# 2018 - 2019 Major Map

Mathematics (Secondary Education), BS

**School/College:** The College of Liberal Arts and Sciences  
**Location:** Tempe campus  
**LAMATSBS**

<table>
<thead>
<tr>
<th>Term 1</th>
<th>0 - 15 Credit Hours</th>
<th>Critical course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 270: Calculus with Analytic Geometry I (MA)</td>
<td>4</td>
<td>C</td>
<td>• An SAT, ACT, Accuplacer, IELTS, or TOEFL score determines placement into First-Year Composition courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition</td>
<td>3</td>
<td>C</td>
<td>• Mathematics Placement Assessment score determines placement into mathematics course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIA 101: Student Success in the College of Liberal Arts and Sciences</td>
<td>1</td>
<td></td>
<td>• ASU 101 or College Specific equivalent First Year Seminar required of all freshman students.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPE 222: Orientation to Education of Exceptional Children (SB &amp; C)</td>
<td>3</td>
<td>C</td>
<td>• Select your career interest area and play me3@ASU.</td>
<td></td>
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</tr>
<tr>
<td>Natural Science - Quantitative (SQ)</td>
<td>4</td>
<td></td>
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</tr>
<tr>
<td><strong>Maintain 3.00 GPA in Critical Tracking Courses.</strong></td>
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</tr>
<tr>
<td><strong>Term hours subtotal:</strong></td>
<td></td>
<td></td>
<td>15</td>
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</tbody>
</table>

### Term 2

<table>
<thead>
<tr>
<th>Term 2</th>
<th>15 - 30 Credit Hours</th>
<th>Critical course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 207: Algebra and Geometry in the High School</td>
<td>3</td>
<td>C</td>
<td>• MAT 207/MTE 210 can be great first experiences for future teachers. To start collecting other valuable experiences consider part-time jobs or volunteer opportunities.</td>
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</tr>
<tr>
<td>MAT 271: Calculus with Analytic Geometry II (MA)</td>
<td>4</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTE 210: Mentored Tutoring Internship</td>
<td>1</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition</td>
<td>3</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Science - Quantitative (SQ) OR Natural Science - General (SG)</td>
<td>4</td>
<td></td>
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</tr>
<tr>
<td><strong>Complete ENG 101 OR ENG 105 OR ENG 107 course(s).</strong></td>
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</tr>
<tr>
<td><strong>Maintain 3.00 GPA in Critical Tracking Courses.</strong></td>
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</tr>
<tr>
<td><strong>Minimum 2.50 GPA ASU Cumulative.</strong></td>
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<tr>
<td><strong>Term hours subtotal:</strong></td>
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<td></td>
<td>15</td>
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</tbody>
</table>

### Term 3

<table>
<thead>
<tr>
<th>Term 3</th>
<th>30 - 46 Credit Hours</th>
<th>Critical course signified by</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 208: Discrete Mathematics for Secondary Teachers</td>
<td>3</td>
<td>C</td>
<td>• Meet with your academic advisor to discuss summer internship and/or Research Opportunities for Undergraduates (REU)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT 272: Calculus with Analytic Geometry III (MA)</td>
<td>4</td>
<td>C</td>
<td>• GCU 113 is recommended for SB &amp; H. It covers the US/AZ constitution requirements for teaching certification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTE 250: Technology and Mathematical Visualization</td>
<td>3</td>
<td>C</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>CLAS Science and Society Elective</td>
<td>3</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social-Behavioral Sciences (SB) AND Historical Awareness (H)</td>
<td>3</td>
<td></td>
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</tr>
<tr>
<td><strong>Complete First-Year Composition requirement.</strong></td>
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</tr>
<tr>
<td><strong>Maintain 3.00 GPA in Critical Tracking Courses.</strong></td>
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</tr>
<tr>
<td><strong>Complete Mathematics (MA) requirement.</strong></td>
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</tr>
<tr>
<td><strong>Term hours subtotal:</strong></td>
<td></td>
<td></td>
<td>16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Term 4 46 - 61 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 300: Mathematical Structures (L)</td>
<td>3</td>
<td>C</td>
</tr>
<tr>
<td>MAT 310: Introduction to Geometry</td>
<td>3</td>
<td>C</td>
</tr>
<tr>
<td>MAT 342: Linear Algebra OR MAT 343: Applied Linear Algebra</td>
<td>3</td>
<td>C</td>
</tr>
<tr>
<td>MTE 320: Conceptual Foundations of 7-12 Mathematics Curricula and Assessment</td>
<td>3</td>
<td>C</td>
</tr>
<tr>
<td>Humanities, Arts and Design (HU) AND Global Awareness (G)</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

- Maintain 3.00 GPA in Critical Tracking Courses.
- Milestone: Apply for DPS Fingerprint Clearance Card.

**Term hours subtotal:** 15

### Term 5 61 - 76 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 371: Advanced Calculus I</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>MTE 430: The Development of Mathematical Thinking</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>EDP 313: Childhood and Adolescence (SB) OR TEL 315: Child and Adolescent Development (L or SB)</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>MAT 274: Elementary Differential Equations (MA) OR MAT 275: Modern Differential Equations (MA) OR MAT STP Upper Division Elective</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Humanities, Arts and Design (HU)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Milestone: DPS fingerprint clearance card on file with MLFTC advising office (to be uploaded with iTeachAZ application)
- Milestone: Must attend an iTeachAZ Enrollment Workshop
- Milestone: Submit intent to progress form (online)
- Minimum 2.50 GPA ASU Cumulative.

**Term hours subtotal:** 15

### Term 6 76 - 92 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTE 482: Methods of Teaching Mathematics in Secondary School</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>SED 398: Clinical Experience I</td>
<td>1</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>STP 420: Introductory Applied Statistics (CS)</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>TEL 311: Instruction and Management in the Inclusive Classroom</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>MAT 415: Introduction to Combinatorics OR MAT 416: Introduction to Graph Theory</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>RDG 323: Literacy Processes in Content Areas</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).</td>
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<td></td>
</tr>
<tr>
<td>Minimum 2.50 GPA ASU Cumulative.</td>
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</tbody>
</table>

**Term hours subtotal:** 16

### Term 7 92 - 108 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>SED 322: Classroom Leadership in Secondary Schools (L)</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>SED 496: Clinical Experience III</td>
<td>1</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>SPE 417: Inclusion Practices at the Secondary Level</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

- Register for the teachers certification exams for secondary mathematics

**Notes**
- Upper division MAT/STP/MTE courses should be taken through the Tempe campus, unless approved by a SoMSS advisor.
- Upper division MAT/STP/MTE courses should be taken through the Tempe campus, unless approved by a SoMSS advisor.
- Network in your career interest area.
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.

General Studies designations listed on the major map are current for the 2018 - 2019 academic year.

- Upper division MAT/STP/MTE courses should be taken through the Tempe campus, unless approved by a SoMSS advisor.
- Research employment opportunities.

**Term 8 108 - 120 Credit Hours Necessary course signified by ⭐**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Hours</th>
<th>Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SED 478: Student Teaching: Secondary Education (Grades 6-12)</td>
<td>12</td>
<td>C</td>
<td>• Gather professional references.</td>
</tr>
<tr>
<td>Minimum 2.50 GPA ASU Cumulative.</td>
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</tbody>
</table>

Term hours subtotal: 12

- All students pursuing a B.S. or B.S.P. degree in the College of Liberal Arts and Sciences must complete two courses from the Science and Society list found at https://clas.asu.edu/resources/science-society. At least one of the two courses must be upper division. Students must earn a C or better in the courses, and no more than one of the two can also be used to simultaneously fill a requirement of the major, minor or related area. Science and Society courses cannot also be used to fill the general studies HU, SB, SQ or SG requirements.

Notes:

- 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:** 2.50 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 on the major map are current for the 2018 - 2019 academic year.