Arizona State University  
ASU Main Campus  
1999-2000 TRANSFER GUIDE  
FOR THE MARICOPA COMMUNITY COLLEGES  
Bachelor of Arts or Science  
Mathematics

The Arizona resident applicant for transfer admission must meet competency requirements and have a cumulative grade point average (GPA) of 2.00 on a four-point (A) scale in all college level work and be in good standing and eligible to return to the last institution attended. Students who have less than 24 semester transfer credits must also meet competency requirements. Arizona residents who have completed an Arizona General Education Curriculum (AGEC) or an associate degree with a minimum 2.00 GPA in the AGEC or associate degree are exempt from admission requirements. A maximum of 64 semester credit hours will be accepted when transferred from community colleges; all transferable community college credits are accepted as lower-division credits and do not satisfy upper-division General Studies or graduation requirements.

For more information, call or write:
(480) 965-7195  
Associate Chair for Undergraduate Mathematics  
Department of Mathematics  
Arizona State University  
Tempe, Arizona 85287-1804

COLLEGE OF LIBERAL ARTS AND SCIENCES (CLAS) ADMISSION CRITERIA
General University requirements satisfy the admission requirements of this program.

Transfer value of a course, including General Studies value, is governed by the Course Equivalency Guide (CEG) in force at the time the course is taken. Summer session is included with the previous academic year. Community college courses which are equivalent in content to upper division courses at ASU will be transferable as equivalent but with lower division credit. The course should not be repeated but will not count toward the required number of upper division credit hours.

FIRST YEAR COMPOSITION (3-6)

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<th>ASU</th>
<th>MCCCD</th>
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<tr>
<td>ENG 101 &amp; 102 First-Year Comp</td>
<td>ENG 101 &amp; 102 First-Year Composition</td>
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<td>ENG 105 Adv First-Year Comp</td>
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<td>ENG 107 &amp; ENG 108 Eng Foreign Students</td>
<td>ENG 107 &amp; ENG 108 First-Yr Comp for ESL</td>
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GENERAL STUDIES REQUIREMENTS/COLLEGE DISTRIBUTION REQUIREMENTS¹
Students completing the Arizona General Education Curriculum (AGEC) will still be required to fulfill lower division program requirements and prerequisites within their college and major/minor area of study. In all cases, students have the responsibility for selecting general education coursework that is relevant to the requirements of their intended major and degree.

Select credits from CEG General Studies Insert as follows: 3 L1 credits (those that transfer as DEC(DAH), ENG 200 or ENG 218, GPH, DEC(HUM), PHI, POS, PSY, REL., DEC(REL), or THE are recommended), 9 HU credits (except those that transfer as ASB, COM, EED, FRE 205, HCR, INT, LAT 201, LAT 202.REG, DEC(WST) or “E”) (maximum 6 hours from those that transfer as ARS, DAH, MUS, THE), 9 SB credits (except those that transfer as AIS, ASM, CDE 232, COM, DEC(FAS), JUS, MCO, REC, SPE, SPF, SWU, or “E”), 3 C credits (except those that transfer as AIS, CCS, COM, JUS, MCE, SPE, and “E”), 3 G credits (except those that transfer as COM, HCR, or “E”), and 3 H credits (except those that transfer as INT, SWU, or “E”). Additional and/or mandated General Studies requirements, if any, are listed in the Major Requirements section with designation in brackets.

COLLEGE PROFICIENCY REQUIREMENTS
Requires knowledge of a second language equivalent to the completion of two years study at the college level. Courses in American Sign Language also satisfy the requirement. (See the current catalog for further information.) Select language courses that transfer to ASU at the 101, 102, 201, 202, 203, 204 and/or 205 level, or courses that transfer to ASU as SHS 174, SHS 175, SHS 274 and SHS 275.
Mathematics

**MAJOR REQUIREMENTS (for BA only)**
While still a student at a MCCCD college, contact the department academic advisor. Only those required courses which have MCCCD course equivalents are listed below.
The major consists of at least 36 semester hours in mathematics and additional course work in closely related fields, to be approved by the ASU advisor, for a total of at least 51 semester hours.

<table>
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<tr>
<th>ASU</th>
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<tr>
<td>CSE 100 Principles of Programming [N3]</td>
<td>CSC 100 Intro to Computr Science</td>
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<td>or</td>
<td>CSC 100AA Intro Computer Science</td>
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<tr>
<td>or</td>
<td>CSC 150 Programming in C/C++</td>
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<tr>
<td>or</td>
<td>CSC 150AA Programming in C/C++</td>
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</table>

or

| CSE 183 Applied Prob Solving with Fortran [N3] | CSC 183 Apped Prob Solv Fortran |
| or                                             | CSC 200 Princ of Comp Sci (C++) |
| or                                             | CSC 200AA Princ of Comp Sci (C++) |
| or                                             | CSC 200JA Principles Computer Sci (JAVA) |
| or                                             | CSC 200JB Principles Computer Sci (JAVA) |

| CSE 200 Concepts of Computer Science [N3]     | MAT 270 Cal/Analytic Geo I [N1] |
| or                                             | or MAT 220 Analytic Geom & Calc I |
| or                                             | or MAT 221 Calc Analytic Geom I |

| MAT 271 Cal/Analytic Geo II [N1]              | MAT 230 Analytic Geom & Calc II |
| or                                             | or MAT 231 Calc Analytic Geom II |

| MAT 272 Cal/Analytic Geo III [N1]             | MAT 241 Calc Analytic Geo III |

Comment: Course by course equivalency may be granted to MAT 270, MAT 271 & MAT 272. However, to ensure continuity of instruction, completion of an entire sequence at one institution is recommended.
MAJOR REQUIREMENTS (for BS only)
While still a student at a MCCCD college, contact the department academic advisor. Only those required courses which have MCCCD course equivalents are listed below.
The major consists of at least 42 semester hours in mathematics and additional course work in closely related fields, to be approved by an ASU advisor, for a total of at least 55 semester hours. There are 5 options available. All require the following:

**ASU**
- CSE 100 Principles of Programming [N3]
- or
- CSE 183 Applied Prob Solving with Fortran [N3]
- or
- CSE 200 Concepts of Computer Science [N3]

**MCCCD**
- CSC 100 Intro to Computr Science or CSC 100AA Intro Computer Science
- or
- CSC 150 Programming in C/C++ or CSC 150AA Programming in C/C++
- or
- CSC 183 Appld Prob Solv Fortran
- or
- CSC 200 Princ of Comp Sci (C++) or CSC 200AA Princ of Comp Sci (C++)
- or
- CSC 200JA Principles Computer Sci (JAVA) or CSC 200JB Principles Computer Sci (JAVA)

**MAT 270** Cal/Analytic Geo I [N1]
**MAT 220** Analytic Geom & Calc I
**MAT 221** Calc Analytic Geom I

**MAT 271** Cal/Analytic Geo II [N1]
**MAT 230** Analytic Geom & Calc II
**MAT 231** Calc Analytic Geom II

**MAT 272** Cal/Analytic Geo III [N1]
**MAT 241** Calc Analytic Geom III

Comment: Course by course equivalency may be granted to MAT 270, MAT 271 & MAT 272. However, to ensure continuity of instruction, completion of an entire sequence at one institution is recommended.

The following courses can be used for this degree, but are not required.

**CSE 210** Data Structures and Algorithms I [N3]
**CSC 210** Data Structures/Algorithms (C++)
**CSC 210AA** Data Structures/Algorithms (C++)
**CSC 210JA** Data Structures/Algorithms (JAVA)
**CSC 210JB** Data Structures/Algorithms (JAVA)

**MAT 274** Elem Diff Equations [N1]
**MAT 262** Differential Equations

**PHY 121** Univ Physics I:Mech [S1/S2] & **PHY 115** University Physics I
**PHY 122** Univ Physics Lab I [S1/S2] or **PHY 116** University Physics II
**PHY 131** Univ Physics II:Elec & Magntsm [S1/S2] & **PHY 121** Univ Physics I: Mechanics
**PHY 132** Univ Physics Lab II [S1/S2] or **PHY 131** Univ Phy II: Elec/Mgntsm
### Computational Mathematical Science Concentration

**ASU**
- CSE 200  Concepts of Computer Science [N3]*
- CSE 210  Data Structures and Algorithms I [N3]*
  *The CSE 200-210 sequence is strongly recommended.

**MCCCD**
- CSC 200  Princ of Comp Sci (C++)
- CSC 200AA  Princ of Comp Sci (C++)
- CSC 200JA  Principles Computer Sci (JAVA)
- CSC 200JB  Principles Computer Sci (JAVA)
- CSC 210  Data Structures/Algorithms (C++)
- CSC 210AA  Data Structures/Algorithms (C++)
- CSC 210JA  Data Structures/Algorithms (JAVA)
- CSC 210JB  Data Structures/Algorithms (JAVA)

**MAT**
- 270  Cal/Analytic Geo I [N1]
- 271  Cal/Analytic Geo II [N1]
- 272  Cal/Analytic Geo III [N1]
- 274  Elem Diff Equations [N1]

**Comment:** Course by course equivalency may be granted to MAT 270, MAT 271 & MAT 272. However, to ensure continuity of instruction, completion of an entire sequence at one institution is recommended.

**PHY**
- 121  Univ Physics I: Mech [S1/S2] &
- 122  Univ Physics Lab I [S1/S2]
- 131  Univ Physics II: Elec & Magnetsm [S1/S2] &
- 132  Univ Physics Lab II [S1/S2]

**CHM**
- 113  General Chemistry [S1/S2]
- or
- 115  General Chemistry w/Qualitative Analysis [S1/S2]
- 116  General Chemistry [S1/S2]

**Comment:** The following courses can be used for this degree, but are not required.

- **PHY**
  - 115  University Physics I &
  - 116  University Physics II
  - or
  - 121  Univ Physics I: Mechanics &
  - 131  Univ Physics II: Elec/Magnetism

- **CHM**
  - 151  General Chemistry I &
  - 151 LL General Chemistry I Lab
  - or
  - 154  Gen Chem II with Qual &
  - 154 LL Gen Chem II with Qual Lab
  - or
  - 152  General Chemistry II &
  - 152 LL General Chemistry II Lab
1. Although a course may satisfy a core area requirement and an awareness area requirement concurrently, a course may not be used to satisfy requirements in two core areas simultaneously, even if approved for those areas. A course may satisfy two awareness areas concurrently.