

CON Appl Math BS Applied Mathematics

Under Review
 |
 Fall 2024

Proposal Information

<div>Status</div> <div>Active</div>	<div>Workflow Status</div> <div>In Progress</div> <div>Faculty Senate, Faculty Senate</div> <div>Waiting for Approval Faculty Senate Approval</div> <div>Rick Holmes</div> <div>Nancy Middlebrook</div> <div>expand ▲</div>
	<div>Changes</div> <ul style="list-style-type: none"> Concentration Requirements Proposed Effective Term and Year Sponsoring faculty/staff member Sponsoring faculty/staff email Concentration Justification

Proposal Information

Proposed	Proposed
Sponsoring faculty/staff member ?	Sponsoring faculty/staff email
Ana Lombard	alombard@unm.edu
Existing	Existing
Sponsoring faculty/staff member ?	Sponsoring faculty/staff email
Dimiter Vassilev	vassilev@unm.edu
College	Department
College of Arts & Sciences	Mathematics & Statistics
	Campus
	Main Campus

Effective Term and Year

Proposed
Proposed Effective Term and Year
Fall 2024

Existing
Proposed Effective Term and Year
Fall 2023

Justification

Proposed

Concentration Justification

Math 402 can be taken in place of Math 311 but is not an Applied math course and shouldn't be a part of the elective applied courses. This was discussed and approved by the faculty.

Existing

Concentration Justification

update for Kuali only

Associated Forms

Select any associated course forms that exist

Select any associated program forms that exist

Program Information

Degree Name

BS Math - Bachelor of Science in Mathematics

Degree Type

Bachelor of Science

Program Type

Undergraduate

Program Description

No Parent Selected

Degree Hours

120

Minimum Major Hours

Degree Requirements

- Complete all of the following
 - Complete the following:
 - MATH1512 - Calculus I (4)
 - MATH1522 - Calculus II (4)
 - MATH321 - Linear Algebra (3)
 - MATH401 - Advanced Calculus I (4)
 - MATH2531 - Calculus III (4)
 - Note that MATH 401 is not required for the concentration in Mathematics of Computation.
 - Earn at least 18 credits from the following types of courses:
selected Concentration. See concentrations for requirements which vary.
 - Earn at least 83 credits from the following types of courses:
In addition to the program-specific requirements outlined here, all undergraduate students are required to fulfill UNM's General Education Program requirements and other general undergraduate degree requirements to earn a minimum of 120 credits. In some instances, courses included in an undergraduate degree program's requirement may also fulfill a General Education requirement. Please review the General Education Program in this Catalog for General Education information. Students within the College of Arts and Sciences must also complete 1) a major and a minor; or 2) two majors; or 3) one of the special curricula of the College that requires no minor.

Grand Total Credits: 120

Concentration Information

Concentration Title

Applied Mathematics

Program Level

Undergraduate

Concentration Requirements

- Complete all of the following
 - Complete at least 1 of the following:
 - ~~MATH311 - Vector Analysis (3)~~
 - ~~MATH402 - Advanced Calculus II (3)~~
 - Complete the following:
 - MATH312 - Partial Differential Equations for Engineering (3)
 - MATH313 - Complex Variables (3)
 - MATH316 - Applied Ordinary Differential Equations (3)
 - MATH375 - Introduction to Numerical Computing (3)
 - **MATH401 - Advanced Calculus I (4)**
 - Complete at least 1 of the following:
 - **MATH311 - Vector Analysis (3)**
 - **MATH402 - Advanced Calculus II (3)**
 - Earn at least 3 credits from the following types of courses:
Both 311 and 402 can be taken for credit. If 402 is not chosen, then the concentration must include one course from: ~~**412, 441, 462, 463, 464, *471, 472.~~
 - Earned a minimum grade of C in at least 1 of the following:
 - **MATH412 - Nonlinear Dynamics and Chaos (3)**
 - **MATH441 - Probability (3)**
 - **MATH462 - Introduction to Ordinary Differential Equations (3)**
 - **MATH463 - Introduction to Partial Differential Equations (3)**
 - **MATH464 - Applied Matrix Theory (3)**
 - **MATH471 - Introduction to Scientific Computing (3)**
 - **MATH472 - Fourier Analysis and Wavelets (3)**
 - Earned a minimum grade of C in at least 1 of the following:
 - **ENG130L - Introduction to Engineering Computing (3)**
 - **CS152L - Computer Programming Fundamentals (3)**
 - **PHYS2415 - Computational Physics (3)**
 - **ECE131L - Programming Fundamentals (4)**
 - Earned at least 3 credits from MATH or STAT 300 - 699

Grand Total Credits: 28 - 29

Concentration Description

Contact the department for more information about this concentration.