**College of Basic and Applied Sciences**

**Upper Division Form 2019-2020 Catalog**

Student name  Student # Major **MATHEMATICS** Minor (Optional) Concentration **PROFESSIONAL MATH – ADVANCED TRACK** E-mail

**Instructions: For students graduating in Fall 2019 or later. *One (1) copy signed by major and minor advisors should be filed in DSB 120 three semesters before anticipated graduation. An Intent to Graduate form should also be filed in DSB 120 at the time of Upper Division Form submission.***

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| **General Education** | **Course** | **Semester** | **Grade** | **Prerequisites/Notes** | **Credit Hours** |
| **COMMUNICATION** (9 hours) | **ENGL 1010** |  |  | Must earn a grade of C- or better | 3 |
| **ENGL 1020** |  |  | Must earn a grade of C- or better | 3 |
| **COMM 2200** |  |  |  | 3 |
| **HISTORY** (6 hours)Choose two: HIST 2010, HIST 2020,HIST 2030 |  |  |  |  | 3 |
|  |  |  |  | 3 |
| **HUMANITIES AND/OR FINE ARTS** (9 hours)Choose one: ENGL 2020, 2030, HUM 2610. Choose twodifferent subjects: ANTH 2210, ART 1030 or 1920, DANC 1000,HIST 1010, 1020, 1110, 1120, MUS 1030, PHIL 1030, THEA1030 |  |  |  |  | 3 |
|  |  |  |  | 3 |
|  |  |  |  | 3 |
| **MATHEMATICS** (3 hours) Choose one: MATH 1010, 1530, 1630, 1710,1720, 1730, 1810, **1910** | **MATH 1910** |  |  | Pre-req: MATH 1730 with a C(2.0) or higher, ACT MATH of 26, or Calculus Placement test with satisfactory score; must earn a grade of C(2.0) or higher | 3 of 4 |
|  **NATURAL SCIENCES** (8 hours)Choose two different subjects: ASTR 1030/1031, BIOL 1030/1031, BIOL 1110/1111,BIOL 2010/2011,BIOL 2020/2021, CHEM 1010/1011, CHEM 1030/1031,CHEM 1110/1111, GEOL 1030/1031,GEOL 1040/1041, PGEO 1030, PHYS 1110, PHYS2010/2011,PHYS 2110/2111, PSCI 1030/1031, PSCI 1130/1131 |  |  |  |  | 4 |
|  |  |  |  | 4 |
| **SOCIAL/BEHAVIORAL SCIENCES** (6 hours**)**Choose two different subjects**:** AAS 2100, ANTH 2010, ECON 2410, ECON 2420, GEOG 2000,GS 2010, HLTH 1530/1531, EMC/JOUR/RIM 1020, PS 1010, PS 1005, PSY 1410, RS 2030, SOC 1010, SOC 2010, WGST 2100 |  |  |  |  | 3 |
|  |  |  |  | 3 |
|  **Hours Required**  | 41 |

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| **Major Courses - Grade of C (2.0) or better required in each course** | **Course** | **Semester** | **Grade** | **Prerequisites/Notes** | **Credit Hours** |
| **Calculus I** | **MATH 1910** |  |  | Pre-req: MATH 1730 with a C(2.0) or higher, ACT MATH of 26, or Calculus Placement test with satisfactory score. 3 hours counted in Gen. Ed. All 4 hours are also considered part of the major. | 1(+3) |
| **Calculus II** | **MATH 1920** |  |  | MATH 1910 with a grade of C(2.0) or higher | 4 |
| **Elements of Linear Algebra** | **MATH 2010** |  |  | MATH 1910 | 3 |
| **Probability and Statistics (MATH 2050) or Math.Stat. I (STAT 3150**)(STAT 3150 is offered in the Fall only) |   |  |  | **MATH 2050**: MATH 1910 **STAT 3150**: MATH 1920 | 3 |
| **Calculus III** | **MATH 3110** |  |  | MATH 1920 | 4 |
| **Differential Equations I** | **MATH 3120** |  |  | MATH 1920 with a grade of C(2.0) or higher | 3 |
|   **Foundations of Higher Mathematics** | **MATH 3460** |  |  | MATH 1920 | 3 |
| **Theory of Calculus** (Fall only) | **MATH 4250** |  |  | MATH 3110 and MATH 3460 | 3 |
| **Abstract Algebra I** | **MATH 4510** |  |  | MATH 3460 | 3 |
| Choose one course from List A. Choose a second course from List A or List B. (See department schedule of course offerings)List A: **MATH 4420, MATH 4230, MATH 3260**List B: **MATH 4270, MATH 4530, MATH 4700** | **MATH**  |  |  | See online catalog for prerequisites | 3 |
| **MATH**  |  |  | See online catalog for prerequisites | 3 |
|  **Hours Required**  | 33 (36) |

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| **Supporting Courses - Grade of C (2.0) or better required in each course** |
| **Course** | **Semester** | **Grade** | **Prerequisites/Notes** | **Credit Hours** |
| **CSCI 1170 Computer Science I** |  |  | MATH 1730 with a C(2.0) or higher, ACT MATH of 26, or Calculus Placement test with satisfactory score. | 4 |
| **MATH 1910 Calculus I** |  |  | Credits counted in general education | 0 |
| **MATH 4990 Seminar in Mathematics** |  |  | Should be taken in final semester | 3 |
| **9 hours upper division (3000/4000 level) MATH/ACSI/STAT courses** |  |  | See online catalog for prerequisites | 3 |
|  |  | See online catalog for prerequisites | 3 |
|  |  | See online catalog for prerequisites | 3 |
|  **Hours Required**  | 16 |

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| **Elective Courses – 8 credits must be at the 3000/4000 level. At least one sequence in algebra (MATH 4420/MATH 4510), analysis (MATH 4230/MATH 4250), or differential equations (MATH 3120/MATH 3260). 6 credits of foreign language recommended** |
| **Course** | **Semester** | **Grade** | **Notes** | **Credit Hours** |
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|  **Hours Required**  | 30 |

# Minor (Optional)

**Course Semester** **Grade Notes** **Credit Hours**

 **Hours Required**

**Signed:**

**Minor Advisor Date**

1. Degrees require a minimum of 120 semester hours (12 of the last 18 at MTSU) with a 2.0 GPA, a minimum of 42 upper-division hours (30 at MTSU) with a 2.0 GPA, and a minimum of 60 senior college hours.
2. Learning Support courses count toward the 120-hour requirement and the overall GPA.

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| **Signed:** |  |  |
| **Major Advisor** | **Date** |