# FAU

**FLORIDA ATLANTIC UNIVERSITY**

## NEW/CHANGE PROGRAM REQUEST
## Graduate Programs

**Department** Mathematical Sciences

**College** Science

UGPC Approval _____

UFS Approval _____

Banner _____

Catalog _____

| Program Name | | New Program* | Effective Date *(TERM & YEAR)* |
|---|---|---|---|
| Combined B.A. or B.S. in Mathematics (Honors College) to M.S. in Applied Mathematics and Statistics | | ☑ Change Program* | Fall 2022 |

**Please explain the requested change(s) and offer rationale below or on an attachment.**

This proposal requests to terminate the combined B.A. or B.S. in Mathematics (Honors College) to M.S. in Applied Mathematics and Statistics program since we are going to terminate the Master of Science in Applied Mathematics and Statistics (AMST) program. Consequently the catalog entries for the combined B.A. or B.S. in Mathematics (Honors College) to M.S. in Applied Mathematics and Statistics program should be removed from the university catalog.

Rationale: Due to low enrollment and graduates of the AMST program, we have proposed to merge the AMST program with MS in Mathematics with five concentrations: pure mathematics, applied analysis, biostatistics, cryptology and information security, and financial mathematics. Consequently we have made the program change for the combined B.A. or B.S. in Mathematics (Honors College) to Master of Science with Major in Mathematics by incorporating the merged MS in Mathematics program. All the prospective students from Honors College interested in combined program with focus on applied mathematics and statistics can apply for the combined B.A. or B.S. in Mathematics (Honors College) to Master of Science with Major in Mathematics program by choosing the appropriate concentration.

*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.

| Faculty Contact/Email/Phone | Consult and list departments that may be affected by the change(s) and attach documentation |
|---|---|
| Hongwei Long/ hlong@fau.edu / 561-297-0810 | Honors College |

**Approved by**

Department Chair _~~signature~~_  **Date** 11/18/21

College Curriculum Chair _~~signature~~ Christopher Beetle_ Digitally signed by Christopher Beetle Date: 2021.11.23 19:57:12 -05'00'

College Dean _~~William David Kalies~~_  11/29/21

UGPC Chair _____

UGC Chair _____

Graduate College Dean _____

UFS President _____

Provost _____

Email this form and attachments to UGPC@fau.edu 10 days before the UGPC meeting.

<table>
<tr><td rowspan="3">**FAU**<br><br>**FLORIDA<br>ATLANTIC<br>UNIVERSITY**</td><td colspan="2">**NEW/CHANGE PROGRAM REQUEST**<br>**Graduate Programs**</td><td>UGPC Approval _____<br>UFS Approval _____<br>Banner _____</td></tr>
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| **Program Name** <br><br> Combined B.A. or B.S. in Mathematics (Honors College) to M.S. in Mathematics | ☐ **New Program\*** <br><br> ✔ **Change Program\*** | **Effective Date** <br> *(TERM & YEAR)* <br><br> Fall 2022 |
|---|---|---|

**Please explain the requested change(s) and offer rationale below or on an attachment.**

This proposal requests to revise the current combined B.A. or B.S. in Mathematics (Honors College) to M.S. in Mathematics in terms of the program change of the Master of Science in Mathematics, which has been merged with the Master of Science in Applied Mathematics and Statistics (AMST) program.

Rationale: Due to low enrollment and graduates of the AMST program, we have proposed to merge the AMST program with MS in Mathematics with five concentrations: pure mathematics, applied analysis, biostatistics, cryptology and information security, and financial mathematics. The current combined combined B.A. or B.S. in Mathematics (Honors College) to M.S. in Mathematics program needs to be updated to reflect the program change of the MS in Mathematics.

\*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.

| **Faculty Contact/Email/Phone** <br><br> Hongwei Long/ hlong@fau.edu / 561-297-0810 | **Consult and list departments that may be affected by the change(s) and attach documentation** <br> Honors College |
|---|---|

| **Approved by** | | **Date** |
|---|---|---|
| Department Chair | *J. C. Locke* | 11/18/21 |
| College Curriculum Chair | *Christopher Beetle* Digitally signed by Christopher Beetle Date: 2021.11.23 19:57:29 -05'00' | |
| College Dean | *William David Kalies* | 11/29/21 |
| UGPC Chair | | |
| UGC Chair | | |
| Graduate College Dean | | |
| UFS President | | |
| Provost | | |

Email this form and attachments to UGPC@fau.edu 10 days before the UGPC meeting.

**Bachelor of Arts with Major in Liberal Arts and Sciences, with Concentration in Mathematical Sciences; or Bachelor of Arts or Bachelor of Science with Major in Biological and Physical Sciences, with Concentration in Mathematics, to Master of Science Degree with Major in Mathematics**

This is an accelerated five-year program where students complete the Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) degree with a Math concentration in the Wilkes Honors College and then continue on with the Master of Science (M.S.) degree in Mathematics in the Charles E. Schmidt College of Science.

The combined degree program is 150 credits: 120 credits for the undergraduate degree and 30 for the master's degree, with a maximum of 12 credits of graduate coursework used to satisfy both degrees. Once admitted into the program, students follow the suggested course sequences within a single ~~track~~ concentration. The baccalaureate degree will be conferred before the master's degree.

Students must maintain a GPA of 3.0 in upper-division and graduate courses. Students interested in this program should consult with the undergraduate and graduate advisors before taking upper-division mathematics coursework to ensure that their coursework will apply toward the combined degree. Students must take the GRE and apply for admission to candidacy by the end of their junior year.

**The Bachelor's Curriculum**
Students must complete the requirements of the B.A. with concentration in Mathematical Sciences or the B.A./B.S. degree with concentration in Mathematics from the Wilkes Honors College. In addition, students must complete MAS 4107 Linear Algebra 2 and STA 4442 Probability and Statistics 1.

Twelve graduate credits from the Department of Mathematical Sciences can be counted toward both the bachelor's degree and the master's degree. The 12 graduate credits should be chosen within a single concentration of the master's program. These 12 credits can be counted as the upper-division math electives or as substitutes as follows:

MAA 5228 can be used to substitute for MAA 4200
MAS 5311 can be used to substitute for MAS 4301
MAS 5145 can be used to substitute for MAS 4107

~~Four graduate courses may to be shared between the bachelor's degree and the master's degree.~~

| ~~Take at least two of the core courses~~ | | |
|---|---|---|
| ~~Introductory Analysis 1~~ | ~~MAA 5228~~ | ~~3~~ |
| ~~Introductory Analysis 2~~ | ~~MAA 5229~~ | ~~3~~ |
| ~~Introductory Abstract Algebra 1~~ | ~~MAS 5311~~ | ~~3~~ |
| ~~Introductory Abstract Algebra 2~~ | ~~MAS 5312~~ | ~~3~~ |
| ~~Take two more courses at the 5000 or 6000 level from the Mathematical Sciences department approved by the graduate committee.~~ | | |

Details of the master's program in Mathematics ~~and Statistics~~ are found here.

**The Master's Curriculum**
Students complete all requirements for the M.S. degree in Mathematics.

**From:** Terje Hill <terjehill@fau.edu>
**Sent:** Thursday, November 18, 2021 3:41 PM
**To:** Stephen Locke <lockes@fau.edu>; Warren McGovern <Wmcgove1@fau.edu>; Hongwei Long <hlong@fau.edu>
**Subject:** Re: Folding the AMST into the M.S.

Hi Stephen and Hongwei,

Warren and I have reviewed all the documents, and we support the proposed changes. Once the changes are approved, we will update the information on the Honors College website.
I assume that no Honors College signatures are needed on any of these forms, but in case they are needed, please let us know asap. Our curriculum committee meets on Dec. 2, and our last faculty assembly for this year is Friday, Dec. 10 (in case we as a faculty are required to vote on these changes). Please contact UUPC (or Maria Jennings) to find out if Honors College votes and signatures are needed.

All the best,
Terje

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*Dr. Terje Hill, Ph.D.*
Professor of Mathematics
Wilkes Honors College, FAU

**From:** Stephen Locke <lockes@fau.edu>
**Date:** Tuesday, November 16, 2021 at 12:05
**To:** Warren McGovern <Wmcgove1@fau.edu>, Terje Hill <terjehill@fau.edu>, Hongwei Long <hlong@fau.edu>
**Subject:** Folding the AMST into the M.S.

Warren and Terje,

I sent some files a while back regarding the merger of the M.S. in Applied Mathematics and Statistics into the traditional M.S. program, resulting in an M.S. programs with several tracks.

When we change the Catalog copy for the M.S., we should also change the Catalog copy for the combined programs involving a baccalaureate at the Honors College with an M.S. here in our department.

I'll try to sent the files again, in case you need them.

Hongwei is looking for a comment from your group for when the proposed changes go to the College's Graduate Curriculum Committee.

Thanks,
Stephen