# 2019 - 2020 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 0 - 15 Credit Hours</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>• An SAT, ACT, Accuplacer, IELTS, or TOEFL score determines placement into First-Year Composition courses</td>
</tr>
<tr>
<td>✏ MAT 270: Calculus with Analytic Geometry I (MA)</td>
<td>4</td>
<td>C</td>
<td>• Mathematics Placement Assessment score determines placement into mathematics course</td>
</tr>
<tr>
<td>✏ MTE 210: Mentored Tutoring Internship</td>
<td>1</td>
<td>C</td>
<td>• ASU 101 or College Specific equivalent First Year Seminar required of all freshman students.</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>• Select your Career Interest Communities and play me3@ASU.</td>
</tr>
<tr>
<td>LIA 101: Student Success in the College of Liberal Arts and Sciences</td>
<td>1</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></td>
</tr>
<tr>
<td>✏ Maintain 3.00 GPA in Critical Tracking Courses.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Term hours subtotal: 15

<table>
<thead>
<tr>
<th>Term 2 15 - 32 Credit Hours</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>• 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>
</tr>
<tr>
<td>✏ MAT 271: Calculus with Analytic Geometry II (MA)</td>
<td>4</td>
<td>C</td>
<td>• GCU 113 satisfies the US and AZ constitution requirement needed for teacher certification.</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>
</tr>
<tr>
<td>Natural Science - Quantitative (SQ) OR Natural Science - General (SG)</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social-Behavioral Sciences (SB) AND Historical Awareness (H) (GCU 113 recommended)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✏ Complete ENG 101 OR ENG 105 OR ENG 107 course(s).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✏ Maintain 3.00 GPA in Critical Tracking Courses.</td>
<td></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: 17

<table>
<thead>
<tr>
<th>Term 3 32 - 49 Credit Hours</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>✏ MAT 272: Calculus with Analytic Geometry III (MA)</td>
<td>4</td>
<td>C</td>
<td>• Meet with your academic advisor to discuss summer internship and/or Research Opportunities for Undergraduates (REU)</td>
</tr>
<tr>
<td>✏ MTE 250: Technology and Mathematical Visualization</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>CLAS Science and Society Elective</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Humanities, Arts and Design (HU) AND Global Awareness (G)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Science - Quantitative (SQ)</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✏ Complete First-Year Composition requirement.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✏ Maintain 3.00 GPA in Critical Tracking Courses.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✏ Complete Mathematics (MA) requirement.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Term 4: 49 - 64 Credit Hours

### Critical course signified by 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 300: Mathematical Structures (L)</td>
<td>3</td>
<td>C</td>
<td>• Apply for an Identity Verified Print (IVP) fingerprint clearance card.</td>
</tr>
<tr>
<td>MAT 310: Introduction to Geometry</td>
<td>3</td>
<td>C</td>
<td>• Upper division MAT/STP/MTE courses should be taken through the Tempe campus, unless approved by a SoMSS advisor.</td>
</tr>
<tr>
<td>MAT 342: Linear Algebra OR MAT 343: Applied Linear Algebra</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>MTE 320: Conceptual Foundations of 7-12 Mathematics Curricula and Assessment</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

*Humanities, Arts and Design (HU) 3*  
*Maintain 3.00 GPA in Critical Tracking Courses.*

**Term hours subtotal:** 17

## Term 5: 64 - 79 Credit Hours

### Necessary course signified by ★

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 371: Advanced Calculus I</td>
<td>3</td>
<td>C</td>
<td>• DPS IVP fingerprint clearance card and cumulative GPA of at least 2.50 required to progress into Teachers College education program. Deadlines apply.</td>
</tr>
<tr>
<td>MTE 430: The Development of Mathematical Thinking</td>
<td>3</td>
<td>C</td>
<td>• Upper division MAT/STP/MTE courses should be taken through the Tempe campus, unless approved by a SoMSS advisor.</td>
</tr>
<tr>
<td>STP 420: Introductory Applied Statistics (CS)</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>EDP 313: Childhood and Adolescence (SB) OR TEL 315: Child and Adolescence 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 OR STP Upper Division Elective</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

**Milestone:** Complete online Intent to Progress form (meet with advisor).  
**Milestone:** Submit Identity Verified Print (IVP) DPS fingerprint clearance card.  
*Minimum 2.50 GPA ASU Cumulative.*

**Term hours subtotal:** 15

## Term 6: 79 - 95 Credit Hours

### Necessary course signified by ★

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLE 407: SEI for Secondary Students (L)</td>
<td>3</td>
<td></td>
<td>• During your clinical experiences, you will work alongside an intern mentor teacher in a 6-12th grade classroom. Reliable transportation is required to get to school sites in terms 6-8.</td>
</tr>
<tr>
<td>SED 398: Clinical Experience I</td>
<td>1</td>
<td>C</td>
<td>• Upper division MAT/STP/MTE courses should be taken through the Tempe campus, unless approved by a SoMSS advisor.</td>
</tr>
<tr>
<td>SPE 417: Inclusion Practices at the Secondary Level</td>
<td>3</td>
<td>C</td>
<td>• Network in your career interest area.</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>
</tbody>
</table>

**Upper Division CLAS Science and Society Elective**  
*Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).*  
*Minimum 2.50 GPA ASU Cumulative.*

**Term hours subtotal:** 16

## Term 7: 95 - 108 Credit Hours

### Necessary course signified by ★

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTE 482: Methods of Teaching Mathematics in Secondary School</td>
<td>3</td>
<td>C</td>
<td>• Students seeking teacher certification must pass required educator exams. Please speak with your Teachers College Advisor to plan appropriately.</td>
</tr>
<tr>
<td>RDG 323: Literacy Processes in Content Areas</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SED 322: Classroom Leadership in Secondary Schools (L)</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

**Term hours subtotal:** 16

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**Term hours subtotal:** 17

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**Term hours subtotal:** 15

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**Term hours subtotal:** 15

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**Term hours subtotal:** 16

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**Term hours subtotal:** 15
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.

• Upper division MAT/STP/MTE courses should be taken through the Tempe campus, unless approved by a SoMSS advisor.
• Use Handshake to research employment opportunities

• Gather professional references.

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: 2.00 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 on the major map are current for the 2019 - 2020 academic year.