

Abilene Christian University

Faculty Evaluation

Name John Ehrke Department Math Date 06/01/2007

Teaching

Teaching Goals for the Year (completed by June 1 by faculty member)

1. In the upcoming year, it is my goal to effectively integrate technology into my teaching methods. It is my hope that students will be engaged by a more interactive approach and would benefit from the exposure to various forms of technology. In particular, I want to utilize Maple for Pre-Calculus II and Calculus II as an effective teaching aid.
2. I would like to develop a curriculum for the differential equations course I am teaching in the spring that would introduce students to differential equations as well as lay the groundwork for special topics courses in partial differential equations, integral equations, and dynamical systems. I could see this as a springboard for undergraduate research in this area.
3. It is my goal to incorporate real world mathematics into my teaching through the use of projects and/or research. I want my teaching to emphasize the applicability of mathematics in my students' lives as well as broaden my students' attitudes toward mathematics.

Chair's Comments on Goals

These are good goals. DH 06/01/2007

Reflections on Goals

(completed by March 1 by faculty member)

1. I have utilized several sources of technology in my classes this year. In all my classes, I have provided .pdf documents of quizzes, tests, lecture notes etc... In the case of MATH 124, MATH 186, and MATH 361. I have included enrichment examples that explore particular topics in greater depth. For example in MATH 124, I provided students with Maple code to explore how the $\sin(x)$ and $\cos(x)$ curves are traced out by the path a particle takes on the unit circle. In MATH 361, I have gone so far as to have 3 take home tests devoted entirely to the investigation of various differential equations models and applications using Maple. I feel the results have been mixed, and there are definitely ways in which I could better implement technology in both MATH 186 and MATH 124. I believe I have done a much better job of this in the spring semester though, particularly in MATH 361.

Chair's Evaluation of Goal Completion (completed by April 1)

Not met	Met	Met with Distinction
<ol style="list-style-type: none"> 1. I have utilized several sources of technology in my classes this year. In all my classes, I have provided .pdf documents of quizzes, tests, lecture notes etc... In the case of MATH 124, MATH 186, and MATH 361. I have included enrichment examples that explore particular topics in greater depth. For example in MATH 124, I provided students with Maple code to explore how the $\sin(x)$ and $\cos(x)$ curves are traced out by the path a particle takes on the unit circle. In MATH 361, I have gone so far as to have 3 take home tests devoted entirely to the investigation of various differential equations models and applications using Maple. I feel the results have been mixed, and there are definitely ways in which I could better implement technology in both MATH 186 and MATH 124. I believe I have done a much better job of this in the spring semester though, particularly in MATH 361. 	✓	

2. So far this semester, I have developed what I feel is an effective approach to teaching MATH 361. I had some conversations with Rusty Towell in physics concerning the ideas he wanted the physics students (who comprise a majority of my class) to know earlier in the fall semester, and have decided to focus on mechanics in in-class lectures and use Maple as a tool for investigating the modeling aspect of DE's in a take home format. I believe this approach has been successful. I have been able to identify areas of mathematics like Calculus III and Linear Algebra in particular where my students should be making real connections. We have had discussions in the course about what a first semester graduate course in DE's would look like, and I have at several points through the semester challenged students with questions that could lead into undergraduate research in the area.

	✓	
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3. This goal has been met specifically through my approach to teaching MATH 120 and MATW 120. In the fall, I had students investigate various types of annuities and investment options for college students. We had discussions over the pros and cons of different investment choices and actually looked at possible portfolios. In the future, I would like to bring in a guest speaker, or arrange for the department to have a guest speaker come to give a talk in this area. Now that I have a good grasp on the content and flow of MATH 120, I actually plan on having students' research topics in consumer finance that is directly applicable to college students. This would of course fill the "Instructor Preference" portion of the MATH 120 schedule.

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Additional teaching activities not included in goals:

1. I was approached by Colter Lane and Marissa Walker in the fall to teach the spring MATH 361 course via correspondence as they were studying abroad in Montevideo this spring. The early returns are wonderful as both students have done extremely well.

Not met	Met	Met with Distinction
	✓	

Areas of Competence: Faculty are expected to develop competence in each of these areas (completed by April 1 by chair)

Student Satisfaction

Classroom Effectiveness

Syllabi

Integration of Faith/Learning

Class/Course Enhancement

Student Advising/Mentoring

Unsatisfactory	Needs Improvement	Effective	Excellent
		✓	
		✓	
			✓
		✓	
		✓	
		✓	

Teaching (Overall rating by chair)

Unsatisfactory	Needs Improvement	Effective	Excellent
		✓	

Comments:

John has had a good first year. He has great teaching potential.

Scholarship

Scholarship/Creativity Goals for the Year (completed by June 1 by faculty member)

1. I expect to publish a continuing work extending the ideas presented in my dissertation.
2. I expect to present in at least one conference this year as well as give various colloquium talks in this department and others.
3. I would like to involve students in my research, possibly as soon as next summer with the desired result being a publishable work for the student in an undergraduate journal.

Chair's Comments on Goals

These are good goals. DH 06/01/2007

Reflections on Goals

(completed by March 1 by faculty member)

1. I am currently in the process of working on a follow up article to my dissertation research. I anticipate sending this article off for review during spring break. I am finding it much harder to find time for "classical" research than I originally thought. I may want to consider "non-classical" ways of research as a way to supplement my goals in this area.
2. While I have not had the opportunity to present in a conference so far, I have given a series of colloquium talks in both the fall and spring semesters. I feel the talks have been well received by several of our math majors, (in particular, Mark Mace and Luis Palacios have been especially interested in these talks, and I have provided them with hard copies of the presentations and discussed aspects of the topics with them) and I would like to continue these types of series in the future as a way of jumpstarting interest for undergraduate research.
3. This is where everything is heading for me. I would love to be involved in undergraduate research and I believe I have effectively planted some seeds among our majors. I'm hoping to see the fruits of this grow in the near future.

Chair's Evaluation of Goal Completion
(completed by April 1)

Not met	Met	Met with Distinction
✓		
	✓	
✓		

Additional scholarly/creative activities:

- 1.
- 2.

Not met	Met	Met with Distinction

**Scholarship/Creativity
(Overall rating by chair)**

Unsatisfactory	Needs Improvement	Effective	Excellent
		✓	

Comments:

John is developing his scholarship. This first year has been an adjustment: the teaching has been the priority, but he is continuing to think about and work on scholarship. I expect John to have at least one paper by early fall 2008 and to have a few students involved in undergraduate research after the spring semester.

John also refereed a paper during the past year.

Service

Service Goals for the Year (completed by June 1 by faculty member)

1. If given the opportunity, I would like to serve the department by organizing and directing Mu Sigma.
2. I anticipate being actively involved in the singles ministry at my local congregation by hosting and planning events and offering to teach classes as needed.
3. I will serve my profession by serving as a referee/editor for various journals, and it is my hope in the near future to organize a session on differential equations at a conference.

Chair's Comments on Goals

These are good goals—they represent service to department, community/church, and profession.
DH 06/01/2007

Reflections on Goals

(completed by March 1 by faculty member)

1. I have served as the Mu Sigma faculty sponsor for this academic year, and in this time we have seen an enormous amount of growth. Mu Sigma held many meetings, submitted a budget to SA (which was approved), and made T-shirts for its members. We have updated our website pages to include Mu Sigma events, and have participated in service projects in local schools which received a write up in the optimist. Rachel Pinson, the current Mu Sigma president, is studying abroad this semester and so unfortunately much of the momentum gained during the fall semester has been lost this semester especially since many of the members were actively involved in Sing Song. Mu Sigma has a Facebook page in which students converse and plan meetings, projects, etc... I'm hoping to regroup everyone after Sing Song is concluded to build upon the efforts from the Fall Semester.
2. I have placed membership with Southern Hills Church of Christ here in Abilene. I'm currently going through their "Starting Point" class for new members. Upon completion of this class I expect to join the singles class on a regular basis and contribute to ministry opportunities with the congregation.
3. During November, I completed a review for the Journal of Non-Linear Analysis bringing my lifetime total of reviews for this journal up to 3. The paper I reviewed was entitled, "Positive Solutions for n^{th} order nonlinear impulsive singular integro-differential equation on infinite intervals in Banach spaces."

Chair's Evaluation of Goal Completion
(completed by April 1)

Not met	Met	Met with Distinction
	✓	
	✓	
	✓	

Additional service activities not included in goals:

- 1.
- 2.
- 3.

Not met	Met	Met with Distinction

NOTE: Activities should reflect service in at least two of the following categories: Profession, University/College, Department, Community/Church.

Service (Overall rating by chair)

Unsatisfactory	Needs Improvement	Effective	Excellent
		✓	

Comments:

John has provided service to the department and profession.

Summary Assessment by Department Chair

Written Comments:

1. Collegiality

John is very collegial. He works well with others.

2. Progress toward tenure

This is John's first year after graduate school. He is starting to make progress toward tenure. He is working on his teaching, scholarship, and service.

3. Progress toward promotion

This is John's first year after graduate school. He is starting to make progress toward promotion. He is working on his teaching, scholarship, and service.

4. Constraints on performance

none

5. Comment on church membership

John is attending at Southern Hills Church of Christ.

6. Other



Faculty

3/28/2008

Date

Department Chair

Date