CURRICULUM CHECK SHEET
Bachelor of Science in Mathematics
Arizona State University
2003-2004

MAJOR REQUIREMENTS

The B.S. degree in mathematics requires a minimum of 42 semester hours of course work in mathematics and statistics, and additional course work in related fields as approved by the advisor, for a total of 55 semester hours. The required course work has the following components:

1. Core courses in mathematics:
    - MAT 270, Calculus with Analytic Geometry I
    - MAT 271, Calculus with Analytic Geometry II
    - MAT 272, Calculus with Analytic Geometry III
    - MAT 300, Mathematical Structures
    - MAT 342, Linear Algebra
    - MAT 371, Advanced Calculus
    - Subtotal: 21 semester hours

2. Computer science requirement:
    - CSE 200, Concepts of Computer Science
    - Subtotal: 3 semester hours

3. Two advanced courses chosen from the following list:
    - MAT 415, Intro to Combinatorics
    - MAT 416, Intro to Graph Theory
    - MAT 423, Numerical Analysis I
    - MAT 425, Numerical Analysis II
    - MAT 442, Advanced Linear Algebra
    - MAT 444, Intermediate Abstract Algebra
    - MAT 462, Applied Partial Differential Equations
    - MAT 472, Intermediate Real Analysis I
    - MAT 473, Intermediate Real Analysis II
    - MAT 475, Differential Equations
    - MAT 476, Partial Differential Equations
    - STP 421, Probability
    - STP 427, Mathematical Statistics
    - Subtotal: 6 semester hours

4. Two additional courses chosen from the following list. Both courses preferably should be taken from the same grouping:
    (a) Algebra, topology and number theory (MAT 410, 442, 443, 444, 445)
    (b) Computational mathematics (MAT 420, 421, 423, 425)
    (c) Differential equations (MAT 462, 475, 476)
    (d) Analysis and applications (MAT 372, 461, 472)
    (e) Statistics and probability (STP 420, 421, 425, 427, 429)
    (f) Applied mathematics and dynamics (MAT 451, 452, 455)
    (g) Discrete mathematics (MAT 415, 416, 419)

    Students who contemplate graduate work in mathematics should choose courses listed under requirement (3) to satisfy requirement (4).
    - Subtotal: 6 semester hours

5. Three additional MAT or STP courses which may include MAT 243 or at the level of MAT 274 or higher or STP 420 or higher, subject to the restrictions below.
    - Subtotal: 9 semester hours

6. Ten additional hours of course work in mathematics, statistics, or related fields, subject to the restrictions below. A list of courses is available on page 10 of this packet, in the Undergraduate office of the Math Department and on our webpage at http//math.la.asu.edu.

Restrictions:
1. MAT 370 and MAT 371 may not both be counted toward degree requirements in mathematics.
2. A minimum grade of C is required in all coursework used to satisfy major requirements.
3. MAT 310, MAT 362, MAT 370, MAT 485 and ASU West MAT 411 may not be used to satisfy requirement 5.