

2016-17 Department Student Success Plan Assessment Report

Mathematics and Computer Science

Please answer the following questions in two pages and submit to your Dean by October 2. Your Dean will offer you feedback by Oct. 16 and advance final version¹ to Academic Affairs by October 20. This report will inform your 2017-18 Student Success Plan update that will be due to your Dean by Nov. 3. Previous report and plans can be found at this website: <http://irt2.indstate.edu/cms7/sp16/index.cfm/department-plans/>.

Person Primarily Responsible for Preparing this Report: Liz Brown

1. Specific accomplishments/achievements this past year (*briefly explain using bullet points, noting any changed/adapted*):

- **Use of Student Assistants in all sections of MATH 115.** Addition of another required hour per week for students to meet with SAs. SAs hold additional, non-mandatory “open lab hours” in RO A-009 for students in any MATH 115 section to attend. This was begun in Spring 2016, proved very successful, and is continuing into the Fall 2017 semester. The DFW rate was much lower in Spring 2017 than in was in Spring 2016 despite having students in Spring 2017 with lower high school GPAs and test scores.
- **MATH 116 Precalculus was taught for the first time in Fall 2016.** This course is specifically for students who test into calculus and then it becomes obvious that they have gaps in their background. This course starts at the 5-week mark and has the same number of credits as MATH 131. Preliminary results in Spring 2017 show that most students who took MATH 131 following MATH 116 successfully completed MATH 131. Unfortunately only 9 students in MATH 131 took advantage of moving to MATH 116 this semester despite recommendations for nearly double that number by the MATH 131 faculty.
- **Curricular changes in the Computer Science Program included adding one credit hour each to CS 201 and CS 202, critical courses in the Computer Science major.** We are teaching these courses now with 4 credits with the hope that our CS students are better prepared as they take their upper level CS classes.
- **Offering MATH 241 in a co-requisite model in conjunction with MATH 035.** We started doing this in Fall 2016 with somewhat mixed results. This model allows students who do not have the algebra skills needed to take MATH 241 to take both courses simultaneously and they can complete the requirement in one semester rather than two. We should see even stronger results this year as we are now able to implement best practices in co-requisite teaching by having a single instructor teach both courses.
- **In our Developmental Mathematics courses we improved significantly in our course completion ratios.** For MATH 035 our course completion ratio was 56.64% in 2015-16 and it climbed to 63.45% in 2016-17. For MATH 015, our course completion ratio was 64.35% in 2015-16 and it was a whopping 80.85% in 2016-17. Our Developmental Mathematics Staff, led by Alison Breiding, should be commended!

2. Objective/Actions Not Achieved (*briefly explain using bullet points*):

- **Peer assistants were not funded for our freshmen classes for majors.** We received funding in Spring 2015 and then nothing since then. We would like to implement this in MATH 122, 131, 132 and CS 151 and 201.
- **We have not yet revived the Pi Mu Epsilon Honor Society.** However, we have located the book and charter.
- **Bringing the Math Tutoring Center back to the Department in the basement of Root Hall.** This objective was not achieved. Administration decided it is better for an individual with zero

¹ Dean will request a refinement to the report if it is not suitably addressing the questions. Report will be shared with Trustees.

mathematics background to train tutors and run a math tutoring center. The fact that the tutoring is not housed in the department, resourced, and under the control of the department has hampered our student success efforts. There is no one at the MWC who can tutor MATH 102, 122, 305, and 306. In fact, there is no one who can tutor mathematics classes beyond Calculus II. Tutoring is offered for MATH 112, 123, 129, 131, 132, and 241, but the quality has been uneven.

3. Attention areas going forward as informed by 2016-17 retention, completion, course completion ratio, credit hour productivity, and D/F/drop rate data provided as well as other Blue Report or departmental data (*briefly explain using bullet points*).

- Our lower division course completion ratio went from 71.12% in 2015-16 to 73.55% in 2016-17. This was due to student success efforts in our lower division courses. Our upper division course completion ratio went from 95.49% to 92.32%. Although this is still reasonably high, it is of concern that it decreased by roughly 3%. We will monitor this metric going forward.
- Our DFW rates in MATH courses went from 34.01% in Fall 2015 to 31.16% in Fall 2016. This is an improvement. Our DFW rates in CS courses went from 30.70% in Fall 2015 to 29.32% in Fall 2016.
- We believe we would have even stronger success if the Department were given the resources currently devoted to mathematics at the MWC and we had control of the tutors (who was hired), their training, and their supervision.