

**Curriculum Chart 2004-2005
B.S. in Mathematics and Education (Secondary)**

MA00ED04SECGE04

| 1. Foundation Courses: | | | Credits |
|---|----------------------------------|--|----------------|
| English: | EN101 | College English I | 3.0 |
| | EN102 | College English II | 3.0 |
| Literature: | EN201 | Literature I | 3.0 |
| | EN202 | Literature II | 3.0 |
| History: | HS101 | Western Civ. in World Perspective I | 3.0 |
| | HS102 | Western Civ. In World Persp. II | 3.0 |
| Information Technology: | IT102 | Information Technology for Scientists | 3.0 |
| Critical Discourse: | HU201 | Critical Discourse | <u>3.0</u> |
| Total: | | | 24.0 |
| 2. Foundation Distribution: | | | |
| Science: | | Fulfilled in Outside the Major Requirements | 0.0 |
| Mathematics: | | Fulfilled in Major Requirements | 0.0 |
| Social Science: (This requirement is partially fulfilled in Outside the Major Requirements) | | Choose one course from among the following: any 100-level course in AN, GO, PS, SO; BE201, BE202, GS225. | 3.0 |
| Aesthetics: Three (3) credits chosen from: | AR101 MU101 TH101 DA101 | Art Appreciation OR Music Appreciation OR Theater Appreciation OR Dance Appreciation | <u>3.0</u> |
| Total: | | | 6.0 |
| 3. Advanced Distribution: | | | |
| Cross Cultural Studies: | | One course chosen from the set of approved courses OR 3 credits in a foreign language | 3.0 |
| Perspectives: | | One course chosen from the set of approved courses | 3.0 |
| Experiential Education: | EX001 | Fulfilled in Major Requirements | 0.0 |
| Demonstration of Writing Proficiency: | WP001 | | 0.0 |
| Writing Intensive Courses | | Two courses as specified by the department in which each major is housed. (4 total) | |
| | | MA | 0.0 |
| | | MA | 0.0 |
| | | ED | 0.0 |
| | | ED | <u>0.0</u> |
| Total: | | | 6.0 |

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4. Major Requirements (Mathematics):

| | | Credits |
|--|-------|---|
| 42 Credits in Mathematics: | MA120 | Discrete Mathematics 3.0 |
| | MA125 | Calculus with Analytic Geometry I 4.0 |
| | MA126 | Calculus with Analytic Geometry II 4.0 |
| | MA211 | Differential Equations 3.0 |
| | MA221 | Linear Algebra 3.0 |
| | MA225 | Calculus with Analytic Geometry III 4.0 |
| | MA314 | Number Theory 3.0 |
| | MA317 | Geometry 3.0 |
| | MA319 | Probability and Statistics I 3.0 |
| | MA320 | Probability and Stats.II 3.0 |
| | MA410 | Modern Algebra 3.0 |
| | MA415 | Real Analysis 3.0 |
| 1additional course from among the following: | MA411 | Abstract Algebra OR |
| | MA413 | Complex Analysis OR |
| | MA419 | Introduction to Math Modeling 3.0 |
| | | Total: 42.0 |

5. Major Requirements (Education):

| | | |
|-------------------------|-----------|--|
| 24 Credits in Education | ED250 | Foundations of Teaching & Learning 3.0 |
| | ED319 | Literacy Across the Secondary Curriculum 3.0 |
| | ED320 | Teaching Children with Diverse Needs 3.0 |
| | ED365 or | Mathematics for the Secondary Teach. Part I |
| | ED375 | Secondary Teaching Methods Part I 3.0 |
| | ED366 or | Mathematics for the Secondary Teach. Part II |
| | ED376 | Secondary Teaching Methods Part II 3.0 |
| 9 credits as follows: | ED416 and | Student Teaching (8 credits) |
| | ED416S | Seminar in Student Teaching (1 credit) |
| | OR | 9.0 |
| | ED417 and | Supervised Student Teaching (8 credits) |
| | ED417S | Seminar in Supervised Stud. Teach.(1 credit) |
| | | Total: 24.0 |

6. Requirements Outside Major:

| | | |
|-------------------|------------------------------------|-----------|
| CS175 or | Introduction to Computer Science I | |
| MA131L-133L | Math Lab I, II, III | 3.0-4.0 |
| PY103 | Introduction to Psychology | 3.0 |
| PY201 | Educational Psychology | 3.0 |
| PY204 | Adolescent Psychology | 3.0 |
| AND EITHER | | |
| CE111 | General Chemistry I | 3.0 |
| CE111L | General Chemistry I Lab | 1.0 |
| CE112 | General Chemistry II | 3.0 |
| CE112L | General Chemistry II Lab | 1.0 |
| OR | | |
| PH111 | General Physics with Calc. I | 4.0 |
| PH111L | General Physics with Calc. I Lab | 1.0 |
| PH112 | General Physics with Calc. II | 4.0 |
| PH112L | General Physics with Calc. II Lab | 1.0 |
| | Total: | 20.0-23.0 |

7 Liberal Arts, Science and Math Electives

(3 - 6 credits) (a): _____

Total Credits 128.0

(a) = The following disciplines are not considered liberal arts disciplines: Business (BA, BE, BF, BK, BL, BM), Criminal Justice (CJ), Education (ED), Nursing (NU), Physical Education (PE), Free Electives (FE), and Social Work (SW). However, BE201 and BE202, Micro and Macro Economics are considered Liberal Arts electives.

****Education majors are required to have an overall GPA of 2.75 for State Certification.****

NOTE: 58 credits must be completed at the 200 level or higher.