












2022 - 2023 Major Map

Mathematics (Statistics), BS

School/College: The College of Liberal Arts and Sciences
LAMATTBS

| Term 1 0 - 14 Credit Hours Critical course signified by  | Hours | Minimum Grade | Notes |
|--|-------|---------------|--|
|  CSE 110: Principles of Programming (CS) | 3 | C | <ul style="list-style-type: none"> ASU 101 or college-specific equivalent First-Year Seminar required of all first-year students. Select your Career Interest Communities and play me3@ASU. |
|  MAT 270: Calculus with Analytic Geometry I (MA) | 4 | C | |
| ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition | 3 | C | |
| LIA 101: Student Success in The College of Liberal Arts and Sciences | 1 | | |
| Elective | 3 | | |
| Maintain 3.00 GPA in Critical Tracking Courses. | | | |
| Term hours subtotal: | 14 | | |
| Term 2 14 - 30 Credit Hours Critical course signified by  | Hours | Minimum Grade | Notes |
|  MAT 271: Calculus with Analytic Geometry II (MA) | 4 | C | <ul style="list-style-type: none"> Join a student club or professional organization. |
| CSE 205: Object-Oriented Programming and Data Structures (CS) | 3 | C | |
| ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition | 3 | C | |
| Humanities, Arts and Design (HU) AND Cultural Diversity in the U.S. (C) | 3 | | |
| Social-Behavioral Sciences (SB) AND Historical Awareness (H) | 3 | | |
|  Complete ENG 101 OR ENG 105 OR ENG 107 course(s). | | | |
| Maintain 3.00 GPA in Critical Tracking Courses. | | | |
| Term hours subtotal: | 16 | | |
| Term 3 30 - 44 Credit Hours Critical course signified by  | Hours | Minimum Grade | Notes |
|  MAT 272: Calculus with Analytic Geometry III (MA) | 4 | C | <ul style="list-style-type: none"> STP and upper-division MAT courses need to be taken through the Tempe campus, unless approved by a SoMSS advisor. PHI 103 is recommended to satisfy the Literacy and Critical Inquiry (L) general studies requirement. Meet with your academic advisor to discuss summer internship and/or Research Opportunities for Undergraduates (REU). |
|  STP 420: Introductory Applied Statistics (CS) | 3 | C | |
| Literacy and Critical Inquiry (L) | 3 | | |
| Natural Science - Quantitative (SQ) | 4 | | |
|  Complete First-Year Composition requirement. | | | |
| Complete Mathematics (MA) requirement. | | | |
| Maintain 3.00 GPA in Critical Tracking Courses. | | | |
| Term hours subtotal: | 14 | | |
| Term 4 44 - 60 Credit Hours Critical course signified by  | Hours | Minimum Grade | Notes |

| | | |
|---|----|---|
| 📌 MAT 300: Mathematical Structures (L) | 3 | C |
| 📌 MAT 342: Linear Algebra OR MAT 343: Applied Linear Algebra | 3 | C |
| 📌 STP 429: Applied Regression (CS) | 3 | C |
| Natural Science - Quantitative (SQ) OR Natural Science - General (SG) | 4 | |
| Social-Behavioral Sciences (SB) AND Global Awareness (G) | 3 | |
| Maintain 3.00 GPA in Critical Tracking Courses. | | |
| Term hours subtotal: | 16 | |

- Meet with your academic advisor to discuss options for adding a minor, certificate, or concurrent major to your degree program.
- STP and upper-division MAT courses need to be taken through the Tempe campus, unless approved by a SoMSS advisor.

| Term 5 60 - 75 Credit Hours Necessary course signified by ★ | Hours | Minimum Grade | Notes |
|---|-------|---------------|-------|
| ★ MAT 371: Advanced Calculus I | 3 | C | |
| STP 421: Probability | 3 | C | |
| Science and Society Elective | 3 | C | |
| Humanities, Arts and Design (HU) | 3 | | |
| Elective | 3 | | |
| Term hours subtotal: | 15 | | |

- Minimum grade of C required in all MAT and STP classes; grade of B or better strongly correlated with timely graduation.
- STP and upper-division MAT courses need to be taken through the Tempe campus, unless approved by a SoMSS advisor.

| Term 6 75 - 90 Credit Hours Necessary course signified by ★ | Hours | Minimum Grade | Notes |
|--|-------|---------------|-------|
| ★ STP 427: Mathematical Statistics | 3 | C | |
| ★ MAT or STP Advanced Course | 3 | C | |
| Related Field Course | 3 | C | |
| Upper Division Humanities, Arts and Design (HU) OR Upper Division Social-Behavioral Sciences (SB) | 3 | | |
| Upper Division Elective OR MAT 484: Internship | 3 | | |
| ★ Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s). | | | |
| Term hours subtotal: | 15 | | |

- Minimum grade of C required in all MAT and STP classes; grade of B or better strongly correlated with timely graduation.
- STP and upper-division MAT courses need to be taken through the Tempe campus, unless approved by a SoMSS advisor.
- Develop your **professional online presence**.
- Use Handshake to research **employment opportunities**.

| Term 7 90 - 105 Credit Hours Necessary course signified by ★ | Hours | Minimum Grade | Notes |
|--|-------|---------------|-------|
| ★ Upper Division MAT or STP Advanced Course | 3 | C | |
| Upper Division Science and Society Elective | 3 | C | |
| Related Field Course | 3 | C | |
| Complete 2 courses: | 6 | | |
| Upper Division Elective | | | |
| Term hours subtotal: | 15 | | |

- Minimum grade of C required in all MAT and STP classes; grade of B or better strongly correlated with timely graduation.
- STP and upper-division MAT courses should be taken through the Tempe campus, unless approved by a SoMSS advisor
- Gather **professional references**.

| Term 8 105 - 120 Credit Hours Necessary course signified by ★ | Hours | Minimum Grade | Notes |
|---|-------|---------------|-------|
| ★ Upper Division MAT or STP Advanced Course | 3 | C | |
| Related Field Course | 4 | C | |
| Upper Division Elective | 3 | | |
| Complete 2 courses: | 5 | | |
| Elective | | | |
| Term hours subtotal: | 15 | | |

- Minimum grade of C required in all MAT and STP classes; grade of B or better strongly correlated with timely graduation.
- STP and upper-division MAT courses should be taken through the Tempe campus, unless approved by an SoMSS advisor.
- Meet with your academic advisor for final degree check and apply for graduation through **My ASU**.
- Apply for **full-time career opportunities**.

- All students pursuing a BS or BSP degree in The College of Liberal Arts and Sciences must complete two courses from the Science and Society list found at <https://thecollege.asu.edu/resources/science-society>. At least one of the two courses must be upper-division and students must earn a C or better in the courses. Both Science and Society courses (i.e., all six credits) may count towards any major, minor, related fields, and ASU General Studies requirements.

Hide Course List(s)/Track Group(s)

| Related Field Course | MAT or STP Advanced Course |
|---|---|
| ACT Upper Division Elective | ACT 430: Mathematics of Financial Derivatives |
| AST Upper Division Elective | ACT 435: Statistics for Risk Modeling |
| BCH 4** Elective | ACT 450: Actuarial Models and Modeling I |
| BME Upper Division Elective | ACT 451: Actuarial Models and Modeling II |
| CEE Upper Division Elective | MAT 275: Modern Differential Equations (MA) |
| CHE Elective | MAT 372: Advanced Calculus II |
| CHM 341: Elementary Physical Chemistry | MAT 420: Scientific Computing |
| CHM 343: Elementary Physical Chemistry Laboratory | MAT 421: Applied Computational Methods (CS) |
| CHM 345: Physical Chemistry I | MAT 423: Numerical Analysis I (CS) |
| CHM 346: Physical Chemistry II | MAT 442: Advanced Linear Algebra |
| CHM 348: Physical Chemistry Laboratory I (L) | MAT 472: Intermediate Real Analysis I |
| CHM 349: Physical Chemistry Laboratory II (L) | STP 4** Elective |
| CHM 453: Inorganic Chemistry | |
| CHM 460: Biological Chemistry | |
| CHM 471: Solid-State Chemistry | |
| CIS 2** Elective | |
| CIS Upper Division Elective | |
| CSE Elective | |
| DAT 301: Exploring Data in R and Python | |
| DAT 402: Machine Learning for Data Science | |
| ECN Upper Division Elective | |
| EEE Elective | |
| FIN Upper Division Elective | |
| GLG 418: Geophysics | |
| GLG 419: Geodynamics | |
| GLG 470: Hydrogeology | |
| GLG 481: Geochemistry | |
| IEE Upper Division Elective | |

MAE Elective

MAT Upper Division Elective

MSE Elective

PHI 333: Symbolic Logic

PHI 413: Advanced Symbolic Logic

PHY 121: University Physics I: Mechanics (SQ)

PHY 122: University Physics Laboratory I (SQ)

PHY 131: University Physics II: Electricity and Magnetism (SQ)

PHY 132: University Physics Laboratory II (SQ)

PHY 150: Physics I (SQ)

PHY 151: Physics II (SQ)

PHY 2** Elective

PHY Upper Division Elective

STP Upper Division Elective

Notes:

- First-Year Composition: All students are placed in ENG 101 unless submission of SAT, ACT, Accuplacer, IELTS, or TOEFL score, or college-level transfer credit or test credit equivalent to ASU's first-year composition course(s), determine otherwise. Students on Polytechnic, Downtown Phoenix and West Campuses are encouraged to complete the Directed Self-Placement survey to choose the first-year composition option they believe best suits their needs. Visit: <https://cisa.asu.edu/DSP>
- Mathematics Placement Assessment score determines placement in first mathematics course.

Please keep in mind that the applicability of a specific transfer course toward an ASU degree program depends on the requirements of the department, division, college or school in which you are enrolled at ASU. Transfer agreements that guarantee the completion of university level requirements do not necessarily meet college and major requirements. Please consult with an advisor for more information.

Total Hours: 120

Upper Division Hours: 45 minimum

Major GPA: 2.00 minimum

Cumulative GPA: 2.00 minimum

Total hrs at ASU: 30 minimum

Hrs Resident Credit for

Academic Recognition: 56 minimum

Total Community College Hrs: 64 maximum

Total College Residency Hrs: 12 minimum

General University Requirements Legend

General Studies Core Requirements:

- Literacy and Critical Inquiry (L)
- Mathematical Studies (MA)
- Computer/Statistics/Quantitative Applications (CS)
- Humanities, Arts and Design (HU)
- Social-Behavioral Sciences (SB)
- Natural Science - Quantitative (SQ)

- Natural Science - General (SG)

General Studies Awareness Requirements:

- Cultural Diversity in the U.S. (C)
- Global Awareness (G)
- Historical Awareness (H)

First-Year Composition

General Studies designations listed next to courses on the major map were valid for the 2022 - 2023 academic year. Please refer to the course catalog for current General Studies designations at time of class registration. General Studies credit is applied according to the designation the course carries at the time the class is taken.