

THE UNIVERSITY OF TOLEDO
ANNUAL REPORT OF PROFESSIONAL ACTIVITY

(July 1, 2014 – June 30, 2015)

Name James D. Anderson Department Mathematics
Faculty Rank Assistant Professor Year of Appointment 1990 Year Last Promoted 1995
Highest Degree Master of Science Year Rec'd 1988

NOTE: In order to open the links in this report, please go to
<http://math.utoledo.edu/~janders/ARPA/2015/ARPA2015.pdf>

I. TEACHING (OR SERVICE AS A LIBRARIAN): (55%)

A. **Scheduled Courses:** Credit hours are course credit hours; contact hours are the actual number of hours you meet your class each week.

| <u>Fall Semester 2014</u> | | | <u>Spring Semester 2015</u> | | |
|----------------------------------|----------------------|-----------------------|------------------------------------|----------------------|-----------------------|
| | No. of Hours | | | No. of Hours | |
| <u>Course Number</u> | <u>Credit</u> | <u>Contact</u> | <u>Course Number</u> | <u>Credit</u> | <u>Contact</u> |
| MATH-1330-001 | 3 | 3 | MATH-1330-002 | 3 | 3 |
| MATH-1330-002 | 3 | 3 | MATH-1330-003 | 3 | 3 |
| MATH-1330-003 | 3 | 3 | | | |

B. **Advising:**

Graduate _____ No. of Advisees _____

Undergraduate _____ No. of Advisees _____

C. **Other Teaching Activities:** Work with Honors students; direction of independent readings and/or research; direction of theses and dissertations; development of new courses; librarian service.

1. Continued my use of the flipped classroom method of instruction in all my classes for the Fall 2014 and Spring 2015 semesters. In the Fall semester, I started the term with a total of 121 students in my three classes. Of these 121 students, 2 students never attended the class. Of these 119 students, 8 students withdrew from the course. Of the remaining 111 students, 105 students

completed the course by taking the final exam. Of these 105 students, 69 students (65.7%) received a grade of A, B, or C and 36 students (34.3%) received a grade of D or F. In the Spring semester, I started the term with a total of 90 students in my two classes. Of these 90 students, 2 students never attended the class. Of these 88 students, 8 students withdrew from the course. Of the remaining 80 students, 73 students completed the course by taking the final exam. Of these 73 students, 43 students (58.9%) received a grade of A, B, or C and 30 students (41.1%) received a grade of D or F. Continued the use of Pre-Class problems in the [Fall](#) and [Spring](#) semesters. These Pre-Class problems gave problems and their solutions in order to prepare students for the In-Class problems for the [Fall](#) and [Spring](#) semesters. Students were given a Pre-Exam in the [Fall](#) and [Spring](#) semesters. Bookmarks were used to link students to the solution of each problem given at the bottom of the Pre-Class problems. Students had other resources available on the course webpage ([Fall](#), [Spring](#)). [Lecture notes](#) were one of these resources. In the [Fall](#) and [Spring](#) semesters, I had students complete a course survey for extra credit in order to get their feedback on the reverse classroom method of instruction. Unfortunately, I have not had time to tabulate the data. After I tabulate the data, I would like to give a presentation on my experiences using the reverse classroom method of instruction. Three of the most positive experiences have been 1) when I am answering a student's question and am not available to another student, this student will either figure it out or will get help from another student; 2) student talk and work on mathematics for the whole period; 3) we sometimes lose track of time working on the In-Class Problems and are reminded of the time when the professor for the next class walks into the classroom.

2. My Professional Assessment for Fall 2000 through Spring 2005 was favorable. However, in my Professional Assessment for Fall 2005 through Spring 2010, it was indicated that some improvements are needed. As part of my approved Program of Growth, I am to raise the scores on my teaching evaluations. I raised my scores on the following two items on my student evaluations for Fall 2010 through Spring 2015:

- [f.](#) Instructor's Respect and Concern for Students
- [g.](#) Fairness & Reasonableness of the Grading Procedure

However, I did not raise my scores on the following seven items on my student evaluations for Fall 2010 through Spring 2015:

- [a.](#) Instructor's Preparation for Class
- [b.](#) Instructor's Knowledge of the Course Material
- [c.](#) Instructor's Ability to Explain the Subject
- [d.](#) Instructor's Handling of Questions & Class Discussion
- [e.](#) Instructor's Interest in the Course
- [h.](#) Relationship of Exams to Course Material
- [i.](#) Prompt, Useful Feedback on Homework & Exams
- [j.](#) Overall Level of the Instruction in this Course

I will continue to work to improve the scores on my student evaluations.

- a. Instructor's Preparation for Class

| | | | | |
|---|---|-------------|-------------|-------------|
| Mean, Median, and Standard Deviation for 2000 - 2005 | | 3.33 | 3.42 | 0.39 |
| Mean, Median, and Standard Deviation for 2005 - 2010 | | 3.34 | 3.36 | 0.33 |
| Mean, Median, and Standard Deviation for 2010 - 2015 | | 3.09 | 3.12 | 0.32 |
| Fall 2010 | MATH-1330-002 Trigonometry | | | 3.46 |
| | MATH-1340-001, 002, 003 College Algebra & Trigonometry | | | 2.98 |
| Spring 2011 | MATH-1330-003 Trigonometry | | | 3.25 |
| | MATH-1330-005 Trigonometry | | | 3.36 |
| | MATH-1340-001 College Algebra & Trigonometry | | | 3.33 |
| Fall 2011 | MATH-1330-002 Trigonometry | | | 3.05 |
| | MATH-1330-004 Trigonometry | | | 3.00 |
| | MATH-1330-006 Trigonometry | | | 3.12 |
| Spring 2012 | MATH-1330-001 Trigonometry | | | 3.41 |
| | MATH-1330-003 Trigonometry | | | 3.19 |
| | MATH-1330-005 Trigonometry | | | 3.53 |
| Fall 2012 | MATH-1330-002 Trigonometry | | | 3.00 |
| | MATH-1330-004 Trigonometry | | | 2.33 |
| | MATH-1330-006 Trigonometry | | | 3.31 |
| Spring 2013 | MATH-1330-001 Trigonometry | | | 2.67 |
| | MATH-1330-002 Trigonometry | | | 3.36 |
| | MATH-1330-004 Trigonometry | | | 3.24 |
| Fall 2013 | MATH-1330-002 Trigonometry | | | 2.35 |
| | MATH-1330-004 Trigonometry | | | 3.33 |
| | MATH-1330-006 Trigonometry | | | 2.97 |
| Spring 2014 | These evaluations were lost in the flood of the Carlson Library | | | |
| Fall 2014 | MATH-1330-001 Trigonometry | | | 2.67 |
| | MATH-1330-002 Trigonometry | | | 2.48 |
| | MATH-1330-003 Trigonometry | | | 3.00 |
| Spring 2015 | MATH-1330-002 Trigonometry | | | 3.09 |
| | MATH-1330-003 Trigonometry | | | 3.21 |

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I don't understand how students can think that I am not prepared for class. The Pre-Class problems ([Fall](#), [Spring](#)) are posted at least two-days before class on the course webpage ([Fall](#), [Spring](#)) and on the Daily Schedule (Fall: [Sec 001](#), [Sec 002](#), [Sec 003](#); Spring: [Sec 002](#), [Sec 003](#)). The In-Class problems ([Fall](#), [Spring](#)) are posted after class. In the Spring semester, I provided solutions to the In-Class problems for all problem sets except for In-Class Problems 5 and In-Class Problems 7.

b. Instructor's Knowledge of the Course Material

| | | | | |
|---|--|-------------|-------------|-------------|
| Mean, Median, and Standard Deviation for 2000 - 2005 | | 3.59 | 3.60 | 0.25 |
| Mean, Median, and Standard Deviation for 2005 - 2010 | | 3.57 | 3.64 | 0.23 |

Mean, Median, and Standard Deviation for 2010 - 2015 3.43 3.45 0.25

| | | | |
|-------------|---|--------------------------------|------|
| Fall 2010 | MATH-1330-002 | Trigonometry | 3.69 |
| | MATH-1340-001, 002, 003 | College Algebra & Trigonometry | 3.38 |
| Spring 2011 | MATH-1330-003 | Trigonometry | 3.62 |
| | MATH-1330-005 | Trigonometry | 3.56 |
| | MATH-1340-001 | College Algebra & Trigonometry | 3.75 |
| Fall 2011 | MATH-1330-002 | Trigonometry | 3.32 |
| | MATH-1330-004 | Trigonometry | 3.28 |
| | MATH-1330-006 | Trigonometry | 3.50 |
| Spring 2012 | MATH-1330-001 | Trigonometry | 3.37 |
| | MATH-1330-003 | Trigonometry | 3.14 |
| | MATH-1330-005 | Trigonometry | 3.65 |
| Fall 2012 | MATH-1330-002 | Trigonometry | 3.63 |
| | MATH-1330-004 | Trigonometry | 3.15 |
| | MATH-1330-006 | Trigonometry | 3.77 |
| Spring 2013 | MATH-1330-001 | Trigonometry | 3.30 |
| | MATH-1330-002 | Trigonometry | 3.64 |
| | MATH-1330-004 | Trigonometry | 3.50 |
| Fall 2013 | MATH-1330-002 | Trigonometry | 2.97 |
| | MATH-1330-004 | Trigonometry | 3.58 |
| | MATH-1330-006 | Trigonometry | 3.50 |
| Spring 2014 | These evaluations were lost in the flood of the Carlson Library | | |
| Fall 2014 | MATH-1330-001 | Trigonometry | 3.07 |
| | MATH-1330-002 | Trigonometry | 3.10 |
| | MATH-1330-003 | Trigonometry | 3.45 |
| Spring 2015 | MATH-1330-002 | Trigonometry | 3.35 |
| | MATH-1330-003 | Trigonometry | 3.93 |

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c. Instructor's Ability to Explain the Subject

Mean, Median, and Standard Deviation for 2000 - 2005 2.83 2.75 0.51

Mean, Median, and Standard Deviation for 2005 - 2010 2.50 2.57 0.51

Mean, Median, and Standard Deviation for 2010 - 2015 2.15 2.25 0.51

| | | | |
|-------------|-------------------------|--------------------------------|------|
| Fall 2010 | MATH-1330-002 | Trigonometry | 2.73 |
| | MATH-1340-001, 002, 003 | College Algebra & Trigonometry | 1.34 |
| Spring 2011 | MATH-1330-003 | Trigonometry | 2.83 |
| | MATH-1330-005 | Trigonometry | 2.56 |
| | MATH-1340-001 | College Algebra & Trigonometry | 2.33 |
| Fall 2011 | MATH-1330-002 | Trigonometry | 2.47 |

| | | | |
|-------------|---|--------------|------|
| | MATH-1330-004 | Trigonometry | 1.96 |
| | MATH-1330-006 | Trigonometry | 2.38 |
| Spring 2012 | MATH-1330-001 | Trigonometry | 2.07 |
| | MATH-1330-003 | Trigonometry | 2.14 |
| | MATH-1330-005 | Trigonometry | 2.47 |
| Fall 2012 | MATH-1330-002 | Trigonometry | 2.37 |
| | MATH-1330-004 | Trigonometry | 1.26 |
| | MATH-1330-006 | Trigonometry | 3.00 |
| Spring 2013 | MATH-1330-001 | Trigonometry | 1.93 |
| | MATH-1330-002 | Trigonometry | 2.55 |
| | MATH-1330-004 | Trigonometry | 1.86 |
| Fall 2013 | MATH-1330-002 | Trigonometry | 1.47 |
| | MATH-1330-004 | Trigonometry | 2.38 |
| | MATH-1330-006 | Trigonometry | 1.63 |
| Spring 2014 | These evaluations were lost in the flood of the Carlson Library | | |
| Fall 2014 | MATH-1330-001 | Trigonometry | 1.15 |
| | MATH-1330-002 | Trigonometry | 1.90 |
| | MATH-1330-003 | Trigonometry | 2.25 |
| Spring 2015 | MATH-1330-002 | Trigonometry | 1.74 |
| | MATH-1330-003 | Trigonometry | 3.00 |

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d. Instructor's Handling of Questions & Class Discussion

| | | | | |
|-------------|---|--------------------------------|-------------|-------------|
| | Mean, Median, and Standard Deviation for 2000 - 2005 | 2.72 | 2.77 | 0.50 |
| | Mean, Median, and Standard Deviation for 2005 - 2010 | 2.41 | 2.36 | 0.40 |
| | Mean, Median, and Standard Deviation for 2010 - 2015 | 2.21 | 2.25 | 0.42 |
| Fall 2010 | MATH-1330-002 | Trigonometry | 2.27 | |
| | MATH-1340-001, 002, 003 | College Algebra & Trigonometry | 1.38 | |
| Spring 2011 | MATH-1330-003 | Trigonometry | 2.25 | |
| | MATH-1330-005 | Trigonometry | 2.12 | |
| | MATH-1340-001 | College Algebra & Trigonometry | 2.25 | |
| Fall 2011 | MATH-1330-002 | Trigonometry | 2.47 | |
| | MATH-1330-004 | Trigonometry | 1.80 | |
| | MATH-1330-006 | Trigonometry | 2.69 | |
| Spring 2012 | MATH-1330-001 | Trigonometry | 2.26 | |
| | MATH-1330-003 | Trigonometry | 2.48 | |
| | MATH-1330-005 | Trigonometry | 2.53 | |
| Fall 2012 | MATH-1330-002 | Trigonometry | 2.30 | |
| | MATH-1330-004 | Trigonometry | 1.44 | |
| | MATH-1330-006 | Trigonometry | 3.00 | |
| Spring 2013 | MATH-1330-001 | Trigonometry | 2.03 | |
| | MATH-1330-002 | Trigonometry | 2.36 | |

| | | | |
|-------------|---|--------------|------|
| | MATH-1330-004 | Trigonometry | 2.00 |
| Fall 2013 | MATH-1330-002 | Trigonometry | 1.62 |
| | MATH-1330-004 | Trigonometry | 2.67 |
| | MATH-1330-006 | Trigonometry | 1.87 |
| Spring 2014 | These evaluations were lost in the flood of the Carlson Library | | |
| Fall 2014 | MATH-1330-001 | Trigonometry | 1.52 |
| | MATH-1330-002 | Trigonometry | 2.14 |
| | MATH-1330-003 | Trigonometry | 2.55 |
| Spring 2015 | MATH-1330-002 | Trigonometry | 2.18 |
| | MATH-1330-003 | Trigonometry | 3.00 |

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Using the flipped classroom method of teaching did present a problem for handling students' questions because the student-teacher ratio is about 40 to 1. I did my best to try to get to each student in order to answer their question(s).

e. Instructor's Interest in the Course

Mean, Median, and Standard Deviation for 2000 - 2005 3.47 3.62 0.36

Mean, Median, and Standard Deviation for 2005 - 2010 3.35 3.35 0.25

Mean, Median, and Standard Deviation for 2010 - 2015 3.34 3.33 0.23

| | | | |
|-------------|---|--------------------------------|------|
| Fall 2010 | MATH-1330-002 | Trigonometry | 3.54 |
| | MATH-1340-001, 002, 003 | College Algebra & Trigonometry | 2.98 |
| Spring 2011 | MATH-1330-003 | Trigonometry | 3.58 |
| | MATH-1330-005 | Trigonometry | 3.72 |
| | MATH-1340-001 | College Algebra & Trigonometry | 3.50 |
| Fall 2011 | MATH-1330-002 | Trigonometry | 3.32 |
| | MATH-1330-004 | Trigonometry | 3.00 |
| | MATH-1330-006 | Trigonometry | 3.62 |
| Spring 2012 | MATH-1330-001 | Trigonometry | 3.33 |
| | MATH-1330-003 | Trigonometry | 3.20 |
| | MATH-1330-005 | Trigonometry | 3.29 |
| Fall 2012 | MATH-1330-002 | Trigonometry | 3.78 |
| | MATH-1330-004 | Trigonometry | 3.04 |
| | MATH-1330-006 | Trigonometry | 3.75 |
| Spring 2013 | MATH-1330-001 | Trigonometry | 3.40 |
| | MATH-1330-002 | Trigonometry | 3.73 |
| | MATH-1330-004 | Trigonometry | 3.36 |
| Fall 2013 | MATH-1330-002 | Trigonometry | 3.27 |
| | MATH-1330-004 | Trigonometry | 3.12 |
| | MATH-1330-006 | Trigonometry | 3.42 |
| Spring 2014 | These evaluations were lost in the flood of the Carlson Library | | |
| Fall 2014 | MATH-1330-001 | Trigonometry | 3.00 |

| | | | |
|-------------|---------------|--------------|------|
| | MATH-1330-002 | Trigonometry | 3.14 |
| | MATH-1330-003 | Trigonometry | 3.35 |
| Spring 2015 | MATH-1330-002 | Trigonometry | 3.43 |
| | MATH-1330-003 | Trigonometry | 3.71 |

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f. Instructor's Respect and Concern for Students

Mean, Median, and Standard Deviation for 2000 - 2005 2.87 2.89 0.53

Mean, Median, and Standard Deviation for 2005 - 2010 2.52 2.55 0.48

Mean, Median, and Standard Deviation for 2010 - 2015 2.67 2.70 0.34

| | | | |
|-------------|---|--------------------------------|------|
| Fall 2010 | MATH-1330-002 | Trigonometry | 2.54 |
| | MATH-1340-001, 002, 003 | College Algebra & Trigonometry | 1.98 |
| Spring 2011 | MATH-1330-003 | Trigonometry | 2.50 |
| | MATH-1330-005 | Trigonometry | 2.88 |
| | MATH-1340-001 | College Algebra & Trigonometry | 2.50 |
| Fall 2011 | MATH-1330-002 | Trigonometry | 2.74 |
| | MATH-1330-004 | Trigonometry | 2.52 |
| | MATH-1330-006 | Trigonometry | 2.94 |
| Spring 2012 | MATH-1330-001 | Trigonometry | 2.85 |
| | MATH-1330-003 | Trigonometry | 2.62 |
| | MATH-1330-005 | Trigonometry | 3.00 |
| Fall 2012 | MATH-1330-002 | Trigonometry | 2.74 |
| | MATH-1330-004 | Trigonometry | 1.70 |
| | MATH-1330-006 | Trigonometry | 3.23 |
| Spring 2013 | MATH-1330-001 | Trigonometry | 2.30 |
| | MATH-1330-002 | Trigonometry | 3.09 |
| | MATH-1330-004 | Trigonometry | 2.82 |
| Fall 2013 | MATH-1330-002 | Trigonometry | 2.12 |
| | MATH-1330-004 | Trigonometry | 3.17 |
| | MATH-1330-006 | Trigonometry | 2.70 |
| Spring 2014 | These evaluations were lost in the flood of the Carlson Library | | |
| Fall 2014 | MATH-1330-001 | Trigonometry | 2.19 |
| | MATH-1330-002 | Trigonometry | 2.57 |
| | MATH-1330-003 | Trigonometry | 2.75 |
| Spring 2015 | MATH-1330-002 | Trigonometry | 2.82 |
| | MATH-1330-003 | Trigonometry | 3.29 |

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g. Fairness & Reasonableness of the Grading Procedure

| | | | | |
|---|---|-------------|-------------|-------------|
| Mean, Median, and Standard Deviation for 2000 - 2005 | | 2.66 | 2.53 | 0.60 |
| Mean, Median, and Standard Deviation for 2005 - 2010 | | 2.48 | 2.56 | 0.44 |
| Mean, Median, and Standard Deviation for 2010 - 2015 | | 2.63 | 2.59 | 0.34 |
| Fall 2010 | MATH-1330-002 Trigonometry | | | 3.12 |
| | MATH-1340-001, 002, 003 College Algebra & Trigonometry | | | 2.83 |
| Spring 2011 | MATH-1330-003 Trigonometry | | | 2.88 |
| | MATH-1330-005 Trigonometry | | | 3.04 |
| | MATH-1340-001 College Algebra & Trigonometry | | | 2.67 |
| Fall 2011 | MATH-1330-002 Trigonometry | | | 2.58 |
| | MATH-1330-004 Trigonometry | | | 1.88 |
| | MATH-1330-006 Trigonometry | | | 2.69 |
| Spring 2012 | MATH-1330-001 Trigonometry | | | 2.19 |
| | MATH-1330-003 Trigonometry | | | 2.29 |
| | MATH-1330-005 Trigonometry | | | 2.53 |
| Fall 2012 | MATH-1330-002 Trigonometry | | | 2.96 |
| | MATH-1330-004 Trigonometry | | | 1.63 |
| | MATH-1330-006 Trigonometry | | | 3.38 |
| Spring 2013 | MATH-1330-001 Trigonometry | | | 2.33 |
| | MATH-1330-002 Trigonometry | | | 2.68 |
| | MATH-1330-004 Trigonometry | | | 2.45 |
| Fall 2013 | MATH-1330-002 Trigonometry | | | 2.35 |
| | MATH-1330-004 Trigonometry | | | 2.83 |
| | MATH-1330-006 Trigonometry | | | 2.43 |
| Spring 2014 | These evaluations were lost in the flood of the Carlson Library | | | |
| Fall 2014 | MATH-1330-001 Trigonometry | | | 2.48 |
| | MATH-1330-002 Trigonometry | | | 2.48 |
| | MATH-1330-003 Trigonometry | | | 3.05 |
| Spring 2015 | MATH-1330-002 Trigonometry | | | 2.59 |
| | MATH-1330-003 Trigonometry | | | 3.14 |

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h. Relationship of Exams to Course Material

| | | | | |
|---|--|-------------|-------------|-------------|
| Mean, Median, and Standard Deviation for 2000 - 2005 | | 3.26 | 3.27 | 0.44 |
| Mean, Median, and Standard Deviation for 2005 - 2010 | | 3.05 | 3.05 | 0.35 |
| Mean, Median, and Standard Deviation for 2010 - 2015 | | 3.00 | 2.91 | 0.29 |
| Fall 2010 | MATH-1330-002 Trigonometry | | | 3.25 |
| | MATH-1340-001, 002, 003 College Algebra & Trigonometry | | | 2.87 |
| Spring 2011 | MATH-1330-003 Trigonometry | | | 3.22 |
| | MATH-1330-005 Trigonometry | | | 3.41 |

| | | | |
|-------------|---|--------------------------------|------|
| | MATH-1340-001 | College Algebra & Trigonometry | 3.10 |
| Fall 2011 | MATH-1330-002 | Trigonometry | 2.74 |
| | MATH-1330-004 | Trigonometry | 2.44 |
| | MATH-1330-006 | Trigonometry | 2.69 |
| Spring 2012 | MATH-1330-001 | Trigonometry | 3.26 |
| | MATH-1330-003 | Trigonometry | 3.10 |
| | MATH-1330-005 | Trigonometry | 3.29 |
| Fall 2012 | MATH-1330-002 | Trigonometry | 3.56 |
| | MATH-1330-004 | Trigonometry | 2.63 |
| | MATH-1330-006 | Trigonometry | 3.38 |
| Spring 2013 | MATH-1330-001 | Trigonometry | 3.23 |
| | MATH-1330-002 | Trigonometry | 3.09 |
| | MATH-1330-004 | Trigonometry | 3.00 |
| Fall 2013 | MATH-1330-002 | Trigonometry | 2.76 |
| | MATH-1330-004 | Trigonometry | 3.17 |
| | MATH-1330-006 | Trigonometry | 2.83 |
| Spring 2014 | These evaluations were lost in the flood of the Carlson Library | | |
| Fall 2014 | MATH-1330-001 | Trigonometry | 2.89 |
| | MATH-1330-002 | Trigonometry | 2.67 |
| | MATH-1330-003 | Trigonometry | 2.85 |
| Spring 2015 | MATH-1330-002 | Trigonometry | 2.91 |
| | MATH-1330-003 | Trigonometry | 3.57 |

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Each exam question corresponded to a problem from the Pre-Class problems ([Fall](#), [Spring](#)), the In-Class problems ([Fall](#), [Spring](#)), and the Homework problems ([Fall](#), [Spring](#)).

i. Prompt, Useful Feedback on Homework & Exams

Mean, Median, and Standard Deviation for 2000 - 2005 2.95 3.00 0.52

Mean, Median, and Standard Deviation for 2005 - 2010 2.98 3.03 0.32

Mean, Median, and Standard Deviation for 2010 - 2015 2.68 2.65 0.43

| | | | |
|-------------|-------------------------|--------------------------------|------|
| Fall 2010 | MATH-1330-002 | Trigonometry | 3.00 |
| | MATH-1340-001, 002, 003 | College Algebra & Trigonometry | 2.38 |
| Spring 2011 | MATH-1330-003 | Trigonometry | 3.00 |
| | MATH-1330-005 | Trigonometry | 2.96 |
| | MATH-1340-001 | College Algebra & Trigonometry | 3.17 |
| Fall 2011 | MATH-1330-002 | Trigonometry | 2.58 |
| | MATH-1330-004 | Trigonometry | 2.00 |
| | MATH-1330-006 | Trigonometry | 2.50 |
| Spring 2012 | MATH-1330-001 | Trigonometry | 2.70 |
| | MATH-1330-003 | Trigonometry | 2.38 |
| | MATH-1330-005 | Trigonometry | 3.47 |

| | | | |
|-------------|---|--------------|------|
| Fall 2012 | MATH-1330-002 | Trigonometry | 2.30 |
| | MATH-1330-004 | Trigonometry | 1.22 |
| | MATH-1330-006 | Trigonometry | 2.85 |
| Spring 2013 | MATH-1330-001 | Trigonometry | 1.90 |
| | MATH-1330-002 | Trigonometry | 2.91 |
| | MATH-1330-004 | Trigonometry | 2.00 |
| Fall 2013 | MATH-1330-002 | Trigonometry | 2.09 |
| | MATH-1330-004 | Trigonometry | 2.96 |
| | MATH-1330-006 | Trigonometry | 2.40 |
| Spring 2014 | These evaluations were lost in the flood of the Carlson Library | | |
| Fall 2014 | MATH-1330-001 | Trigonometry | 2.19 |
| | MATH-1330-002 | Trigonometry | 2.20 |
| | MATH-1330-003 | Trigonometry | 2.95 |
| Spring 2015 | MATH-1330-002 | Trigonometry | 2.65 |
| | MATH-1330-003 | Trigonometry | 3.36 |

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I didn't use a grader for my courses. I used an Excel spreadsheet to grade the multiple choice Homework problems ([Fall](#), [Spring](#)). Students submitted their answers by email. Their scores were also sent by email. Students were allowed to make three submissions of each set of Homework problems in order to get the best score. They had to turn in their work for the problems that they got correct. This work had to be correct. If the work was not correct, they were allowed to correct it and turn it in again. They could do this as many times as it took to get the work correct. I graded the submission of answers the same day that they were submitted unless I had left my office for the day. The submissions that were submitted after I left the office were graded the next morning. Submissions made over the weekend were graded on Monday. There were a couple weekends where I graded submissions on Saturday or Sunday. I made a record of each graded homework email submission. You are welcome to look at these records in order to see how promptly these submissions were graded. The work was turned in at the classroom, and this work was always returned to the student at the next class meeting.

j. Overall Level of the Instruction in this Course

Mean, Median, and Standard Deviation for 2000 - 2005 2.78 2.86 0.50

Mean, Median, and Standard Deviation for 2005 - 2010 2.53 2.59 0.42

Mean, Median, and Standard Deviation for 2010 - 2015 2.39 2.41 0.41

| | | | |
|-------------|-------------------------|--------------------------------|------|
| Fall 2010 | MATH-1330-002 | Trigonometry | 2.88 |
| | MATH-1340-001, 002, 003 | College Algebra & Trigonometry | 1.74 |
| Spring 2011 | MATH-1330-003 | Trigonometry | 2.67 |
| | MATH-1330-005 | Trigonometry | 2.72 |
| | MATH-1340-001 | College Algebra & Trigonometry | 2.33 |
| Fall 2011 | MATH-1330-002 | Trigonometry | 2.42 |

| | | | |
|-------------|---|--------------|------|
| | MATH-1330-004 | Trigonometry | 1.88 |
| | MATH-1330-006 | Trigonometry | 2.38 |
| Spring 2012 | MATH-1330-001 | Trigonometry | 2.41 |
| | MATH-1330-003 | Trigonometry | 2.48 |
| | MATH-1330-005 | Trigonometry | 2.88 |
| Fall 2012 | MATH-1330-002 | Trigonometry | 2.56 |
| | MATH-1330-004 | Trigonometry | 1.37 |
| | MATH-1330-006 | Trigonometry | 3.24 |
| Spring 2013 | MATH-1330-001 | Trigonometry | 2.10 |
| | MATH-1330-002 | Trigonometry | 2.59 |
| | MATH-1330-004 | Trigonometry | 2.18 |
| Fall 2013 | MATH-1330-002 | Trigonometry | 1.79 |
| | MATH-1330-004 | Trigonometry | 2.58 |
| | MATH-1330-006 | Trigonometry | 2.03 |
| Spring 2014 | These evaluations were lost in the flood of the Carlson Library | | |
| Fall 2014 | MATH-1330-001 | Trigonometry | 1.67 |
| | MATH-1330-002 | Trigonometry | 2.33 |
| | MATH-1330-003 | Trigonometry | 2.65 |
| Spring 2015 | MATH-1330-002 | Trigonometry | 2.39 |
| | MATH-1330-003 | Trigonometry | 3.14 |

[Back to Item 2 above.](#)

- k. Value of the Textbook (The textbook, which was used in these courses, was chosen by the Department for these multi-sectional courses.)

Mean, Median, and Standard Deviation for 2000 - 2005 1.71 1.77 0.51

Mean, Median, and Standard Deviation for 2005 - 2010 1.60 1.61 0.40

Mean, Median, and Standard Deviation for 2010 - 2015 1.31 1.29 0.55

| | | | |
|-------------|-------------------------|--------------------------------|------|
| Fall 2010 | MATH-1330-002 | Trigonometry | 0.85 |
| | MATH-1340-001, 002, 003 | College Algebra & Trigonometry | 0.67 |
| Spring 2011 | MATH-1330-003 | Trigonometry | 1.29 |
| | MATH-1330-005 | Trigonometry | 1.14 |
| | MATH-1340-001 | College Algebra & Trigonometry | 1.73 |
| Fall 2011 | MATH-1330-002 | Trigonometry | 0.89 |
| | MATH-1330-004 | Trigonometry | 0.76 |
| | MATH-1330-006 | Trigonometry | 0.88 |
| Spring 2012 | MATH-1330-001 | Trigonometry | 0.85 |
| | MATH-1330-003 | Trigonometry | 1.45 |
| | MATH-1330-005 | Trigonometry | 1.38 |
| Fall 2012 | MATH-1330-002 | Trigonometry | 1.08 |
| | MATH-1330-004 | Trigonometry | 0.52 |
| | MATH-1330-006 | Trigonometry | 2.00 |
| Spring 2013 | MATH-1330-001 | Trigonometry | 1.04 |

| | | | |
|-------------|---|--------------|------|
| | MATH-1330-002 | Trigonometry | 1.60 |
| | MATH-1330-004 | Trigonometry | 1.16 |
| Fall 2013 | MATH-1330-002 | Trigonometry | 0.77 |
| | MATH-1330-004 | Trigonometry | 1.30 |
| | MATH-1330-006 | Trigonometry | 1.62 |
| Spring 2014 | These evaluations were lost in the flood of the Carlson Library | | |
| Fall 2014 | MATH-1330-001 | Trigonometry | 2.30 |
| | MATH-1330-002 | Trigonometry | 0.79 |
| | MATH-1330-003 | Trigonometry | 1.53 |
| Spring 2015 | MATH-1330-002 | Trigonometry | 2.40 |
| | MATH-1330-003 | Trigonometry | 2.20 |

[Back to Item 2 above.](#)

3. As part of my approved Program of Growth, I am to reduce the number of students who are failing my classes. Comparing the period Fall 2010 through Spring 2015 with the period Fall 2005 through Spring 2010, the percentage of students, who received a grade of A, B, or C, increased from 42.1% (357 out of 848 students) to 53.3% (558 out of 1046 students). Also comparing the same two periods, the percentage of students, who received a grade of F, decreased from 43.9% (372 out of 848 students) to 33.3% (349 out of 1046 students). The grade distributions are given below.

Grade Distribution Totals for 2000 - 2005

A 99 B 117 C 152 PS 37 D 87 F 181 NC 3 W 83

Total Less W: 676

Percentage: ABC PS 59.9% DF NC 40.1%

Grade Distribution Totals for 2005 - 2010

A 94 B 112 C 151 D 119 F 372 W 117 Total ABCDF: 848

Percentage: ABC 42.1% DF 57.9%

Grade Distribution Totals for 2010 - 2015

A 174 B 164 C 220 D 139 F 349 W 85 Total ABCDF: 1046

Percentage: ABC 53.3% DF 46.7%

Fall 2010 MATH-1330-002 Trigonometry

A 9 B 8 C 6 D 2 F 12 W 2

Total ABCDF: 37 Percentage: ABC 62.2% DF 37.8%

MATH-1340-001, 002, 003 College Algebra & Trigonometry

A 21 B 16 C 8 D 6 F 14 W 8

Total ABCDF: 65 Percentage: ABC 69.2% DF 30.8%

Spring 2011 MATH-1330-003 Trigonometry

A 11 B 4 C 7 D 1 F 9 W 3

Total ABCDF: 32 Percentage: ABC 68.8% DF 31.3%

| | | | | | | | | |
|-------------|--|-----------------|------|--------|-----|--------|-----|--|
| | MATH-1330-005 Trigonometry | A 14 | B 4 | C 4 | D 4 | F 11 | W 1 | |
| | Total ABCDF: 37 | Percentage: ABC | | 59.5% | DF | 40.5% | | |
| | MATH-1340-001 College Algebra & Trigonometry | A 4 | B 1 | C 3 | D 1 | F 9 | W 3 | |
| | Total ABCDF: 18 | Percentage: ABC | | 44.4% | DF | 55.6% | | |
| Fall 2011 | MATH-1330-002 Trigonometry | A 3 | B 3 | C 5 | D 9 | F 14 | W 3 | |
| | Total ABCDF: 34 | Percentage: ABC | | 32.4% | DF | 67.6% | | |
| | MATH-1330-004 Trigonometry | A 5 | B 8 | C 5 | D 9 | F 11 | W 1 | |
| | Total ABCDF: 38 | Percentage: ABC | | 47.4% | DF | 52.6% | | |
| | MATH-1330-006 Trigonometry | A 3 | B 1 | C 6 | D 4 | F 18 | W 5 | |
| | Total ABCDF: 32 | Percentage: ABC | | 31.25% | DF | 68.75% | | |
| Spring 2012 | MATH-1330-001 Trigonometry | A 3 | B 4 | C 9 | D 5 | F 15 | W 3 | |
| | Total ABCDF: 36 | Percentage: ABC | | 44.4% | DF | 55.6% | | |
| | MATH-1330-003 Trigonometry | A 3 | B 5 | C 4 | D 6 | F 15 | W 4 | |
| | Total ABCDF: 33 | Percentage: ABC | | 36.4% | DF | 63.6% | | |
| | MATH-1330-005 Trigonometry | A 4 | B 7 | C 2 | D 6 | F 12 | W 4 | |
| | Total ABCDF: 31 | Percentage: ABC | | 41.9% | DF | 58.1% | | |
| Fall 2012 | MATH-1330-002 Trigonometry | A 4 | B 10 | C 11 | D 4 | F 7 | W 3 | |
| | Total ABCDF: 36 | Percentage: ABC | | 69.4% | DF | 30.6% | | |
| | MATH-1330-004 Trigonometry | A 4 | B 6 | C 9 | D 7 | F 13 | W 0 | |
| | Total ABCDF: 39 | Percentage: ABC | | 48.7% | DF | 51.3% | | |
| | MATH-1330-006 Trigonometry | A 2 | B 2 | C 14 | D 9 | F 8 | W 3 | |
| | Total ABCDF: 35 | Percentage: ABC | | 51.4% | DF | 48.6% | | |
| Spring 2013 | MATH-1330-001 Trigonometry | A 10 | B 5 | C 9 | D 7 | F 6 | W 2 | |

| | | | |
|-------------|----------------------------|-----------------------|----------|
| | Total ABCDF: 37 | Percentage: ABC 64.9% | DF 35.1% |
| | MATH-1330-002 Trigonometry | | |
| | A 3 B 7 C 7 D 6 F 13 W 4 | | |
| | Total ABCDF: 36 | Percentage: ABC 47.2% | DF 52.8% |
| | MATH-1330-004 Trigonometry | | |
| | A 5 B 5 C 11 D 5 F 10 W 2 | | |
| | Total ABCDF: 36 | Percentage: ABC 58.3% | DF 41.7% |
| Fall 2013 | MATH-1330-002 Trigonometry | | |
| | A 6 B 5 C 9 D 9 F 15 W 0 | | |
| | Total ABCDF: 44 | Percentage: ABC 45.5% | DF 54.5% |
| | MATH-1330-004 Trigonometry | | |
| | A 4 B 8 C 7 D 6 F 15 W 5 | | |
| | Total ABCDF: 40 | Percentage: ABC 47.5% | DF 52.5% |
| | MATH-1330-006 Trigonometry | | |
| | A 5 B 8 C 9 D 4 F 13 W 1 | | |
| | Total ABCDF: 39 | Percentage: ABC 56.4% | DF 43.6% |
| Spring 2014 | MATH-1330-001 Trigonometry | | |
| | A 7 B 12 C 6 D 0 F 15 W 3 | | |
| | Total ABCDF: 40 | Percentage: ABC 62.5% | DF 37.5% |
| | MATH-1330-002 Trigonometry | | |
| | A 2 B 4 C 7 D 3 F 25 W 4 | | |
| | Total ABCDF: 41 | Percentage: ABC 31.7% | DF 68.3% |
| | MATH-1330-003 Trigonometry | | |
| | A 11 B 6 C 6 D 6 F 10 W 5 | | |
| | Total ABCDF: 39 | Percentage: ABC 59.0% | DF 41.0% |
| Fall 2014 | MATH-1330-001 Trigonometry | | |
| | A 7 B 6 C 10 D 5 F 11 W 4 | | |
| | Total ABCDF: 39 | Percentage: ABC 59.0% | DF 41.0% |
| | MATH-1330-002 Trigonometry | | |
| | A 5 B 7 C 11 D 0 F 13 W 2 | | |
| | Total ABCDF: 36 | Percentage: ABC 63.9% | DF 36.1% |
| | MATH-1330-003 Trigonometry | | |
| | A 6 B 2 C 15 D 3 F 10 W 2 | | |
| | Total ABCDF: 36 | Percentage: ABC 63.9% | DF 36.1% |
| Spring 2015 | MATH-1330-002 Trigonometry | | |
| | A 10 B 3 C 10 D 7 F 11 W 3 | | |

Total ABCDF: 41 Percentage: ABC 56.1% DF 43.9%

MATH-1330-003 Trigonometry

A 3 B 7 C 10 D 5 F 14 W 5

Total ABCDF: 39 Percentage: ABC 51.3% DF 48.7%

4. As part of my Program of Growth, the departmental Teaching Evaluation Committee and the Department Chair are to observe and evaluate my teaching for both semesters. These observations were not done.
5. As part of my Program of Growth, Friedhelm Schwarz agreed to serve as my mentor. I had numerous conversations with Friedhelm during the academic year.
6. For both semesters, Excel spreadsheets were provided on the course webpage, in order to allow students to calculate their Homework Score and Grade ([Fall](#), [Spring](#)) and their Course Score and Grade ([Fall](#), [Spring](#)).
7. For the both semesters, updated students' scores and course grade a total of 18 times for my five classes. These update were done on [Oct 15](#), [Nov 7](#), [Nov 25](#), [Dec 23](#), [Mar 15](#), [May 6](#), and [May 12](#).
8. Maintained a course webpage for MATH-1330 ([Fall](#), [Spring](#)).
9. Office hours for the [Fall](#) and [Spring](#) semesters were scheduled from information which students provided to me by responding to an [email](#) sent to them on the first day of classes about their availability (Fall: [Sec 001](#), [Sec 002](#), [Sec 003](#); Spring: [Sec 002](#), [Sec 003](#)) for office hours for the [Fall](#) and [Spring](#) semesters.
10. Evaluated a total of 534 [assessment questions](#) for 105 students who took the final exam in the Fall semester and for 73 students who took the final exam in the Spring semester.

II. **PROFESSIONAL ACTIVITY:** (25%)

- A. **Publications:** Distinguish among books, articles, book reviews, abstracts, newsletters, etc. List complete citation including names of co-authors, date and complete pagination. Indicate whether journals are refereed (R). Attach copies of letters of acceptance. Please indicate whether any of the listings below have been previously reported (PR) in another category.
 1. **Submitted:**
 2. **Accepted:**

3. **In Press:** [i.e., in galley proof]

4. **Published:**

B. **Papers Presented at Professional Meetings:** Provide complete citation. Specify the nature of the association (State, Regional, National, or International) and designated papers as (C) competitively selected, (I) invited, or (V) volunteered.

C. **Other Current Research and Scholarly Activity:** List research in progress; grants received (include name of granting agency, grant duration and if new or renewal); grant proposals submitted. Show how progress has been made since last report.

1. Attended most of the Complex Analysis seminars given on Thursdays.

D. **Performances and Other Artistic Endeavors:** List with place, date and include published programs, etc.

III.SERVICE: (20%)

A. **Department, College, University Service:** List specific committees. Provide evidence of level of effort and participation.

University Service

College Service

1. Served on the College of Natural Sciences and Mathematics Council. I attended meetings on the following dates:

| | | |
|-------------|------------------------|-------------------------------|
| September 9 | Agenda | Draft Minutes |
| October 7 | Agenda | Draft Minutes |
| November 25 | Agenda | Draft Minutes |
| December 9 | Cancelled | |
| January 27 | Agenda | Draft Minutes |
| February 24 | Agenda | Draft Minutes |

March 24
April 21

[Agenda](#) [Draft Minutes](#)
[Agenda](#)

I served on the Council's Curriculum Committee. My work on this committee consisted of approving 1) five new courses: [EEES 1180](#), [EEES 4160](#), [EEES 6160](#), [EEES 6200/8200](#); 2) nineteen course modification: [ASTR 4810](#), [ASTR 4820](#), [BIOL 2150](#), [BIOL 2160](#), [BIOL 2170](#), [BIOL 2180](#), [BIOL 6020](#), [CHEM 1090](#), [CHEM 1210](#), [EEES 4790](#), [EEES 5790/7790](#), [EEES 6600/8600](#), [MATH 1180](#), [MEDT 2010](#), [PHYS 4210](#), [PHYS 4230](#), [PHYS 4310](#); 3) one minor revision in [EEES](#); and 4) seven major revisions: BA in [ASTR](#), BA in [PHYS](#), BS in [PHYS](#), MS in [BIOL](#), MS in [GEOL](#), MS in [PHYS](#), and PhD in [BIOL](#). In order to make these thirty-four approvals, I had six questions: [1](#), [2](#), [3](#), [4](#), [5](#), and [6](#).

Department Service

1. Served as the course coordinator for MATH-1330. Coordinated the assessment process. Created the three [assessment questions](#) for all sections of the course for both semesters. I collected data from the eight sections in the Fall semester and the five sections in the Spring semester in order to create the reports ([Fall](#), [Spring](#)) for each semester. In the Spring 2015, one instructor, who taught two sections, did not put the three assessment questions on his final exam. So, I did not have data for his two sections. Identified and copied a Good ([Fall](#), [Spring](#)), Fair ([Fall](#), [Spring](#)), and Poor ([Fall](#), [Spring](#)) solution for Problem 1 for all sections. Identified and copied a Good ([Fall](#), [Spring](#)), Fair ([Fall](#), [Spring](#)), and Poor ([Fall](#), [Spring](#)) solution for Problem 2 for all sections. Identified and copied a Good ([Fall](#), [Spring](#)), Fair ([Fall](#), [Spring](#)), and Poor ([Fall](#), [Spring](#)) solution for Problem 3 for all sections. Then I submitted the yearly assessment [report](#) for MATH-1330.

Also, as course coordinator for MATH-1330, I took over the instruction of a student from another session when this student was involved in a legal action against her instructor toward the end of the Spring 2015 semester. I gave this student access to the resources on my [course webpage](#), held special office hours to meet with her in order to answer her questions, graded her final exam, and calculated her course grade.

2. Served on the Assessment Committee. My main duty on this committee was to develop plans and to submit reports on the assessment of our programs. In order to develop the assessment plans ([BA](#), [BS](#), [MA](#), [MS](#), [PhD](#)) for our programs, I looked at the [program learning outcomes](#) of fifteen universities and colleges. The plans, which are listed above, were presented to the Department Assessment Committee for approval. The Department-approved plans were then submitted to the College for approval. Once the plans were approved by the College, I turned my attention to collecting data in order to complete the assessment reports ([BA](#), [BS](#), [MA](#), [MS](#), [PhD](#)) for our programs. In order to collect this data, I sent out a total of 53 emails requesting the needed information. In addition to attending several Department Assessment Committee meetings, I attended a couple of meetings with the University Assessment Directors in order to accomplish the development of the assessment plans.
3. Served on the Undergraduate Curriculum Service Committee. This committee met several

times in order to address issues with a couple of our courses and the Ohio's Transfer Module.

B. **Participation in Organizing or Running Professional Meetings:** Indicate role.

C. **Other Professional Activities:** Offices held in professional and honorary societies, reviewing and refereeing of articles and grant proposals, editorship and membership on editorial boards, etc.

D. **Lectures at Workshops or Non-credit Courses:** List dates, places and other circumstances.

E. **Unpaid Consulting Assignments of a Professional Nature:** List nature, dates and other circumstances.

Signature _____ Date _____

This report does does not meet expectations per AFWA. If not, attach an explanation.

Signature _____ Date _____

Department Chairperson