

Program Change Request

Date Submitted: 11/07/18 3:34 pm

Viewing: **BA/MS-MATH/MATH-FTR : Mathematics - 5-Year Bachelor of Arts/Master of Science in Mathematics**

Last approved: 03/21/18 9:59 am

Last edit: 11/09/18 10:02 am

Changes proposed by: donnalh

Catalog Pages Using this Program [Mathematics - 5-Year Bachelor of Arts/Master of Science in Mathematics](#)

Contact(s)

Name	E-mail	Phone
Donna Hoffman	donnalh@tamu.edu	979-862-4306

Academic level	Undergraduate-Graduate
Effective Term	2019-2020
Department	Mathematics
Department 2	Mathematics
College	Science
College 2	Science
Program type	Combination
Degree designation	BA/MS - Bachelor of Arts/Master of Science
With a major in	Mathematics/Mathematics (MATH/MATH)
Associated Program	Not Applicable
With a concentration in	Fast Track (FTR)
Catalog Program Title	Mathematics - 5-Year Bachelor of Arts/Master of Science in Mathematics
CIP and Fund code	27010100

Rationale for Proposal

- To comply with new course numbers established by the Chemistry Department.**
- To comply with new course numbers established by the Physics Department.**
- To comply with new course number established by the Academic Success Center.**
- To comply with new course numbers established by the Physics Department.**
- To be in compliance with the new Core Curriculum requirement for Cultural Discourse.**
- ~~*Adding ENGL 102 as an acceptable Communication Requirement will assist students who have earned credit for ENGL 1301.*ATMO 201/ATMO 202, CHEM 107/CHEM 117, GEOL 101/GEOL 102, and OCNG 251/OCNG 252.PHYS 208 have been approved by Undergraduate Studies Committee as eligible to satisfy the Freshman Science requirement.Adding ATMO 201/ATMO 202, GEOL 101/GEOL 102 and OCNG 251/OCNG 252, PHYS 208 as an option for 4 credits will allow students more flexibility in their degree plans.The *The course content of CHEM 119 MATH 220 and CHEM 107/CHEM 117 CSCE 222/ECEN 222 is too similar to allow credit for both courses.~~
- There is no longer other courses equivalent to CHEM 102/CHEM 112, so the Limitation is no longer needed.**
- This course is foundational and fundamental to virtually all upper level coursework in our degrees and as such, we are moving this course to a number that will more accurately reflect its inherent maturity level, and to stress the course's**

In Workflow

- MATH Department Head**
- Curricular Services Review**
- SC Committee Preparer UG**
- SC Committee Preparer GR**
- SC Committee Chair UG**
- SC Committee Chair GR**
- SC College Dean UG**
- SC College Dean GR**
- UCC & GC Preparers**
-UCC Preparer
-GC Preparer
- UCC & GC Chairs**
-UCC Chair
-GC Chair
- Faculty Senate Preparer**
- Faculty Senate
- Provost II
- President
- Curricular Services

Approval Path

- 11/07/18 4:41 pm
Emil Straube (e-straube): Approved for MATH Department Head
- 11/09/18 10:08 am
Angel Mario Carrizales (carri1214): Approved for Curricular Services Review
- 11/12/18 2:04 pm
Sara Thigpin (sarathigpin): Approved for SC Committee Preparer UG
- 11/12/18 2:47 pm
Kristy Vela (kdvela): Approved for SC Committee Preparer GR
- 11/12/18 4:52 pm
Lucas Macri (lmacri): Approved for SC Committee Chair UG
- 11/13/18 5:49 pm
Mark J. Zoran (mjzoran): Approved for SC Committee Chair GR
- 11/13/18 6:36 pm
Lucas Macri (lmacri): Approved for SC College Dean UG

importance and pivotal role within our degree programs. *The course content of MATH 220 and CSCE 222 is too similar to include CSCE 222 in the list of acceptable CSCE electives.* Removing MATH 150 from the ineligible General Elective list will assist students with the new Financial Aid regulations.*With the development of the new undergraduate program in Statistics, new upper level Statistics courses have been created that are acceptable elective courses and should be included in Major GPR calculations-

Program hours 156
 Is this program eligible for financial aid? No
 Will program hours change (increase/decrease) due to the proposed curriculum changes? No

- 8. 11/15/18 3:19 pm
Mark J. Zoran
(mjzoran): Approved for SC College Dean GR
- 9. 11/16/18 10:13 am
Sandra Williams
(sandra-williams): Approved for UCC & GC Preparers
- 10. 12/14/18 2:33 pm
LaRhesa Johnson
(lrjohnson): Approved for UCC & GC Chairs

History

- 1. Mar 9, 2017 by Donna Hoffman (donnalh)
- 2. Mar 19, 2018 by Donna Hoffman (donnalh)
- 3. Mar 21, 2018 by Angela Allensworth (arankin)

Catalog Program Requirements

Plan of Study Grid

		Semester Credit Hours
First Year		
Fall		
ENGL 104	Composition and Rhetoric	3
	or ENGL 103 or Introduction to Rhetoric and Composition	
Elective hours 1		1
MATH 171	Analytic Geometry and Calculus	4
Select one of the following:		3
	American history	
	Government/Political science	
Freshman Science elective 2		4
	Semester Credit Hours	15
Spring		
MATH 172	Calculus	4
Elective hours 1		1
Select one of the following:		3
	American history	
	Government/Political science	
Select one from:		4
	CSCE 110 Programming I	
	CSCE 111 Introduction to Computer Science Concepts and Programming	
	CSCE 121 Introduction to Program Design and Concepts	
	CSCE 206 Structured Programming in C	
Freshman Science elective 2		4
	Semester Credit Hours	16
Second Year		
Fall		
MATH 220	Foundations of Mathematics	3
MATH 221	Several Variable Calculus	4
MATH 300	Foundations of Mathematics	3
STAT 211	Principles of Statistics I	3
Select one from the following:		3
	American history	
	Government/Political science	
Language, philosophy and culture 3		3
	Semester Credit Hours	16
Spring		
MATH 308	Differential Equations	3
MATH 323	Linear Algebra	3
Select one of the following:		3
	American history	
	Government/Political science	

Select one from:	3
COMM 203 Public Speaking	
COMM 205 Communication for Technical Professions	
COMM 243 Argumentation and Debate	
Minor elective 4	3
Semester Credit Hours	15
Third Year	
Fall	
MATH 409 Advanced Calculus I	3
PHYS 218 Mechanics	4
PHYS 206 Newtonian Mechanics for Engineering and Science & PHYS 226 and Physics of Motion Laboratory for the Sciences	4
Minor elective 4	3
Elective hours 5	3
Semester Credit Hours	13
Spring	
Select one from:	3
MATH 415 Modern Algebra I	
MATH 423 Linear Algebra II	
MATH 433 Applied Algebra	
Select one from:	3
CSCE 210-CSCE 470 6	
ISEN 320-ISEN 430	
MATH 403-MATH 499	
STAT 404-STAT 482	
Minor electives 4	6
Elective hours 5	3
Semester Credit Hours	15
Fourth Year	
Fall	
Select from: 7	6
MATH 603-MATH 628	
MATH 630-MATH 639	
MATH 641-MATH 644	
MATH 647-MATH 684	
Select one of the following: 8	3
Creative arts	
Social and behavioral sciences	
Minor elective 4	3
Elective hours 5	3
Semester Credit Hours	15
Spring	
Select one from:	3
MATH 325 The Mathematics of Interest	
MATH 403-MATH 499	
Select one of the following: 8	3
Creative arts	
Social and behavioral sciences	
Minor elective 4	3
Elective hours 5	6
Semester Credit Hours	15
Total Semester Credit Hours	120
Plan of Study Grid	

Fifth Year

Fall	Semester Credit Hours
Graduate Degree 9	36
Semester Credit Hours	36
Total Semester Credit Hours	36

1 [MATH 170](#) is highly recommended for math majors co-enrolled in [MATH 150](#), [MATH 151](#), [MATH 152](#), [MATH 171](#) or [MATH 172](#).

2 Select 4 hours from: [ASTR 111](#), [BIOL 111](#), [BIOL 112](#), [CHEM 119](#), [CHEM 120](#), [CHEM 107/CHEM 117](#), [PHYS 207/PHYS 227](#). The remaining 4 hours may be selected from: [ASTR 111](#), [ATMO 201/ATMO 202](#), [BIOL 111](#), [BIOL 112](#), [CHEM 119](#), [CHEM 120](#), [CHEM 107/CHEM 117](#), [GEOL 101/GEOL 102](#), [OCNG 251/OCNG 252](#), [PHYS 207/PHYS 227](#).

3 Select three hours from any 200-400 level [Language, philosophy and culture](#) course.

4 A 15-18-hour minor field of study should be chosen in conference with a departmental advisor.

5 Three hours of courses must be in the area of [international and cultural diversity](#), and three hours of courses must be in the area of [cultural discourse](#). These may be in

addition to other University Core Curriculum courses, or if a course in this category satisfies an area of the Core, it can be used to meet both requirements. Students desiring teacher certification should consult the requirements for certification before registering for electives.

Remaining electives may be selected from any 100-499 course not used elsewhere, (except [ALED 125](#); [ASCC 102](#); [ASTR 109/PHYS 109](#), [ASTR 119/PHYS 119](#); [BMEN 101](#); [BUSN 100](#); [ISEN 101](#); [KINE 199](#); [LAND 101](#); [MATH 102-148, 151-166](#), [MATH 304](#), [MATH 309](#), [MATH 311](#), [MATH 367](#), [MATH 368](#), [MATH 375](#), [MATH 376](#); [PHYS 109/ASTR 109](#), [PHYS 119/ASTR 119](#), [PHYS 201](#), [PHYS 202](#), [PHYS 205](#); [PSYC 301](#); [STAT 201](#), [STAT 301 - 303](#); [URPN 200](#); [WFSC 101](#)).

6 Except [CSCE 222/ECEN 222](#), [CSCE 285](#), [CSCE 289](#), [CSCE 291](#).

7 This 6 hours will be applied towards both BA and MS degrees in Mathematics.

8 Three hours must be [social and behavioral sciences](#) and three hours must be [creative arts](#).

9 The overall program hours (156 hours) includes 36 hours for a non-thesis option or 32 hours for a thesis option (up to six of which are [MATH 691](#)). Up to six hours of graduate courses may double count. [MATH 601](#) is prohibited for all graduate degree plans. Except for the MS teaching track, no distance class may be used on the degree plan nor may [MATH 696](#) appear. For the MS teaching track, students must take four distance courses: [MATH 629](#), [MATH 645](#), [MATH 646](#) and [MATH 696](#). All five tracks require at least 24 credit hours of mathematics of which at most six may be undergraduate. Depending on the MS track, courses outside of mathematics may be required or optional. For additional information, reference <https://www.math.tamu.edu/graduate/masters> and select the track of interest.

Maximum of 4 hours of [MATH 147](#), [MATH 151](#), or [MATH 171](#) may be used in this degree program.

Maximum of 4 hours of [MATH 148](#), [MATH 152](#), or [MATH 172](#) may be used in this degree program.

Maximum of 3 hours of [MATH 300](#) or [MATH 220](#) or [CSCE 222/ECEN 222](#) may be used in this degree program.

Maximum of 3 hours of [MATH 411](#) or [STAT 414](#) may be used in this degree program.

Maximum of 3 hours of [MATH 417](#), [MATH 437](#) or [CSCE 442](#) may be used in this degree program.

Maximum of 4 hours of [CHEM 119](#), [CHEM 107/CHEM 117](#) may be used in this degree program.

If a grade of D or F is earned in any of the following courses, [MATH 151/MATH 171](#), [MATH 152/MATH 172](#), [MATH 221/MATH 251/MATH 253](#), [MATH 300](#), [MATH 220](#), [MATH 323](#) or [MATH 308](#), this course must be immediately retaken and a grade of C or better earned. The department will allow at most two Ds in upper-level (325-499) courses. If a third D is earned, one of the three courses in which a D was earned must be retaken and a grade of C or better earned.

Additional information	<ol style="list-style-type: none"> 1. To change the course number of CHEM 101/111 to CHEM 119 and CHEM 102/112 to CHEM 120 in Footnote 2. and in Rule B. and Rule C. of Life and Physical Sciences in Howdy Degree Evaluation. 2. To change the course number of PHYS 208 to PHYS207/PHYS227 in Footnote 2. and in Rule B. and Rule C. of Life and Physical Sciences in Howdy Degree Evaluation. 3. To change the course number of STLC 102 to ASCC 102 in Footnote 5. and in Rule A. of General Electives in Howdy Degree Evaluation. 4. To change the course number of PHYS 218 to PHYS206/PHYS226 in Third Year Fall Semester and in Rule A. of Life and Physical Sciences in Howdy Degree Evaluation. 5. To change the wording in Footnote 5. to reflect the new requirement of 3 hrs of Cultural Discourse and add link to the Catalog page listing ICD courses. To change Rule A. of International Cultural Diversity to 3 hrs and add Rule B. of Cultural Discourse for 3 hrs in Howdy Degree Evaluation. 6. To add the statement, "Maximum of 4 hours of CHEM 119, CHEM 107/CHEM 117 may be used in this degree program" to the Undergraduate Catalog and update the corresponding Limitation in Howdy Degree Evaluation. 7. To remove the Limitation, "Maximum of 4 hours of CHEM 102, 112 may be used in this degree program" in Howdy Degree Evaluation. 8. To change MATH 220 to MATH 300 in Second Year Fall Semester, the statement, "Maximum of 3 hours of MATH 300 or CSCE 222/ECEN 222 may be used in this degree program" and in the Departmental GPR Requirements in the Undergraduate Catalog. To change MATH 220 to MATH 300 in Rule B. of Major Coursework and the corresponding Limitation in Howdy Degree Evaluation. 3-21-18 Update to table format.
Required Proposal Forms	ba_math_5yr_17c.pdf BA MATH FTR.pdf 012218PresidentApprovalMemo.pdf ba_math_5yr.pdf
Reviewer Comments	Sandra Williams (sandra-williams) (12/10/18 4:38 pm): UCC approved December 2018.

Key: 596

Area Life and Physical Sciences (12.000 credits) - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
No																
No	AND			A. PHYS 206/226			4hrs									
				B. Science Rqmt			4 hrs									
				Select from ASTR 111; BIOL 111, BIOL 112; CHEM 119, 120, 107/ 117; PHYS 207/227.												
No	AND			C. Science Rqmt II			4hrs									
				Select from ASTR 111; ATMO 201/202; BIOL 111, 112; CHEM 119, 120, 107/117; GEOL 101/102; OCNG 251/252; PHYS 207/227.												
														Total Credits and GPA	0.000	.00

unofficial evaluation

Area Language, Philosophy & Culture (3.000 credits) - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
No				A. Language, Philosophy & Culture												
Select from any 200-499 course with the [KLPC] attribute.																
														Total Credits and GPA	0.000	.00

unofficial evaluation

Area Creative Arts (3.000 credits) - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
No				A. Creative Arts Requirement			3hrs									
Select three hours from any course with the Creative Arts attribute [KCRA].																
														Total Credits and GPA	0.000	.00

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Area Social and Behavioral Sciences (3.000 credits) - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
No				A. Social Science Rqmt			3hrs									
Select from courses with the Social and Behavioral Science attribute [KSOC].																
														Total Credits and GPA	0.000	.00

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Area : Citizenship (12.000 credits) - Not Met

Description Completion of 4 semesters of Upper-Level ROTC may be substituted for 3 hours of American History and 3 hours of Political Science.

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
No				A. American History Rqmt			6hrs									
Select from any course with the [KHIS] attribute.																
No	AND			B. Political Science Rqmt			6hrs									
Take POLS 206 and POLS 207.																
														Total Credits and GPA	0.000	.00

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Area General Electives (35.000 credits) - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
No	A.		General Electives 35hrs													
			Select any 100-499 course not used elsewhere. (except ALED 125; ASTR 109/119; BMEN 101; BUSN 100; ISEN 101; KINE 199; LAND 101; MATH 102-148, 151-166, 304, 309, 311, 367, 368, 375, 376; PHYS 109/119, 201, 202, 205; PSYC 301; STAT 201, 301-303; STLC 102 ; URPN 200; WFSC 101).													
													Total Credits and <u>GPA</u>	0.000	.00	

ASBC 102;

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Area : Work Not Applied - Met

Description See advisor for acceptable substitutions.

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
No	A.		Courses not applied													
													Total Credits and <u>GPA</u>	0.000	.00	

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Area CLSC BA Required Minor - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
No	A.		Required Minor													
														Minor requirement not needed if minor requirement is waived by the Dean's Office.		
													Total Credits and <u>GPA</u>	0.000	.00	

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Area University Writing Requirement - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
No	A.		Writing Requirement													
														Two courses required. Only sections of MATH 100-499; RDNG 372; STAT 407; or UGST 491 with the Writing attribute [UWRT] may be used to satisfy this requirement.		
													Total Credits and <u>GPA</u>	0.000	.00	

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Area Int'l & Cult Diversity - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
No	A.		Int'l & Cultural Diversity 6hr													
														Select from courses with the International and Cultural Diversity attribute [UICD] (except sections of BUSN 289 with the UWRT attribute)		
			<i>B. Cultural Discourse 3 hrs</i>													
													Total Credits and <u>GPA</u>	0.000	.00	

cultural Discourse

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Area Foreign Language - Not Met

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Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits	Grade	Source
No	A.		Foreign Language Rqmt												
Complete one of the following:															
1. Two years of the same foreign language in High School.															
2. A two semester sequence of the same foreign language for University credit.															

Total Credits and GPA 0.000 .00

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Area : Residence Requirement - Not Met

Description A minimum of 36 hours of 300-400 level coursework must be completed at Texas A&M University, 12 hours must be in the major field.

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Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits	Grade	Source
No		A.	Residence - Major				12hrs								
No	AND	B.	Residence 300-499				24hrs								

Total Credits and GPA 0.000 .00

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Area : GPR-Major - Not Met

Description A GPR of 2.00 must be maintained in all major field courses.

:

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits	Grade	Source
No		A.	Major GPR				39+hrs								
Includes CSCE 203-470; ISEN 320-489; MATH 151-499 (except MATH 166, 170), MATH 603-628, 630-639, 641-644, 647-684; STAT 211-212, 407-415.															

Total Credits and GPA 0.000 .00

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