

**Department of Mathematics and Statistics: Doctoral Plan Of Study**

Student: \_\_\_\_\_ Program: Ph.D. in Computational Mathematics

Advisor: \_\_\_\_\_

COURSEWORK (MINIMUM 48 CREDIT HOURS)

SEMESTER & YEAR

Choose at least 48 credit hours of approved coursework.

- STA 642 Statistical Computing \_\_\_\_\_
- STA 651 Mathematical Statistics \_\_\_\_\_
- STA 652 Mathematical Statistics \_\_\_\_\_
- STA 661 Advanced Statistics in the Behavioral and Biological Sciences I \_\_\_\_\_
- STA 662 Advanced Statistics in the Behavioral and Biological Sciences II \_\_\_\_\_
- STA 671 Multivariate Analysis \_\_\_\_\_
- STA 673 Statistical Linear Models \_\_\_\_\_
- STA 675 Advanced Experimental Design \_\_\_\_\_
- STA 676 Sample Survey Methods \_\_\_\_\_
- MAT 701 Graduate Seminar in Computational Mathematics  
(\_\_\_\_ credit hours) \_\_\_\_\_
- STA 701 Seminar in Computational Statistics  
(\_\_\_\_ credit hours) \_\_\_\_\_
- MAT 709 Topics in Computational Mathematics  
(\_\_\_\_ credit hours) \_\_\_\_\_
- STA 709 Topics in Computational Statistics  
(\_\_\_\_ credit hours) \_\_\_\_\_
- MAT 721 Mathematical Cryptography \_\_\_\_\_
- MAT 723 Numerical Mathematics \_\_\_\_\_
- MAT 724 Numerical Mathematics \_\_\_\_\_
- MAT 726 Finite Element Methods \_\_\_\_\_
- MAT 727 Linear Algebra and Matrix Theory \_\_\_\_\_
- MAT 728 Linear Algebra and Matrix Theory \_\_\_\_\_
- MAT 731 Combinatorics \_\_\_\_\_
- MAT 732 Graph Theory \_\_\_\_\_
- MAT 735 Ordinary Differential Equations \_\_\_\_\_

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|--|-------|
| <input type="checkbox"/> MAT 736 Partial Differential Equations                    | _____ |
| <input type="checkbox"/> MAT 737 General Topology                                  | _____ |
| <input type="checkbox"/> MAT 738 General Topology                                  | _____ |
| <input type="checkbox"/> MAT 740 Modern Abstract Algebra                           | _____ |
| <input type="checkbox"/> MAT 741 Modern Abstract Algebra                           | _____ |
| <input type="checkbox"/> MAT 742 Computational Number Theory                       | _____ |
| <input type="checkbox"/> MAT 743 Complex Analysis                                  | _____ |
| <input type="checkbox"/> MAT 745 Real Analysis                                     | _____ |
| <input type="checkbox"/> MAT 746 Real Analysis                                     | _____ |
| <input type="checkbox"/> MAT 747 Computational Topology                            | _____ |
| <input type="checkbox"/> MAT 748 Computational Algebra                             | _____ |
| <input type="checkbox"/> MAT 790 Directed Doctoral Research<br>(____ credit hours) | _____ |
| <input type="checkbox"/> MAT 799 Dissertation<br>(____ credit hours)               | _____ |
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Choose additional electives that do not count toward the required 48 hours.

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|---|-------|
| <input type="checkbox"/> MAT 595 Mathematical Analysis                    | _____ |
| <input type="checkbox"/> MAT 596 Mathematical Analysis                    | _____ |
| <input type="checkbox"/> MAT 601 Seminar in the Teaching of Mathematics I | _____ |
| <input type="checkbox"/> MAT 602 Seminar in Mathematical Software         | _____ |
| <input type="checkbox"/> MAT 603 Practicum in the Teaching of Mathematics | _____ |
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PRELIMINARY EXAMINATION

MONTH & YEAR

**Written component** Chose two areas.

- Mathematical Analysis \_\_\_\_\_
- Linear Algebra and Matrix Theory \_\_\_\_\_
- Mathematical Statistics \_\_\_\_\_

**Oral component**

\_\_\_\_\_

DISSERTATION RESEARCH

Include 18–21 credit hours of MAT 799 Dissertation in required 48 hours.

Dissertation committee: \_\_\_\_\_(Chair)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Oral topic proposal and defense \_\_\_\_\_

Written dissertation research outline \_\_\_\_\_

Oral dissertation presentation and defense \_\_\_\_\_

SIGNATURES

Sign and print below.

Student: \_\_\_\_\_ Date: \_\_\_\_\_  
\_\_\_\_\_

DGS: \_\_\_\_\_ Date: \_\_\_\_\_  
\_\_\_\_\_