

UConn Co-op Math Communicator

Newsletter of the University of Connecticut High-School Co-op Program in Mathematics

Volume 13 Number 2

June, 2005



Annual Workshop Scheduled

As announced on the Co-op Mathematics ListServ last month (if you didn't get that, please contact Jim Hurley <hurley@math.uconn.edu> **immediately!**), the 2005 Annual Re-certification workshop will take place Monday, August 22, from 9:00 AM to 12:45 PM, in the University's Center for Undergraduate Education (CUE). For complete details, refer to the forthcoming mailing. All three sessions will meet in CUE Room 320. They are:

- *Math Co-op Update*, by Prof. James Hurley, Math Co-op Coordinator. This will include a report on the program-wide Core Final Question implementation this year in Math 115Q, details about its expansion next year to Math 116Q, implications of the new text (see below) and addition of a computational gateway exam in Math 115Q

- *Personal Response Systems and Concept Tests in the Calculus Classroom*, by Prof. Charles Vinsonhaler of UConn. Chuck's session will feature examples of short tests of conceptual understanding, including demonstration of a personal student response system and some of the new materials to developed for Math 115Q in the Fall.

- *Post-AP Exam Engaging Activities*, by Mr. Steve Lecky, UConn Co-op Calculus Instructor at Middletown High School. Steve will present two activities to combat post-AP exam and pre-prom/graduation senior malaise. One builds on Prof. Roland Minton's very well received presentation on parametric equations last year.

As in prior years, all attendees are invited to stay for a complimentary lunch provided by the UConn Co-op Program, from 12:45 to 1:50 PM in the CUE Lobby area, where workshop registration will open at 8:30 AM.

Also as in the past, application will be made for attendees of the complete program to receive 0.3

CEU for participating in the three hour-long sessions. We anticipate that the application will again be approved and that we will provide forms at the meeting to obtain the CEU.

Please complete and return the registration form as soon as you know whether or not you will be able to attend. Having an early count on attendance is essential not only in ordering the right amount of food for snacks and lunch, but also in preparing enough copies of hand-out material. Please help us avoid running short or carting boxes of leftovers back to the Mathematical Sciences Building!

Text Swap

Just when some may have thought that they had seen everything, the Department of Mathematics has decided to swap the two calculus texts that have been in use for the past two years in the main-track sequence (Math 115Q–116Q) and slow-track (Math 112Q–113Q–114Q) calculus sequence. That is, next year's text for Math 115Q–116Q will change from Smith-Minton to the new 4th edition of Deborah Hughes Hallett, Andrew Gleason et al., *Calculus: Single Variable* published by John Wiley & Son Publishers (ISBN 0-471-48481-4), 2005.

The current text, *Calculus, 2nd Ed.*, by R. Smith & R. Minton (McGraw-Hill, 2002) will remain on the list of approved texts when it is revised in August, so at this point the only action to take is to secure a copy of the new text. If you have a Wiley high-school representative, contacting that person might be the simplest way to do so. You might also try clicking on the link for instructors to request a complimentary copy on Wiley's Web site <http://hcd.wiley.com/WileyCDA/HigherEdTitle/productCd-0471484814.courseCd-MA2200.html>. More information will be available at the workshop, where we hope to have a set of texts to distribute. In the meantime, the Web site for the Fall edition of Math 115Q is already under construction. To keep tabs with developments as they appear visit it periodically:

<http://www.math.uconn.edu/~tollefs/math115/>.

The text change is part of a pilot project to upgrade the main-track introductory calculus sequence to emphasize fundamental ideas as well as the essential skills of reading, writing, problem solving and reasoning logically. Many of the ideas follows those that grew out of the earlier NSF-funded UConn calculus-reform project, as well as a similar program at the University of Michigan. For a good illustration of the goals of the project, explore the sample mid-term and final exams at the Fall Math 115Q Class Home Page. (Recall that you and your students are free to use any class home page. To reach a full menu of them, click on the link <http://www.math.uconn.edu/courses/homepages.php>).

One major new feature is the incorporation of a gateway exam each semester. For Math 115, it will cover differentiation formulas, and for Math 116 integration techniques. Each will be given during a short time frame of about three weeks in the middle of the semester (6th-through 8th week at UConn). Grades on the gateway exams will not factor into the course grades directly. However, failure to pass the gateway exam will automatically reduce a student's course grade by one full letter grade. We hope to incorporate the electronic gateway exams into at least Math 115Q this coming year. Again, for details see the Co-op Math Web site's Certified-Teacher Resources or the August workshop.

Core Questions Progress Report

Despite a number of rough spots, the implementation of Core UConn Questions as part of Co-op Math 115Q final exams has gone well thus far. To date there has been one breach of security, which was addressed prior to the administration of the final examination at the school in question. The overwhelming majority of proposed student UConn course grades have conformed to the Math Department's guideline that course grades should differ from final-exam grades by at most one full letter grade. In a few cases, proposed grades have had to be adjusted, but overall the process has progressed well enough that next academic year the system will be in effect for Math 116Q as well as Math 115Q. There will be much more on these matters at the workshop.

Unfortunately, in a few cases certified instructors remained off the ListServ and without access to the Certified-Teacher Resources area of the Math Co-op Web site. Be sure to check that site periodically, at <http://www.math.uconn.edu/coop/coop.php>. Among other things, you can find this newsletter, as well as several back issues. If you have not received any postings to the UConn Math Co-op ListServ, please contact Jim Hurley *at once* so he can have you added. This is not the AP program: don't expect to receive no communications from us for months on end! We're here to provide ongoing support, but can only do so with your assistance in assuring that our communication network is complete, in particular, does not omit you!

Awardees

As the UConn High-School Cooperative Program observed its 50th anniversary, in April the first ever distinguished service awards were bestowed on Cecile Hurley of Chemistry and Jim Hurley for their service as Coordinators, and on John Duffy for exemplary Co-op Teaching at a participating high school. Hearty congratulations to John!

Dr. Gillian Thorne named Director

A search for a permanent Director of the UConn Office of Educational Partnerships culminated in the naming of Interim Director Gillian Thorne to the permanent position. We wish Jill the best as she continues her service to the program.

Four-Digit Course Numbers Ahead

You may have noted the short (3-line) story at the end of the last issue that referred to plans to replace the current 3-digit course numbering system by a new 4-digit system. The proposal to make that change effective with the 2006–2007 Academic Year passed the University Senate in March. During the coming academic year, new 4-digit course numbers will be assigned to all UConn courses. That will change all the Co-op course numbers, but this time all the work will be done at this end. As soon as the new numbers for Co-op Math courses are determined, we will let you know.