

East Central University
Mathematics- B.S.
Data Science Concentration

0295/UG24

Student Name: _____	Student ID # _____						
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">30 hours at ECU completed</td> <td style="width: 70%;"></td> </tr> <tr> <td>60 hours at Sr college completed</td> <td></td> </tr> <tr> <td>40 hours upper level completed</td> <td></td> </tr> </table>	30 hours at ECU completed		60 hours at Sr college completed		40 hours upper level completed		Advisor: _____ <input style="width: 100%;" type="text" value="OSRHE Computer Proficiency Requirement met"/>
30 hours at ECU completed							
60 hours at Sr college completed							
40 hours upper level completed							

Requirements	Hours
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Courses highlighted in blue are general education courses.

I. General Education	40
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A maximum of 12 hours may be counted in both the major/related work and general education.

II. Major in Data Science Mathematics	46-52
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A. Required Mathematics Core			22-28
MATH	1513	College Algebra †	
MATH	1223	Intro to Probability and Statistics	
MATH	1713	Trigonometry †	
MATH	2825	Calculus and Analytic Geometry I	
MATH	3025	Calculus and Analytic Geometry II	
MATH	3033	Calculus and Analytic Geometry III	
MATH	3713	Linear Algebra	
MATH	4923	Perspectives in Mathematics	

C. Required for Concentration in Data Science			18
CPSMA	2103	Data Structures	
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 Mathematics Electives			6
Two of the following:			
CPSMA	3913	Discrete Mathematics	
CPSMA	3933	Operations Research	
CPSMA	4413	Numerical Methods	

Requirements	Hours
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III. Related Work	12
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CMPSC	1113	Computer Programming I
CMPSC	1133	Computer Programming II
CMPSC	3313	Advanced Computer Languages
CMPSC	4213	Data Base Design

IV. Minor	
Not Required	

V. Electives	22-31
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An elective course is any college-level course not required by the degree that is utilized to reach the 120 credit hours required for degree completion. Elective courses are chosen according to the interest of the student and can be used in completion of a minor, certificate, or additional major.

VI. Total Hours Required	120
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VII. Special Requirements	
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Math 1413 "teachers" or "methods" courses will not be counted in the major.

† With departmental approval, students may omit MATH 1513 and MATH 1713 and begin with MATH 2825.