

Sinclair Mathnet

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FROM THE CHAIR



Once again the department is involved in a review process. Now why does it seem as if we are always involved in a review process? Probably because we have a year long series of meetings to review the department every other year,

we bring in an external person to evaluate the department every fourth year, we do sequence embedded assessments in two of our sequences during the Fall Quarter of every year and we do a Department Report of Program Learning Outcomes Assessment every other year. Then there is the Mission Model that we update yearly to clarify our mission and assess our effectiveness in carrying it out and the Continuous Improvement Targets that we write each year as part of our budget process so that we will have another thing to review. These are just the departmental level review processes and do not include the ongoing review and assessment of individual faculty and staff performance on their efforts to carry out the department initiatives that were reviewed at the department level. Now I'm not complaining, mind you. I think it is a great idea to frequently remind yourself of what you're supposed to be doing and to pay attention to how effectively you are doing it. And I will leave it to another article to address the question at what point the time and energy spent assessing *how well* you are doing what you are supposed to be doing impacts negatively on the time and energy left to *do* what you are supposed to be doing.

I am telling you all this just to let you know why I have been looking at mountains of student grade data lately and because I want to report to you a little of what I have found. Primarily I have been interested in comparing student grade performance in the first year of the two-year period we are currently reviewing, 01/02, to the previous year 00/01.

Here is some of what I found:

Although the success rate (percent of A's, B's and C's) went down in 8 of our courses from 00/01 to 01/02 it went up in 14 courses. Happily these included our two highest enrollment courses, Math 101 and 102, as well as 108, 121, 131, 132, 133, 201, 202, 203, 204, 216, 218 and 220. Overall, in all of our classes there is a slight increase in success rate of a little more than half a percentage point. Of those students completing the course (i.e., excluding W's), the increase is over one percentage point. Now I should mention that my figures do not come from those published by Institutional Planning and Research. This is for several reasons. Firstly, it appears their data is published before I grades and College Without Walls grades are resolved and consequently these grades, while included in the base for calculating success rate, are not included in the successful grades even when they are converted to A's, B's or C's. Z grades are also included in the base though I believe they should be left out of the calculation altogether. In addition, summer quarter is included. I prefer to exclude summer because, except for the Math Lab, most of our retention initiatives are not available to students in the summer and because during the summer there are many transient students from other schools who are permitted to take our courses without having to verify completion of the proper prerequisite.

Another parameter I like to look at is the student GPA in the course because it is more sensitive to overall grade improvement than success rate (though it does not reflect the number of W grades). Here we also find that while 8 courses got worse, 14 courses got better including Math 101 and 102. And again there is a slight improvement in the overall GPA of slightly over one-one hundredth of a point.

The situation for withdrawal rate (percent of W's) is not as good. In fact the withdrawal rate increased in 12 of our (*Continued on page 3*)



Faculty Feature

You've probably already met Willow Cliffswallow, our new Math Lab coordinator. She shares responsibilities with Michelle Harris, and has quickly learned the ropes, having worked there as a student prior to accepting the position. She seems a natural for the job, and says, "I love working at Sinclair. This place is cooperative and supportive, and I get to meet lots of interesting people. It's especially rewarding in the lab, helping students one-on-one in their various struggles and seeing them succeed."

This is a second career of sorts for Willow. Until 1999, she worked 22 years in the Air Force as a weather officer. She specialized in space environment, "what hits Earth from space, mostly from the sun, and how it affects satellites, communications, electrical transmission networks, and various other systems." After retiring from the Air Force, she became a student at Sinclair, did volunteer work, and worked in her garden.

Willow is a musician, singing in the Dayton Philharmonic Chorus, and plays saxophone in the Sinclair Concert Band. She has taken voice lessons and music classes, and has been working on an Associate's degree in music here at Sinclair. She also adds, "Through living in this part of the country, I've been entrenched in 'old-time' folk music, Appalachian and otherwise, and have added several acoustic instruments to my collection. I was President of the Mountain Dulcimer Society of Dayton for two years, and we did some knock-out concerts at the Cedarville Opera House and the Tipp City Roller Mill – I love this stuff!"

You might conclude that Willow enjoys being a student, as she has several

college degrees! She earned a BA in Biology from the University of California at San Diego. After joining the Air Force, she spent a year at the Naval Postgraduate School in Monterey, California studying meteorology. She also has a MS in Systems Management from the University of Southern California, and a MS in physics from Utah State University. She says, "I have yet to earn an associate's degree from Sinclair, but I've been working on it."

Willow has three brothers who live in Northern California, and several cousins in the Columbus area. Willow lives in Beaver Creek with her 18-year old cat, Jesse.

Susan Harris ■



*Willow
Cliffswallow*



(Continued from page 1) courses while going down in only 10 of them. Also the overall withdrawal rate increased slightly, just below half a percentage point.

Now if one is willing to assume that the set of students receiving W grades contains a higher percentage of students who are misplaced in the course than the set of students who complete the course with an A, B, C, D or F, then I think the above withdrawal rate result says that we did not do as good of a job of getting students into the right course, but the GPA and the success rate among students completing the course results say that for those that were in the right course, we may have done a little better job getting their performance up. The results during the Fall Quarter of this second year in our biennium are similar. From the Fall Quarter of 2000 to the Fall of 2002 the success rate went down in only 8 of our courses while going up in 14. The GPA went down in 10 and up in 12. The withdrawal rate showed good improvement, increasing in only 8 courses while decreasing in 12 and staying the same in 2. Overall results are not available at this time.

Some additional good news is that during this period, although there was a decrease in the Math 108 sequence embedded assessment result, the Math 116 result increased as did the Math 101 departmental final exam average and the Math 102 departmental final exam average.

Now some of these increases are not dramatic and perhaps nothing to get very excited about. Indeed one could argue that they are due more to differences in the populations than in anything we did in our treatment of these populations. Yet perhaps they tell us something. To me they say that the direction we are going is likely a good one and that we need to continue and probably increase our efforts to provide students with help outside of class such as the Math Lab, the Math Help Room, the Retention Program, the review sessions and the workshops, as well as continue to explore and utilize alternative methods of delivery such as the activity based sections of statistics and tech math and the computer enhanced sections of Math 101. I think they also may say that we need to improve and focus our effort to make sure students are placed in the correct course from the beginning of each quarter.

So I thank you all for your hard work to improve student success. It is clear from student use of our many extra offerings that many students believe these efforts are beneficial and the above results on student performance seem to be consistent with this conclusion.

Al Giambone ■



DEPARTMENT COLLOQUIUM



We will have a Department Colloquium on Friday, February 7, 2003, at 2:30 in Room 3001. All members of our full- and part-time faculty are welcome, as well as students who are interested in mathematics.

1. Dr. Paul W. Elie, Chair of the Department of Mathematics, University of Dayton
“Unifying Discrete and Continuous Calculus”
2. Dr. Henry B. Potoczny, Professor of Computer Science, Air Force Institute of Technology
“The Mathematics of Public-Key Cryptography”



Refreshments will be served.

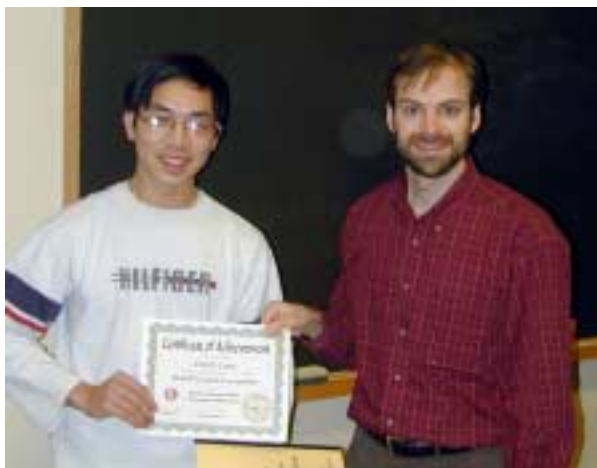
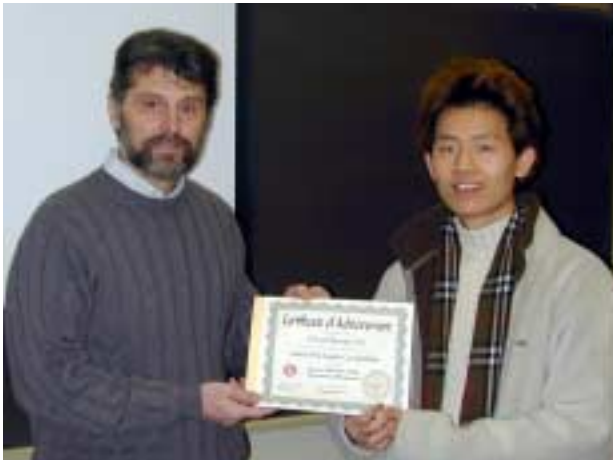


Reminders

- Please do not forget to be timely in sending copies of your tests and grade distributions to your course coordinators.
- Please follow appropriate methods in preparing students for departmental exams so as to not unfairly bias the results. Their exam grade should be a measure of what they know and understand not what they have simply memorized and mimicked from your review. Old copies of the departmental finals should not be used to prepare students for departmental finals. Please read about this in section 4.5 of our Mathematics Department Faculty Handbook.
- Remember to limit your chapter exams to about one hour even in classes that meet for more than an hour. This is to ensure that you spend the designated number of hours on instruction. If the class meets more than an hour the rest of the time should be spent reviewing or covering new material.



Fall Quarter AMATYC Winners



The Student Mathematics League Fall Quarter Competition winners were Avram Meyerowitz - 1st Place (top), HwaPyong Ko - 2nd Place (center), and Linh Luu - 3rd Place (bottom). Congratulations go out to all of the participants for a fine showing on the exam.

An Inspiration

I wish to thank the Department of Mathematics for its most generous donation to the Krohn Conservatory in memory of my father, Albert J. Pfetzing. It was most kind of you to do so.



I've included a couple of school related events in my father's life and hope that you will find them of some interest. Dad graduated from "old Woodward" High School in Cincinnati. As a senior at Woodward he was a member of the State Championship winning swim team, and another member of that team was Pete Rose's father. He graduated during the Great Depression, but he still managed to obtain a scholarship to Johns Hopkins University where he graduated with a degree in gas engineering. His father believed that a dollar wasn't any good until it was spent, preferably in a bar, so his family was truly dirt poor. After obtaining the scholarship to Johns Hopkins, his mother saved and saved so by the time he left for college she had enough money for a bus ticket and two dollars. Dad did not even have enough money for a place to stay when his bus arrived in Baltimore. I often wondered if I would have had the guts to make such a bold venture? Wouldn't it be nice if all our students had just one-tenth the desire and drive for a college education as Albert J. Pfetzing had?

John Pfetzing ■

Harvey's Joke Corner

Q. Who is the potato chip Santa Claus?
A. Chris Pringle.

Q. How far can one travel into the woods?
A. Halfway.

Q. When is the best time for a boxer to get up?
A. Before "Ten."

