Program Map: Mathematics – Applied Statistics concentration
Mathematics Department, College of Sciences and Technology

Name: **SID:**   **Advisor:**

Start Date: **Catalog Date:**   **Expected Graduation Date:**

Freshman

Course	Name (Fall)	Hours	Course	Name (Spring)	Hours	Notes
ENGL 1101	Composition I Pre-requisite:	3	ENGL 1102	Composition II Pre-requisite: ENGL 1101	3	
MATH 1113*	Pre-Calculus Pre-requisite: MATH 1111	3	MATH 2101	Calculus I Pre-requisite: MATH 1113	4	
CSCI 1130	Computer Applications	3	HIST 2111/HIST 2112	U.S. History	3	
AFRS 1501	African-American History	2	MATH 1401	Elem Statistics Pre-requisite: MATH 1111	3	
POLS 1101	American Government	3	HUMN 1201	Critical Thinking & Communication Pre-requisite: ENGL 1102 OR ENGL 109	3	
COST 1103	COST Freshman Year Experience	2				

Fall Milestones	Total	Spring Milestones	Total
	16		16

Sophomore

Course	Name (Fall)	Hours	Course	Name (Spring)	Hours	Notes
MATH 2111	Calculus II Pre-requisite: MATH 2101	4	MATH 2121	Calculus III Pre-requisite: MATH 2111	4	
MATH 2301	Intro to Discrete Math Pre-requisite: MATH 1113	3	MATH 2401	Intro. Mathematical Software Pre-requisite: MATH 1113	3	
AREA E	Social Science		MATH 3211	Foundations of Higher Math Pre-requisite: MATH 2111	3	
AREA F	Either CSCI 1301 or DATA 2225	3	AREA C	Humanities/Fine Arts & Ethics	3	
AREA D	Natural Sciences, Math & Technology	4	AREA D	Complete the Science Sequence Selected: BIOL 1103/1104, CHEM 121/1212L, PHYS 1112K/PHSC 1012K	4	

Fall Milestones	Total	Spring Milestones	Total
Student should know their career track.	17	Student should have completed a job shadowing experience relevant to their career track	17

Junior

Course	Name (Fall)	Hours	Course	Name (Spring)	Hours	Notes
MATH 3101	Linear Algebra Pre-requisite: MATH 2111	3	MATH 3201	Probability & Statistics Pre-requisite: MATH 2111	3	
MATH 3301	Differential Equations Pre-requisite: MATH 2111	4	MATH ELEC	Choose One Math Elective	3	
MATH ELEC	Choose One Math Elective	3	MATH ELEC	Choose One Math Elective	3	
AREA C	Humanities/Fine Arts & Ethics	3	ELEC	Free Elective	3	
AREA E	Social Science	3	ELEC	Free Elective 2000-4000 Level	3	

Fall Milestones	Total	Spring Milestones	Total
Student should have completed an internship or research experience relevant to their career track.	16	Students should have completed any required admissions testing for their career track (GRE, MCAT, PCAT, DAT)	15

Senior

Course	Name (Fall)	Hours	Course	Name (Spring)	Hours	Notes
MATH 4201	Analysis I Pre-requisite: MATH 3211	3	MATH 4901	Senior Seminar	1	*Some professional educational programs may need to be completed by the summer before the senior year. Does this Degree Program Require a Minor? <u>No</u> Total Hours Required for this Degree Program: <u>120</u>
MATH ELEC	Choose one Math Elective	3	MATH ELEC	Choose One Math Elective	3	
MATH ELEC	Choose one Math Elective	3	MATH ELEC	Choose One Math Elective	3	
ELEC	Free Elective 2000-4000 Level	3	ELEC	Free Elective	2	
			ELEC	Free Elective	3	

Fall Milestones	Total	Spring Milestones	Total
Application completed for further professional educational programs relative to your career track*	12		12

Core Curriculum (Programmed Preferred Options in Bold)

Area B – Institutional Options: 5 hrs
- i. AFRS 1501 Survey of African-American Experience 2 hrs
- ii. HUMN 1201 Critical Thinking & Communication 3 hrs

Area C – Humanities/Fine Arts, and Ethics: 6 hrs,
1. Select one of the following:
   - i. ENGL 2111 World Literature I 3 hrs
   - ii. ENGL 2112 World Literature II 3 hrs
   - iii. ENGL 2121 British Literature I 3 hrs
   - iv. ENGL 2122 British Literature II 3 hrs
   - v. ENGL 2131 American Literature I 3 hrs
   - vi. ENGL 2132 American Literature II 3 hrs
   - vii. ENGL 2222 African American Literature 3 hrs
   - viii. PHIL 2010 Introduction to Philosophy 3 hrs
   - ix. PHIL 2030 Introduction to Ethics 3 hrs
2. Select one of the following:
   - i. ARTS 1101 Introduction to Visual Art 3 hrs
   - ii. DNCE 2010 Dance Appreciation 3 hrs
   - iii. ENGL 2521 Introduction to Film 3 hrs
   - iv. HUMN 2011 Humanities 3 hrs
   - v. MUSC 1101 Introduction to Music 3 hrs
   - vi. THEA 2101 Introduction to Theatre 3 hrs

Area D – Natural Sciences, Math & Technology 10 hrs
1. Select one of the following:
   - i. BIOL 1107 Principles of Biology I 3 hrs
   - ii. BIOL 1108 Principles of Biology II 3 hrs
   - iii. CHEM 1211 Principles of Chemistry I 3 hrs
   - iv. CHEM 1212 Principles of Chemistry II 3 hrs
   - v. CISM 1130 Computer Applications 3 hrs
   - vi. CSCI 1130 Computer Applications 3 hrs
   - vii. CSCI 1301 Computer Science I 3 hrs
   - viii. ENVS 1140 Environmental Issues 3 hrs
2. Select two of the following lab sciences:
   - i. BIOL 1107/1107L Principles of Biology I 4 hrs
   - ii. BIOL 1108/1108L Principles of Biology II 4 hrs
   - iii. CHEM 1211/1211L Principles of Chemistry 4 hrs
   - **iv.** CHEM 1212/1212L Principles of Chemistry 4 hrs
   - v. PHYS 1111K Introductory Physics I 4 hrs
   - vi. PHYS 1112K Introductory Physics II 4 hrs
   - vii. PHYS 2211K Principles of Physics I 4 hrs
   - viii. PHYS 2212K Principles of Physics II 4 hrs

Area E – Social Science 12 hrs
- i. POLS 1101 American Government 3 hrs
2. Select one of the following:
   - i. HIST 2111 U.S. History to the Post-Civil War Period 3 hrs
   - ii. HIST 2112 U.S. History from the Post-Civil War to Pre 3 hrs
3. Select two of the following:
   - i. AFRS 2000 Introduction to Africana Studies 3 hrs
   - ii. ANTH 1101 Introduction to Anthropology 3 hrs
   - iii. ECON 2105 Principles of Macro-Economics 3 hrs
   - iv. GEOG 1101 Introduction to Human Geography 3 hrs
   - v. HIST 1111 World Hist to Early Modern Times 3 hrs
   - vi. HIST 1112 World History Early Modern Times to Pres 3 hrs
   - vii. POLS 2401 Global Issues 3 hrs
   - viii. PSYC 1101 Intro to General Psychology 3 hrs
   - ix. PSYC 2103 Human Growth & Development 3 hrs
   - x. SOCI 1101 Introduction to Sociology 3 hrs
   - xi. SOCI 1160 Social Problems 3 hrs

Distinctive Courses in this Major

Math Electives – 21 hrs

Select 12 hrs
MATH 3000 Intro to Bio Statistics 3 hrs
MATH/DATA 3115 Mathematical Data Analysis 3 hrs
MATH 3311 Mathematical Finance & Interest Theory 3 hrs
MATH 3501 Numerical Analysis I 3 hrs
MATH 4311 Probability & Statistics II 3 hrs
MATH 4411 Statistical Methods 3 hrs
MATH 4421 Regression Analysis 3 hrs

Select 3 hrs
MATH 4902 Senior Research/Intern 3 hrs
MATH 4904 Special topics (Applied Stat contents) 3hrs

Select 6 hrs
DATA 3010 Business Intelligence 3hrs
CILS/DATA 3109 Intro to Data Analytics and Mining 3 hrs
CILS/DATA 3111 Applied Statistics for Data Science 3 hrs
MSCI/DATA 3560 Big Data Analysis in the Sciences 3 hrs
ENGT/DATA 3190 Data Visualization 3 hrs