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| **Catalog Year 2022-2023**BS, Mathematics  | ***(For internal use only)***[ ]  *No change*[ ]  *UCC proposal* |

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| **Course Subject and Title** | **Cr.**  | **Min.** **Grade** | **\*GE,** **UU or UM** | **\*\*Sem. Offered** | **Prerequisite** | **Co-Requisite** |
| Semester One |
| GE Objective 1: ENGL 1101 Writing and Rhetoric I | 3 | C- | GE | F, S, Su | Appropriate placement score |  |
| GE Objective 3: MATH 1170 Calculus II | 4 | C- | GE | F, S, Su | Appropriate placement score |  |
| GE Objective 4: | 3 |  | GE | F, S, Su |  |  |
| GE Objective 6: | 3 |  | GE | F, S, Su |  |  |
| Free Electives | 1 |  |  |  |  |  |
|  Total | 14 |  |  |  |  |  |
| Semester Two |
| GE Objective 1: ENGL 1102 Writing and Rhetoric II | 3 | C- | GE | F, S, Su | ENGL 1101 or equivalent |  |
| MATH 1175 Calculus II | 4 | C- |  | F, S, Su | Math 1170 |  |
| MATH 2240 Linear Algebra | 3 |  |  | F, S, Su | Math 1170 |  |
| GE Objective 7/8: CS 1181 Intro to CS & Programming I | 3 |  | GE | F, S | Math 1143 or Math 1147 | Math 1143 or Math 1147 |
| GE Objective 4: | 3 |  | GE | F, S, Su |  |  |
|  Total | 16 |  |  |  |  |  |
| Semester Three |
| MATH 2275 Calculus III | 4 |  |  | F, S | Math 1175 |  |
| MATH 2287 Foundations of Mathematics | 3 |  |  | F | Math 1170 |  |
| GE Objective 2: COMM 1101 Principles of Speech | 3 |  | GE | F, S, Su |  |  |
| GE Objective 5: No lab | 3 |  | GE | F, S, Su |  |  |
| Free Electives | 2 |  |  |  |  |  |
|  Total | 15 |  |  |  |  |  |
| Semester Four |
| MATH 3326 Elementary Analysis | 3 |  | UM | F, S | Math 1175 and either Math 2240 or Math 2287 |  |
| MATH 3360 Differential Equations | 3 |  | UM | F, S | Math 1175; MATH 2240 or Math 2275 recommended |  |
| GE Objective 6: | 3 |  | GE | F, S, Su |  |  |
| GE Objective 9:  | 3 |  | GE | F, S, Su |  |  |
| Free Electives | 3 |  |  |  |  |  |
|  Total |  |  |  |  |  |  |
| Semester Five |
| MATH 4407 Modern Algebra I  | 3 |  | UM | F | Math 2240 and math 2287 |  |
| MATH 3000 level course (3327, 3335, 3343, 3352, or 3362) | 3 |  | UM |  | See Catalog |  |
| MATH 3000 level course (3327, 3335, 3343, 3352, or 3362) | 3 |  | UM |  | See Catalog |  |
| Free Electives | 6 |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  Total | 15 |  |  |  |  |  |
| Semester Six |
| MATH 4000 level course | 3 |  | UM |  |  |  |
| GE Objective 5: w/lab | 4 |  | GE | F, S, Su |  |  |
| Free Electives | 8 |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  Total | 15 |  |  |  |  |  |
| Semester Seven |
| MATH 4000 level course | 3 |  | UM |  |  |  |
| MATH 4423 Intro to Real Analysis I | 3 |  | UM | F | Math 2240, Math 3326, Math 3360. |  |
| Upper Division Electives | 3 |  | UU |  |  |  |
| Free Electives  | 6 |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  Total  | 15 |  |  |  |  |  |
| Semester Eight  |
| MATH 4000 level course | 3 |  | UM |  |  |  |
| Upper Division Free Electives | 6 |  | UU |  |  |  |
| Free Electives  | 6 |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  Total  | 15 |  |  |  |  |  |
| \*GE=General Education Objective, UU=Upper Division University, UM= Upper Division Major\*\*See Course Schedule section of Course Policies page in the e-catalog (or input F, S, Su, etc.)  |

A Major Academic Plan (MAP) is one way to complete a degree in a set number of semesters. The *example* below is only one strategy. Actual plans for individual students will vary based on advisor recommendations and academic needs. Official Program Requirements including Major, General Education, Electives, and university requirements (see pg.2) are based on Catalog Year.

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| BS, Mathematics Page 2  |
| **2022-2023 Major Requirements** | **CR** | **GENERAL EDUCATION OBJECTIVES****Satisfy Objectives 1,2,3,4,5,6 (7 or 8) and 9** | **36 cr. min** |
| **MAJOR REQUIREMENTS** |  | 1. Written English (6 cr. min) ENGL 1101 | 3 |
| **Mathematics Core:**  | **14** |  ENGL 1102 | 3 |
| MATH 1170 Calculus I (credits counted in GE) | 2. Spoken English (3 cr. min) COMM 1101 | 3 |
| MATH 1175 Calculus II | 4 | 3. Mathematics (3 cr. min) MATH 1170 | 4 |
| MATH 2275 Calculus III | 4 | 4. Humanities, Fine Arts, Foreign Lang. **(2 courses; 2 categories; 6 cr. min)** |
| MATH 2240 Linear Algebra | 3 |  |  |
| MATH 3326 Elementary Analysis | 3 |  |  |
| ^^CS/INFO 1181 CS & Programming I (credits counted in GE) | 5. Natural Sciences **(2 lectures-different course prefixes, 1 lab; 7 cr. min)** |
| **Additional Required Courses** | **12** |  |  |
| MATH 2287 Foundations of Mathematics | 3 |  |  |
| MATH 3360 Differential Equations | 3 |  |  |
| *^MATH 4407 Modern Algebra I* | 3 | 6. Behavioral and Social Science **(2 courses-different prefixes; 6 cr. min)** |
| *^MATH 4423 Introduction to Real Analysis* | 3 |  |  |
| **Choose two of the following courses:** | **6** |  |  |
| Math 3327 Vector Analysis | 3 | One Course from EITHER Objective 7 OR 8 **(1course; 3 cr. min)** |
| Math 3335 Elementary Number Theory | 3 | 7. Critical Thinking | CS 1181 | 3 |
| Math 3343 Modern Geometry  | 3 | 8. Information Literacy  |  |
| MATH 3352 Intro to Probability | 3 | 9. Cultural Diversity **(1 course; 3 cr. min)** |
| MATH 3362 Intro to Complex Variables  | 3 |  |  |
| **Choose 9 credits of 4000-level coursework from**  | **9** | General Education Elective to reach 36 cr. min. **(if necessary)** |
| **Mathematics and/or Statistics** |   |  |
|  |  |  **Total GE** | **38** |
|  |  | Undergraduate Catalog and GE Objectives by [Catalog Year](https://www.isu.edu/advising/academic-support/general-education/) *http://coursecat.isu.edu/undergraduate/programs/* |
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|  |  | **MAP Credit Summary** | **CR** |
|  |  | Major  | 41 |
|  |  | General Education  | 38 |
|  |  | Upper Division Free Electives to reach 36 credits | 9 |
|  |  | Free Electives to reach 120 credits | 32 |
|  |  |  TOTAL | 120 |
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|  |  | **Graduation Requirement Minimum Credit Checklist** | **Confirmed** |
|  |  | Minimum 36 cr. General Education Objectives (15 cr. AAS) | X |
|  |  | Minimum 15 cr. Upper Division in Major (0 cr. Associate) | X |
|  |  | Minimum 36 cr. Upper Division Overall (0 cr. Associate) | X |
|  |  | Minimum of 120 cr. Total (60 cr. Associate) | X |
|  |  |  |  |
| **Advising Notes** | ***MAP Completion Status (for internal use only)*** |
| ^^Two courses (ME 1165 and ME 2266) may be substituted for |  | *Date* |
| CS/INFO 1181. |  |  |
|  | *CAA or COT:* |  |
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|  | **Complete College American Momentum Year****Math and English course in first year-Specific GE MATH course identified****9 credits in the Major area in first year****15 credits each semester (or 30 in academic year)****Milestone courses** |
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|  |  Form Revised 9.10.2019 |