Applied Mathematics (BS)

To see more about what you will learn in this program, visit the Learning Outcomes website (https://apps.orip.ncsu.edu/pgas/)

The bachelor of science in applied mathematics shares many basic features with the B.S. program in mathematics. The primary difference is that this program includes a strong interdisciplinary concentration in a related field. The applied concentration, which must be approved by a student’s adviser, should be structured to promote specific career or educational objectives.

Undergraduate research opportunities include:

- Society for Industrial and Applied Mathematics
- NC State Research Experiences for Undergraduates in Mathematics
- The Mathematical Biology Research Training Group
- Industrial Mathematical & Statistical Modeling (IMSM) Program by SAMSI
- Study abroad opportunities in applied mathematics
- SUM Club

For more information about this program visit: https://math.sciences.ncsu.edu/undergraduate/undergraduate-programs/applied-mathematics/

Department of Mathematics
North Carolina State University
Campus Box 8205
Raleigh, NC 27695

Dr. Alina Duca
Teaching Professor and Director of Undergraduate Programs in Mathematics
SAS Hall 2108B
Phone: 919.515.1875
Email: anduca@ncsu.edu

Plan Requirements

Applied Mathematics (BS): 120 Total Units

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Statistics Electives

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**Statistics Sequence 2**

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**Statistics Sequence 3**

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**Statistics Sequence 4**

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Methods of Applied Math Electives

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Math Electives

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**GEP Requirement** ([http://catalog.ncsu.edu/undergraduate/gep-category-requirements/](http://catalog.ncsu.edu/undergraduate/gep-category-requirements/))

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**Spring Semester**

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<td>Physics for Engineers and Scientists I</td>
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<td>Introduction to Programming Elective</td>
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<th>Course</th>
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<tr>
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<td>Applied Differential Equations I 1,2</td>
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<td>MA 405</td>
<td>Introduction to Linear Algebra 2</td>
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<td>Introduction to Statistical Inference and Regression</td>
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<td>Introduction to Modern Algebra for Mathematics Majors 2</td>
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<td>Methods of Applied Math Elective 2</td>
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<tr>
<td>MA 425</td>
<td>Mathematical Analysis I 2</td>
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<td>MA 402</td>
<td>Mathematics of Scientific Computing 2</td>
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<td>Applied Elective</td>
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### Fourth Year

#### Fall Semester

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<td>MA 426 Mathematical Analysis II</td>
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<td>MA Elective</td>
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<tr>
<td>Advanced Mathematics Elective</td>
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<td>Applied Electives</td>
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<td>GEP Interdisciplinary Perspectives</td>
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#### Spring Semester

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<td>Applied Elective</td>
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<td>Free Electives (2 courses)</td>
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<td>GEP Interdisciplinary Perspectives</td>
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**Total Hours**: 120

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1. A grade of C- or higher is required.
2. At most one grade below a C- is permitted in Advanced Mathematics courses and at most one grade below a C- is permitted in courses satisfying the Basic Science requirements. No grades below a C- are permitted in Basic Mathematics courses.