



CATALOG YEAR 2008-2009

(Please use a separate form for each add/change/delete)

COLLEGE/SCHOOL/SECTION: Arts and Sciences

Current Catalog Page(s) Affected: pp. 86, 105

Course: Add: _____ Delete: _____
(Check all that apply) Change: Number ___ Title ___ SCH ___ Description ___ Prerequisite ___

If new, provide Course Prefix, Number, Title, SCH Value, Description, Prerequisite, Lecture/Lab hours (if applicable), and **student learning outcomes**. If in current catalog, copy and paste the text from the [on-line catalog](#) and indicate changes in red and provide a brief justification.

Program: Add: _____ Change: Attach new/changed Program of Study description and 4-year plan. If in current catalog, copy and paste the text from the [on-line catalog](#) and indicate changes in red.

BA with a Major in Mathematics with Grades 8th-12th Certification (See attached / following pages for details and justification.)

Minor: Add: _____ Delete: _____ Change: _____ Attach new/changed minor. If in current catalog, copy and paste the text from the [on-line catalog](#) and indicate changes in red.

Faculty: Add: _____ Delete: _____ Change: _____ Attach new/changed faculty entry. If in current catalog, copy and paste the text from the [on-line catalog](#) and indicate changes in red.

College Introductory Pages: Add information: _____ Change information: _____ Attach new/changed information. If in current catalog, copy and paste the text from the [on-line catalog](#) and indicate changes in red.

Other: Add information: _____ Change information: _____ Attach new/changed information. If in current catalog, copy and paste the text from the [on-line catalog](#) and indicate changes in red.

| Approvals: | Signature | Date |
|------------------------------------------|-----------|-------|
| Chair Department Curriculum Committee | _____ | _____ |
| Chair Department | _____ | _____ |
| Chair College Curriculum Committee | _____ | _____ |
| Dean | _____ | _____ |

Degree Requirements for the BA with a Major in Mathematics with Grades 8-12 Certification (2007)

- ~~1. **Hours Required:** A minimum of **127** semester credit hours (SCH): 45 hours must be advanced, and fulfillment of degree requirements as specified in the "[Requirements for Graduation](#)" section of this catalog.~~
- ~~2. **University Core Curriculum:** 42 SCH as outlined in the suggested plans and as specified in the "[Requirements for Graduation](#)".~~
- ~~3. **Major:** 49 SCH and the 3 SCH of Mathematics taken as part of the core. Lower-level requirements include MATH [2413](#), [2414](#), [2415](#) and COSC [1136](#) and COSC [1336](#). Advanced requirements include MATH [3310](#), [3325](#), [3330](#), [3360](#), [3365](#), [4310](#), [4335](#), [4390](#) and 12 SCH at least 9 of which must be selected from any 4000 level MATH courses.~~
- ~~4. **Supporting Field:** 12 SCH in one discipline selected from Biology, Chemistry, Earth and Planetary Sciences, Environmental Science or Physics.~~
- ~~5. **Professional Development:** 21 SCH including: EDCI [3301](#), [3302](#), [3305](#), [4993](#) and EDDP [4324](#).~~
- ~~6. **Support Area:** 3 SCH of EDRD [3320](#).~~

Degree Requirements for the BA with a Major in Mathematics with Grades 8th–12th Certification

- Hours Required:** A minimum of **124** semester credit hours (SCH): 45 hours must be advanced, and fulfillment of degree requirements as specified in the "[Requirements for Graduation](#)" section of this catalog.
- University Core Curriculum:** 42 SCH as outlined in the suggested plans and as specified in the "[Requirements for Graduation](#)". (The course option for Mathematics requirement of the core is MATH [2413](#) Calculus I with 1 SCH excess included in the 46 SCH requirements for the major.) MATH [2371](#) must be taken as part of the Communication's core.
- Major:** 46 SCH (1 SCH excess from MATH [2413](#) taken as part of the core is included here.) Lower-level requirements include COSC [1336](#), [1136](#), MATH [2414](#) and [2415](#). Advanced requirements include MATH [3310](#), [3325](#), [3330](#), [3360](#), [3365](#), [4310](#), [4335](#), [4390](#) and 9 SCH selected from any 4000 level MATH courses.
- Supporting Field:** 12 SCH in one discipline, for example Chemistry, Computer Science, Engineering, Physics, etc. Any field of study with a major or minor may be used for the supporting field. The student must develop a plan of study (to include a list of courses and a justification essay that describes how the field and the selected plan will support mathematics) in collaboration with a faculty member from the field of study.
- Professional Development:** 21 SCH including: EDCI [3301](#), [3302](#), [3305](#), [4993](#) and EDDP [4324](#).
- Support Area:** 3 SCH of EDRD [3320](#).

Justifications for changes to the degree requirements for BA with a Major in Mathematics with Grades 8th–12th Certification are:

- Degree requirements cannot be further reduced without adversely affecting student preparation for classroom teaching and success on the licensure exams (TExES) at least not without significant course restructuring in both pedagogy and content areas;
- Options for supporting field are extended to provide flexibility and program enhancement.

**BACHELOR OF ARTS
 MAJOR IN MATHEMATICS
 WITH GRADES 8th–12th CERTIFICATION (2007)**

Following is **one** suggested four-year degree plan. Students are encouraged to see their advisor each semester for help with program decisions and enrollment. Students are responsible for reviewing the **Program of Study**

Requirements.

*See [Appendix A](#) Core Curriculum and Optional Course Information.

| FALL | | HOURS | SPRING | | HOURS | | |
|-----------------------|------|-------------------------------------------------|-----------|------|-------|----------------------------------------------|-----------|
| FRESHMAN YEAR | | | | | | | |
| ENGL | 1301 | English Composition I | 3 | ENGL | 1302 | English Composition II | 3 |
| HIST | 1301 | The U.S. to 1877 | 3 | HIST | 1302 | The U.S. Since 1877 | 3 |
| MATH | 2413 | Calculus I | 4 | MATH | 2414 | Calculus II | 4 |
| - | - | Natural Science* | 4 | - | - | Natural Science* | 4 |
| - | - | Activity/Wellness* | 1 | - | - | Visual/Performing Arts* | 3 |
| Total | | | 15 | - | | | 17 |
| SOPHOMORE YEAR | | | | | | | |
| COSC | 1136 | Fundamentals of Programming Lab | 4 | MATH | 3330 | Ord-Differential Equations | 3 |
| COSC | 1336 | Fundamentals of Programming | 3 | MATH | 3360 | Statistical Analysis | 3 |
| ENGL | - | Survey of Literature* | 3 | MATH | 3365 | Discrete Mathematics | 3 |
| MATH | 2415 | Calculus III | 4 | PSCI | 2306 | American State Govt | 3 |
| MATH | 2374 | Communications in Mathematics | 3 | - | - | Soc/Behavioral Science* | 3 |
| PSCI | 2305 | American National Govt | 3 | - | - | - | - |
| Total | | | 17 | - | | | 15 |
| JUNIOR YEAR | | | | | | | |
| MATH | 3310 | Intro Linear Algebra | 3 | MATH | 3325 | Geometry | 3 |
| MATH | 4335 | Advanced Calculus | 3 | MATH | 4310 | Abstract Algebra | 3 |
| MATH | - | Math Elective | 3 | MATH | - | Advanced Math Elective | 3 |
| - | - | Advanced Math Elective | 3 | EDCI | 3301 | Public School Teaching | 3 |
| - | - | Supporting Field[†] | 3 | EDCI | 3302 | Language Acq&Develop | 3 |
| - | - | Supporting Field[†] | 3 | - | - | Supporting Field[†] | 3 |
| Total | | | 18 | - | | | 18 |

COAS, DMPS, BA with a Major in Mathematics with Grades 8th–12th Certification, Change,
 Pages 86, 105

| | | | | | | | |
|--------------------|------|-------------------------------|-----------|--------------------|------|---------------------|-----------|
| - | | | | | | | |
| SENIOR YEAR | | | | SENIOR YEAR | | | |
| MATH | 4000 | Advanced Math Elective | 3 | EDRD | 3320 | Content Reading | 3 |
| MATH | 4390 | Math Middle/High School | 3 | EDCI | 4003 | Teaching Internship | 9 |
| EDDP | 4324 | Teaching Div Stu Pop | 3 | - | - | - | |
| EDCI | 3305 | Methods Mgt&Discipline | 3 | - | - | - | |
| | - | Supporting Field [†] | 3 | - | - | - | |
| Total | | | 15 | - | | | 12 |

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TOTAL SEMESTER CREDIT HOURS: 127

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[†]Supporting Field, select 12 SCH from one discipline selected from Biology, Chemistry, Earth and Planetary Science, Environmental Science or Physics.

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Actual degree plans may vary depending on availability of courses in a given semester.

-
Some courses may require prerequisites not listed.

**BACHELOR OF ARTS
MAJOR IN MATHEMATICS
WITH GRADES 8th–12th CERTIFICATION**

Following is **one** suggested four-year degree plan. Students are encouraged to see their advisor each semester for help with program decisions and enrollment. Students are responsible for reviewing the **Program of Study**

Requirements.

*See [Appendix A](#) *Core Curriculum and Optional Course Information.*

| FALL | HOURS | SPRING | HOURS |
|-----------------------|-----------|-----------------------|-----------|
| FRESHMAN YEAR | | FRESHMAN YEAR | |
| ENGL 1301 | 3 | ENGL 1302 | 3 |
| HIST 1301 | 3 | HIST 1302 | 3 |
| MATH 2413 | 4 | MATH 2414 | 4 |
| | 4 | | 4 |
| | 1 | | 3 |
| Total | 15 | | 17 |
| SOPHOMORE YEAR | | SOPHOMORE YEAR | |
| COSC 1136 | 1 | MATH 3330 | 3 |
| COSC 1336 | 3 | MATH 3360 | 3 |
| ENGL | 3 | MATH 3365 | 3 |
| MATH 2415 | 4 | PSCI 2306 | 3 |
| MATH 2371 | 3 | | 3 |
| PSCI 2305 | 3 | | |
| Total | 17 | | 15 |
| JUNIOR YEAR | | JUNIOR YEAR | |
| MATH 3310 | 3 | MATH 3325 | 3 |
| MATH 4335 | 3 | MATH 4310 | 3 |
| EDRD 3320 | 3 | MATH 4000 | 3 |
| | 3 | EDCI 3301 | 3 |
| | 3 | EDCI 3302 | 3 |
| | | | 3 |
| Total | 15 | | 18 |

COAS, DMPS, BA with a Major in Mathematics with Grades 8th–12th Certification, Change,
 Pages 86, 105

| SENIOR YEAR | | | | SENIOR YEAR | | | |
|--------------|------|-----------------------------------------------|-----------|-------------|------|-----------------------------------------|-----------|
| MATH | 4000 | Advanced Math Elective | 3 | MATH | 4390 | Math Middle/High School | 3 |
| MATH | 4000 | Advanced Math Elective | 3 | EDCI | 4993 | Teaching Internship | <u>9</u> |
| EDDP | 4324 | Teaching Div Stu Pop | 3 | | | | |
| EDCI | 3305 | Methods Mgt&Discipline | 3 | | | | |
| | | Supporting Field ¹ | <u>3</u> | | | | |
| Total | | | 15 | | | | 12 |

TOTAL SEMESTER CREDIT HOURS: 124

¹Supporting Field, select **12** SCH in one discipline, for example Chemistry, Computer Science, Engineering, Physics, etc. Any field of study with a major or minor may be used for the supporting field. The student must develop a plan of study (to include a list of courses and a justification essay that describes how the field and the selected plan will support mathematics) in collaboration with a faculty member from the field of study.

*Actual degree plans may vary depending on availability of courses in a given semester.
 Some courses may require prerequisites not listed.*