Academic Advisement Report
UGRD.USCN.MATHBS.COMPSICI
Undergraduate Career
College of Science Program
Mathematics Major (BS)
Computer Science Specialization
Requirement Term: Fall 2012

Undergraduate Graduation Requirements
All course work and requirements for this degree must be completed prior to the date the degree is awarded. The University of Arizona requirements to follow in this audit are required for graduation and awarding of the degree.

Curriculum:
1. The University of Arizona and the Arizona Board of Regents have sole discretion over all curricula changes.
2. Courses, programs & requirements may be suspended, deleted, restricted, or changed in any manner, at any time.
3. Students must remain currently informed about all policies & other info that bears on completing a degree.

Required Units:
Additional units will be required to complete this degree if a student:
A) is admitted to the UA with deficiencies;
B) changes his/her academic plan(s);
C) fails to meet minimum course/plan requirements;
D) ineffectively plans or fails to execute a course of study that leads directly to degree completion; or
E) is completing more than one baccalaureate degree. Completing a second bachelor's degree at The University of Arizona requires no fewer than 30 units in addition to the units required for the first degree, and all requirements for the second degree must be met.

The following requirements must be met for graduation.

Units Required and Cumulative GPA
120 units are required at a 2.0 GPA. View the pdf report grid for units earned toward this degree and cumulative GPA.

Completing a second bachelor's degree at The University of Arizona requires no fewer than 30 units in addition to the units required for the first degree, and all requirements for the second degree must be met.

Upper Division Units
Not Satisfied: A minimum of 42 units of upper-division credit are required for this degree.

- Units: 42.00 required, 0.00 completed, 42.00 needed

Units in Residence
Not Satisfied: A minimum of 30 units in residence at The University of Arizona (excluding correspondence credit and credit by exam) is required.

- Units: 30.00 required, 0.00 completed, 30.00 needed

Final Units in Residence
A minimum of 18 of the final 30 units taken toward degree requirements must be in residence at The University of Arizona. Consult with your academic advisor if you intend to use transfer credits to fulfill your degree requirements.

Correspondence and/or Exam Credit Limit
Satisfied: A maximum of 60 units of Correspondence Credit and/or Exam Credit may apply toward graduation.
Non Degree Seeking Limit

A maximum of 15 units completed as a non-degree seeking student may be used for fulfilling undergraduate degree requirements. Units exceeding this limit must be subtracted from the units required towards the degree and graduation requirements.

Community College Limit

Not Satisfied: A maximum of 64 units of community college course work may apply toward graduation. A minimum of 56 units of course work must be completed at a 4-year institution, military institution, or as test credit.

- Units: 56.00 required, 0.00 completed, 56.00 needed

Success Course Limit

Satisfied: No more than 3 units will apply toward a student's graduation requirements. All Success courses taken can be seen below. Success Course units exceeding the 3 unit maximum must be subtracted from the total units, residency requirements and cumulative grade point average.

PE Activity Course Limit

Satisfied: No more than 3 units will apply toward a student's graduation requirements. All PE activity courses taken can be seen below. PE Activity units exceeding the 3 unit maximum must be subtracted from the total units, residency requirements and cumulative grade point average.

Foundation Mathematics

Not Satisfied: Foundation Mathematics

GE Substantial Math Strand

Not Satisfied: GE Substantial Math Strand

GE Substantial Math Strand

Not Satisfied: Complete 1 course from MATH 124, 125, 129, 223 TO 499.

- Units: 2.67 required, 0.00 completed, 2.67 needed

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**Courses Available**

MATH 122B, MATH 124, MATH 125, MATH 125-CC, MATH 129, MATH 129-CC, MATH 215, MATH 223, MATH 223-CC, MATH 250A, MATH 254, MATH 254-CC

**Undergraduate General Education and Foundation Requirements**

*Overall Requirement Not Satisfied:* Undergraduate General Education and Foundation Requirements

**Foundation Composition**

*Not Satisfied:* Complete 1 of the 2 following options:
1. First and Second Semester Composition OR
2. Honors Composition

Mid-Career Writing Assessment - Complete 2nd semester English Composition with a B grade or higher. Students who do not earn a grade of B or better in 2nd semester English Composition must also satisfy a college or department writing requirement. Consult your major advisor if you do not earn a grade of B in 2nd semester English Composition.

**Option 1: First Semester Composition**

*Not Satisfied:* Complete 1 course.

- **Courses:** 1.00 required, 0.00 completed, 1.00 needed

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**Courses Available**

ENGL 101, ENGL 101A, ENGL 103H, ENGL 107, ENGL 107A

AND **Option 1: Second Semester Composition**

*Not Satisfied:* AND Complete 1 course

- **Courses:** 1.00 required, 0.00 completed, 1.00 needed

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**Courses Available**

ENGL 102, ENGL 104H, ENGL 108

OR **Option 2: Honors Composition**

*Not Satisfied:* OR Complete 1 course with a C or better.

- **Courses:** 1.00 required, 0.00 completed, 1.00 needed

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**Courses Available**

ENGL 109H
Foundation Second Language - Second Semester Proficiency (R521)

Not Satisfied: Credit will not be given for a course at an equivalent or lower level than prior language credit earned. Course must be taken for a grade, not as pass/fail. Third semester or higher courses used to fulfill this requirement may also be used to fulfill other requirements.

Demonstrate second semester proficiency in a second language by completing a sequence of courses through a second semester or higher level or by passing a language proficiency examination at the second semester level or higher.

Second Semester Language Course (R521/L10)

Not Satisfied: Complete 1 course.


- Courses: 1.00 required, 0.00 completed, 1.00 needed

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Courses Available


General Education Tier I (R522)

Overall Requirement Not Satisfied: Complete 2 courses in each of the following areas.

Tier I Individuals & Societies (R522/L10)

Not Satisfied: Fulfillment of Individuals and Societies requires completion of two distinctly numbered courses (e.g., INDV 101 & 103 or PSY 150A1 & ANTH 150B1 or PSY 150A1 & INDV 103).

Only one course may be completed from the 150A options OR INDV 101. Only one course may be completed from the 150B options OR INDV 102. Only one course may be completed from the 150C options OR INDV 103.

INDV 101 = 150A#
INDV 102 = 150B#
INDV 103 = 150C#

- Courses: 2.00 required, 0.00 completed, 2.00 needed

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Courses Available

Tier I Traditions & Cultures

Not Satisfied: Fulfillment of Traditions and Cultures requires completion of two distinctly numbered courses (e.g., TRAD 102 & 104 or AFAS 160A1 & RSSS 160A1 or TRAD 101 & RSSS 160C1).

Only one course may be completed from the 160A options OR TRAD 101. Only one course may be completed from the 160B options OR TRAD 102. Only one course may be completed from the 160C options OR TRAD 103. Only one course may be completed from the 160D options OR TRAD 104.

TRAD 101 = 160A#
TRAD 102 = 160B#
TRAD 103 = 160C#
TRAD 104 = 160D#

- Courses: 2.00 required, 0.00 completed, 2.00 needed

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Courses Available


General Education Tier II

Overall Requirement Not Satisfied: Complete 1 course from each of the following areas.

Tier II Arts

Not Satisfied: Complete 3 units.

- Units: 3.00 required, 0.00 completed, 3.00 needed

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### Courses Available

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### Tier II Humanities

**Not Satisfied:** Prerequisite course work in Tier 1 Traditions and Cultures (TRAD) must be completed prior to taking. If LAT 201 or 202 are used to fulfill Foundation Second Language Proficiency, they cannot be used to fulfill Tier II Humanities.

- **Courses:** 1.00 required, 0.00 completed, 1.00 needed

### Courses Available

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### Tier II Individual & Societies

**Not Satisfied:** Prerequisite course work in Tier 1 Individuals and Societies (INDV) must be completed prior to taking.

- **Courses:** 1.00 required, 0.00 completed, 1.00 needed

### Courses Available

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Diversity Emphasis Course

**Not Satisfied:** One course must be taken that focuses on Gender, Race, Class, Ethnicity, Sexual Orientation or Non-Western Area Studies.

Courses used to fulfill this requirement may also be used to fulfill other requirements.

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**Diversity Emphasis Course**

**Not Satisfied:** General Education Diversity Emphasis Course: Gender, Race, Class, Ethnicity, Sexual Orientation or Non-Western Area Studies.

- Courses: 1.00 required, 0.00 completed, 1.00 needed

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**Courses Available**


**Additional Coursework**

Courses listed in this section may include general elective credits, UA courses and transferable courses from other institutions. Consult with your advisor to determine if courses listed in this section may be used to fulfill a requirement or sub-requirement in your degree program.

Courses taken for Pass/Fail option can only count as elective credit. They cannot fulfill any General Education, Major, or Minor requirements.
BS in Mathematics

Overall Requirement Not Satisfied: Complete Introductory Chemistry or Natural Sciences.

Equivalent MATV courses may be available through UA South. For approved courses consult with your advisor.

Mathematics Introductory Chemistry

Overall Requirement Not Satisfied: Complete the Chemistry sequence OR select 1 of the Natural Science sequences. Courses used to fulfill this requirement may also be used to fulfill other requirements

Option 1: Introductory Chemistry

Not Satisfied: Complete CHEM 103A and 104A

- Courses: 2.00 required, 0.00 completed, 2.00 needed

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Courses Available

CHEM 103A, CHEM 103A-CC, CHEM 104A

OR Option 2: Introductory Chemistry

Not Satisfied: OR Complete Chem 151

- Courses: 1.00 required, 0.00 completed, 1.00 needed

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Courses Available

CHEM 151, (***) (###)

OR Option 3: Introductory Chemistry

Not Satisfied: OR Complete CHEM 105A and 106A

- Courses: 2.00 required, 0.00 completed, 2.00 needed

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Courses Available

CHEM 105A, CHEM 106A

AND Option 1: Introductory Chemistry II

Not Satisfied: AND Complete CHEM 103B and 104B

- Courses: 2.00 required, 0.00 completed, 2.00 needed

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### Courses Available

CHEM 103B, CHEM 103B-CC, CHEM 104B

**OR Option 2**: Introductory Chemistry II  
(R1273/L50)  
*Not Satisfied*: OR Complete CHEM 152

- **Courses**: 1.00 required, 0.00 completed, 1.00 needed

### Courses Available

CHEM 152, (***) (###)

**OR Option 3**: Introductory Chemistry II  
(R1273/L60)  
*Not Satisfied*: OR Complete CHEM 105B and 106B

- **Courses**: 2.00 required, 0.00 completed, 2.00 needed

### Courses Available

CHEM 105B, CHEM 106B

**OR Mathematics Natural Sciences**  
(R1192)  
*Not Satisfied*: Complete the above Chemistry sequence OR select 1 of the following sequences of laboratory science courses. Courses used to fulfill this requirement may also be used to fulfill other requirements.

**Option 1**: Geosciences  
(R1192/L10)  
*Not Satisfied*: Complete 1 course

- **Courses**: 1.00 required, 0.00 completed, 1.00 needed

### Courses Available

GEOS 251

**AND Option 1**: Geosciences  
(R1192/L15)
Not Satisfied: Complete 1 course
· Courses: 1.00 required, 0.00 completed, 1.00 needed

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Courses Available

GEOS 302, GEOS 304

OR Option 2: Biology
Not Satisfied: OR Complete 4 units
· Units: 4.00 required, 0.00 completed, 4.00 needed

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Courses Available

MCB 181L, MCB 181R, MCB 184

AND Option 2: Biology
Not Satisfied: Complete 4 units
· Units: 4.00 required, 0.00 completed, 4.00 needed

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Courses Available

ECOL 182L, ECOL 182R

OR Option 3: Physiology
Not Satisfied: Complete 2 courses
· Courses: 2.00 required, 0.00 completed, 2.00 needed

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Courses Available

PSIO 201, PSIO 202

OR Option 4: Introductory Physics with Calculus I

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Page 10 of 16
**Not Satisfied:** Complete 2 courses

- **Courses:** 2.00 required, 0.00 completed, 2.00 needed

### Courses Available

**PHYS 131, PHYS 131-CC, PHYS 181, PHYS 181-SA**

**AND Option 4:** Introductory Physics with Calculus I

**Not Satisfied:** Complete 2 courses

- **Courses:** 2.00 required, 0.00 completed, 2.00 needed

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**Courses Available**

**PHYS 182**

**OR Option 5:** Introductory Mechanics

**Not Satisfied:** OR Complete Physics 141

- **Courses:** 1.00 required, 0.00 completed, 1.00 needed

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**Courses Available**

**PHYS 141**

**AND Option 5:** Intro Thermodynamics & Optics or Electricity & Magnetism

**Not Satisfied:** AND Complete 1 course from Physics 142 or Physics 241

- **Courses:** 1.00 required, 0.00 completed, 1.00 needed

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**Courses Available**

**PHYS 142, PHYS 241**

**OR Option 6:** Introduction to Mechanics

**Not Satisfied:** OR Complete 2 courses

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- Courses: 2.00 required, 0.00 completed, 2.00 needed

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Courses Available

PHYS 151, PHYS 152

OR Option 7: Honors Physics

Not Satisfied: OR Complete 2 courses

- Courses: 2.00 required, 0.00 completed, 2.00 needed

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Courses Available

PHYS 161H, PHYS 162H

Mathematics Application Courses

Not Satisfied: Complete at least 6 units of non-math coursework with a prerequisite or corequisite of at least Calculus I (MATH 124 or higher). Courses used to fulfill this requirement may also be used to fulfill other requirements.

Courses with Calculus Prerequisite

Not Satisfied: Consult with the advisor to discuss approved courses.

- Units: 6.00 required, 0.00 completed, 6.00 needed

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Courses Available


Math Major Requirements

Overall Requirement Not Satisfied: Math Major Requirements

Introduction Course

Not Satisfied: Complete 1 course

- Courses: 1.00 required, 0.00 completed, 1.00 needed
### Courses Available

MATH 122B, MATH 124, MATH 125, MATH 125-CC

**Option 1: Calculus and Differential Equations 1**

**Not Satisfied:** Complete MATH 129 and MATH 355. MATV 355 is an alternative to MATH 355 offered by UA South.

- **Courses:** 2.00 required, 0.00 completed, 2.00 needed

### Courses Available

MATH 129, MATH 129-CC, MATH 355, MATV 355

**OR Option 2: Calculus and Differential Equations 2**

**Not Satisfied:** Complete MATH 250A and MATH 250B

- **Courses:** 2.00 required, 0.00 completed, 2.00 needed

### Courses Available

**MATH 250A**

**MATH 250B**

### Courses Available

**Introduction to Computer Science**

**Not Satisfied:** Complete 1 course

- **Courses:** 1.00 required, 0.00 completed, 1.00 needed

### Courses Available

CSC 127A, ISTA 130

**Core Courses**

**Not Satisfied:** Complete 3 courses

- **Courses:** 3.00 required, 0.00 completed, 3.00 needed
Courses Available

MATH 215, MATH 223, MATH 223-CC, MATH 323

Option in Computer Science Mathematics

Overall Requirement Not Satisfied: Option in Computer Science Mathematics

Equivalent MATV courses may be available through UA South. For approved courses consult with your advisor.

You must complete 1 of the following:
Computer Science Minor
Computer Science Major
Computer Science 2 Major (Secondary)

Computer Science Option Requirements

Overall Requirement Not Satisfied: Computer Science Option Requirements

Option 1. Abstract Algebra

Not Satisfied: Complete MATH 415A and MATH 415B

· Courses: 2.00 required, 0.00 completed, 2.00 needed

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Courses Available

MATH 415A, MATH 415B

OR Option 2. Probability and Statistics

Not Satisfied: OR Complete MATH 464 and MATH 466

· Courses: 2.00 required, 0.00 completed, 2.00 needed

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Courses Available

MATH 464, MATH 466

OR Option 3: Numerical Analysis

Not Satisfied: OR Complete MATH 475A and MATH 457B

· Courses: 2.00 required, 0.00 completed, 2.00 needed

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## Computer Science Math Option Graduation Requirements (R1177)

### Overall Requirement Not Satisfied:
- **Computer Science Math Option Graduation Requirements**

#### Mid Career Writing Assessment (R1177/L3)
- **Not Satisfied:** Complete 2nd semester English Composition with a B grade or higher. Students who do not earn a grade of B or higher in 2nd semester English Composition must also satisfy a college or department writing requirement. Consult your major advisor if you do not earn a grade of B or higher in 2nd semester English Composition.

  - **Courses:** 1.00 required, 0.00 completed, 1.00 needed

#### Major GPA (R1177/L10)
- **Satisfied:** A minimum 2.0 GPA is required in the major coursework.

  - **GPA:** 2.000 required, 0.000 completed

## Courses Available

### MATH 475A, MATH 475B

**Electives (R1175/L40)**
- **Not Satisfied:** Complete 2 courses
  - **Courses:** 2.00 required, 0.00 completed, 2.00 needed

### MATH 413, MATH 443, MATH 445, MATH 446, MATH 447, MATH 479

**Additional Course (R1175/L50)**
- **Not Satisfied:** Complete 1 400-level course in consultation with an advisor.
  - **Courses:** 1.00 required, 0.00 completed, 1.00 needed

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COMPSCI

Major Residency:  
Not Satisfied: A minimum of 18 units in the pre-major, supporting coursework, professional core, and/or major must be taken at the University of Arizona.

- Units: 18.00 required, 0.00 completed, 18.00 needed

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Major 400-level Upper Division:  
Not Satisfied: A minimum of 15 units of 400-level upper-division major coursework must be completed.

- Units: 15.00 required, 0.00 completed, 15.00 needed

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Minor Required:  
Not Satisfied: A minor is required for this major. Consult with your advisor to select a minor or discuss other options such as selecting a second major.