

Note: Enter "NA" wherever data are not applicable or not available for the program under review.

# **Program Characteristics**

Academic Program Name: Mathematics

Degree: Bachelor of Science (B.S.)

Program CIP Code: 27.0101

School and Department: School of Science, Technology, and Mathematics - Department of Tech and Math

Time frame for this review: 2013-2017

Date of last internal review: 2016

Current date program reviewed for this report: April 2019

# **Program Goal Statement and Student Learning Outcomes**

#### Program goal statement:

Graduates of the B.S. Mathematics Program will be competent in a broad range of intermediate and advanced mathematical topics making them effectively prepared for graduate school or employment in a related field.

#### Program outcomes:

- 1. Knowledge of relevant mathematics. Graduates of the B.S. in Mathematics program will be competent in a broad range of intermediate and advanced mathematical topics.
- 2. Graduate satisfaction with mathematics program. Candidates for graduation in the B.S. in Mathematics program will report a high level of satisfaction with the program.
- 3. Graduates will be successful. Graduates of the B.S. in Mathematics program will find employment related to their degree or gain acceptance in graduate or professional schools.

### Student learning outcomes:

- 1. Demonstrate the ability to understand and construct mathematical proofs
- 2. Demonstrate knowledge and working understanding of axiomatic mathematical structures
- 3. Communicate verbally, graphically and in writing using proper mathematical language and notation



# **Brief Assessment of Previous Program Review**

Outcome of previous program review (brief narrative statement).

The previous program review of the mathematics program found it to be not only a viable program in the School of Science, Technology, and Mathematics, but also an important program to the community. The program produces graduates who are well prepared for graduate school or employment in high demand areas including business, industry and academia. The continuing job outlook for graduates of the program is very good. In addressing the previous review's action plan, a STEM Advisory Council has been established which is comprised of faculty members from the School of Science, Technology and Mathematics, the Wright School of Business, and several local industry leaders. This council provides an avenue for open lines of communication between Dalton State and local industry providing opportunities for us to better understand and meet industry needs while at the same time allowing our students to see some real-world applications of what they have learned in the classroom.

What improvements have occurred since the last program review or assessment?

Since the last program review, several changes have been made to address the assessment of the program and also to make the program even more relevant for our students in the current graduate school and employment climate.

- Program outcomes have been adjusted and procedures put in place to gather relevant data.
- The math program has recently included an elective option of PIC Math Preparation for Industrial Careers in Mathematics. PIC Math prepares math students for industrial careers in mathematics by engaging them in research problems that come directly from local business, industry, or government. Students work together as a group on one of these semester-long undergraduate research problems.
- A STEM Advisory Council has been established which is comprised of faculty members from the School
  of Science, Technology and Mathematics, the Wright School of Business, and several local industry
  leaders. This council provides an avenue for open lines of communication between Dalton State and
  local industry providing opportunities for us to better understand and meet industry needs while at
  the same time allowing our students to see some real-world applications of what they have learned in
  the classroom.
- More math faculty have become involved in working with students on research projects. During the review period, 6 (35%) math faculty members have worked with students on research projects.
   Several students have presented at state or regional undergraduate research conferences.
- The School of Science, Technology, and Mathematics Undergraduate Research Committee sponsors STEM Career Panels and STEM Grad School Panels each year to help prepare and inform our students.
- The addition of new mathematics courses made it possible to offer more elective courses allowing more flexibility in the program.
- The use of free open-source textbooks began in the calculus sequence and several other upper level math courses.
- The Math Club has been revitalized, meeting regularly, bringing in outside speakers occasionally, and sponsoring Math and Snacks meetings with student or math faculty speakers.
- The math faculty holds a series of colloquia each spring semester for talks about their research interests or to gather for conversations about the program or specific courses.



What changes or revisions have been made to the program, its curriculum, or its program/student learning outcomes since the last program review? Please include a follow-up discussion of the previous review's action plan?

With the addition of more math courses after the initial inception of the program, several courses were moved from required to elective – MATH 4201 Number Theory, MATH 4301 Graph Theory, MATH 4401 Operations Research, MATH 4511 Numerical Analysis I, MATH 4512 Numerical Analysis II, MATH 4701 Probability and Statistics I, MATH 4800 Topology – allowing students more flexibility in the program and opportunities for more choices of electives.

Three new mathematics courses were created.

MATH 4900 Special Topics in Mathematics – This course was created to allow an upper level math course to be offered on a need or interest basis allowing faculty an opportunity to teach a special topic of current interest/need of students or of their own research interests, and in doing so, creating the potential for undergraduate research opportunities for students.

MATH 3900 Special Topics in Mathematics – This course allows the same opportunities as MATH 4900 but with less stringent prerequisites and for topics that may not reach the threshold of a 4000 level course. This also allows students to potentially identify topics for undergraduate research earlier in the program.

MATH 4960 Research in Mathematics – A course for students conducting undergraduate research under the supervision of a faculty member. Depending on the depth of work, the course is available for 1-3 credit hours.



Student Demographics						
Enrollment	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	% Change
Mathematics						
Headcount	48	42	38	42	40	-16.7
FTE	44.2	38.8	34.5	39.2	38.4	-13.1
Enrolled Full-time	35	35	28	35	34	-2.9
Enrolled Part-time	13	7	10	7	6	-53.8
Mathematics with Secondary Certification						
Headcount	28	30	30	26	28	0
FTE	25	24.8	26.8	23.5	26.5	6
Enrolled Full-time	20	17	22	21	22	10
Enrolled Part-time	8	13	8	5	8	0
Combined Mathematics and Mathematics Education						
Female	28	24	24	22	25	-10.7
Male	48	48	44	46	43	-10.4
Alaskan Native/Native American/American Indian	0	2	5	5	3	<sup>1</sup> DNE
Asian, Hawaiian, Other Pacific Islander	0	1	0	1	2	DNE
Black/African-American	2	4	5	3	6	200
Hispanic	0	0	0	0	0	DNE
Multi-racial	0	0	0	0	0	DNE
Undeclared	5	3	4	4	6	20
White	69	62	54	55	51	-26.1

Analysis and comments on student demographics.

Overall enrollment combining math and math education during the current review period has declined in the math program by 10.5% (6.2% for FTE). Looking more closely at the demographics above, while the headcount in the math program has declined, the math education and overall full-time enrollment has remained relatively steady with the decline coming from the part-time enrollment. In terms of ethnicity, enrollment of white students declined during the review period by 26.1%, but enrollment of students of other ethnic and racial groups has increased with Black/African-American showing the greatest increase at 200%. Additionally, while the data show no Hispanic students enrolled in the math program, there are students of Hispanic heritage in the program who, for whatever reason, may have chosen not to self-identify as Hispanic. The ratio of male to female remained virtually unchanged over the review period going from 48/28 to 43/25.

<sup>&</sup>lt;sup>1</sup>DNE is a mathematical abbreviation for "Does Not Exist" often used for undefined expressions or when a proper solution does not exist.



Faculty Indicators of Program Quality	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	% Change
School (not Department) faculty teaching in program (excluding Areas A through E)	0	0	0	0	0	DNE
Full-time program faculty	17	17	17	17	17	0
Part-time program faculty	0	0	0	0	0	DNE
Total program faculty	17	17	17	17	17	0
Percent of program classes taught by full-time program faculty	100	100	100	100	100	0
Gender (full-time and part-time faculty)	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	% Change
Male	14	15	15	15	15	7.1
Female	3	2	2	2	2	-33.3
Race/Ethnicity (full-time and part-time faculty)	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	% Change
Alaskan Native/Native American/American Indian	0	0	0	0	0	DNE
Asian, Hawaiian, Other Pacific Islander	1	1	1	1	1	0
Black/African-American	0	0	0	0	0	DNE
Hispanic	0	0	0	0	0	DNE
Multi-racial	0	0	0	0	0	DNE
Undeclared	2	2	2	1	1	-50
White	14	14	14	15	15	7.1
Tenure Status (full-time faculty)	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	% Change
Tenured	10	10	12	13	12	20
On-tenure track	6	6	4	3	4	-33.3
Non-tenure track	1	1	1	1	1	0
Rank (full-time faculty)	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	% Change
Professor	3	3	3	4	4	33.3
Associate Professor	5	7	10	9	8	60
Assistant Professor	7	6	3	3	4	-42.9
Instructor/Senior Lecturer/Lecturer	2	1	1	1	1	-50



Faculty Indicators of Program Quality						
Highest degree (full-time faculty)	2013-14	2014-15	2015-16	2016-17	2017-18	% Change
Doctorate	13	13	14	14	14	7.7
Specialist	0	0	0	0	0	DNE
Master's	4	4	3	3	3	-25
Bachelor's	0	0	0	0	0	DNE
Associate's/Other	0	0	0	0	0	DNE

Provide additional details, analysis, and comments regarding faculty indicators of program quality.

The number of faculty teaching in the math program has remained basically constant during the current review period with 100% of math program classes being taught by full-time faculty. While the math faculty is not very gender equitable or racially/ethnically diverse, the stability and quality of the faculty are strengths of the program. An indicator of the stability of the faculty is the percentage increase in the number of tenured faculty with a decline in the number of on-tenure track faculty, as these faculty members earned tenure. Further indicators of the quality and stability of the faculty are the percentage increases in full professor and associate professor in addition to having almost 80% of the full-time faculty holding a doctoral degree.



Indicators of Measures of Quality						
Student Input	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	% Change
Mean ACT score	21	21.5	20.9	20.3	20.3	-3.3
Mean SAT score	524	520	515	509	539	2.9

If applicable to your degree program, provide any additional external quality assurance data/information or results (e.g., professional accreditation results, National Survey of Student Engagement [NSSE], market rankings, etc.).

Neither external accrediting bodies nor market rankings are used or tracked for the math program. During the review period, the mean ACT score decreased slightly while the mean SAT score had a slight increase. Students accepted into Dalton State can self-select into the math program as there are no incoming qualification criteria for the program. Internally, both professional and faculty advisors monitor student progress through the program.



Indicators of Measures of Quality						
Student Output	2013-14	2014-15	2015-16	2016-17	2017-18	% Change
Exit scores on national/state licensure (If applicable)	NA	NA	NA	NA	NA	DNE
Graduating majors' mean GPA	3.3	3.5	3.6	3.5	3.3	0
Employment rate of graduates (if available)	NA	NA	NA	NA	NA	DNE
Number of students entering graduate/professional programs	NA	NA	NA	NA	NA	DNE

Describe the extent to which students have achieved current program outcomes during this program review cycle (most recent year).

# Program outcomes:

1. Knowledge of relevant mathematics

Courses in the math program are regularly assessed by the math faculty using WEAVE as the assessment instrument. During 2017-18, several courses in the program were assessed. Five of these courses are referenced here as they are central and required courses in the program – MATH 3101 Introduction to Advanced Mathematics, MATH 3201 Geometry, MATH 4101 Abstract Algebra I, MATH 4601 Real Analysis I, and MATH 4701 Probability and Statistics I. Course level GPAs for these rigorous mathematics courses averaged 2.7, and assessment results from these courses demonstrated that students had knowledge of the relevant mathematics.

- 2. Graduate satisfaction with mathematics program
- 3. Graduates will be successful

Data regarding these two program outcomes has not been regularly collected. When collected, relatively small numbers of graduates per year coupled with low response rates make it impossible to draw any sound conclusions on these outcomes. Beginning with the 2018-19 academic year, a new assessment plan has been put in place to aid in regularly collecting this data. In addition to assessing the student learning outcomes, surveys of candidates for graduation in the program will measure their overall satisfaction with the program, and surveys of graduates will measure their success in finding employment or gaining acceptance into graduate or professional schools.

Describe the extent to which students have achieved current student learning outcomes during this program review cycle (most recent year).

#### Student learning outcomes:

Demonstrate the ability to understand and construct mathematical proofs

# **MATH 3101**

Target - 80% of the students will produce a correct proof on question 1 of test 2.

Findings - 70% of students could produce a completely valid proof. 70% (7 of 10) of the students produced a correct proof on the test question. Most earned partial credit, but only seven wrote a completely valid proof.



#### **MATH 3201**

Target - 70% of theorems are successfully proved by students.

Findings - Roughly 81% of theorems were successfully proved by students

#### MATH 4601

Target - Students passing with a C or better will achieve 70% or better on understanding and constructing mathematical proofs.

Findings - Students demonstrated understanding of key theorems their proofs

90% (9/10) of the students who passed with a C or better scored 70% or better on question 1 on the midterm and 80% (8/10) scored 70% or better on question 2 on the midterm, 100% (10/10) of the students scored 70% or better on question 1 on the final and 50% (5/10) scored 70% or better on question 2 on the final. There were 11 students in the class who took the midterm and the final, 10 of those passed with a grade of C or better. The overall average on these questions for students who passed the class with a grade of C or better was 80.6%. Students had more difficulty with the statements of the theorems. Writing out the proofs of the theorems was where the students excelled. They were able to follow the logic of the proof better than remembering the details of the statement.

2. Demonstrate knowledge and working understanding of axiomatic mathematical structures

### **MATH 3101**

Target - 70% of the students will correctly answer the logic questions on the first test Findings -75% of students correctly answered logic questions

Target - 70% of the students will correctly answer questions on the second test dealing with number theory

Findings - 60% of students correctly answered number theory questions

# **MATH 4101**

Target - 70% of students who take the final exam will obtain a passing score on questions on the final exam which require a demonstration of the axioms of a group

Findings - 83% of the students who took the final exam (100% of those who passed the class) demonstrated an understanding of the axioms of a group

Target - 70% of students who take the final exam will obtain a passing score on questions on the final exam which require a demonstration of knowledge of subgroups and normal subgroups

Findings - 33% of the students who took the final exam (50% of those who passed the class) demonstrated an understanding of subgroups and normal subgroups

Target - 70% of students who take the final exam will obtain a passing score on questions on the final exam which require students to generate a cyclic subgroup of permutations

Findings - 50% of the students who took the final exam (75% of those who passed the class) demonstrated an understanding of permutations and cyclic groups

Target - 70% of students who take the final exam will obtain a passing score on questions on the final exam which require students to demonstrate knowledge of homomorphisms or isomorphic groups



Findings - 50% of the students who took the final exam (75% of those who passed the class) demonstrated an understanding of homomorphisms and isomorphisms

Target - 70% of students who take the final exam will obtain a passing score on questions on the final exam which require students to demonstrate knowledge of how symmetry is related to group theory Findings - 50% of the students who took the final exam (75% of those who passed the class) demonstrated an understanding of the relationship between symmetries and groups

#### MATH 4601

Target - 70% of the students will demonstrate understanding of when a function has a limit or is continuous or is differentiable

Findings - 78% of students demonstrated correct understanding of when a function has a limit or is continuous or is differentiable

#### MATH 4701

Target - Of the students that finish the course, at least 70% of students will demonstrate an understanding of the basic laws of probability

Findings - 94% of the students demonstrated a basic understanding of the addition, multiplication, and conditional rules of probability

Target - Of the students that finish the course, at least 70% of students will demonstrate an understanding of distribution functions of continuous and discrete type

Findings - 89% of the students demonstrated a basic understanding of distribution functions

Target - Of the students that finish the course, at least 70% of students will demonstrate an understanding of moment generating function

Findings - 89% of the students demonstrated a basic understanding of moment generating functions

3. Communicate verbally, graphically and in writing using proper mathematical language and notation

#### MATH 4601

Target - 70% of the students will correctly use the definitions of key terms in analysis

Findings - 78% of students demonstrated the ability to know and be able to use the definitions of key terms in analysis

The findings in this section describe the extent to which the student learning outcome targets were achieved during the most recent year (2017-18) of the review period. When a target is not met, an Action Plan for Improvement is put in place by the instructor at the course level. These plans for improvement can be found in each course assessment in WEAVE.



# **Indicators of Measures of Quality**

If available, provide additional information and/or results of other indicators of quality related to student output such as completer satisfaction surveys, employer satisfaction surveys, stakeholder satisfaction surveys, completion and continuation rates, attrition rates, starting salaries of graduates, etc.

As noted earlier, obtaining employment placement and graduate school acceptance rates has been problematic. Data regarding these measures has not been regularly collected. When collected, relatively small numbers of graduates per year coupled with low response rates make it impossible to draw any sound conclusions. We do know that graduates we are in contact with have found professional employment or graduate school opportunities upon graduation, but beginning with the 2018-19 academic year, a new assessment plan has been put in place to aid in regularly collecting this data. In addition to assessing the student learning outcomes, surveys of candidates for graduation in the program will measure their overall satisfaction with the program, and surveys of graduates will measure their success in finding employment or gaining acceptance into graduate or professional schools.

Describe efforts undertaken to achieve and maintain curricular alignment within the program and currency to the discipline.

The School of Science, Technology, and Mathematics has a standing curriculum committee. At least one member of the math faculty serves on the committee along with other faculty members from the school. Faculty members and advisors can make proposals to the curriculum committee regarding changes to the math program curriculum. These proposals are reviewed and discussed based on their accompanying rationale. Rationales for curricula changes often reference comparisons to other institutions in the USG so as to ensure that our curriculum remains relevant and consist with that of other comparable schools.



Indicators of Measures of Viability						
Internal Demand for the Program	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	% Change
Number of students enrolled in the degree program	76	72	68	68	68	-10.5
Number of students who applied to the program (if applicable)	NA	NA	NA	NA	NA	DNE
Number of students admitted to the program (if applicable)	NA	NA	NA	NA	NA	DNE
Percent of classes taught by full-time faculty	100	100	100	100	100	0

Describe additional details as deemed appropriate.

Overall enrollment combining math and math education during the current review period declined in the math program by 10.5% (6.2% for FTE). Student demographics on page 4 suggest that the decline was caused by a drop in part-time enrollment. As indicated in the faculty demographics on pages 5 and 6, the number of faculty teaching in the math program has remained basically constant during the current review period with 100% of math program classes being taught by full-time faculty.



Indicators of Measures of Productivity						
Graduation	2013-14	2014-15	2015-16	2016-17	2017-18	% Change
Number of degrees conferred	4	6	13	9	9	125
Total student credit hours earned	129	111	124	119	119	-7.8

Describe any institutional-specific factors impacting time to degree.

In order to make the most efficient and effective use of faculty resources, required courses are offered so that students can progress through the program and graduate on time. However, course density is an important factor in determining the number of sections of a course offered each semester. The enrollment in the program is not high enough to offer more than one section of upper level courses. Due to the required sequence of courses, required courses at the 2000 level may only be offered once per semester whereas upper level courses are offered only once per year. Since this could potentially negatively impact time to degree, the math department works with students on finding and scheduling elective math courses.



# **Evidence of Program Viability**

Based on evidence from <u>ALL of the above</u> information, data, and analysis, discuss whether continued resources should be devoted to this program. <u>This discussion must be evidence-based</u>. Your comments should consider external factors and address questions such as the following: Are your students getting jobs? What is the job outlook for graduates? Are students prepared for the jobs they get? How is the field changing? Are program faculty members in contact with employers and getting back feedback on graduates' job performance? Do employers state or suggest a need for changes in the program?

The U. S. Bureau of Labor Statistics *Occupational Outlook Handbook* reports that as of 2018, the forecast for jobs in mathematics is extremely favorable.

Quick Facts: Mathema	aticians and Statisticians
2018 Median Pay	\$88,190 per year \$42.40 per hour
Typical Entry-Level Education	Master's degree
Number of Jobs, 2016	40,300
Job Outlook, 2016-26	33% (Much faster than average)
Employment Change, 2016-26	13,500

https://www.bls.gov/ooh/math/mathematicians-and-statisticians.htm

Quick Fac	ts: Actuaries
2018 Median Pay	\$102,880 per year \$49.46 per hour
Typical Entry-Level Education	Bachelor's degree
Number of Jobs, 2016	23,600
Job Outlook, 2016-26	22% (Much faster than average)
Employment Change, 2016-26	5,300

https://www.bls.gov/ooh/math/actuaries.htm



Quick Facts: Hig	gh School Teachers
2018 Median Pay	\$60,320 per year
Typical Entry-Level Education	Bachelor's degree
Number of Jobs, 2016	1,018,700
Job Outlook, 2016-26	8% (As fast as average)
Employment Change, 2016-26	76,800

https://www.bls.gov/ooh/education-training-and-library/high-school-teachers.htm

Graduates of the math program can be employed in a variety of fields. Businesses and industries including insurance companies and healthcare companies, along with academia, are all realistic employment options for graduates of the program. According to the Bureau of Labor Statistics, there is a growing need for businesses to employ mathematicians to analyze the increasing volume of metrics generated. While many of these particular positions may require a master's degree, some positions are available requiring only a bachelor's degree. The math program provides excellent preparation for students planning to attend graduate school to obtain a master's degree. Most actuaries are employed by insurance companies for risk management in evaluating insurance products and can obtain these jobs with a bachelor's degree. The math program provides excellent preparation and foundation for graduates to be able to pass a series of actuarial exams. High school math teachers continue to be in great demand. According to the Georgia Professional Standards Commission, in the state of Georgia alone, over the last two years, there has been an average of 246 vacant teaching positions in mathematics (6-12).

There are currently 71 students enrolled in the mathematics program. Although the number of graduates per year is still somewhat low, it has more than doubled during the review period, and the current number of math majors indicates that it should continue to increase. Graduates that we are in contact with have found professional employment or graduate school opportunities upon graduation, and there is a continuous open line of communication with local industry and school systems concerning the program to address ongoing industry and community needs to best equip our graduates. With the favorable job outlook for mathematicians along with the solid number of students in the major, the math program continues to be a viable program. Beginning with the 2018-19 academic year, a new assessment plan has been put in place to aid in regularly collecting data regarding the success of graduates.



# Program Strengths and Weaknesses

Based upon this review, what are the strengths and weaknesses of the program?

### Strengths:

- The math content is quite rigorous and prepares students extremely well for graduate school or employment.
- Opportunities for undergraduate research are available and encouraged by the faculty with a number of students presenting at state and regional undergraduate research conferences.
- The math program has a concentration in the high-demand field of actuarial science.
- The program has dedicated, well-qualified and student-centered faculty.
- All program courses are taught by experienced full-time faculty.
- The School of Science, Technology, and Mathematics has open lines of communication with local industry and school systems concerning the program to address ongoing industry and community needs.
- Math education students have a 100% pass rate on the GACE math content exams.
- Graduates that we are in contact with have found professional employment or graduate school opportunities upon graduation.
- There is a very favorable job outlook for graduates of the program.

### Weaknesses and concerns:

- Very little data has been collected from graduates concerning their overall satisfaction with the program and their success after graduation.
- Measuring program outcomes and student learning outcomes at both the program and course level
  has been inconsistent.



# Recommendations for Follow-Up and/or Action Plans (if needed)

#### Issue/Concern:

Two issues will be focused on over the next year in order to improve our ability to assess the program overall and also to improve an area of concentration within the program.

- Regarding assessment of the program, very little data has been collected from graduates concerning
  their overall satisfaction with the program and their success after graduation, and accurately
  measuring program outcomes and student learning outcomes at both the program and course level
  has been inconsistent.
- 2. Requirements in the actuarial science concentration of the math program need to be reviewed to insure the best possible alignment with the needs of employers.

# Specific action(s):

- 1. Beginning with the 2018-19 academic year, a new assessment plan has been put in place to aid in regularly collecting data for the overall assessment of the math program through graduate surveys and better evaluation of program and course level outcomes.
- 2. Input and suggestions from our community connections in the actuarial science field will be gathered and evaluated by faculty, and any appropriate changes to the concentration will be made concerning the best courses to make up the concentration.

#### **Expected outcomes:**

- 1. New attention to the program and course level assessments along with surveys of graduates will aid in consistency and quality of data that is useful to the overall assessment of the program.
- 2. Graduates who complete the actuarial science concentration will be more marketable and better equipped for a position in the actuarial science field. Students will also be better prepared to take a series of actuarial exams, some of which can be taken before graduation.

#### Time frame for achievement:

- 1. Although a new assessment plan has been put in place beginning in 2018-19, this will be an ongoing process.
- 2. Revisions to the actuarial science concentration should be completed during 2018-19.

### Person(s) responsible:

- Primary responsibility lies with the leadership team made up of the dean, assistant dean, and department chairs. Course level implementation of actions will lie with the faculty.
- 2. Primary responsibility lies with the leadership team made up of the dean, assistant dean, and the department chair. A committee of math faculty will be created to provide specific recommendations for any changes to the School of Science, Technology, and Mathematics Curriculum Committee.

### Resources needed:

- 1. None at this time
- 2. None at this time



Prepared by: Signature  With Mons	Date: 05 10 2019
Signature Commons	Date.
Dean's Approval:	
Signature:	Date: 5/10/2019
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Approval of the Chair of the DSC Comprehensive Program Review Committee:	S.
Mark Malenna	Date: <u>5/13/19</u>
Signature:	Date: 0//0///
Vice President of Academic Affairs (VPAA) Categorical Summation:	
Check any of the following to categorically describe action(s) the institution will take conce	erning this program.
effect any of the following to eategorieany describe action(s) the institution will take contex	erring this program.
Program MEETS Institution's Criteria	
Program MEETS Institution's Criteria  Program is critical to the institutional mission and will be retained.  Program is critical to the institutional mission and is growing, or a high demanders of the content of the institutional mission and is growing, or a high demanders of the content o	
Program is critical to the institutional mission and is growing, or a high deman	nd field, and thus will be
enhanced.	
☐ Program <b>DOES NOT MEET</b> Institution's Criteria for continuation.	
$\square$ Program will be placed on monitoring status.	
☐ Program will undergo substantive curricular revisions.	
☐ Program will be deactivated.	
☐ Program will be voluntarily terminated.	
☐ Other (Please elaborate):	
VPAA Signature: Put Chute	Date: 5/13/19

Patricia M. Chute, Ed.D.

Vice President of Academic Affairs

Dalton State College