

NEW Data Science Curriculum

<p>I. GENERAL EDUCATION REQUIREMENTS 23-27 SH</p> <p>A. New Student Seminar 1</p> <p>B. Communications 3 Writing 3 Literature 3 Communications 3</p> <p>C. Fine and Performing Arts 3</p> <p>F. Humanities 3 Great Works OR 3 Philosophy/Religion</p> <p>G. Computer Science (CSIT 104)</p> <p>H. Mathematics (MATH 122)</p> <p>I. Natural Science Laboratory 0-4 (satisfied by some minors)</p> <p>J. Physical Education 1</p> <p>K. Social Science 3 American/European History OR 3 Social Science Global Cultural Perspectives 3</p> <p>II. WORLD LANGUAGE AND WORLD CULTURE 3-9 SH</p> <p>A. World Language 3-6</p> <p>B. World Culture 0-3</p> <p>III. MAJOR AND COLLATERAL COURSES 59 SH</p> <p>A. DATA SCIENCES REQUIREMENTS 36</p> <p>Complete 33 semester hours through the following</p> <p>CSIT 104 Computational Concepts 3</p> <p>CSIT 114 Python Programming 3</p> <p>CSIT 213 Data Structures and Algorithms in Python 3</p> <p>CSIT 230 Computer Systems 3</p> <p>CSIT 275 Introduction to R Programming 3</p> <p>CSIT 355 Database Systems 3</p> <p>CSIT 356 Introduction to Data Science 3</p> <p>CSIT 359 Data Visualization 3</p> <p>CSIT 440 Data Mining 3</p> <p>CSIT 455 Machine Learning 3</p> <p>CSIT 456 Advanced Techniques in Data Science 3</p> <p>Choose 3 semester hours from the following</p> <p>CSIT 491 COOP in CS and IT 3</p> <p>CSIT 497 Undergraduate Research Experience in CS I 3</p> <p>B. COMPUTER SCIENCE ELECTIVES 6</p> <p>Any 2 CSIT courses at the 300 level or above 6</p>	<p>C. MATHEMATICS REQUIREMENTS 17</p> <p>Complete 17 semester hours through the following:</p> <p>CSIT 270 Discrete Mathematics 3</p> <p>MATH 122 Calculus I 4</p> <p>MATH 221 Calculus II 4</p> <p>MATH 340 Probability 3</p> <p>STAT 330 Fundamentals of Modern Statistics I 3</p> <p>IV. DOMAIN KNOWLEDGE 15-20 SH</p> <p>Complete a minor in one of the areas below:</p> <ol style="list-style-type: none"> 1) Biology 2) Chemistry 3) Physics 4) Earth and Environmental Science 5) Geographic Information Science 6) Mathematics 7) Linguistics 8) Public Health 9) Economics 10) Business 11) Business Analytics 12) Journalism 13) Psychology 14) Cognitive Science <p>V. FREE ELECTIVES 5-20 SH</p> <p>Total 120 SH</p>
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NEW Recommended Four -Year Plan (Fall 2020)

This recommended four-year plan is provided as an **outline** for students to follow in order to complete their degree requirements within four years. This plan is a **recommendation** and students should only use it in consultation with their academic advisor.

First Year

Fall Semester	SH	Spring Semester	SH
WRIT 105	3	WRIT 106	3
World Languages	3	World Languages	3
CSIT 104	3	CSIT 114 Python Programming	3
MATH 122 Calculus I	4	CSIT 270 Discrete Math	3
New Student Seminar	1	MATH 221 Calculus II	4
Total:	14	Total:	16

Second Year

Fall Semester	SH	Spring Semester	SH
MATH 340 Probability	3	Global Cultural Perspectives OR World Culture	3
CSIT 213 Data Structures & Algorithms in Python	3	CSIT 230 Computer Systems	3
Social Science OR American/European History	3	STAT 330 Fundamentals of Modern Statistics	3
Communications	3	CSIT 359 Data Visualization	3
Minor Course	3	Minor Course	3
Total:	15	Total:	15

Third Year

Fall Semester	SH	Spring Semester	SH
Great Works OR Philosophy/Religion	3	CSIT 440 Data Mining	3
CSIT 275 R Programming	3	CSIT 356 Data Sciences I	3
Minor Course	3	Natural Science Course OR Free Elective	3
CSIT 355 Database Systems	3	Minor Course	3
Minor Course	3	Minor Course	3
Total:	15	Total:	15

Fourth Year

Fall Semester	SH	Spring Semester	SH
CSIT 456 Data Sciences II	3	CSIT 455 Machine Learning	3
CSIT Elective	3	Minor Course OR Free Elective	3
Minor Course OR Free Elective	3	Minor Course OR Free Elective	3
Fine and Performing Arts	3	CSIT 491 or CSIT497	3
CSIT Elective	3	Physical Education	1
		Free Elective	2
Total:	15	Total:	15

Total Required: 120 credits