



AAS 1796 Computer Information Systems (SUPP and DATA) 61 Credits
Effective Fall 2019

This is an overview of the program. Any suggested course sequencing is meant to serve as a guideline for your semester planning. Students are expected to see their assigned advisor to develop and review their individual educational plans. The scheduling of courses, program sequencing, and curriculum are subject to change.

Developmental Courses (as determined through College Placement Testing)* and Prerequisites:							
<i>* Zero level courses must be completed with a C grade or higher.</i>							
<input type="checkbox"/>	ESL classes	<input type="checkbox"/>	ENGL 050	<input type="checkbox"/>	MATH 006	<input type="checkbox"/>	MATH 033
<input type="checkbox"/>	ENGL 002	<input type="checkbox"/>	ENGL 051	<input type="checkbox"/>	MATH 090	<input type="checkbox"/>	MATH 044
<input type="checkbox"/>	ENGL 003	<input type="checkbox"/>	ENGL 057	<input type="checkbox"/>	MATH 008	<input type="checkbox"/>	MATH 055
<input type="checkbox"/>	ENGL 007			<input type="checkbox"/>	MATH 022	<input type="checkbox"/>	
<input type="checkbox"/>	FS 100/102/103						
*See counselor/advisor to discuss this course or options to self-remediate and successfully place into higher- or college-level course.							
General Education Courses							
ENGL 101		3cr	Prerequisites: Completion of ENGL 007, 051 or 057 with a grade of C or higher; ENGL 003 is a Pre or Co-requisite				
COMM 101 or COMM 203		3cr	Prerequisites: Eligibility for enrollment into ENGL 101 and completion of any reading courses Prerequisites: ENGL 101 with a grade of C or higher				
Humanities and Arts		3cr	Select one of the following: ART 181 or 182; ENGL 206; HUM 101, 115 or 201; MUS 104; PHIL 200; THTR 101: or a foreign language course				
Social & Behavioral Science		3cr	Core B Elective				
Wellness		1cr	See College Catalog for a list of approved courses				
First Year Seminar		1cr	Unless exempted by examination. See HACC catalog for a list of approved courses.				

Required Program Courses			
CIS 105	3cr	Introduction to Software for Business	Prerequisites: ENGL 057 or a combination of ENGL 003, or 007 and 051 with grades of C or higher or their equivalents
CIS 110	3cr	Introduction to Computer Information Systems	Prerequisites: Eligibility for enrollment into ENGL 101 and completion of all developmental reading and writing courses with a grade of C; Pre or Co-requisite: CIS 105 with a grade of C or higher
CIS 135	3cr	Intermediate Spreadsheet Applications	Prerequisites: CIS 105 with a grade of C or higher; or permission of the Instructor
CNT 120	3cr	Network Communication Technology	Prerequisites Eligibility for enrollment into ENGL 101 and MATH 055 (or MATH 051) or MATH 045; or permission of the Instructor
Computer Related Elective	3cr	Choose ONE course from the following subject areas: CIS (except CIS 100), CISE, CNT, GIS, and WEB	Prerequisites vary per course. Please see course descriptions online for prerequisites

Choose one of the following two concentrations below:			
Support Specialist Concentration (SUPP)			
Math or Science	3cr	Select from approved Math/Science Core Electives	Prerequisites vary per course. Please see course descriptions online for prerequisites
CIS 127	3cr	Microsoft Windows Operating Systems	Prerequisite: CIS 105 with a grade of C or higher; or permission of the Instructor

CIS 140	3cr	Intermediate Database Management	Prerequisite: CIS 105 or WEB 143 with a grade of C or higher; or permission of the Instructor.
CIS 222	3cr	Introduction to Windows Servers	Prerequisite: CNT 120 with a grade of C or higher.
CIS 227	3cr	Technical Support	Prerequisite: CNT 120, and CIS 222 or 249 or 264 or 265 with grades of C or higher.
CIS 266	3cr	Support Specialist Fundamentals	Prerequisite: CIS 227, ELEC 126, and WEB 102 with grades of C or higher. Co-requisite: CIS 227; or permission of the Instructor.
CISE 200	3cr	Information Security Fundamentals	Prerequisite: ENGL 101, CNT 120, and CIS 222, 264, or 249 with grades of C or higher; or permission of the Instructor.
ELEC 125	3cr	Introduction to PC Technology	Prerequisite: Familiarity with word processing and MS Windows Operating Systems
ELEC 126	4cr	Installing and Troubleshooting PC's	Prerequisite: ELEC 125; or CIS 127 and 210 with grades of C or higher.
WEB 102	3cr	Web Exploration and Design	Prerequisite: Eligibility for enrollment into ENGL 101 and completion of ENGL 057 or a combination of ENGL 003, or 007 and 051 with a grade of C or higher. Recommend Word processing skills and the ability to receive and send email attachments.
Computer Programming Elective	3cr	Select ONE of the following programming courses: CIS 238, CPS, WEB 125, WEB 143, and any WEB 240-259	Prerequisites vary per course. Please see course descriptions online for prerequisites.
<i>Database Analyst Concentration (DATA)</i>			
CIS 140	3cr	Intermediate Database Management	Prerequisite: CIS 105 or WEB 143 with a grade of C or higher; or permission of the Instructor
CIS 224	4cr	Introduction to Systems Analysis and Design	Prerequisite: CNT 120 with a grade of C or higher; and one of the following with a grade of C or higher: CIS 238, 245; CPS 115, 121, 135, 230; WEB 140, 143, 144, 220, 240, 242, 244, 246
CIS 239	3cr	Database Report Development	Prerequisite: CIS 241 with a grade of C or higher
CIS 241	3cr	Database Administration I	Prerequisite: CIS 140 or WEB 143 with a grade of C or higher; or permission of the Instructor
CIS 243	3cr	Database Administration II	Prerequisite: CIS 241 with a grade of C or higher; or permission of the Instructor
CIS 245	3cr	Database Programming	Prerequisite: CIS 140 or WEB 143 with a grade of C or higher; or permission of the Instructor
CIS 257	3cr	Data Warehousing	Prerequisite: CIS 140 or 241 with a grade of C or higher; or permission of the Instructor
CIS 278	3cr	Business Intelligence & Database Analyst Capstone	Prerequisite: CIS 243 or WEB 240 and CIS 245 or WEB 245 with grades of C or higher. Co-requisite: CIS 224, 257, and 247 or 258; or permission of Instructor.
MATH 202	4cr	Introduction to Statistics	Prerequisite: Completion of MATH 033, 044, & 055 (or MATH 051) or 045, and ENGL 057 or a combination of ENGL 003, or 007 and 051 with grades of C or higher
Database Related Elective	3cr	Select any Database Related Elective from the following: CIS 222, 247, 249, 258, 264; WEB 126, 143	Prerequisites will vary. Please see course descriptions online to view prerequisites

Advising Notes

Grades of C or higher are required for all computer-related courses (CIS, CISE, CNT, CPS, ELEC, GIS, and WEB) and in all degree concentrations for graduation (BUSI, MATH).

Certifications and Certificates for Credit Computer Department ~~ April 2017

Certifications must be current at the time of presentation for this credit.

***** Computer industry certifications and transfer of college computer related credits over 7 years of age will not be accepted for students in the following majors: AOM, CIS, CISE, CNT, Computer Repair or WEB. *****

Software, AOS and Database:

1. **CAP/CPS** = AOS 101, 110, 203, 225, & 226. (15 credits)
2. **MOS in PowerPoint** = CIS 108
3. **MOS in Word, Access and Excel** = CIS 105
4. **MOS Expert** = no credit
5. **MOS Master**- student must take Word, Access and excel options of the exam to earn credit for CIS 105
6. **MOS Master**- if student takes PowerPoint exam as part of the series, they also would earn CIS 108
7. **Non-credit** certificate in computer proficiency = CIS 105
8. **PHEAA training academy** certificate in PowerPoint = CIS 108
9. **PHEAA training academy** certificate in word, excel and access = CIS 105
10. **MCDBA -Microsoft Certified Database Administrator (MCDBA) credential**, you must pass four exams: equivalent to CIS140 (Access), CIS241 (DBAI), and DB Elective (9 - credits).
11. **Microsoft Solutions Expert in Business Intelligence** certificate = CIS 257

Hardware & Networking:

1. **A+=** CIS 127, ELEC 125 and ELEC 126= 10 credits
2. **BICSI (Installer 1, Installer 2, Technician)** = credit for CNT 140 can be given (Contact Rich Elwell for ok)
3. **Cisco CCNA** = CNT 240
4. **Cisco CCNA specialty certification - CCNA Wireless** = CNT 260
5. **CCNA specialty cert - CCNA Voice** = CNT 230 (previously a 282 course)
6. **Cisco CCNA specialty cert - CCNA Security** = nothing at this time. See Professor Rich Elwell for any updates.
7. **MCSA** = CIS 127 and 1 computer elective=6 credits
8. **MCSE** = CIS 127, CIS 110 and 2 computer electives=12 credits
9. **MCSE and A+** = CIS 127, CIS 110, ELEC 125, ELEC 126 and 1 computer elective= 16 credits
10. **MCDST** = CIS 127
11. **Network+** = CNT 120
12. **Network+ cert & proof of "On the Job"** experience with networking - credit for CNT 120 & CNT 125 may be given. Student should contact Professor Doug Brown or Professor Rich Elwell for approval
13. **SECURITY+** = CNT Technical Elective
14. **CCNA Security Exam 210-260** (may not be more than 3 years old) = CISE 200

Recommended Sequence For Full-Time Students

Part-time students can complete this program by taking one or more courses each semester.

Support Specialist Concentration (SUPP)

Fall Semester I		Spring Semester I		Summer Semester I	
CIS 105	3	CIS 127	3	CIS 222	3
CIS 110	3	CIS 135	3		
CNT 120	3	CIS 140	3		
COMM 101 or 203	3	ELEC 125	3		
ENGL 101	3	WEB 102	3		
FYS Elective	1				
Fall Semester II		Spring Semester II		Summer Semester II	
CISE 200	3	CIS 227	3		
ELEC 126	4	CIS 266	3		
Programming Elective	3	Computer Elective	3		
Social/Behavioral Science Elective	3	Humanities/Arts Elective	3		
Wellness	1	Math/Science Elective	3		

Recommended Sequence For Full-Time Students

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Database Analyst Concentration (DATA)

Fall Semester I		Spring Semester I		Summer Semester I	
CIS 105	3	CIS 135	3	CIS 241	3
CIS 110	3	CIS 140	3		
CNT 120	3	Humanities/Arts Elective	3		
COMM 101 or 203	3	MATH 202	4		
ENGL 101	3				
FYS Elective	1				
Fall Semester II		Spring Semester II		Summer Semester II	
CIS 243	3	CIS 224	4		
CIS 239	3	CIS 245	3		
CIS 257	3	CIS 278	3		
Computer Elective	3	Social/Behavioral Science Elective	3		
Database Elective	3	Wellness	1		

Counselor/Advisor Contact Information by Campus:

<u>Gettysburg</u>	<u>Harrisburg</u>	<u>Lancaster</u>	<u>Lebanon</u>	<u>York</u>
Student Services	Counseling and Advising	Counseling and Advising	Receptionist Desk	Counseling and Advising
Lobby	Cooper 219	221 Main	Lobby	Leader Suite 104
717-337-3855	717-780-2498	717-358-2988	717-270-4222	717-801-3213