



THE UNIVERSITY *of* NORTH CAROLINA  
**GREENSBORO**

**Elementary Education  
Concentration  
in  
Mathematics  
Information Packet**

**Department of Mathematics and Statistics**

August 2006 Edition

*Students should obtain any updated versions of this document as requirements for licensure are periodically changed by the State of North Carolina.*

**ELEMENTARY GRADES EDUCATION ~ CONCENTRATION: MATHEMATICS**  
**(A coherent course of study~18 hours minimum)**

<u>NUMBER</u>	<u>COURSE NAME</u>	<u>HOURS</u>	
<b><u>CORE:</u></b>			<b>12 semester hours</b>
MAT 191	Calculus I	3	Prerequisite: min grade of C in MAT 151
MAT 292	Calculus II	3	Prerequisite: min grade of C in MAT 191
STA 271	Fund. Concepts of Statistics	3	Prerequisite: min grade of C in MAT 150 or STA 108
MATxxx	One mathematics course from MAT 220, MAT 253, MAT 293, MAT 310	3	Various prerequisites (see below electives)

**MATHEMATICS ELECTIVES:** **6 semesters hours**  
From the list below choose a minimum of 2 additional courses from the following:

MAT 220	Plane/Solid Analytic Geometry	3	Prerequisite: min grade of C in MAT 151 <b>Spring Offering Only</b>
MAT 253	Discrete Mathematics I	3	Prerequisite: min grade of C in MAT 151
MAT 293	Calculus III	3	Prerequisite: min grade of C in MAT 292
MAT 310	Matrix Theory	3	Prerequisite: min grade of C in MAT 292
MAT 311	Modern Algebra	3	Prerequisite: min grade of C in MAT 310
MAT 353	Discrete Mathematics II	3	Prerequisite: min grade of C in MAT 253
MAT 390	Ordinary Differential Equations	3	Prerequisite: min grade of C in MAT 292
MAT 394	Calculus IV	3	Prerequisite: min grade of C in MAT 293
MAT 503	Problem Solving in Mathematics	3	Prerequisite: min grade of C in MAT 292 <b>Fall offering only</b>
MAT 504	Found. of Geometry for Teachers	3	Prerequisite: min grade of C in MAT 292 <b>Fall only offering</b>
MAT 513	Historical Dev. of Mathematics	3	Prerequisite: min grade of C in MAT 292 <b>Fall only offering</b>
MAT 514	Theory of Numbers	3	Prerequisite: min grade of C in MAT 311
MAT 519	Intuitive Concepts in Topology	3	Prerequisite: min grade of C in MAT 311
MAT 531	Combinatorial Analysis	3	Prerequisite: min grade of C in MAT 253 or MAT 311 or MAT 295 or MAT 395

**Contact Barbara C. Carter (256-1132) or Department of Mathematics and Statistics ( 334-5836)**

(Students seeking a **minor in mathematics** will need Department of Mathematics and Statistics approval and the requirements are MAT 191 and MAT 292 and MAT 310 or MAT 353 as well as a minimum of 6 additional hours of MAT, CSC, STA courses 200-level or above which count toward a major in mathematics.)

**Effective Fall 2005**

**Updated 8/14/06 bcc**

Prior page information is for the mathematics concentration for elementary education majors. A student needs to meet the requirements for the Elementary Education major and earns a B.S. degree in that field. The Department of Curriculum and Instruction in School of Education governs the requirements for the Elementary Education major and the primary advising will be through CUI. Therefore, the interested student should consult the following site for more information on the Elementary Education program.

[http://www.uncg.edu/cui/under\\_programs/index.html](http://www.uncg.edu/cui/under_programs/index.html)

Another resource for teacher education is *The Teachers Academy Teacher Licensure Handbook for Undergraduates* which can be found at [http://www.uncg.edu/ted/teach\\_acad\\_handbooks.html](http://www.uncg.edu/ted/teach_acad_handbooks.html) .

As noted on the previous page, many mathematics courses have prerequisites, so individualized planning is highly recommended. The contact person listed above will work with you on your mathematics concentration program of study so plan an advising appointment with a mathematics education advisor as well as with your CUI advisor. Remember if the goal is also to obtain a minor in mathematics, it is important to contact the Department of Mathematics and Statistics for approval of the plan of study for the minor.