 <b>FLORIDA ATLANTIC UNIVERSITY</b>	<b>NEW/CHANGE PROGRAM REQUEST</b> <b>Undergraduate Programs</b>	UUPC Approval <u>3/27/23</u> UFS Approval _____ Banner _____ Catalog _____
	<b>Department</b> Curriculum and Instruction  <b>College</b> Education	
<b>Program Name</b> BA in Mathematics Education 6-12	<input type="checkbox"/> <b>New Program*</b>  <input checked="" type="checkbox"/> <b>Change Program*</b>	<b>Effective Date</b> (TERM & YEAR)  Fall 2023
<p><b>Please explain the requested change(s) and offer rationale below or on an attachment.</b></p> <p>MHF 3202 (Introduction to Advanced Mathematics) is a prerequisite for MAA 4200 (Modern Analysis) and MAS 4301 (Modern Algebra). MHF 3202 is not a required course in the BA in Mathematics Education 6-12 program. Unless students are told to take MHF 3202, they do not take it. This then causes an issue when students attempt to register for MAA 4200 and MAS 4301--they need the prerequisite.</p> <p>Recommended Program Update:</p> <p>BA in Mathematics Education 6-12 majors are required to take 15 upper division elective credits in addition to the Mathematics content courses and Education courses. The requested change is to lessen the required elective credits to 12 and make MHF 3202 a required Mathematic content course.</p>		
<p><small>*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.</small></p>		
<b>Faculty Contact/Email/Phone</b> Robyn Klein/rklein@fau.edu/x73877	<b>Consult and list departments that may be affected by the change(s) and attach documentation</b> Mathematical Sciences	
<b>Approved by</b>		<b>Date</b>
Department Chair <u>Charles Duke</u>		<u>3/1/2023</u>
College Curriculum Chair <u>Yash</u>		<u>3/8/2023</u>
College Dean <u>[Signature]</u>		<u>3/8/2023</u>
UUPC Chair <u>[Signature]</u>		<u>3/27/23</u>
Undergraduate Studies Dean <u>Dan Meeroff</u>		<u>3/27/23</u>
UFS President _____		_____
Provost _____		_____

Email this form and attachments to [mjenning@fau.edu](mailto:mjenning@fau.edu) seven business days before the UUPC meeting.

**BACHELOR of ARTS DEGREE**  
**in MATHEMATICS EDUCATION (6-12)**

**Department of Teaching and Learning**  
**Information Sheet**

**NOTE:** All College of Education Secondary Degree Programs are Florida Department of Education (DOE) and Council for Accreditation of Teacher Education (CAEP) approved. This State and CAEP approval represents the transferability of your teaching credentials from state-to-state.

**Professional Education component courses offered through the College of Education:**

EDF	2005	Introduction to the Teaching Profession	(3 credits)	(Requires 15-hour field component)
EDF	2085	Introduction to Diversity for Educators	(3 credits)	(Requires 15-hour field component)
EME	2040	Introduction to Technology for Educators	(3 credits)	
EDF	3210	Applied Learning Theory	(3 credits)	
EDF	3430	Ed. Measurement & Evaluation	(3 credits)	
TSL	4324	ESOL Strategies for Content Area Teachers	(3 credits)	
MAE	4360	Teaching Mid & Secondary School Math	(3 credits)	(Requires 10-hour field component)
RED	4335	Content Read: Mid & Sec School	(3 credits)	
ESE	3940	Sec. School Effective Instruction*	(3 credits)	(Requires 90-hour field component)

\*Must be programmed and taken the fall/spring semester prior to student teaching. (Offered in fall and spring terms only)

\*\*Students MUST contact the Department of Mathematics for preliminary assessment

**BEFORE** beginning this program. \*\*

**Mathematics content courses offered through the C.E. Schmidt College of Science:**

(Please see FAU catalog for possible prerequisite courses)

MAC 2311	Calculus with Analytic Geometry I	(4 credits)	MAD 2502	Intro to Computational Math	(3 credits)
MAC 2312	Calculus with Analytic Geometry II	(4 credits)	<b><u>OR</u></b>	A Programming Course	
MAD 2104	Discrete Mathematics	(3 credits)			
MAC 2313	Calculus with Analytic Geometry III	(4 credits)			
MAS 2103	Matrix Theory	(3 credits)			
STA 4442	Probability and Statistics I	(3 credits)			
<b>MAA 4200</b>	Modern Analysis	(3 credits)			
<b>MAS 4301</b>	Modern Algebra	(3 credits)			
MTG 3212	Survey of Geometry	(3 credits)			

MAA 4200/MAS 4301 have MHF 3202 listed as prerequisite. Recommend adding MHF 3202 to this required section--taken prior to MAA 4200 and MAS 4301

**Plus:**

Upper Division Electives: (15 Credits)

Approval of advisor required: see list of preapproved courses on back. Upper division electives are not limited to only those listed.

**Final Semester:** (6-12 credits)

MAE	4945	Student Teaching: Mathematics	(Full-time internship, to be completed during a fall or spring term)
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**\*\*\*ALL COURSEWORK AND CERTIFICATION EXAMS (FTCE: General Knowledge, Math 6-12 SAE, PEd) MUST BE COMPLETED PRIOR TO STUDENT TEACHING\*\*\***

Applications to Student Teach during the fall semester are due by January 31  
 Applications to Student Teach during the spring semester are due by September 15

**PROGRAM ADMISSION REQUIREMENTS:**

- 60 semester hours completed
- 2.5 overall Grade Point Average (GPA)
- Passing scores on the General Knowledge test

NOTICE: Copies of this publication can be obtained in an alternate format by contacting the College of Education/Department of Teaching and Learning at [deptteachlearn@fau.edu](mailto:deptteachlearn@fau.edu) or 561-297-6595. This publication is available in standard print, Braille, or electronically for people with disabilities. Please allow at least 10 days to process this request.

**Upper Division Mathematics Approved Electives:**  
(Please see FAU catalog for possible course prerequisites)

**Select 15 credits:** (change to 12 credits)

MAS	3203*	Introductory Number Theory	(3 credits)
MAP	3305	Engineering Mathematics I	(3 credits)
MAD	3400*	Numerical Methods	(3 credits)
MAD	4402	Numerical Analysis II	(3 credits)
MHF	3404*	History of Mathematics	(3 credits)
MHF	3302	Mathematical Logic	(3 credits)
STA	4102	Computational Statistics I	(3 credits)
STA	4103	Computational Statistics II	(3 credits)
STA	4234*	Applied Statistics I	(2 credits) <b><i>and</i></b>
STA	4202L*	Applied Statistics I Lab	(1 credit)
STA	4702	Applied Statistics II	(3 credits)
MAD	4301*	Graph Theory	(3 credits)
STA	4853	Applied Time Series and Forecasting	(3 credits)
MAP	4303	Differential Equations II	(3 credits) <b><i>OR</i></b>
MAP	4306	Engineering Mathematics II	(3 credits)
MAA	4402*	Introductory Complex Analysis	(3 credits)
STA	4443*	Probability and Statistics II	(3 credits)
STA	4618*	Linear Programming and Game Theory	(3 credits)
MAT	4937	Mathematical Problem Solving	(3 credits)
CIS	4362	Cryptography and Information Security	(3 credits)
MAS	4107	Linear Algebra II	(3 credits)
MAD	4605	Introduction to Coding Theory	(3 credits)
MTG	4930	Topics in Geometry	(1-4 credits)
MAT	4930	Topics in Mathematics	(1-4 credits)
MAT	4906	Directed Independent Study	(1-4 credits)
STA	4906	Directed Independent Study	(1-4 credits)

(\*Recommended courses)

**From:** [Richard Voss](#)  
**To:** [Robyn Klein](#)  
**Subject:** Re: MHF 3202  
**Date:** Thursday, February 23, 2023 4:34:40 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)

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It seems that MHF 3202 IS a prerequisite for MAA 4200 and MAS 4301 and it is on the schedule for Fall 2023 and Spring 2024.

It does not, however appear on the the list of required courses for Math BA or BS degrees (<http://www.math.fau.edu/bs.php> <http://www.math.fau.edu/ba.php>). I pointed out to the chair that a required prerequisite of a required course should also be a required course and he is looking in to that. I have no idea if anything will change.

Richard

On 2/23/2023 3:05 PM, Robyn Klein wrote:

Thanks Richard. It is appreciated.

Robyn Klein, Ed.D.  
Instructor and Advisor  
Department of Curriculum and Instruction  
College of Education  
Florida Atlantic University  
[rklein@fau.edu](mailto:rklein@fau.edu)

On Feb 23, 2023, at 4:03 PM, Richard Voss <[RVOSS@fau.edu](mailto:RVOSS@fau.edu)> wrote:

I've no answer. I've sent an email to the math chair and I will let you know if I get an answer.

Richard

On 2/23/2023 2:35 PM, Robyn Klein wrote:

Hi Richard—one more thing:

Our students are bringing this to our attention. Since MHF 3202 is a prerequisite for MAA 4200 and MAS 4301, how would students be able to take these courses if they do not have access to MHF 3202 or if it is not required? See the details below from the current fall schedule:

**Class Details for Modern Algebra MAS-Math-Algebraic Structures 4301 001** ✕

**Term:** 202308 | **CRN:** 10758

<b>Class Details</b>	<b>Catalog Prerequisites</b> <b>All of the following courses:</b> <ul style="list-style-type: none"><li>○ MAD-Mathematics-Discrete 2104 Undergraduate / Graduate Minimum Grade of C</li><li>○ MHF-Math: Historical Foundatns 3202 Undergraduate / Graduate Minimum Grade of C</li></ul>
<b>Bookstore Links</b>	
<b>Course Description</b>	
<b>Attributes</b>	
<b>Restrictions</b>	
<b>Instructor/Meeting Times</b>	
<b>Enrollment/Waitlist</b>	



Term: 202308 | CRN: 10700

<b>Class Details</b>	<b>Catalog Prerequisites</b> <b>All of the following courses:</b> <ul style="list-style-type: none"><li>MAC-Mathematics-Calc PreCalc 2313 Undergraduate / Graduate Minimum Grade of C</li><li>MAD-Mathematics-Discrete 2104 Undergraduate / Graduate Minimum Grade of C</li><li>MHF-Math: Historical Foundatns 3202 Undergraduate / Graduate Minimum Grade of C</li></ul>
<b>Bookstore Links</b>	
<b>Course Description</b>	
<b>Attributes</b>	
<b>Restrictions</b>	
<b>Instructor/Meeting Times</b>	
<b>Enrollment/Waitlist</b>	

Robyn Klein, Ed.D.  
Instructor and Advisor  
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[rklein@fau.edu](mailto:rklein@fau.edu)

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**From:** Richard Voss  
**Sent:** Thursday, February 23, 2023 2:13 PM  
**To:** Robyn Klein <[rklein@fau.edu](mailto:rklein@fau.edu)>  
**Subject:** Re: MAH 3202

Robyn,

MHF 3202 is not a required course for Math BA or BS majors. It was not offered this Spring. It is scheduled for both Fall 2023 and Spring 2023. It only had an enrollment of 8 in Fall 2022, so it may be one of the courses that is likely to be dropped for low enrollment.

Richard

On 2/22/2023 10:23 AM, Robyn Klein wrote:

Hi Richard,

Could you please confirm whether or not MHF 3202 is a required course for Math BA majors?

We currently do not have it on our Math Ed program sheet, however it is a prerequisite for MAA 4200 and MAS 4301. We have been recommending it to students as an elective to meet that prerequisite requirement.

Thanks!

Robyn

Robyn Klein, Ed.D.  
Instructor and Advisor  
Department of Curriculum and Instruction  
College of Education  
Florida Atlantic University  
[rklein@fau.edu](mailto:rklein@fau.edu)

**From:** [Richard Voss](#)  
**To:** [Robyn Klein](#)  
**Subject:** Re: MHF 3202  
**Date:** Thursday, February 23, 2023 5:00:42 PM

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That was quick, MHF 3202 is now listed as a required course for Math BA and BS degrees (<http://www.math.fau.edu/bs.php> <http://www.math.fau.edu/ba.php>).

Richard

**From:** [Joseph Furner](#)  
**To:** [Robyn Klein](#)  
**Subject:** RE: MAH 3202  
**Date:** Tuesday, February 28, 2023 7:34:54 PM  
**Attachments:** [image002.png](#)  
[image007.png](#)  
[image008.png](#)  
[image009.png](#)

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Hi Robyn! Thanks, sure, sounds good to me. Seems logical what the Math Dept. is saying. Thanks for taking care of all of this for our students. Have a blessed rest of the week!

Pax in terra, pax in caelo, pax vobiscum,

*Joseph M. Furner*

**Joseph M. Furner, Ph.D.**

**Professor of Mathematics Education and Curriculum and Instruction**

**Florida Atlantic University**

**College of Education**

**Department of Curriculum and Instruction**

**John D. MacArthur Campus**

**5353 Parkside Drive, EC 207D**

**Jupiter, Florida 33458**

**Telephone: Disconnected, Email: [jfurner@fau.edu](mailto:jfurner@fau.edu)**

**Fax: 561-799-8527**

**E-mail: [jfurner@fau.edu](mailto:jfurner@fau.edu)**

**My Google Scholar Link: <https://scholar.google.com/citations?user=onRKBeFAAAAJ&hl=en&oi=ao>**

***Mathitudes Online@***

**[http://www.coe.fau.edu/centersand\\_programs/mathitudes](http://www.coe.fau.edu/centersand_programs/mathitudes)**



*What office is there which involves more responsibility, which requires more qualifications, and which ought, therefore, to be more honorable than teaching?*

*-Harriet Martineau, 1802-1876*

*The important thing is not to stop questioning. Curiosity has its own reason for existing. One cannot help but be in awe when he contemplates the mysteries of eternity, of life, of the marvelous structure of reality. It is enough if one tries merely to comprehend a little of this mystery every day. Never lose a holy curiosity.*

*-Albert Einstein, 1879-1955*

*If you help others, you will be helped, perhaps tomorrow, perhaps in one hundred years, but you will be helped. Nature must pay off the debt... It is a mathematical law and all life is mathematics.*

*-George Ivanovich Gurdjieff, 1866-1949*

*Only a life lived for others is a life worthwhile.*

*-Albert Einstein, 1879-1955*

*No one has ever seen God. But if we love each other, God lives in us, and his love is brought to full expression in us.*

*-1 John 4:12, NLT*

*Healthy people have no need for power over other people; they don't enjoy it, they don't want it, and they will use it only when there is some factual need in the situation for it. -Abraham Maslow 1908-1970*



*You will find as you look back upon your life that the moments when you have truly lived are the moments when you have done things in the spirit of love.*

-Henry Drummond, 1851-1897

*A life spent making mistakes is not only more honorable but more useful than a life spent do-ing nothing.*

-George Bernard Shaw, 1856-1950

*It is not how much we do, but how much love we put in the action that we do.*

- Mother Teresa 1910-1997

*Life is not easy for any of us. But what of that? We must have perseverance and above all confidence in ourselves. We must believe that we are gifted for something, and that this thing, at whatever cost, must be attained.*

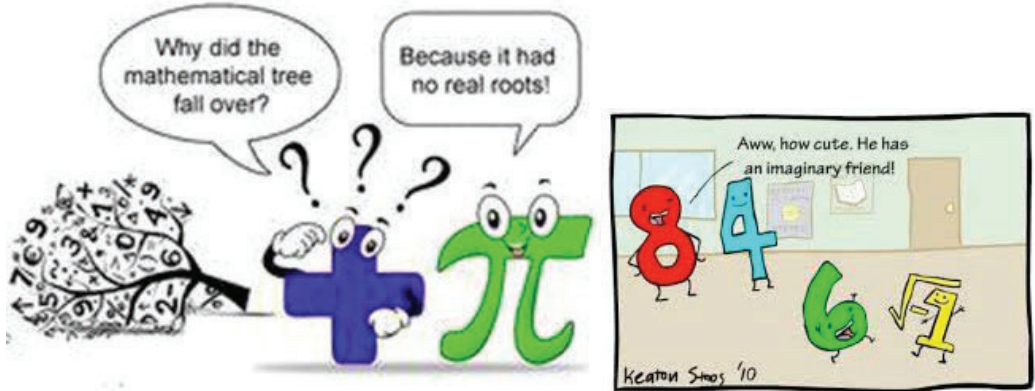
-Marie Curie 1867-1934

*To laugh often and much; To win the respect of intelligent people and the affection of children; To earn the appreciation of honest critics and endure the betrayal of false friends; To appreciate beauty, to find the best in others; To leave the world a bit better, whether by a healthy child, a garden patch, or a redeemed social condition; To know even one life has breathed easier because you have lived. This is to have succeeded.*

-Ralph Waldo Emerson 1803 – 1882

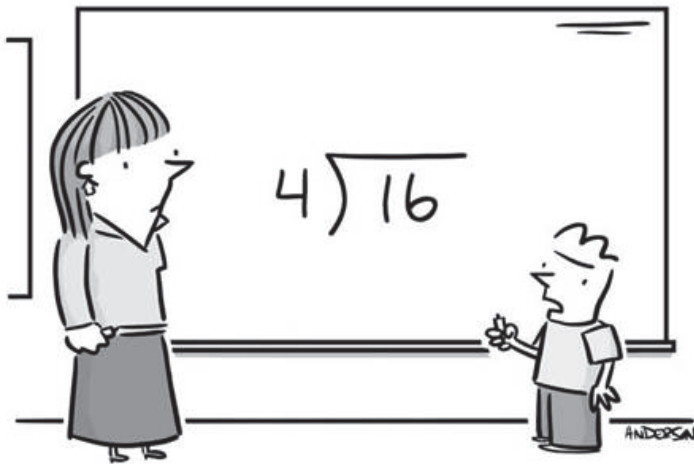
*"...I don't need my name in lights, I'm famous in my Father's eyes, Make no mistake, He knows my name, I'm not living for applause, I'm already so adored, It's all His stage, He knows my name...He calls me chosen, free forgiven, wanted, child of the King, His forever, held in treasure, I am loved..."*

- Francesca Battistelli



For more funny math jokes go to: [http://www.transum.org/Software/Fun\\_Maths/Jokes.asp](http://www.transum.org/Software/Fun_Maths/Jokes.asp)





"We've been dividing all week! When do we get to conquer?!"



"If two negatives make a positive  
how come two wrongs don't  
make a right?"



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**From:** Robyn Klein <rklein@fau.edu>  
**Sent:** Tuesday, February 28, 2023 2:27 PM  
**To:** Joseph Furner <jfurner@fau.edu>  
**Subject:** FW: MAH 3202

Hi Joseph,

I hope you are doing well! Please see the thread below. Richard's responses after this was the MHF 3202 is required (per his Chair—see attached).

It was brought to my attention that MHF 3202 is a prerequisite for MAA 4200 and MAS 4301. However, MHF 3202 is not listed on the Math Education program sheet. Unless students are told to take MHF 3202, they do not take it. This then causes an issue when they attempt to register for MAA 4200 and MAS 4301.

I feel the best route to take with this is to reduce the number of upper division electives from 15 to 12 and then add MHF 3202 as one of the required Math Content courses.

If you agree, I would like to take this to the next UUPC meeting. Please let me know.

Thank you,

Robyn

Robyn Klein, Ed.D.  
Instructor and Advisor  
Department of Curriculum and Instruction  
College of Education  
Florida Atlantic University  
(561)297-3877  
[rklein@fau.edu](mailto:rklein@fau.edu)

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**From:** Richard Voss  
**Sent:** Thursday, February 23, 2023 4:04 PM  
**To:** Robyn Klein <[rklein@fau.edu](mailto:rklein@fau.edu)>  
**Subject:** Re: MAH 3202

I've no answer. I've sent an email to the math chair and I will let you know if I get an answer.

Richard

On 2/23/2023 2:35 PM, Robyn Klein wrote:

Hi Richard—one more thing:

Our students are bringing this to our attention. Since MHF 3202 is a prerequisite for MAA 4200 and MAS 4301, how would students be able to take these courses if they do not have access to MHF 3202 or if it is not required? See the details below from the current fall schedule:

**Class Details for Modern Algebra MAS-Math-Algebraic Structures 4301 001**

Term: 202308 | CRN: 10758

Class Details	<b>Catalog Prerequisites</b>  All of the following courses: <ul style="list-style-type: none"><li>o MAD-Mathematics-Discrete 2104 Undergraduate / Graduate Minimum Grade of C</li><li>o MHF-Math: Historical Foundatns 3202 Undergraduate / Graduate Minimum Grade of C</li></ul>
Bookstore Links	
Course Description	
Attributes	
Restrictions	
Instructor/Meeting Times	
Enrollment/Waitlist	

**Class Details for Modern Analysis MAA-Mathematics-Analysis 4200 001**

Term: 202308 | CRN: 10700

Class Details	<b>Catalog Prerequisites</b>  All of the following courses: <ul style="list-style-type: none"><li>o MAC-Mathematics-Calc PreCalc 2313 Undergraduate / Graduate Minimum Grade of C</li><li>o MAD-Mathematics-Discrete 2104 Undergraduate / Graduate Minimum Grade of C</li><li>o MHF-Math: Historical Foundatns 3202 Undergraduate / Graduate Minimum Grade of C</li></ul>
Bookstore Links	
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**From:** Richard Voss  
**Sent:** Thursday, February 23, 2023 2:13 PM  
**To:** Robyn Klein <[rklein@fau.edu](mailto:rklein@fau.edu)>  
**Subject:** Re: MAH 3202

Robyn,

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Thanks!

Robyn

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