

# UConn ECE Math Communicator

Newsletter of UConn's Early College Experience Program in Mathematics

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## Annual Workshop Scheduled

The 2006 Re-certification workshop will take place Monday, May 8, from 9:00 AM to 12:45 PM, in the University's new School of Business, Room 127. This ultra-modern building is directly opposite Gampel Pavilion, so very close to the South Garage. Watch for full details and a registration form in a few weeks. The three sessions will be:

- *Math ECE Update*, by Prof. James Hurley, Math ECE Coordinator. This will focus on the implications of the new Math 112Q–113Q sequence that is being added to ECE Math Catalog (see next article) and a tutorial from Assistant Registrar Lisa Pane on the grade-submission process via the University's PeopleSoft system.

- *Introductory College Algebra and Mathematical Modeling*, by Prof. Sarah Glaz of UConn. Sarah's session will discuss the new Math 104Q course to be added to the Department's offerings for the coming year.

- *Math 107Q as an ECE Course*, by Ms. Maureen Brown, UConn ECE Instructor at Daniel Hand High School in Madison. Maureen will discuss her implementation of this relatively new course in the high-school setting.

As in prior years, all attendees are invited to stay for a complimentary lunch provided by the UConn ECE Program, from 12:45 to 1:50 PM outside Room 127, 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!

## Expanding Calculus Offerings

One of the valuable benefits NACEP has brought to the entire ECE program is increased communication between ECE coordinators and our partners who teach ECE courses across the state. The varying practices and schedules that grow out of the various participating schools' efforts to adapt UConn Math 115Q–116Q to their campuses have highlighted one glaring hole in the program. UConn students can enroll in either Math 115–116 or Math 112–113–116 before taking multivariable calculus. (See next story for more on our calculus offerings.) The timing of examinations reveals that our ECE schools are effectively offering the pre-Math 116 material over intervals that range from a semester all the way to the full academic year. But, unlike UConn students, ECE students can receive 8 credits only by completing the Math 115–116 sequence over the academic year.

This lack of equivalence between UConn and ECE options led the Mathematics Coordinator to propose to the faculty of the Department of Mathematics that we add Math 112Q–113Q to the Mathematics ECE catalog, effective for the 2006–2007 academic year. At its meeting earlier this month, the faculty approved that proposal, and stipulated that qualifications for certification to teach Math 112Q–113Q be identical to the current ones for Math 115–116Q.

Jim Hurley's May workshop session will in large part be devoted to discussing the ramifications of this for ECE schools. However, since you might be registering students for next Fall prior to that meeting, the following information aims to help you decide which sequence to offer (or, if your

staffing and enrollment allow, to offer both). Even though Math 112Q and 113Q *both* carry four UConn credits, students who wish to take Math 210Q or 230Q need to complete Math 116Q (or Math 121Q, being replaced: see next story) first. The content of Math 112 and 113 together is quite close to that of the AP Program's Calculus AB course, for which students receive credit for one semester of main-track calculus.

The Mathematics faculty also instructed the ECE coordinator that starting next Fall final examinations for UConn ECE Math courses should take place at the end of the first high-school semester (normally, mid-to-late January) and at or near the end of the second high-school semester (early-to-mid June). If you have been giving your Math 115Q final later than January, then you may want to offer Math 112Q instead of Math 115Q as a Fall course, and Math 113Q as its continuation in the Spring semester. Just as for Math 115Q–116Q, students must earn at least a C in the first-semester course in order to enroll in the second-semester one. Alternatively, you could give the UConn core questions (or a complete UConn final exam) late in January, report the Math 115Q grade at that point, but assign the high-school course grade later. In that case of course, you could give the high-school course final whenever you choose, and include or ignore student performance on the UConn core questions as seems most appropriate.

Finally, the UConn Calculus Committee has a long-term goal of adopting the same textbook for both Math 115–116 and Math 112–113. Currently, the text for the latter sequence is Smith-Minton's 2<sup>nd</sup> edition, the former text for Math 115–116. This serves to make transition from the current sequence to the new one as smooth as it ever could be. Should the committee achieve its goal of adopting a single text for both sequences, that would be a natural point to consider changing texts. As of now, no decision has been made on texts for 2006–2007, but informal advice to the Math Coordinator is that a continuation of Hughes Hallett et al. for Math 115–116 and Smith-Minton for Math 112–113 appears likely.

As you can see, there will be much more to discuss in May, but in the meantime Jim Hurley welcomes your questions on any aspect of this. Simply send them via e-mail to [hurley@math.uconn.edu](mailto:hurley@math.uconn.edu). (See below for when to be able to reach him...)

### Revised Advising Advice

As you recall from past workshops, we have encouraged you to advise students bound for UConn with solid performance in ECE Math 115Q to enroll in our Enhanced Calculus II Math 121Q, and good students from ECE Math 115Q–116Q to enroll in Enhanced Multivariable Calculus (Math 220Q). Of course, Math 116Q or Math 210 are and continue to be viable alternatives.

Starting next year, the current two-year enhanced sequence Math 120–121–220–221 will be replaced by a new honors sequence. So, starting now, please encourage top students from Math 115Q this year to ask to enroll in Honors Calculus II (Math 136Q) next Fall here (or Math 116Q). Those who complete both Math 115Q and 116Q with distinction should be encouraged to enroll in Honors Multivariable Calculus (Math 230Q).

For very able and highly motivated students, another new alternative exists, which covers not only basic and intermediate calculus and differential equations but also the underlying theory. That is the Accelerated Sequence Math 243–244–245–246. Completion of it is not only a superior preparation for a major in mathematics, but is also enough to earn a Minor in Mathematics. It is recommended for able aspiring math, statistics, physics or engineering majors. For more, see the Mathematics Honors Program Web site, at the following URL: <http://www.math.uconn.edu/undergraduate/Honors/honorsprogram.html>.

### Spring Breaks!

Jim Hurley will be away March 1–16, and Sharon McDermott March 2–10. During Sharon's absence, ECE Office Manager Jennifer Griffin has kindly volunteered to provide assistance with problems or needs. Please contact her at 486-1045 or via e-mail to [jennifer.griffin@uconn.edu](mailto:jennifer.griffin@uconn.edu).