CURRICULUM CHECK SHEET
Bachelor of Science in Mathematics
Arizona State University
2005-2006

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
         or MAT 343, Applied Linear Algebra
   MAT 371, Advanced Calculus I

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, Introduction to Combinatorics
   MAT 416, Introduction to Graph Theory
   MAT 423, Numerical Analysis I
   MAT 425, Numerical Analysis II
   MAT 442, Advanced Linear Algebra
   MAT 444, Intermediate Abstract Algebra
   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) Analysis and applications (MAT 372, 461, 472)
   - (c) Applied Mathematics and Dynamics (MAT 451, 452, 455)
   - (d) Computational Mathematics (MAT 420, 421, 423, 425, 427)
   - (e) Differential Equations (MAT 462, 475, 476)
   - (f) Discrete Mathematics (MAT 415, 416, 419)
   - (g) Statistics and Probability (STP 420, 421, 425, 427, 429)

   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 in the Undergraduate Mathematics Office 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. Credit may not be earned for both MAT 274 and 275 or for both MAT 342 and 343.
3. A minimum grade of C is required in all coursework used to satisfy major requirements.
4. MAT 362, 370, 485 and ASU West MAT 411 may not be used to satisfy requirement 5.