Department of Mathematics  
Applied and Discrete Mathematics Option  
Graduation Checksheet for Students Graduating 2003

I. Mathematics Courses [1, 2,3] (46 total credits; specifically listed courses are required; six hours must be from an approved list of sequences --- see the departmental Guide Sheet for Majors):

1205 (Calculus)                  3____
1206 (Calculus)       3____
1114 (Linear Algebra)       2____
1224 (Vector Geometry)      2____
2214 (Differential Equations)      3____
2224 (Multivariable Calculus)     3____
3034 (Proofs [4] WI)       3____
3124 (Modern Algebra)      3____
3134 (Applied Combinatorics)     3____
3144 (Linear Algebra)       3____
3214 (Calculus of Several Variables)     3____
3224 (Advanced Calculus)      3____
4134 (Number Theory)       3____
4164 (Advanced Discrete Mathematics)     3____
___________     3____    ___________  3____     ___________      3____

II. Writing Intensive Course (6 credits, any two of the following three):
3034 (Proofs)   3____          4044 (History of Mathematics)  3____  WI Elective 3 ___________

III. Computer Science [5] and Statistics Courses (23/21 credits, depending on whether CS 1044 (3 credits) or CS 1344 (1 credit) is taken; specifically listed courses are required):
CS 1044/1344 (Intro Programming in C/Programming in C)  3/1____
CS 1104 (Introduction to Computer Science) 3____
CS 1704 (Intro Data Struct & Software Engr)    3____
CS 1206 (UNIX)       2____
CS 2704 (Object Oriented Programming)[6]     3____
CS 2604 (Data Structures & File Management)[6]    3____
CS 4104 (Data and Algorithm Analysis)    3____
STAT 4714 (Probability and Statistics for EE's)    3____
__________      ____   ___________    ____     ___________      ____

IV. University Core Curriculum [7] (38 credits in Areas 1, 2, 3, 4, 5, 6 and 7; these must be selected from approved core courses):

Area 1 (Writing and Discourse: 6 credits plus  Writing-Intensive (WI) Courses [4])

Area 2 (Ideas, Cultural Traditions, and Values: 6 credits)  

Area 3 (Society and Human Behavior: 6 credits)

Area 4 (Scientific Reasoning and Discovery: 8 credits)

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Area 2 (Ideas, Cultural Traditions, and Values: 6 credits)  

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Area 4 (Scientific Reasoning and Discovery: 8 credits)
Area 5 (Quantitative Reasoning:) Math majors must take Math 1205-1206 or its equivalent to satisfy the Area 5 Core requirement.

Area 6 (Creativity and Aesthetic Experience: 3 credits) 3

Area 7 (Critical Issues in a Global Context: 3 credits) 3

Foreign Languages: The equivalent of three years of one foreign language in secondary school [8].

3

V. Free Electives (16/18) credits, depending on whether CS 1044 (3 credits) or 1344 (1 credit) is taken:

________________________________________

NOTES:
1. Outcomes Assessment: Each student is required to participate in the department's Outcomes Assessment procedures as determined by each year's Undergraduate Program Committee and approved by the Head.
2. Satisfactory progress toward the B.S. in Mathematics: See mathematics section of the University Undergraduate Catalog.
3. Mathematics Electives are subject to restrictions listed on Mathematics Departmental Guide Sheet for Majors - a maximum of 60 hours in Mathematics is allowed.
4. Note that 3034 satisfies the Core Curriculum requirement for a 3-credit in-major Writing Intensive (WI) course. The other WI Mathematics course is MATH 4044 (History of Mathematics).
5. Note the following prerequisites and corequisites for Computer Science courses:

<table>
<thead>
<tr>
<th>CS course</th>
<th>Prerequisites/corequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>1344</td>
<td>1 year high-school course in programming in either C or Pascal</td>
</tr>
<tr>
<td>1104</td>
<td>1044/1344 corequisite</td>
</tr>
<tr>
<td>1206</td>
<td>1044/1344 corequisite</td>
</tr>
<tr>
<td>1704</td>
<td>1044/1344 prerequisite, 1206 (UNIX) corequisite</td>
</tr>
<tr>
<td>2704</td>
<td>1704</td>
</tr>
<tr>
<td>2604</td>
<td>2704 and MATH 3034 (substituting for MATH 2534)</td>
</tr>
<tr>
<td>4104</td>
<td>2604 and MATH 3134 or MATH 3124</td>
</tr>
</tbody>
</table>

Note also that successful completion of the listed CS courses (with a C or better in all but 4104) and of CS 1604 (Networking --- 1 credit hour) will fulfill the requirements for a minor in Computer Science.
6. Note that CS 2704 is taken before CS 2604.
7. Area 4 must have 8 credits represented by a sequence or cluster (6 hours lecture plus 2 hours linked lab) from a single discipline (PHYS 2305-2306 satisfies the 8-hour requirement).
8. Students who completed two years of a single foreign language in high school are strongly urged to complete the second semester (1106) of that foreign language very early in their program of study. Students who will be taking first and second semester (1105-1106) of a foreign language are encouraged to schedule it in their freshman or sophomore years. NOTE: Students who completed fewer than two years of a single foreign language in high school must complete six semester hours of one foreign language at the college level and these six credits do not count toward the 120 hours required to graduate in the College of Arts and Sciences.