## COMPUTER SCIENCE, PRE-PROFESSIONAL

(Note: Program requirements for this degree are offered on NOC Enid and NOC Tonkawa campus only.

At the beginning of each course listing, the four letter abbreviation indicates the department and the four digits indicate the course code used for enrollment. The total course hour value follows each.)

Program Requirements		
General Education Courses - 37 Total Credit Hours English Composition Courses		
ENGL 1113 English Composition I	3 hours	
ENGL 1213 English Composition II	3 hours	
History & Government Courses		
HIST 1483 Amer. History to 1877	3 hours	
(or) HIST 1493 Amer. History Since 1877		
POLI 1113 American Government	3 hours	
Humanities Courses PHIL 2213 Ethics	3 hours	
(or) PHIL 2223 Business Ethics	3 110u1S	
One course to be chosen from those listed v	with the	
International Dimension.	3 hours	
Mathematics Courses		
MATH 1513 Algebra for STEM	3 hours	
(or) MATH 1613 Plane Trigonometry		
(Note: Plane Trigonometry is strongly recomn		
because it must be taken as a pre-requisite b	efore taking	
Calculus 1.)		
Science Courses Two Sciences with Lab	8 hours	
Computer Science Courses	0 110015	
CMSC 1113 Computer Concepts	3 hours	
(or) BADM 1113 Digital/Financial Literacy	o nouro	
(or other approved computer course)		
Orientation Courses		
ORNT 1101 Freshman Orientation	1 hour	
*General Education Elective Courses	3-4 hours	
*General Education Elective Courses  Program Requirement Courses - 19 Total I		
Program Requirement Courses - 19 Total I **MATH 2144 Calculus I		
Program Requirement Courses - 19 Total I  **MATH 2144 Calculus I  **MATH 2154 Calculus II	Hours	
Program Requirement Courses - 19 Total I  **MATH 2144 Calculus I  **MATH 2154 Calculus II  **MATH 2164 Calculus III	Hours 4 hours 4 hours 4 hours	
Program Requirement Courses - 19 Total I  **MATH 2144 Calculus I  **MATH 2154 Calculus II  **MATH 2164 Calculus III  PRDV 2321 Professional Development	Hours 4 hours 4 hours 4 hours 1 hour	
Program Requirement Courses - 19 Total I  **MATH 2144 Calculus I  **MATH 2154 Calculus II  **MATH 2164 Calculus III  PRDV 2321 Professional Development  (6) hours of programming language chosen	Hours 4 hours 4 hours 4 hours	
Program Requirement Courses - 19 Total I  **MATH 2144 Calculus I  **MATH 2154 Calculus II  **MATH 2164 Calculus III  PRDV 2321 Professional Development (6) hours of programming language chosen from the following or other pre-approved	Hours 4 hours 4 hours 4 hours 1 hour	
Program Requirement Courses - 19 Total I  **MATH 2144 Calculus I  **MATH 2154 Calculus II  **MATH 2164 Calculus III  PRDV 2321 Professional Development (6) hours of programming language chosen from the following or other pre-approved substitutions:	4 hours 4 hours 4 hours 1 hour 6 hours	
Program Requirement Courses - 19 Total I **MATH 2144 Calculus I **MATH 2154 Calculus II **MATH 2164 Calculus III PRDV 2321 Professional Development (6) hours of programming language chosen from the following or other pre-approved substitutions: CMSC 1013 Visual Basic, CMSC 2203 Pyth	4 hours 4 hours 4 hours 1 hour 6 hours	
Program Requirement Courses - 19 Total I **MATH 2144 Calculus I **MATH 2154 Calculus II **MATH 2164 Calculus III PRDV 2321 Professional Development (6) hours of programming language chosen from the following or other pre-approved substitutions: CMSC 1013 Visual Basic, CMSC 2203 Pyth CMSC 2303 Java, CMSC 2313 Programmin	4 hours 4 hours 4 hours 1 hour 6 hours	
Program Requirement Courses - 19 Total I **MATH 2144 Calculus I **MATH 2154 Calculus II **MATH 2164 Calculus III PRDV 2321 Professional Development (6) hours of programming language chosen from the following or other pre-approved substitutions: CMSC 1013 Visual Basic, CMSC 2203 Pyth CMSC 2303 Java, CMSC 2313 Programmir Recommended Program Elective Courses	4 hours 4 hours 4 hours 1 hour 6 hours  on, g with C++ - 5-6 Total	
Program Requirement Courses - 19 Total I **MATH 2144 Calculus I **MATH 2154 Calculus II **MATH 2164 Calculus III PRDV 2321 Professional Development (6) hours of programming language chosen from the following or other pre-approved substitutions: CMSC 1013 Visual Basic, CMSC 2203 Pyth CMSC 2303 Java, CMSC 2313 Programmir Recommended Program Elective Courses Hours (Add to 1-hour of Gen Ed Elective h	4 hours 4 hours 4 hours 1 hour 6 hours  on, g with C++ - 5-6 Total	
Program Requirement Courses - 19 Total I **MATH 2144 Calculus I **MATH 2154 Calculus II **MATH 2164 Calculus III PRDV 2321 Professional Development (6) hours of programming language chosen from the following or other pre-approved substitutions: CMSC 1013 Visual Basic, CMSC 2203 Pyth CMSC 2303 Java, CMSC 2313 Programmir Recommended Program Elective Courses Hours (Add to 1-hour of Gen Ed Elective h to take two courses)	4 hours 4 hours 4 hours 1 hour 6 hours  4 hours 2 hours 2 hours 4 hours 5 hours	
Program Requirement Courses - 19 Total I **MATH 2144 Calculus I **MATH 2154 Calculus II **MATH 2164 Calculus III PRDV 2321 Professional Development (6) hours of programming language chosen from the following or other pre-approved substitutions: CMSC 1013 Visual Basic, CMSC 2203 Pyth CMSC 2303 Java, CMSC 2313 Programmir Recommended Program Elective Courses Hours (Add to 1-hour of Gen Ed Elective h	4 hours 4 hours 4 hours 1 hour 6 hours  on, g with C++ - 5-6 Total	
Program Requirement Courses - 19 Total I **MATH 2144 Calculus I **MATH 2154 Calculus II **MATH 2164 Calculus III PRDV 2321 Professional Development (6) hours of programming language chosen from the following or other pre-approved substitutions: CMSC 1013 Visual Basic, CMSC 2203 Pyth CMSC 2303 Java, CMSC 2313 Programmir Recommended Program Elective Courses Hours (Add to 1-hour of Gen Ed Elective Into take two courses) ACCT 2103 Accounting I-Financial	4 hours 4 hours 4 hours 1 hour 6 hours  4 hours 2 hours 2 hours 4 hours 5 hours	
Program Requirement Courses - 19 Total I **MATH 2144 Calculus I **MATH 2154 Calculus II **MATH 2164 Calculus III PRDV 2321 Professional Development (6) hours of programming language chosen from the following or other pre-approved substitutions: CMSC 1013 Visual Basic, CMSC 2203 Pyth CMSC 2303 Java, CMSC 2313 Programmir Recommended Program Elective Courses Hours (Add to 1-hour of Gen Ed Elective h to take two courses) ACCT 2103 Accounting I-Financial (or) ACCT 2203 Accounting II-Managerial	4 hours 4 hours 4 hours 1 hour 6 hours  4 hours 1 hour 6 hours  4 hours 1 hour 7 hours	
Program Requirement Courses - 19 Total I **MATH 2144 Calculus I **MATH 2154 Calculus II **MATH 2164 Calculus III PRDV 2321 Professional Development (6) hours of programming language chosen from the following or other pre-approved substitutions: CMSC 1013 Visual Basic, CMSC 2203 Pyth CMSC 2303 Java, CMSC 2313 Programmir Recommended Program Elective Courses Hours (Add to 1-hour of Gen Ed Elective h to take two courses) ACCT 2103 Accounting I-Financial (or) ACCT 2203 Accounting II-Managerial CMSC 2123 Business Tech & Applications MATH 2023 Elementary Statistics	4 hours 4 hours 4 hours 1 hour 6 hours  4 hours 1 hour 6 hours  4 hours 1 hour 1 hours 1 hours 1 hours 1 hours 1 hours 1 hours 2 hours 3 hours 3 hours 3 hours	
Program Requirement Courses - 19 Total I **MATH 2144 Calculus II **MATH 2154 Calculus II **MATH 2164 Calculus III PRDV 2321 Professional Development (6) hours of programming language chosen from the following or other pre-approved substitutions: CMSC 1013 Visual Basic, CMSC 2203 Pyth CMSC 2303 Java, CMSC 2313 Programmir Recommended Program Elective Courses Hours (Add to 1-hour of Gen Ed Elective h to take two courses) ACCT 2103 Accounting I-Financial (or) ACCT 2203 Accounting II-Managerial CMSC 2123 Business Tech & Applications	4 hours 4 hours 4 hours 1 hour 6 hours  4 hours 1 hour 6 hours  4 hours 1 hour 1 hours 3 hours	

## **Suggested Course Sequence:**

First Semester 16 Total	<b>Credit Hours</b>
ENGL 1113 English Composition I	3 hours
MATH 1613 Plane Trigonometry	3 hours
(fast-track if needed for placement	)
ORNT 1101 Freshman Orientation	1 hour
POLI 1113 American Government	3 hours
CMSC 1113 Computer Concepts	3 hours
General Education/Program Elective	e 3 hours
(may be used for MATH 1513 if ne	eded
for placement)	

Second Semester	14 Total Cr	edit Hours
ENGL 1213 English Com	position II	3 hours
MATH 2144 Calculus I		4 hours
Computer Programming	Language	3 hours
Science Elective		4 hours

Third Semester	17 Total Credit Hours
Science Elective	4 hours
MATH 2154 Calculus II	4 hours
ACCT 2103 Accounting I-I	Financial 3 hours
(or other Gen Ed/Progra	m elective)
Computer Programming L	anguage 3 hours
PHIL 2213 Ethics	3 hours
(or) PHIL 2223 Business	Ethics

## Fourth Semester 14 Total Credit Hours HIST 1483 Amer. History to 1877 3 hours (or) HIST 1493 Amer. History Since 1877 International Humanities Elective 3 hours MATH 2164 Calculus III 4 hours \*Program/Gen Ed Electives 3 hours PRDV 2321 Professional Development 1 hour

This is a suggested sequence timeline only. A student may require more than four semesters to complete an Associate in Science degree.

\*Taking math class from recommended program electives can reduce hours here to graduate with 61 credits, or gen ed can be selected from courses in: Language Arts, Natural Sciences, Foreign Languages, Fine Arts, Humanities, Mathematics, Behavioral Science, or Social Sciences.

The Associate in Science degree in Computer Science is designed to provide the basic requirements for the first two years of the bachelor's degree in the area of computer science or information systems. The suggested curriculum is outlined to the left. Alternate courses and electives should be selected carefully only after the student and the major faculty academic advisor have consulted the catalog of the selected transfer college.

The Business Division and this degree program are accredited by the Accreditation Council for Business Schools and Programs (ACBSP).

Outstanding Business students are invited to join Kappa Beta Delta, the business honor society recognized by ACBSP.

## **Career Opportunities**

Programer Systems Analyst

NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined by A.C.T. test scores--primary or a residual administered in the Testing Center at NOC. Based upon the scores, students may be required to take one or more courses for remediation in English, Math, or Reading, either prior to or concurrent with credit courses. See the NOC testing web page by clicking on the following link: <a href="http://">http://</a> www.noc.edu/act for placement guidelines.

<sup>\*\*</sup>These program courses are typically offered only once a year. See course descriptions for fall or spring designations and plan accordingly.