












# 2016 - 2017 Major Map

## Mathematics (Secondary Education), BS









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






**ASU is no longer accepting new students to this program. Please explore Degree Search for other similar program options.**

Term 1 0 - 15 Credit Hours <b>Critical course signified by</b> 	Hours	Minimum Grade	Notes
 MAT 270: Calculus with Analytic Geometry I (MA)	4	C	<ul style="list-style-type: none"> <li>An SAT, ACT, Accuplacer, IELTS or TOEFL score determines placement into First- Year Composition courses</li> <li>ASU Math Placement Exam score determines placement into Mathematics course</li> <li>ASU 101 or College Specific equivalent First Year Seminar required of all freshman students.</li> <li>Review timeline to teaching online at <a href="http://education.asu.edu/programs/timeline">http://education.asu.edu/programs/timeline</a></li> </ul>
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	
MAT 191: First-Year Seminar or LIA 101: Student Success in the College of Liberal Arts and Sciences	1		
SPE 222: Orientation to Education of Exceptional Children (SB & C)	3	C	
Natural Science - Quantitative (SQ) OR Natural Science - General (SG)	4		
 Maintain 3.00 GPA in Critical Tracking Courses.			
Term hours subtotal:		15	
Term 2 15 - 29 Credit Hours <b>Critical course signified by</b> 	Hours	Minimum Grade	Notes
 MAT 207: Algebra and Geometry in the High School	3	C	
 MAT 271: Calculus with Analytic Geometry II (MA)	4	C	
 MTE 210: Mentored Tutoring Internship	1	C	
BLE 220: Foundations of Structured English Immersion	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	
 Complete ENG 101 OR ENG 105 OR ENG 107 course(s).			
 Maintain 3.00 GPA in Critical Tracking Courses.			
Minimum 2.50 GPA ASU Cumulative.			
Term hours subtotal:		14	
Term 3 29 - 45 Credit Hours <b>Critical course signified by</b> 	Hours	Minimum Grade	Notes

	MAT 208: Discrete Mathematics for Secondary Teachers	3	C
	MAT 272: Calculus with Analytic Geometry III (MA)	4	C
	MTE 250: Technology and Mathematical Visualization	3	C
	CLAS Science and Society Elective	3	C
	Social-Behavioral Sciences (SB) AND Global Awareness (G)	3	
	Complete First-Year Composition requirement.		
	Maintain 3.00 GPA in Critical Tracking Courses.		
	Milestone: Submit intent to progress form (online)		
	Complete Mathematics (MA) requirement.		
	Milestone: Must attend an iTeachAZ Enrollment Workshop		
Term hours subtotal:		16	

- Meet with your academic advisor to discuss summer internship and/or Research Opportunities for Undergraduates (REU)

Term 4 45 - 61 Credit Hours  Critical course signified by 		Hours	Minimum Grade	Notes
	MAT 300: Mathematical Structures (L)	3	C	UD MAT/STP/MTE courses should be taken through the Tempe campus, unless approved by a SoMSS advisor
	MAT 310: Introduction to Geometry	3	C	
	MAT 342: Linear Algebra OR MAT 343: Applied Linear Algebra	3	C	
	MTE 320: Conceptual Foundations of 7-12 Mathematics Curricula and Assessment	3	C	
	Natural Science - Quantitative (SQ)	4		
	Milestone: Apply for DPS Fingerprint Clearance Card.			
	Maintain 3.00 GPA in Critical Tracking Courses.			
Term hours subtotal:		16		

Term 5 61 - 76 Credit Hours  Necessary course signified by 		Hours	Minimum Grade	Notes
	MAT 371: Advanced Calculus I	3	C	<ul style="list-style-type: none"> <li>• HST 109 United States to 1865 (HU, H) recommended to satisfy humanities and historical awareness requirements.. Meets US Constitution requirement for teacher certification, but not required for graduation.</li> <li>• UD MAT/STP/MTE courses should be taken through the Tempe campus, unless approved by a SoMSS advisor</li> </ul>
	MTE 430: The Development of Mathematical Thinking	3	C	
	EDP 313: Childhood and Adolescence (SB) or TEL 315: Child and Adolescent Development (L or SB)	3	C	
	MAT OR STP Upper Division Elective ( MAT 274 OR MAT 275 recommended)	3	C	
	Humanities, Arts and Design (HU) AND Historical Awareness (H)	3		
	Milestone: Must attend an iTeachAZ Enrollment Workshop			

★ Milestone: DPS fingerprint clearance card on file with MLFTC advising office (to be uploaded with iTeachAZ application)

Minimum 2.50 GPA ASU Cumulative.

Term hours subtotal: 15

Term 6 76 - 92 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
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★ SED 398: Clinical Experience I

1 C

★ STP 420: Introductory Applied Statistics (CS)

3 C

★ TEL 311: Instruction and Management in the Inclusive Classroom

3 C

MAT 415: Introduction to Combinatorics OR  
MAT 416: Introduction to Graph Theory

3 C

MAT 4\*\* Elective or  
STP 4\*\* Elective

3 C

Upper Division CLAS Science and Society Elective

3 C

★ Complete Global Awareness (G) course(s).

★ Complete Historical Awareness (H) course(s).

Minimum 2.50 GPA ASU Cumulative.

Term hours subtotal: 16

Term 7 92 - 108 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
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★ MTE 482: Methods of Teaching Mathematics in Secondary School

3 C

★ SED 322: Classroom Leadership in Secondary Schools (L)

3 C

★ SED 496: Clinical Experience III

1 C

★ SPE 417: Inclusion Practices at the Secondary Level

3 C

MAT 441: Ring Theory OR  
MAT 445: Theory of Numbers OR  
MAT 440: Group Theory

3 C

Humanities, Arts and Design (HU)

3

Minimum 2.50 GPA ASU Cumulative.

Term hours subtotal: 16

Term 8 108 - 120 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
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★ SED 478: Student Teaching: Secondary Education (Grades 6-12)

12 C

- UD MAT/STP/MTE courses should be taken through the Tempe campus, unless approved by a SoMSS advisor

- Register for the teachers certification exams for secondary mathematics
- UD MAT/STP/MTE courses should be taken through the Tempe campus, unless approved by a SoMSS advisor

- POS 211 Arizona Constitution and Government recommended. Not required for graduation; does meet AZ DOE's requirements.

- 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/advising-and-academic-services/science-and-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.

[Hide Course List\(s\)/Track Group\(s\)](#)

### 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

### 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 2016 - 2017 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.