1078-97-371 **Dian Calkins*** (dcalkins@dominican.edu) and **Sibdas Ghosh**. *Graphic literacy: Mathematic modeling for the liberal arts.*

Graphic Literacy: Mathematic Modeling for the Liberal Arts There is now a radical shift in the purpose as well as the content of a Liberal Arts education. Students must do more than become knowledgeable about the work done in their field; they must enlarge the impact their knowledge and their field can have on solving problems. Our world community will need insightful analysis of challenges, requiring, as Steve Jobs noted, that we "think different."

Mathematics, the language in which science came to exist, now drives the design and process of problem solving, in every field.

Math becomes a laboratory discipline, brought to every student through the astounding power of technology to reveal pattern and change of all kinds. Liberal Arts students developing mathematic perspective and analytic modeling skills will be the innovators in their fields. Graphic representation for study and research will be a basic tenet of their Liberal Arts undergraduate experience.

A course in modeling should include a review of historic problems investigated and solved through graphing, practice in translation between literal and graphic representation, and an active-learning research experience in organizing and studying a current problem or situation in a student's chosen field. (Received December 13, 2011)