| FLORIDA<br>ATLANTIC<br>UNIVERSITY   | NEW/CHANGE PROGRAM REQUEST Undergraduate Programs  Department Mathematical Sciences  College Science |                               | UUPC Approval 3-29-2  UFS Approval Banner Posted Catalog  |
|---|--|-------------------------------|---|
| Program Name<br>Mathematics Mind  |  | New Program  ✓ Change Program | Effective Date<br>(TERM & YEAR)<br>Fall 2021              |
| See attached  Faculty Contact/  | Email/Phone ses@fau.edu, 561-297-3350  |                               | nents that may be affected by                             |
| Approved by Department Chair College Curriculur College Dean UUPC Chair Undergraduate Str UFS President Provost | rry Haky   |                               | Date  March 5, 2021  3-18-21  3/24/202/  3-29-21  3-29-21 |

Email this form and attachments to  $\underline{mjenning@fau.edu}$  one week before the UUPC meeting so that materials may be viewed on the UUPC website prior to the meeting.



Charles E. Schmidt College of Science Department of Mathematical Sciences

777 Glades Road Boca Raton, FL 33431 tel: 561.297.3340 fax: 561.297.2436 math.fau.edu

March 5, 2021

## Proposed Revision of the Mathematics Minor.

The current Mathematics Minor requires 24 credits with at least 18 of those credits completed at FAU. This has caused a slight difficulty for FAU students who transferred to FAU after completing an AA degree if they have already completed MAC 2311 and MAC 2312. Also, the current Mathematics Minor required students to take a course from a short list of four upper division courses, one of which has been phased out, one is about to be phased out and one has a prerequisite added in recent years.

In order to make the minor accessible to a larger number of students, the Department of Mathematical Sciences proposes to replace its current minor in Mathematics with a slightly more compact program. As prerequisites, the student is expected to complete MAC 2311 and MAC 2312. The student will then take three courses from a list of five courses most of which are offered every semester and are frequently taken by Engineering majors. (The other course is MAD 2502, which is offered in Fall and Spring.) The student must also take one upper division mathematics course, not counting MAP 3305.

The total number of credits in the minor is 12 or 13, at least 9 credits of which must be done at FAU. With the addition of the two prerequisite courses, the total is 20 or 21. Our current minor requires 24 credits.

A copy of this proposal is being sent to the departments in the College of Engineering, to the Physics

| Department, and to the Honors College.                         |
|--|
| Mathematical Sciences Interim Chair Stephen Locke March 5/2021 |
| College Curriculum Chair                                       |
| College Dean   |
| UUPC Chair   |
| Undergraduate Studies Dean                                     |
| UFS President  |
| Provost  |

## Proposed Catalog entry:

#### Minor in Mathematics

Students are expected to complete MAC 2311 (Calculus 1) and MAC 2312 (Calculus 2) or their equivalents as prerequisites for the Minor in Mathematics. (8 credits)

The minor requires four Mathematics courses, 12 or 13 credits, with grades of "C" or better in each course, and with at least 9 of these credits completed at FAU.

# Three courses are to be selected from:

| MAC 2313 (Calculus 3)                                | . 4 credits |
|--|-------------|
| MAD 2104 (Discrete Mathematics)                      | 3 credits   |
| MAD 2502 (Introduction to Computational Mathematics) | 3 credits   |
| MAP 2302 (Diff. Eqns. 1) or MAP 3305 (Eng. Math. 1). | . 3 credits |
| MAS 2103 (Matrix Theory)                             | 3 credits   |

The remaining course will be an upper division mathematics course (3000-level or above), excluding MAP 3305 (Engineering Mathematics 1).

The total number of credits, including the MAC 2311 and MAC 2312 prerequisites, is 20 or 21.

### **Current Listing in the Catalog**

### **Mathematics Minor**

The minor requires 24 credits of mathematics courses at the level of Calculus 1 or above with grades of "C-" or better in each course, including at least one from below:

| Modern Analysis                  | MAA 4200 |
|----------------------------------|----------|
| Introduction to Complex Analysis | MAA 4402 |
| Numerical Analysis 1             | MAD 4401 |
| Modern Algebra                   | MAS 4301 |

At least 18 of these mathematics credits must be completed at FAU.