**NEW/CHANGE PROGRAM REQUEST**

**Graduate Programs**

**Department:** Mathematical Sciences  
**College:** Science

**Program Name:**  
Master of Science in Teaching Mathematics (MST)

- [ ] New Program*  
- [x] Change Program*

**Effective Date**  
TERM & YEAR: Summer 2021

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

This proposal requests a revision on the course requirements of the program. Currently, the required mathematics courses are from a list of ten courses specifically designed for the MST program. We request to allow a student to count toward the degree any graduate course in mathematics (designed for other MS programs and the PhD program).

We are also requesting to add the course STA 6116 Technology in Statistics and Probability to the list of courses designed for the program, and remove the course MTH 6405 Topics in the History of Mathematics from the list of courses designed for the program.

**Rationale:** The ten courses in the current list are offered at the rate of one per term (including summers), since many of the students in the program are part-time students. Due to minimum enrollment limits, we cannot currently offer two courses from the list in a single term. On the other hand, many students in the program would like to take more than one class per term, to obtain the degree more quickly. In the past two years, many of the graduate mathematics courses have been moved online, making it possible for students in the MST program (which is a fully online degree program) to take more than one class per term. Allowing students to count general mathematics graduate courses toward the MST degree will make the program more flexible and efficient and still preserve the standards of the mathematical content of the program.

*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**  
Lee Klingler / klingler@fau.edu / (561) 297-3340

**Consult and list departments that may be affected by the change(s) and attach documentation**

**Approved by**

**Department Chair**  
[Signature]

**College Curriculum Chair**  
[Signature]  
Date: 2021.02.12 12:56:42 -05'00'

**College Dean**  
[Signature]

**UGPC Chair**

**UGC Chair**

**Graduate College Dean**

**UFS President**

**Provost**

**Date**  
2/2/2021

02/12/21

Email this form and attachments to UGPC@fau.edu 10 days before the UGPC meeting.
Master of Science in Teaching (Mathematics)

This degree program, with emphasis on issues of teaching, provides post-baccalaureate education both for certified secondary teachers and those wishing to teach at the state college level for any students seeking a deeper understanding of and appreciation for mathematics. This M.S.T. degree program does not provide teaching certification; students interested in teaching at the state college level should consult with an advisor in the Department of Mathematical Sciences.

Admission Requirements
Admission requirements for the M.S.T. program are the same as for the M.S. in Mathematics.

Degree Requirements
This program requires 24 credits of mathematics courses and 6 credits of education courses at or above the 5000 level, and at least half of all credits applied to the degree must be in 6000-level courses. (Candidates without a valid secondary certificate or with fewer than two years of teaching experience might be required to complete a 6-credit internship.) The Mathematical Sciences Department offers one or two 6000-level classes specifically designed for the M.S.T. program each semester (including summers), see the table below, but other 5000- or 6000-level Math courses may be applied toward this degree for students wishing to complete the program more quickly.

in a 3-year rotation. Candidates may start the program at any point in this rotation. Candidates may complete 6 of the 24 credits in mathematics by writing a master's thesis.

<table>
<thead>
<tr>
<th>Required Mathematics Courses</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Students either select eight courses (3 credits each) from the list below, or select six courses (3 credits each) from the list and complete 6 credits of MAT 6971, Master's Thesis.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Online Courses Designed for the M.S.T Program</th>
<th></th>
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<tbody>
<tr>
<td>Advanced Euclidean Geometry</td>
<td>MTG 6226</td>
</tr>
<tr>
<td>Advanced Algebra and Geometry</td>
<td>MAS 6318</td>
</tr>
<tr>
<td>Mathematics and Technology</td>
<td>MAT 6715</td>
</tr>
<tr>
<td>Topics in the History of Mathematics</td>
<td>MHF 6405</td>
</tr>
<tr>
<td>Number Theory of Cryptography</td>
<td>MAS 6217</td>
</tr>
<tr>
<td>Dynamical Systems, Chaos, and Computing</td>
<td>MTG 6418</td>
</tr>
<tr>
<td>Problem Solving and Recreational Mathematics</td>
<td>MAT 6516</td>
</tr>
<tr>
<td>Calculus from a Historical Perspective</td>
<td>MHF 6410</td>
</tr>
<tr>
<td>Fractal Geometry</td>
<td>MTG 6415</td>
</tr>
<tr>
<td>Discrete Mathematics for Teachers</td>
<td>MAD 6108</td>
</tr>
</tbody>
</table>
Subject: Re: catalog revision for the MST program

Deborah,

Thank you.

Stephen

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From: Deborah Shepherd <DSHEP@fau.edu>
Sent: Wednesday, February 3, 2021 11:08 AM
To: Stephen Locke <lockes@fau.edu>
Subject: FW: catalog revision for the MST program

Hi Stephen,

I heard back from all six of the Department Chairs. We have no concerns with your revisions.

Regards,
Deborah

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From: Deborah Shepherd
Sent: Tuesday, February 2, 2021 12:48 PM
To: Stephen Locke <lockes@fau.edu>
Subject: RE: catalog revision for the MST program

Hi Steve,

You did send this information to make. I have sent to the Chairs. Thus far, two of six have responded with no issues.

Regards,
Deborah

Deborah W. Shepherd, Ed.D.
From: Stephen Locke <lockes@fau.edu>
Sent: Tuesday, February 2, 2021 11:41 AM
To: Deborah Shepherd <DSHEP@fau.edu>
Subject: Fw: catalog revision for the MST program

Deborah,

I don't think I sent you this before. We are making some minor changes to our M.S.T. program.

1. We are putting in a stats and technology course and moving out a History of Math course. The History of Math course would still be allowed for the students, but we are trying to keep the cycle of courses down to just ten semesters so that students can graduate fairly quickly. Students will also be allowed to use courses from our M.S. program, with permission of the MST Advisor if the student wishes to graduate even more quickly.
2. We are modifying the statement regarding state colleges. We don't want to give the impression that this degree automatically allows a student to get a job at a state college. I just looked over the transcript of a recent graduate of the program, and that student would have 15 credits that BC would count towards the 18 credits needed by SACS. So, students may already come close to meeting the state colleges' needs, but with proper advising, we are hoping to make sure the ones who want to teach at state colleges will have the 18 credits needed.

I don't think any of these changes affects the College of Education, but I'm sending this to your college to make sure. Would you please forward it to whomever needs to know, and have somebody let me know that these changes are okay with the College of Education.

Thanks,

Stephen