</u>	[(MTH093 and MTH094) or Proficiency] <b>or</b> MTH107
		<b>6</b>	
<u>Third Semester</u>			
ARL234	Gas Compression and Flow Dynamics	3	
EET227	PLCs and Industrial Controls I	<u>3</u>	EET120 <b>or</b> EST230
		<b>6</b>	
<u>Fourth Semester</u>			
MST134	Hydraulic and Pneumatic Systems^	6	(MTH091 and MTH092) <b>or</b> Proficiency
EET228	PLCs and Industrial Controls II	<u>3</u>	EET227
		<b>9</b>	
<u>Fifth Semester</u>			
MST221	Mechanical Drive Components	3	
ARL239	Large Line Unit Compressor Assembly	<u>3</u>	
		<b>6</b>	
<u>Sixth Semester</u>			
ENG124	College Composition^	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
CHM101	Introduction to Chemistry^▲	4	(MTH093 <b>or</b> MTH025 <b>or</b> Proficiency) <b>or</b> MTH105 <b>or</b> MTH106 <b>or</b> MTH107
ENV221	OSHA 40-Hour HAZWOPER	<u>2</u>	
		<b>9</b>	
<u>Seventh Semester</u>			
ITD122	Computer Applications for Professionals^	3	ITD100 <b>or</b> Proficiency
MST125	Basic Pumps	3	
PET132	Petroleum Instrumentation	<u>3</u>	EST230 <b>and</b> (CHM101 or ARL234)
		<b>9</b>	
<u>Eighth Semester</u>			
COM121	Effective Speaking	3	
<b>or</b>	<b>or</b>	<b>or</b>	
COM122	Interpersonal Communication	3	
<b>or</b>	<b>or</b>	<b>or</b>	
COM123	Small Group Communication^	3	IDS102 <b>or</b> Proficiency
MST121	Blueprint Reading	2	
<b>or</b>	<b>or</b>	<b>or</b>	
DET125	Basic AutoCAD	3	
	<i>Select one (1) Social &amp; Behavioral Sciences or Arts &amp; Humanities Elective from the list below<sup>!</sup></i>	<u>3</u>	<i>Check for prerequisites</i>
		<b>8-9</b>	
	<b>TOTAL CREDITS</b>	<b>60- 62</b>	

^Based on SSC placement scores

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

▲ 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.

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

<sup>!</sup>Social & 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