



ASSOCIATE OF APPLIED BUSINESS

**COMPUTER PROGRAMMING AND DATABASE –  
GEOGRAPHIC INFORMATION SYSTEMS MAJOR**

*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

**5205**

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CPD123	Structured Query Language ▲	3	CPD121	
CSE235	Python Development ▲	3	CSE122	
CSE236	Analyzing Software Requirements and Developing Solutions ▲	3	(CIS221 or CSE229 or CSE233 or CSE231 or WDD221 or CSE227 or WDD224 or WDD222 or WDD226) and CPD123	
GIS123	Maps and Map Reading ▲	3		
GIS231	Geographic Information Systems ▲	3	GIS123 or ENV223	
GIS233	Advanced Tools in Geospatial Technologies ▲	3	GIS231	
GIS234	Geospatial Technologies in Industry ▲	3	GIS233	
WDD221	Web Development with JavaScript ▲	3	CSE122 and WDD121	
	Select two (2) Technical Electives from the list below <sup>3</sup> ▲	6	Check for prerequisites	
<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	Take first semester	
CIS126	Fundamentals of Information Systems <sup>^</sup> ▲	3	IDS102 or Proficiency	
COM121	Effective Speaking	3	None	
or	or	or	or	
COM122	Interpersonal Communication	3	None	
or	or	or	or	
COM123	Small Group Communication	3	IDS102 or Proficiency	
CPD121	Data Modeling and Database Design <sup>^</sup>	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
CSE122	Programming Logic and Problem Solving <sup>^</sup>	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
DET125	Basic AutoCAD	3		
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or Proficiency	
MTH108	Explorations in Modern Mathematics <sup>^</sup>	3	MTH022 or MTH023 or Proficiency	
WDD121	Internet Design and Development <sup>^</sup>	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Select one (1) Social Science Elective from the list below <sup>2</sup>	3	Check for prerequisites	
<b>Total</b>		<b>31</b>		
<b>TOTAL CREDIT HOURS</b>		<b>61</b>		

<sup>^</sup>Based on SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

▲ Course offerings vary by semester. Please see your academic advisor for availability.

<sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>2</sup>Social Science Elective: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

<sup>3</sup>Technical Electives: CET227, CET236, CPD221, CPD222, CPD224, CSE229, CSE231, DET126, DET230, PET101

### 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- and Co-requisites</u>
SSC101	Student Success Seminar^^	1	<i>Take first semester</i>
CIS126	Fundamentals of Information Systems^▲	3	IDS102 <b>or</b> Proficiency
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)
GIS123	Maps and Map Reading▲	3	
WDD121	Internet Design and Development^	<u>3</u>	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)
		<b>13</b>	
<u>Second Semester</u>			
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)
CPD123	Structured Query Language▲	3	CPD121
GIS231	Geographic Information Systems▲	3	GIS123 <b>or</b> ENV223
<i>Arts &amp; Humanities Elective<sup>1</sup></i>		3	
<i>Social Science Elective<sup>2</sup></i>		<u>3</u>	<i>Check for prerequisites</i>
		<b>15</b>	
<u>Summer Semester</u>			
ENG124	College Composition^	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
MTH108	Explorations in Modern Mathematics^	<u>3</u>	MTH022 <b>or</b> MTH023 <b>or</b> Proficiency
		<b>6</b>	
<u>Third Semester</u>			
COM121	Effective Speaking	3	None
<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>
COM122	Interpersonal Communication	3	None
<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>
COM123	Small Group Communication	3	IDS102 <b>or</b> Proficiency
CSE235	Python Development▲	3	CSE122
DET125	Basic AutoCAD	3	
WDD221	Web Development with JavaScript▲	3	CSE122 <b>and</b> WDD121
GIS233	Advanced Tools in Geospatial Technologies▲	<u>3</u>	GIS231
		<b>15</b>	
<u>Fourth Semester</u>			
GIS234	Geospatial Technologies in Industry▲	3	GIS233 (CIS221 or CSE229 or CSE233 or CSE231 or WDD221 or CSE227 or WDD224 or WDD222 or WDD226) <b>and</b> CPD123
CSE236	Analyzing Software Requirements and Developing Solutions▲	3	
<i>Technical Elective<sup>3</sup>▲</i>		3	<i>Check for prerequisites</i>
<i>Technical Elective<sup>3</sup>▲</i>		<u>3</u>	<i>Check for prerequisites</i>
		<b>12</b>	
	<b>TOTAL CREDITS</b>	<b>61</b>	

^Based on SSC placement score

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

▲Course offerings vary by semester. Please see your academic advisor for availability.

<sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>2</sup>Social Science Elective: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

<sup>3</sup>Technical Electives: CET227, CET236, CPD221, CPD222, CPD224, CSE229, CSE231, DET126, DET230, PET101