

**Volume 11
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“Integrative Learning”

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This issue of the CTE Notebook focuses on the idea of integrative learning, that is, learning from diverse perspectives. We invited faculty from a variety of departments around campus to share their

**Reinert CTE Mission
Statement**

The mission of the Paul C. Reinert, S.J. Center for Teaching Excellence is to support Saint Louis University faculty and graduate students so that they can better serve the intellectual, spiritual, and social needs of all learners.

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From the Director

One of the challenges students face in learning something new is how to connect what they are learning in courses from diverse disciplines and how to integrate new knowledge and skills with what they already know. The challenge for the faculty member is how best to help students make these connections. This issue of the Notebook focuses on integrated teaching and learning and offers strategies for faculty members to assist students in making connections. The issue is



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A central goal of my course in cross-cultural



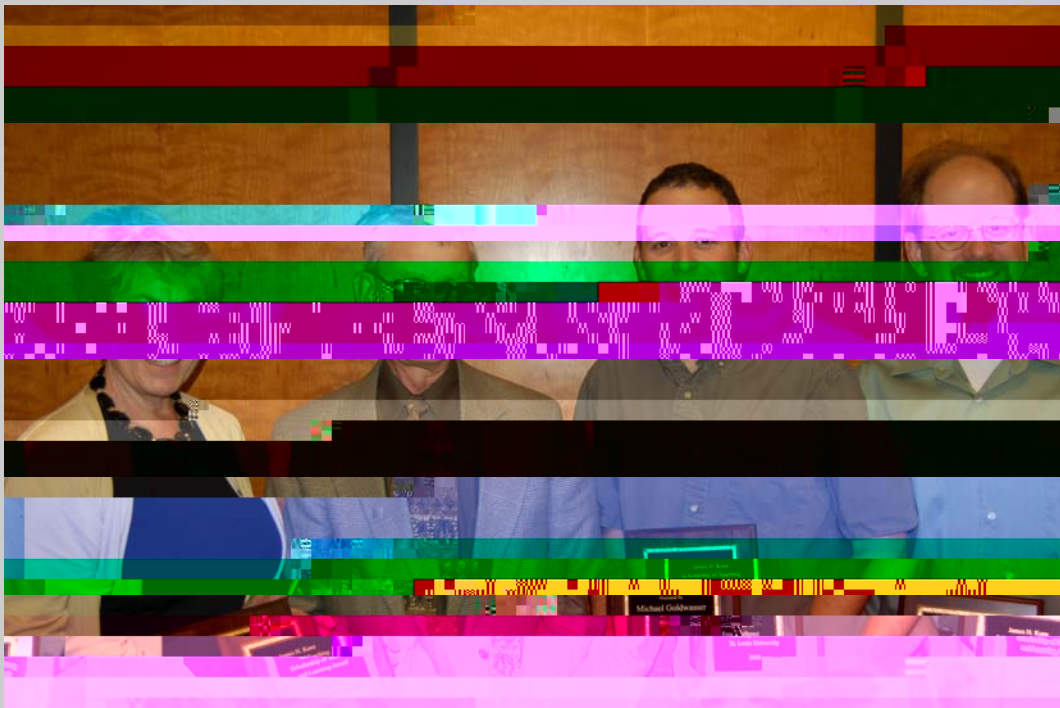
Jim Korn Scholarship of Teaching and Learning Award

In 2006 the CTE established the James H. Korn Award for the Scholarship of Teaching and Learning in recognition of Psychology Professor Emeritus Jim Korn's contribution to research on teaching and learning. The intent of this award is to promote faculty inquiry and scholarly research on teaching and learning. Nominees must be full-time SLU faculty members (within a team of individuals, one member must be a full-time SLU faculty member). Nominees have conducted research on teaching and student learning and published or presented the results of their research.

The 2008 recipients of the Jim Korn Scholarship of Teaching and Learning Award are Mary Rose Grant, PhD, School of Professional Studies, and Drs. Michael Goldwasser and David Letscher from the Department of Mathematics and Computer Science.

Drs. Goldwasser and Letscher redesigned the introductory computer science course incorporating object-oriented programming (OOP) at the beginning of the course, which affords students the opportunity to write more sophisticated and graphic programs. Their collaboration has resulted in four published articles that describe their course design.

Dr. Grant began the Distance Learning Program at the School of Professional Studies in 2001. From her extensive qualitative and quantitative research on adult-centered online learning environments and best online teaching practices, Dr. Grant has developed an online teaching certification for faculty who teach online. Dr. Grant has published her results and presented her findings at many conferences.



Photo, from left to right: Mary Rose Grant, PhD, School of Professional Studies; Jim Korn, PhD, emeritus professor of Psychology and CTE board member; Michael Goldwasser, PhD, and David Letscher, PhD, Mathematics and Computer Science

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I teach a freshman inquiry course, Math 124 (designed by my departmental colleagues Anneke Bart and Bryan Claire), that is expressly designed to cross boundaries: Mathematics and the Art of M. C. Escher. The point of the course (at least, as I see it) is to explore both how art is formed and informed by mathematics and how art illustrates and makes clear mathematical concepts. Among other tasks, the students are required to produce a piece of Escher-like art (tessellation of the plane in some specific geometric pattern, using recognizable figures) with a report that details how the artistic vision influenced the choice of geometry that forms the picture, and how the geometry influenced the art.

The main text for this course is an on-line wiki: http://math.slu.edu/escher/index.php/Main_Page.

-Steven Harris, Math and Computer Science

Integral learning is something I do in some way in almost every ethics course I teach. Most Christian ethicists today draw upon a variety of sources in order to answer complex moral questions. When students are asked to do the same, they learn good ethical method and come to see connections between theology and other disciplines. In Faith and Politics class, this means reading both political science and theology. In Sexual Ethics, we draw upon psychology and women's studies as well as Christian scripture and tradition. In Christian Moral Life, we bring short stories and novels into conversation with readings on Christian norms and virtues. An integrated approach sets up better ethical arguments and gives students a sense of how all of their coursework can contribute to thinking about what it means to live a good life.

-Julie Hanlon Rubio, Theological Studies

Theodosius Dobzhansky, a pioneer in evolutionary biology once said that "Nothing in biology makes sense except in the light of evolution". This has served as a cornerstone for the teaching and learning of biology. However, can evolutionary theory serve to integrate disciplines outside the realm of biology? That is the question that I have posed to my students in my Evolutionary Biology course this semester. There are an ever increasing list of connections between evolution and disciplines such as economics, linguistics, religion, forensics, artificial intelligence, software design, public policy, etc. I am asking students to delve into such connections and discuss how these disciplines interact for their final project for this course. Each student will write a paper synthesizing this interaction as well as a short presentation in class.

-Shawn Nordell, Biology

I am currently working an intensive ESL program. We are attempting a sustained content-based program. The core content course is like a freshman seminar, but there is a service-learning component. The other classes are skills-based.

The most difficult thing about attempting this type of teaching is the communication between teachers. We have several sections of each class, and we are trying to have consistency in instruction. Also, we have to communicate between content teachers and skills teachers.

Reflection is key for instructors because this is a constant learning process. As an ESL teacher, I am not a content expert. In order to integrate content with skills I have to constantly think about how to link the two areas. Also, I have to think about the connections I want the students to make with the text books they read, the projects they participate in, the movies they watch, and our class discussions. It is a juggling act, at times, or maybe a whole circus act since we are trying to get everyone involved.

-Lauren Rea, English as a Second Language

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development. This teacher may not always be effective in the eyes of the students or department chairs, but they routinely reflect on the major components of integrative learning, regularly asking the question: Based on my departmental program, course and self assessments, are changes needed in my curriculum and, if so, am I willing and able to seek faculty development to enrich my educational perceptions and teaching pedagogies?

Using VARK and Learning Styles

Neil Fleming, creator of VARK



