

Mathematics, BA/BS



University of Wyoming, 2015-16

Freshman Fall Semester

| | Hrs | Min | Grade | Notes |
|------------------------------|-----------|-----|-------|-------|
| USP Communication 1 | 3 | | C | C1 |
| USP First-Year Seminar | 3 | | C | FY |
| A&S Core Diversity in the US | 3 | | | ASD |
| MATH 2200 Calculus I * ** | 4 | | C | Q |
| Elective | 3 | | | |
| Credit hours subtotal: | 16 | | | |

Freshman Spring Semester

| | Hrs | Min | Grade | Notes |
|---------------------------------|-----------|-----|-------|-------------------|
| USP Communication 2 | 3 | | C | C2 |
| USP Physical & Natural World | 3 | | | PN |
| MATH 2205 Calculus II ** | 4 | | C | |
| MATH 2800 Math Major Seminar ** | 2 | | S | Offered S/U only. |
| Elective | 3 | | | |
| Credit hours subtotal: | 15 | | | |

Sophomore Fall Semester

| | Hrs | Min | Grade | Notes |
|--|-----------|-----|-------|-------|
| USP Physical & Natural World | 3 | | | PN |
| MATH 2210 Calculus III ** | 4 | | C | |
| MATH 2250 Elementary Linear Algebra ** | 3 | | C | |
| Electives | 6 | | | |
| Credit hours subtotal: | 16 | | | |

Sophomore Spring Semester

| | Hrs | Min | Grade | Notes |
|---|-----------|-----|-------|-------|
| USP US & Wyoming Constitutions | 3 | | | V |
| A&S Core Global Awareness | 3 | | | ASG |
| MATH 2310 Applied Differential Equations ** | 3 | | C | |
| Transitions course *** | 3 | | C | |
| Elective | 3 | | | |
| Credit hours subtotal: | 15 | | | |

This is a guide for course work in the major; actual course sequence may vary by student. Please refer to the online student degree evaluation, and consult with an academic advisor. • Not all courses are offered every semester and some electives may have prerequisites. Students should review the course descriptions in the University Catalog and consult with their academic advisor to plan accordingly.

University of Wyoming requirements:

Students must have a minimum cumulative GPA of 2.0 to graduate. • Students must complete 42 hours of upper division (3000-level or above) coursework, 30 of which must be from the University of Wyoming. • Courses must be taken for a letter grade unless offered only for S/U. • University Studies Program (USP) Human Culture (H) and Physical & Natural World (PN) courses must be taken outside of the major subject, but can be cross-listed with the major.

College of Arts and Sciences requirements:

Students must take two "core" courses in addition to the USP requirements: Diversity in the United States (ASD) and Global Awareness (ASG). • No more than 60 hours in the major subject may be used toward the 120 credit hours required for graduation. • At least 30 hours in the major subject must be completed with a grade of C or better (the major may require more).

Mathematics Program Notes:

- All courses for the major must be completed with a grade of C or better.

* Requires MATH ACT ≥ 27 , MATH SAT ≥ 600 , Math Placement Exam ≥ 5 , or $\geq C$ in MATH 1405 or 1450. (University standard)

Mathematics, BA/BS



University of Wyoming, 2015-16

| Junior Fall Semester | Hrs | Min | Grade | Notes |
|-----------------------------------|-----------|-----|-------|-------|
| USP Human Culture | 3 | | H | |
| Transitions course *** | 3 | | C | |
| Upper Division Math Elective **** | 3 | | C | |
| Electives | 6 | | | |
| Credit hours subtotal: | <u>15</u> | | | |

| Junior Spring Semester | Hrs | Min | Grade | Notes |
|-----------------------------|-----------|-----|-------|-------|
| USP Human Culture | 3 | | H | |
| Transitions course *** | 3 | | C | |
| Depth Sequence Course ***** | 3 | | C | |
| Upper Division Elective | 3 | | | |
| Elective | 3 | | | |
| Credit hours subtotal: | <u>15</u> | | | |

| Senior Fall Semester | Hrs | Min | Grade | Notes |
|-----------------------------------|-----------|-----|-------|-------|
| USP Communication 3 | 3 | | C | C3 |
| Depth Sequence Course ***** | 3 | | C | |
| Upper Division Math Elective **** | 3 | | C | |
| Upper Division Elective | 3 | | | |
| Elective | 3 | | | |
| Credit hours subtotal: | <u>15</u> | | | |

| Senior Spring Semester | Hrs | Min | Grade | Notes |
|------------------------------------|-----------|-----|-------|-------|
| Upper Division Math Electives **** | 6 | | C | |
| Upper Division Electives | 6 | | | |
| Elective | 3 | | | |
| Credit hours subtotal: | <u>15</u> | | | |

TOTAL CREDIT HOURS: 122

Mathematics Program Notes con't:

**** Required lower division core course.** The core courses should be completed as soon as possible, ideally within the first four semesters. This means that majors will need to take more than one math course during some semesters.

***** Transition courses** introduce students to the three (3) main areas of mathematical research in the department. The first of the three upper division transitions courses should be taken within the first four semesters to enable the depth sequence (description follows) to be completed by the end of the junior year. To fulfill this requirement, mathematics majors must take:

- MATH 3205 Elementary Real Analysis
- MATH 3340 Introduction to Scientific Computing
- MATH 3500 Algebra I: Introduction to Rings and Proofs

******** Twelve (12) credits of **upper division (3000-level and above) elective math credits** are required. It is recommended that these courses be selected to provide a broad view of mathematics. Two (2) of the math electives may be chosen from a list of approved courses that have significant content. Please consult with an academic advisor about the list and which courses best fulfill academic and personal goals.

********* For **depth sequence courses**, a mathematics major must select one (1) two-course sequence that builds on one of the transition courses. This sequence gives the student an opportunity to study one of these areas in greater depth. The two-course sequences are:

- MATH 4200 (Analysis 2: Advanced Analysis) and MATH 4205 (Analysis 3: Undergraduate Topics in Analysis)
- MATH 4340 (Numerical Methods for Ordinary and Partial Differential Equations) and MATH 4440 (Introduction to Partial Differential Equations)
- MATH 4510 (Algebra II: Introduction to Group Theory) and MATH 4520 (Algebra III: Topics in Abstract Algebra)