

**EAST CENTRAL UNIVERSITY
MATHEMATICS - B.S.
DATA SCIENCE APPLICATIONS CONCENTRATION
0295/UG21**

Advisor _____

Student's Name _____ ID No. _____

DEGREE CHECK INCLUDES CURRENT ENROLLMENT

Checked by _____ Date _____	Work in progress _____	
Required:	2.0 minimum required in the following	Work lacking:
124 total hours _____ completed	areas:	Major _____ (inc A/C and Related Work)
30 hrs @ ECU _____ completed	ECU Avg _____ Rtn Avg _____	Minor _____ (incl Rel Wk)
(15 of last 30 must be at ECU) _____	Major Overall Avg _____	Prof Educ _____
60 hrs @ Sr College _____ completed	Major ECU Avg _____	General Educ _____
40 hrs upper level _____ completed	Minor Overall Avg _____	Comp Prof _____ met _____ not met
HS Curricular Req _____ met _____ not met		

<u>REQUIREMENTS</u>	<u>HOURS</u>	<u>REQUIREMENTS</u>	<u>HOURS</u>
I. General Education (44 HOURS)		III. Related Work	12
<i>6 hours (CMPSC 1113 and MATH 1513) counted in the Major</i>		A. Required General Education	3
Other hours needed	38	___ CMPSC 1113 Computer Programming I	
II. Concentration in Mathematics	46-52	B. Required Related Work	9
A. Required General Education	0-3	___ CMPSC 1133 Computer Programming II	
___ MATH 1513 College Algebra		___ CMPSC 3313 Advanced Computer Languages	
		___ CMPSC 4213 Data Base Design	
B. Required Mathematics Core	22-25	IV. Minor (Not Required)	
___ MATH 1223 Intro to Probability and Statistics		V. Electives	22-28
___ MATH 1713 Trigonometry		VI. Total Hours Required	124
___ MATH 2825 Calculus and Analytic Geometry I		VII. Special Requirements	
___ MATH 3025 Calculus and Analytic Geometry II		MATH 1413, "teachers" or "methods" courses will not be counted in the major.	
___ MATH 3033 Calculus and Analytic Geometry III		With departmental approval, students may omit MATH 1513 and MATH 1713 and begin with MATH 2825.	
___ MATH 3713 Linear Algebra		The OSRHE computer proficiency graduation requirement will be met through completion of CMPSC 1113 (including equated or substituted courses), or testing out of the challenge exam for this course, <u>OR</u> successful completion of an associate of arts or associate of science degree at an Oklahoma two-year college in which the computer skills requirement was met. Satisfaction of this requirement may not reduce or remove any program requirements.	
___ MATH 4923 Perspectives in Mathematics			
C. Required for Concentration in Data Science	18		
___ CPSMA 2923 Data Structures and Algorithm Analysis			
___ CPSMA 3813 Data Mining			
___ CPSMA 4313 Data Processing and Visualization			
___ CPSMA 4513 Data Applications in Business			
___ MATH 3513 Mathematical Statistics			
___ MATH 3583 Applied Statistics			
D. Required Electives	6		
Two of the following:			
___ CPSMA 3913 Discrete Mathematics			
___ CPSMA 3933 Operations Research			
___ CPSMA 4413 Numerical Methods			