

## “Bridging Math Concepts for RN Student Success at KCC”

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**Kankakee Community College wants to help its students succeed!** To do so, a team of faculty, including a math & nursing instructor, created a math concepts bridge course for first year students in their RN program. The objective of the course was to increase their success understanding the math concepts needed to pass the math competency test, a requirement to remain in the RN program. Each student must achieve a 100% score on this test with only 3 attempts allowed per student. Based on Algebra COMPASS scores, during FY12, 32 of the 70 students admitted to the RN program were identified as “at risk” for failing the math competency exam. Failure to pass the math competency exam would result in a one-year suspension from the RN program. It was KCC’s hope the bridge course would alleviate the need for these students to take an additional remedial math course and allow them to continue in their RN program.

The math and nursing faculty partnered to develop a course, contextualize the content, create appropriate student learning outcomes, and craft a syllabus for the course. The instructors worked together throughout the duration of the course to make certain the course content and assessments met programmatic needs. The “Introduction to Dosage Calculations” course began in January 2012 with 34 students enrolled. Thirty-two students completed the course and **all students passed the dosage calculation exam!**

**Seventy-five percent (75%)** of the students passed on the first attempt! Of those eight students who failed, seven students missed one calculation and one student missed two calculations. Seven students passed on the second attempt, and the one remaining student passed on the third attempt. In comparison to past years, before the creation of this bridge course, after three attempts five (9.25%) of the class failed the math competency exam in 2010 and seven (11.6%) failed in 2011. Overall, student outcomes were much improved due to this course.

According to the instructor, “the content of the class is the mathematics included specifically in dosage calculations. This provides a narrow focus allowing students to deeply explore the mathematics with immediate relevant applications rather than broad topics meant to address various majors. The relevancy increases interest and the motivation level. The students reported an increased level of confidence in their math skills. With the focus on understanding the calculations rather than memorizing formulas, students felt less anxious about the mathematics and more confident in their calculations.”

The newly created dosage math course has now been integrated into the curriculum for the Nursing program at KCC. All first semester RN students will take the course in the fall of 2012. Course data related to the outcomes will continue to be reviewed. Using this course as a model, consideration is being given to creating similar bridge courses for the Radiography, Respiratory, and Medical Assistant programs.

Development of the Introduction to Dosage Calculations course at Kankakee Community College was funded through the ICCB's Career and Technical Education/Developmental Education Bridge Implementation Grant. ICCB awarded five (5) community colleges CTE/Dev Ed Bridge Grants during Fiscal Year 2012. These grants were developed in partnership with the Illinois Department of Commerce and Economic Opportunity (IDCEO) to establish curricula that would aid students with remedial/developmental education needs in transitioning towards postsecondary CTE programs. For more information about Kankakee's Bridge Course, contact Kim Mau at [KMau@kcc.edu](mailto:KMau@kcc.edu), Judy Downey at [JDowney@kcc.edu](mailto:JDowney@kcc.edu), or Ronald Shank at [RShank@kcc.edu](mailto:RShank@kcc.edu).

For general information about Developmental Education / CTE Bridge programs funded by the ICCB contact Tricia Broughton, Associate Director for CTE Programs at [tricia.broughton@illinois.gov](mailto:tricia.broughton@illinois.gov) or Brian Durham, Senior Director for Academic Affairs & CTE at [brian.durham@illinois.gov](mailto:brian.durham@illinois.gov).



**Photo:**

Pictured are students who participated in the Intro to Dosage Calculations course at KCC as a part of the RN educational program with a community member visiting the college to share about life in the local senior community. From left to right, now second year KCC RN students: Justin Daverin, Robert Arrigo, and Ethan Trumble. The resident is from the Butterfield Assisted Living facility, Kankakee IL.