Agenda and Evaluation Report for
Audit & Review Face-to-Face Meeting
University of Wisconsin-Whitewater
Mathematics Majors and Minors, 2019-2020

Date: 10/29/2020
Time: 2:00pm-3:30pm
Place: WebEx

Invited: Interim Provost Greg Cook; Interim AVC Kristin Plessel; Dean Frank Goza (L&S); Department Chair/Program Coordinator Angela Harlan; faculty and staff in the Mathematics program; Audit & Review Team Chair Denise Roseland; Audit & Review team members Corey Davis, Yushan Zhao, Assessment Representative

1) Call to order
   a) 2:03

2) Introductions

3) Overview of review team evaluation, program comments

4) Discussion of Review Team's evaluation:

   a) The review team noted that the program is indispensable and that it has thoughtfully aligned their work with the University's Strategic Priorities. The review team recognized the invaluable role the program plays in the support of General Education and proficiency courses for all students and the math content for education majors, business majors, and computer science majors. The team recognizes that many faculty and staff associated with the program are very active in service to the college, university and beyond.
      i) Comment was made about the significant resources and spaces associated with the role of supporting so many programs across the University

   b) The program shared a thoughtfully mapped out assessment plan and timeline related to assessment of SLO for each emphasis and minor. A wide variety of different assessment data, both direct and indirect, are being collected and considered. The team wondered if the program might greatly benefit from sharing the assessment plan findings more broadly with external constituencies.
      i) Other programs may benefit from the assessment work- review team identified assessment plan was as exemplar.

   c) The Committee noted that the program provided sufficient evidence of progress towards two of the three recommendations. One action recommended from the previous Audit and Review Report was unaddressed. Specifically, under Recommendation (3) "Work with university offices to develop a way to systematically track graduates", can the program explain why there is no progress made in this area? What resources/supports are necessary to move this forward?
      i) While this item was not addressed fully due to prioritizing other work and not being able to find the time, a number of strategies and initiatives were discussed.
      ii) Started using LinkedIn- and notes strategies to continue and possibly grow its use.
      iii) Last spring an Introduction to the Major course was taught for the first time, thinking about ways to incorporate alumni in this course
      iv) Dean Goza suggested reaching out to Ben Strand for names and addresses of alums
      v) Chair Harlan is looking into starting a newsletter to alumni to keep them engaged
   d) Department item: Appropriate classroom spaces

i) Chair Harlan noted that some classroom spaces are excellent, and would like to be consulted if changes to rooms where math courses are taught are changed. She advocated for more vertical work spaces (e.g., white boards). In addition, the program would like priority scheduling in one of the computer labs.

ii) Dean Goza suggested making a request to the Chair of Computer Science program directly.

iii) Success Center access and experiences were discussed. Specifically, using 2 classroom spaces for courses that are done by 3pm. Use of these rooms has been helpful and puts students in the building where they can go for help/tutoring- would like to use the rooms until 5pm. Use of these rooms helped to alleviate classroom space issue. Dean Goza suggested looking into having access to rooms a little later.

e) Department item: Large academic staff load

i) Concerns about heavy academic staff load (50%) the smaller number of faculty makes it difficult as it causes a burden on faculty related to services and other commitments

ii) Historical reason for the imbalance is due to developmental mathematics added to the department- many developmental courses are taught by academic staff. In addition, the Mathematics and Computer Science departments split and became two departments, many faculty went to Computer Science department placing more of a burden on service to remaining faculty in Mathematics.

iii) Will move in the direction of replacing academic staff lines to faculty lines

f) Dean Goza noted the hard work of the department with reduced staff due to budget. AVC Plessel noted that Math Pathways was implemented in addition to extra workload due to staffing reductions last year

5) **Recommended Actions**: The evaluation report lists 4 recommended actions. (see page 16, point 4) related to improving student diversity, revising BSE program to align with DPI standards, sustaining implementation of program assessment plan, and gathering Advisory Board input and alumni tracking .

a) Discussed programs extensive progress towards many of the items listed

b) Based on progress to date, review team members decided to remove the progress report requirement

c) Dean Goza noted the hard work of Chair Harlan and the department in working together through some difficult times (e.g., reduced staff), assessment has been an area of strength for a long time, diverse faculty, offered to provide intellectual resources to help problem solve tracking graduates and advisory board items

d) Provost Cook commended the review team and Denise Roseland for their work on the review, thanked the program for support of GENED and proficiency courses, innovation related to HERA project- collaborating with other institutions in the area to address needs of underrepresented students (pathways and math initiative), significant amount of service from the department, amazing culture change in department regarding assessment and valuing student learning- great progress has been made in this area and that is in large part due to leadership in the department

e) AVC Plessel echoed comments on strong work ethic of the program faculty and staff

6) **Recommended Result**: *(Tentative) Continuation with minor concerns*

- **Please make use of the detailed comments in the evaluation report (below).**
- **Please select all applicable boxes and fill in the appropriate year:**

☒ Next FULL self-study will be due to the Dean on October 1, 2024 and to the Assessment Office on November 1, 2024.

☐ Next SHORT self-study will be due to the Dean on October 1, 2024 and to the Assessment Office on November 1, 2024.

☐ A progress report was not assigned.

7) Adjourn.

Review team report is attached below, including Recommended Actions and instructions for Progress Reports (if required).

University of Wisconsin-Whitewater
Committee Form: Review of Audit & Review Self-Studies
Undergraduate Programs, 2019-2020
Majors/Minors and Standalone Minors

Date of Evaluation 1/30/2020 Short Self Study (SS*)_____
Program:___**Mathematics**_____Major ☒ Minor ☒

Evaluations submitted by: Denise Roseland, Heather Pelzel, Catherine Chan, Yushan Zhao, Corey Davis
Review meeting attended by: Denise Roseland, Heather Pelzel, Catherine Chan

I. Program Purpose & Overview: A. Centrality

1. The program contributes to the fulfillment of UW-Whitewater's core values, Mission, and Strategic Plan.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments for I.A.1

The Mathematics department has worked continuously to improve their curriculum to help students succeed, particularly students entering at a remedial level for math.
The program has thoughtfully aligned their work with the University's Strategic Priorities.
Contribute to 1 We will improve student access and success, and 2 We will transform lives and impact society.

2. The program supports general education, proficiency, and/or other programs at UW-W.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments for I.A.2

The bulk (~75%) of the department's teaching covers gen ed and proficiency courses, and courses required by other programs.
The department's effort to support Math proficiency is invaluable.
The support of math content for education majors, business majors, and computer science majors is notable.
Offer three proficiency courses and nine general education courses.

3. The program has achieved or is appropriately working toward achievement of at least two goals of Inclusive Excellence.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments for I.A.3

The Moving Up and Pathways programs and student support services improve the success of all students. While there isn't an initiative within the department that is specially designed for URM students, the current programming should help more students successfully complete their math requirement. One area that could potentially use some improvement would be ways to increase the diversity of the major.
Contribute to 1 Pedagogy/Best Practices, and 2 Support.
Goal 1: Moving Up Program, Math 139 Goal 2: Supplemental Instruction

4. The program has been responsive to actions recommended from the previous Audit and Review Report; Progress Reports have been submitted, if relevant.

Sufficient Evidence	1
Some/Partial Evidence	3
No/Limited Evidence	1

Comments for I.A.4

There is sufficient evidence of progress towards two of the three recommendations.
Under Recommendation (2d) "Track how data are used to impact the program both for broad curricular changes and changes within courses", it would be helpful if the program can provide more details beyond indicating the Chair of the Curriculum Committee is responsible for tracking this information. For example, can the program give a specific example on how this is implemented? Under Recommendation (3) "Work with university offices to develop a way to systematically track graduates", can the program explain why there is no progress made in this area? What resources/supports are necessary to move this forward?
The report notes substantive progress on several of the goals and has prioritized the remaining goal for near-future work (alumni followup).
Need to have attachments in this section to support the stated actions.
Good processes in place for setting goals and assessment. Still need to work on tracking and communicating with graduates.

No General Comments related to Section I.A

I. Program Purpose & Overview: B. Program Mission, Goals, & Accomplishments

1. The program's mission statement reflects the nature and scope of the program.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments for I.B.1

Everyone matches well.

2. Goals and objectives were identified and undertaken to improve or advance the program.

Sufficient Evidence	4
Some/Partial Evidence	1
No/Limited Evidence	0

Comments for I.B.2

Curriculum and course revision in response to market demand and in accordance with other departments and the UW System is a large and important part of continual improvement and advancement of the program.
I congratulate the department for creating six new graduate-level course and a new Graduate Certificate in Mathematics to meet market and student demands. The creation of the Quantitative Reasoning and Precalculus Pathways were major undertakings that will better serve the needs of our students.
Need to attach annual or bi-annual goals in this section.
Stats minor, grad certificate in Mathematics. Future goal of converting actuarial science emphasis to a major.

3. The program has a process for setting and assessing goals, and making decisions about changes to the program goals.

Sufficient Evidence	4
Some/Partial Evidence	1
No/Limited Evidence	0

Comments for I.B.3

The newly instituted plan for setting and assessing goals appears to be working well.
Process of setting and assessing goals seems clear. Not completely sure of how the program makes decisions about changes to program goals based on what is submitted.
Need to have tables to show how each goal is assessed.

4. The program is considering potential revisions to mission, goals, or objectives; the program has a "vision" for where it wants to be in the future and how to get there.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

No Comments for I.B.4

5. The program, faculty/staff, and/or students have earned recognition or awards.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments for I.B.5

BOR Teaching Excellence nominee in 2018 and 2019.

6. The program has achieved or maintained program-level accreditation or has considered seeking it, where appropriate.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments for I.B.6

No accreditation available.
No program-specific accreditation available.
Accreditation is not available for the program.

No General Comments related to Section I.B

II. Assessment: A. Curriculum

1. The program has a clearly articulated, efficient, and purposeful curriculum, including options or emphases within the program (if applicable).

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments for II.A.1

Five emphases and five minors.

2. If program offers dual-listed courses, the expectations of graduate students differ from undergraduate students; otherwise NA

Sufficient Evidence	3
Some/Partial Evidence	2
No/Limited Evidence	0

Comments for II.A.2

Please attach the syllabi for Math 417/617 and Math 450/650 - this would facilitate the reviewers' understanding of the difference in requirements between the undergraduate and graduate versions of these courses (beyond the brief description provided in the self-study).

Additional materials, more challenging problem sets, teaching or research presentations in face to face classes.

3. Appropriate assessment data were used in making curricular revisions.

Sufficient Evidence	4
Some/Partial Evidence	1
No/Limited Evidence	0

Comments for II.A.3

For the many curriculum revisions, market data and outside factors (initiatives from System, DPI, or other programs) played a large role. As the department has just started working on departmental level assessment, this data did not appear to play a role in the revisions.

Actuarial science and statistics changes were made in response to BLS data and in response to feedback from students. Course and major revisions made in response to feedback from students and faculty. Grad certificate in response to HLC changes.

4. The program provides opportunities for students to learn in ways that extend beyond the classroom, and discussed the extent to which students are involved in these activities and opportunities.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments for II.A.4

Nice mix of Student orgs, competitions, SI sessions/tutoring outside of class time, support for conferences, scholarships etc.

SMA and Pi Mu Epsilon student orgs. Competitions and conferences. Tutoring opportunities.

5. Online courses are evaluated in ways that ensure effective delivery, continuous improvement, and student learning (if applicable)

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments for II.A.5

I am curious as to whether the peer observer is trained in online pedagogy and course implementation. Does the department chair and/or department assessment committee have any role in this process?

Peer observations and student evals are used.

No General Comments related to Section II.A

II. Assessment : B. Assessment of Student Learning

1. The program has a clearly articulated learning outcomes for students, courses are "mapped" to these learning outcomes, and some outcomes received specific attention during the review period.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments for II.B.1

I appreciate having the assessment plan mapped out with timeline and clearly delineated for each emphasis and minor. I am curious about select items referred to in the Program Assessment Plan SLO Map where the timeline for assessing a particular SLO has past but the assessment tools is still indicated as 'to be developed'. For example, see SLO 12 & 13 on bottom of P.2.

Supporting documents show the efforts of the last few years related to assessment of learning outcomes conducted by the program.

Cannot find student learning outcomes for Actuarial Science emphasis.

SLOs clearly correspond with specific courses.

2. Student learning outcomes are aligned with the LEAP Essential Learning Outcomes in a way that is reasonable and meaningful.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

No Comments for II.B.2

3. The program has an appropriate assessment plan for measuring students' progress in attaining the outcomes.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments for II.B.3

I'm a bit overwhelmed by 13 SLO but certainly understand the need for a breadth of outcomes given math content.

Good. Assessing one core SLO each year. This is realistic and doable.

4. The program collected a variety of appropriate assessment data allowing judgments about the extent to which students are achieving learning outcomes.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments for II.B.4

One area of concern from the collected data is the low pass rates on the Praxis II exam. With the switch to the new edTPA exam, this may change but there is a lack of data available to the Math department on the edTPA exam so far.
It is impressive that the program systematically collects a lot of data on students. What is the program planning to implement to remediate the low Praxis II pass rate (and perhaps the declining edTPA scores)?
Very good. A wide variety of different assessment data, both direct and indirect, are being collected and considered.
Love the graduating senior exit interview idea

5. Program faculty consider assessment data in making changes to the curriculum, students' learning outcomes, and/or other aspects of the program.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments for II.B.5

Good. Clear schedule for considering various courses at regular intervals.

6. Results of assessment efforts have been shared with appropriate internal and external constituencies.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments for II.B.6

I think the program could greatly benefit from sharing more broadly with external constituencies
Shared on Canvas site and at department retreats. Gen Ed data also shared at college and university level meetings.

No General Comments related to Section II.B

III. Student Recruitment, Enrollment, Retention, and Graduation: A. Trend Data

1-2. Five-year enrollment and graduation trends reflect program vitality and sustainability.

Sufficient Evidence	3
Some/Partial Evidence	2
No/Limited Evidence	0

Comments for III.A.1-2

Even with campus level enrollment decreases, there are more math majors than there were 3 years ago. The increased focus on actuarial science is certainly an important factor in this.
There is some fluctuations in the number of graduates by major but the trend seems to be declining. The same trend seems true for the Math minor (although Math Education minors seem steady)
Great growth in actuarial science. Sustained enrollment in Secondary Ed and Pure Math. There's a pretty serious drop off in Statistics. Are those students going to data science or are they migrating to actuarial science? Or is it something else causing that drop?

3. [MAJORS ONLY] Credits-to-degree show that students can complete the degree in four years, or reasonably efficiently.

Sufficient Evidence	3
Some/Partial Evidence	2
No/Limited Evidence	0

Comments for III.A.3

While there are valid reasons for the excess numbers of credits, students seeking a BA or BSE in Mathematics would be unable to complete it in 4 years. Students seeking a BS may be able to finish in 5 years but would need a high credit load each semester to do so.
Needs 136 credits or more to meet all of the degree requirements.
Understandable why the BSE is higher due to licensure requirements, but why is the B.S. degree so much higher than 120 (142.4 average)? The explanation provided accounts for 5-9 extra credits.

4. Program has strategies to recruit and retain diverse students.

Sufficient Evidence	1
Some/Partial Evidence	4
No/Limited Evidence	0

Comments for III.A.4

There are student orgs and the LA position to help with retention. Those don't appear to be that successful however in retaining a diverse student body, particularly based on ethnicity.
The department describes a range of engagement activities for students once they are in the major. The statement that retention of multicultural students is difficult is troubling. Has the department considered adopting any additional strategies beyond what's currently available to assist these students? In addition, has the department thought about possible activities/strategies to attract students into the major?
Appreciate the difficulty of recruiting and retaining diverse students in math...and wonder what additional initiatives might be worth exploring to make more progress.
Female student percentage parallels national average.

5. [MAJORS ONLY] Composition of students approximates or exceeds the diversity of students at the University

Sufficient Evidence	2
Some/Partial Evidence	2
No/Limited Evidence	1

Comments for III.A.5

The department levels are below those of the university but improved from their last A&R. I also suggest the program considers broadening their definitions of diversity to beyond under-represented minorities as appropriate.

International students are somewhat higher percentage than university composition, but African American percentage is half that of university composition. Latinx composition is also substantially less than university percentage.

6. Students can enroll in appropriate courses and proceed without delaying graduation.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments for III.A.6

The availability of independent studies to complete courses when scheduling conflicts arise is a helpful addition.

Appreciate the changes made in course offerings/semesters offered/frequency of courses noted in this report.

7. Claim that the program is oversubscribed, undersubscribed, or at optimum level is justified or supported by examples or data.

Sufficient Evidence	4
Some/Partial Evidence	1
No/Limited Evidence	0

Comments for III.A.7

It will be interesting to see how the adjustment to the service courses will result in a redistribution of resources, particularly in the face of the current budget crisis.

How much resources is the department currently allocated to service courses?

No General Comments related to Section III.A

III. Student Recruitment, Enrollment, Retention, and Graduation: B. Demand for Graduates

1. [MAJORS ONLY] Placement information indicates that program graduates find employment or continue their education.

Sufficient Evidence	4
Some/Partial Evidence	1
No/Limited Evidence	0

Comments for III.B.1

Data provided are limited as only two years' worth of data are reported.
100% placement.

2. Data suggests that employment opportunities for graduates of this program will remain strong.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments for III.B.2

Excellent, high paying job opportunities.

3. The program systematically tracks graduates of the program.

Sufficient Evidence	0
Some/Partial Evidence	4
No/Limited Evidence	1

Comments for III.B.3

The department is starting to plan for better tracking but has not yet started to do so.
Has the program considers venues other email contacts, such as the use of social media, for maintaining contact with graduates and collecting information that way?
Noting this as a work in progress
This section is relatively weak.
Just starting to collect data.

No General Comments related to Section III.B

III. Student Recruitment, Enrollment, Retention, and Graduation: C. Comparative Advantage(s)

1. The program has unique features that distinguish it from competing programs--giving it a competitive edge

Sufficient Evidence	3
Some/Partial Evidence	2
No/Limited Evidence	0

Comments for III.C.1

The program offers a variety of emphases, but there's no evidence that this is any different from the mathematics programs in other comparable area colleges and universities, with the exception of a few uniques courses.

The Math Education and Actuarial Science programs have strong enrollments. The availability of donors to supply scholarships is wonderful. Is the background of the Math faculty more diverse in this department than other similar institutions? While offering uncommon courses is great for students with interests in those areas, it may not be sufficient in providing a competitive edge.

IV. Resource Availability & Development: A. Faculty Characteristics

1-2. Information is provided about the composition of the department faculty & instructional academic staff (e.g., gender, ethnicity, expertise, academic rank, etc.)

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

No Comments for IV.A.1-2

3-4. The program has identified staffing changes and anticipated areas of potential future need.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

No Comments for IV.A.3-4

General Comments related to section IV.A

With the large dependence on instructional staff, I'm concerned about the department's ability to maintain current course coverage if large cuts are made across the university to the instructional staff position.

They need faculty with expertise in statistics, probability or data analysis.

IV. Resource Availability & Development: B. Teaching & Learning Enhancement

1-2. Faculty & instructional academic staff are engaged in activities to enhance teaching and advising.

Sufficient Evidence	4
Some/Partial Evidence	1

No/Limited Evidence	0

Comments

This is true of almost all faculty with a couple of exceptions and most of the academic staff.

IV. Resource Availability & Development: C. Research & other Scholarly/Creative Activities

1-2. Faculty (and staff, if relevant) are active in research and/or scholarly/creative activities.

Sufficient Evidence	4
Some/Partial Evidence	1
No/Limited Evidence	0

Comments

Most faculty have listed research or scholarly activities. Many staff also activities listed even though it is not a departmental expectation.

IV. Resource Availability & Development: D. External Funding

1-2. Faculty and staff (if relevant) pursue funding through grants, contract, and/or gifts.

Sufficient Evidence	3
Some/Partial Evidence	2
No/Limited Evidence	0

Comments

Some have pursued and gained funding, but it is a bonus as it is not a departmental expectation.

7 different grants, projects, or fellowships were funded during the period under review.

IV. Resource Availability & Development: E. Professional & Public Service

1-2. Faculty (and staff, if relevant) are active in professional and public service, beyond the department.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments

The majority of the faculty and many staff are very active in service to the college, university and beyond.

IV. Resource Availability & Development: F. Resources for Students in the Program

1. The program has adequate personnel, student help, and service and supplies to serve its undergraduate students.

Sufficient Evidence	3
Some/Partial Evidence	2
No/Limited Evidence	0

Comments

There appears to be a strong case for additional funding either to the department or the student success center to increase the availability of tutoring for students.
It is important to advocate for continuous support for the Learning Assistants. Research has clearly shown this approach in learning support works.
Appreciate the comments about the impact of budget on student help and faculty lines.
Need more resources to support student tutoring.
Tutoring shortage.

IV. Resource Availability & Development: G. Facilities, Equipment, & Library Holdings

1. The program has adequate facilities, equipment, and technological resources to effectively serve its students.

Sufficient Evidence	1
Some/Partial Evidence	2
No/Limited Evidence	2

Comments

The department makes a strong case for priority access to a computer lab and additional classroom space.
The department described issues with adequate classroom spaces and associated technology, a problem that was also mentioned in the last self-study. Has the program engaged administrative leaders to help resolve this issue?
Need to have more whiteboards in classroom for instructors and students.
Insufficient lab space because they get Computer Science's leftovers. Classroom spaces and whiteboards are inadequate for teaching math.

V. Conclusions and Recommendations from the Department or Program 1. Program strengths are discussed.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments for V.1

The program's contribution to Gen Ed and Math proficiency courses is substantial. I applaud the program's effort in mentoring and supporting its tenure-track faculty.

GenEd contributions. Faculty development and mentoring. Student mentoring and career counseling. Student participation in competitions.

2. Areas of improvement and continued progress are discussed.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

Comments for V.2

Assessment is improving.

3. Recommendations and resources are discussed.

Sufficient Evidence	5
Some/Partial Evidence	0
No/Limited Evidence	0

No Comments for V.3

VI. Reviewer Conclusions

1. Strengths of the Program

The department plays a major role in providing service to the university in terms of the remedial and service courses they offer. The department is indispensable. In addition, there is a strong market force for continued development of the actuarial and statistics programs within the major.

1) The program's contribution to Gen Ed and Math proficiency courses is substantial. 2) The program supports a substantial number of pre-service Math teachers. 3) The program has established fields of study (emphases/minors) based on market demands.

Expertise of faculty Interdisciplinary major/minors Variety of the courses offered

Contributions to general education. Five majors and five minors available. Excellent faculty.

GenEd contributions. Faculty development and mentoring. Student mentoring and career counseling. Student participation in competitions. Math majors have 100% job placement in high-paying careers.

2. Areas for Work or Improvement

The diversity of the student body is one of the major issues within the program.

1) Continue the good work on assessment, revising the program SLOs and development of appropriate assessment tools. 2) Development of an advisory board. 3) Continue examining market demand & student needs, and aligning curricula and resources with the results. 4) Continue with the great work on the UW System Math Initiative.

Alumni outreach Advisory input into the program

Need to find ways to track graduates. Improve online course student evaluations.

Assessment plan is good, and initial implementation is also good. Need to see sustained evidence of implementation over next 5 years. Work on developing relationships with alumni.

3. Other comments/questions

The department shouldn't bear the majority of the burden for supporting student tutoring since the majority of students seeking tutoring for math courses are not math majors. The lack of access to appropriate classrooms is an embarrassing problem for our university. As a whole, the colleges should be able to better share resources and space instead of guarding it like private kingdoms with no trespassing signs.

The reliance on academic staff is likely to become a major issue during the next couple of years with projected cuts to that position across campus.

4. Recommended Actions

1. Continue to look into interventions (in the classroom and out) to improve the diversity of the student body.

2. Revise the BSE programs to align with current DPI standards. Make a careful assessment of the feasibility of continuing the applied mathematics track. If there is much overlap with the statistics emphasis and the proposed actuarial major, is there still a need for it. If all courses overlap with other emphases, however, then offering it or not won't really make a difference in terms of course offerings and staffing issues. Continue work on studying market/student demands and make appropriate adjustments to the program/curricula.

3. Show sustained evidence of implementation of assessment plan over next 5 years: Report on the revised program SLOs and the rationale for such change. Revise the SLO/curricular map and the assessment tools as appropriate. Incorporate the results of the UW System Math Initiative and preliminary data on the effects of this change.

4. Create and hold regular meetings of Advisory Board and implement plan for tracking graduate.

5. Recommended Result

Continuation without qualification. Next self-study will be a shortened one focusing on the Recommended Actions from the current report.	2
Continuation with minor concerns. Progress report may be required, at the discretion of the review team.	3
Continuation with major concerns in one or more of the four areas; submit annual progress report to the College Dean & Associate Vice Chancellor for Academic Affairs on progress addressing the major concerns	0
Withhold recommendation for continuation, place on probation, and require another complete Audit & Review self-study within 1-3 years, at the Committee's discretion.	0
Withhold recommendation for continuation, place on probation, recommend placing in receivership within the college, and require another complete Audit & Review self-study within 1-3 years at the Committee's discretion.	0
Non-continuation of the program.	0
Insufficient Information in the self-study to make a determination; revise self-study & resubmit.	0
Report not submitted; refer to Provost for action.	0