# Department of Mathematics and Statistics Bachelor of Science in Mathematics (Applied Mathematics) <br> Major Code: MATH <br> Concentration Code: AMTH 

## Curriculum Guide

| Course | CR | Course | CR |
| :---: | :---: | :---: | :---: |
| Freshman Year: First Semester |  | Freshman Year: Second Semester |  |
| MATH 131 (MLAR) | 4 | MATH 132 (MLAR) | 4 |
| MATH 105 | 1 | Foreign Language ${ }^{1}$ Elective | 3 |
| ENGL 100 (WC) | 3 | ENGL 101 (WC) | 3 |
| Foreign Language ${ }^{1}$ Elective | 3 | MATH $140^{3}$ | 3 |
| Global Awareness ${ }^{2}$ (GA) | 3 | MATH 106 | 1 |
| FRST 101 (SS) | 1 | African Amer. Culture and History ${ }^{4}$ (AA) | 3 |
| Semester Total | 15 | Semester Total | 17 |
| Sophomore Year: First Semester |  | Sophomore Year: Second Semester |  |
| MATH 231 | 4 | MATH 211 | 4 |
| SPCH 250 (HFA) | 3 | PHYS 242 (SR) | 3 |
| MATH 240 | 3 | PHYS 252 (SR) | 1 |
| PHYS 241 (SR) | 3 | Social and Behavioral Sciences ${ }^{5}$ (SBS) | 3 |
| PHYS 251 (SR) | 1 | MATH 224 | 3 |
| MATH 215 | 1 | Semester Total | 14 |
| Semester Total | 15 |  |  |
| Junior Year: First Semester |  | Junior Year: Second Semester |  |
| MATH 320 | 3 | MATH 341 | 3 |
| MATH 351 | 3 | MATH 340 or MATH 365 | 3 |
| MATH 377 | 3 | Applications Area Electives ${ }^{6}$ | 3 |
| Applications Area Electives ${ }^{6}$ | 3 | STAT 324 | 3 |
| Ethical Reasoning Elective ${ }^{7}$ | 3 | Elective | 3 |
| Semester Total | 15 | Semester Total | 15 |
| Senior Year: First Semester |  | Senior Year: Second Semester |  |
| MATH 432 | 3 | MATH 496 | 3 |
| Applications Area Electives ${ }^{6}$ | 3 | Applications Area Electives ${ }^{6}$ | 3 |
| Applications Area Electives ${ }^{6}$ | 3 | Electives | 8 |
| Electives | 6 | Semester Total | 14 |
| Semester Total | 15 |  |  |

Total Credit Hours: 120
${ }^{1}$ Two courses of FREN 101, FREN 102; or GERM 101, GERM 102; or SPAN 101, SPAN 102; or RUSS 101, RUSS102 taken in sequence. ${ }^{2}$ One course from: HIST 130, 206, 207, 216 or 231, or MGMT 221, or PHIL 103 or 201.
${ }^{3}$ For students starting in Math 103, Math 104, or Math 110, the programming courses should be replaced with electives in the first year. Then MATH 140 and MATH 240 should be taken prior to MATH 340/365. See the Mathematics Student Handbook for a sample program guide.
${ }^{4}$ One course from: ENGL 211 or 212, or HIST 103, 106 or 107, or LIBS 202, or MUSI 220.
${ }^{5}$ One course from: ECON 200 or 201, FCS 135, 181 or 260, FIN 279, HIST 103, 104, 105, 106, 107, 206, 207, 216 or 231, JOMC 240, POLI 110, PSYC 101, SOCI 100 or 200, SSFM 226.
${ }^{6}$ Must include a total of 15 credit hours taken in one of the applications areas, including but not limited to: Applied and Computational Mathematics, Statistics, Physical Sciences, Engineering and Applied Sciences, Life Sciences, or Business and Economics, and approved by the Applied Mathematics Undergraduate

Program Committee. A list of suggested core courses for each of the applications areas is available from the Department of Mathematics.
${ }^{7}$ One course from: PHIL 104, 201, 263, 315, 316, 317, or 320

## MAJOR PROGRAM REQUIREMENTS

A student must earn a C or better grade except one passing grade below C if the student has GPA of at least 2.0 but less than 2.3, or two passing grades below $C$ if the student has GPA of at least 2.3 in the following courses:

| MATH 105 | MATH 320 |
| :--- | :--- |
| MATH 106 | MATH 340/365 |
| MATH 131 | MATH 341 |
| MATH 132 | MATH 351 |
| MATH 140 | MATH 377 |
| MATH 211 | MATH 432 |
| MATH 215 | MATH 496 |
| MATH 224 | STAT 324 |
| MATH 231 | Applications Area Electives (5) |
| MATH 240 |  |

