Proposal for a New Major

NOTE: All gray text boxes must be completed (even if you just put N/A into them), otherwise the committee must consider the form incomplete.

1. Department: **Mathematics**

2. Name of Major: **Bachelor of Arts in Mathematics**

3. Desired acronym: **BA Math**

4. Total number of hours required for completion of major: **36**

5. Semester and year in which new major will go into effect: **Fall 2011**

6. Justification for offering the major (consider the following):
   a) What are the goals and objectives of the major?
      **To offer a minimum credit hour degree in mathematics, yet with substantial content and proof writing exposure.**
   b) How does the major support the liberal arts tradition of the College, including linkages with other disciplines?
      **At liberal arts institutions, students are encouraged to explore. In this spirit the College of Charleston mandates: "Every department that offers a major requiring more than 36 hours also offers a major of not more than 36 hours for the student's choice...."** Being committed to our liberal arts tradition and this principle in particular, the Department of Mathematics is proposing the bachelor of arts degree with a 36 hour option.

7. Which other departments/majors are affected by this new major (please attach letters of support from the chairs of each affected department indicating that the department has discussed the proposal and supports it)? **Only the bachelor of science degree in the Department of Mathematics.**

8. Please explain any overlap with existing major.
   **The bachelor of arts degree in mathematics is essentially a streamlined version of the pure mathematics track in the bachelor of science degree program.**

9. Address potential shifts:
   a) Address potential enrollment pattern shifts in the department or college-wide related to the offering of this major.
      **It is possible that some students who might have otherwise chosen the pure track in the bachelor of science degree in mathematics will instead choose the bachelor of arts degree. It is also possible that a bachelor of arts in mathematics may attract students in sciences or business to double major in mathematics.**
   b) Address potential shifts in staffing of the department as related to the offering of this major.

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The department of mathematics does not expect that a bachelor of arts degree would affect staffing. The proposed bachelor of arts degree does not involve new courses, and most existing upper level mathematics courses have residual capacity.

10. Requirements for additional resources made necessary by this major.

a) Staff: 0
b) Budget: 0
c) Library: 0

11. List courses and requirements (including their prerequisites) for completion of this major. Provide any relevant additional information, for example include a typical schedule for a student to complete this major.

**CORE COURSES:**
- MATH 120 INTRODUCTORY CALCULUS (4) [MATH 111 or placement]
- MATH 220 CALCULUS II (4) [MATH 120 or HONS 115]
- MATH 221 CALCULUS III (4) [MATG 220]
- MATH 203 LINEAR ALGEBRA (3) [MATH 220 or permission of the instructor]
- MATH 295 AN INTRODUCTION TO ABSTRACT MATHEMATICS (3) [MATH 203 or 221]
- MATH 303 ABSTRACT ALGEBRA I (3) [MATH 203 AND 295]
- MATH 311 ADVANCED CALCULUS (3) [MATH 221 AND 295]
- MATH 315 INTRODUCTION TO COMPLEX VARIABLES (3) [MATH 221, WITH A MINIMUM GRADE OF C]

**ONE OF THE FOLLOWING COURSES:**
- MATH 403 ABSTRACT ALGEBRA II (3) [MATH 303]
- MATH 411 ADVANCED CALCULUS II (3) [MATH 203 AND 311]

**EITHER**

**TWO ELECTIVES**
One elective at the 300 level or above (3)
A second elective at the 400 level (3).

**OR**

**BACHELOR'S ESSAY (6) [permission of the instructor and department chair]**

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**SAMPLE SCHEDULE**

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<tbody>
<tr>
<td>FRESHMAN</td>
<td>MATH 120</td>
<td>MATH 220</td>
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<td>SOPHOMORE</td>
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<td>BACHELOR'S</td>
<td>ESSAY</td>
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12. Signature of Department Chair (s) or Program Director(s):

_________________________________________ Date: ________________

_________________________________________ Date: ________________

13. Signature of Dean of School:

_________________________________________ Date: ________________

_________________________________________ Date: ________________

14. Signature of Provost:

_________________________________________

Date: __________________________

15. Signature of Curriculum Committee Chair:

_________________________________________

Date: __________________________

16. Signature of Budget Committee Chair

_________________________________________

Date: __________________________

17. Signature of Planning Committee Chair:

_________________________________________

Date: __________________________

18. Signature of Faculty Senate Secretary:

_________________________________________

Date Approved by Senate: __________________________

Completed form should be sent by the Faculty Senate Secretary to the Registrar. After implementation, information concerning the passed course and program changes will be provided by the Registrar to all faculty and staff on campus.

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