

**Proposal for a New/Revised
Major, Minor, Emphasis, Certificate**

INSTRUCTIONS:

- Prepare your proposal according to the following outline. (Hand written forms will not be accepted.)
 - Attach the new/current catalog copy with all affected changes clearly noted. List all courses and requirements, indicate new courses, deleted courses and/or course changes.
Note: *A form must be submitted for each change.*
 - Submit the signed proposal to the Office of Academic Affairs. All forms must be completed in full with appropriate signatures to be added to the agenda. You will be contacted by the Curriculum Committee Coordinator with a date and time to present the proposal.
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I. **Identification of Department(s)/Program(s):** Math and Computer Science

II. **Is this a New or Revised Proposal?** New Revised

Type of proposal: Major Minor Emphasis Certificate

Title of Proposal: Change one Requirement of BA and BS in Math

III. **Rationale for the proposal:**

- a. What research/evidence supports the need for the proposal? This is in line with other programs in the area.
- b. How will it support departmental philosophy/mission and existing curriculum? How will it support the philosophy/mission and existing curriculum of your School/College and the University? No change
- c. List the learning objectives/outcomes: No change.
- d. How will these outcomes be assessed? No change.
- e. Why is this being proposed? To assure all math majors will have greater exposure to proofs.
- f. Will this proposal have an impact on other Webster departments, schools/colleges or campuses (including overseas)? Yes No. If yes, please provide a brief explanation.
- g. What Campus(es) will offer this? Webster Groves, No change

Curriculum Committee Proposal
Change one Requirement of BA and BS in Math
From the Department of Math and Computer Science

This proposal is a request to change the numbering of two courses and make a substitution in a course requirement for both the BA and BS in Mathematics.

The two courses are Introduction to Algebraic Structures and Introduction to Abstract Mathematics. Introduction to Algebraic Structures is currently numbered MATH 2980 and is a required course for each major. This proposal requests it be renumbered as MATH 3400 and removed as a required course. Introduction to Abstract Mathematics is currently numbered MATH 3110. This proposal requests it be renumbered as MATH 2450 and added as a required course. The expectation is that most students will take the course in their sophomore year.

The following catalog changes will be needed, as well as, some renumbering in the list of courses.

List of required courses:

BA Required Courses

MATH 1610 Calculus I	5 hours
MATH 1620 Calculus II	5 hours
MATH 2980 Introduction to Algebraic Structures <u>MATH 2450 Introduction to Abstract Mathematics</u>	3 hours
MATH 3000 Calculus III	5 hours
MATH 3040 Differential Equations	3 hours
Four mathematics courses numbered MATH 3010 and above, excluding all MTHT courses.	12 hours

etc

BS Required Courses

MATH 1610 Calculus I	5 hours
MATH 1620 Calculus II	5 hours
MATH 2980 Introduction to Algebraic Structures <u>MATH 2450 Introduction to Abstract Mathematics</u>	3 hours
MATH 3000 Calculus III	5 hours
MATH 3040 Differential Equations	3 hours
Six mathematics courses numbered MATH 3010 and above, excluding all MTHT courses.	18 hours

Etc

3500

New course description for **MATH 3400 Introduction to Abstract Mathematics**

This course serves as a transition course from calculus to abstract mathematics. The emphasis is on understanding and writing mathematical proofs. Topics include logic, set theory, relations, functions, and elementary number theory.

Forms for the course renumbering and prerequisite changes for two other courses are attached.