10:00 am 15th November 2011
Újpesti Bilingual Technical College

Dr. Howard Peelle
Professor
University of Massachusetts Amherst

Dr. Howard Peelle is a Professor at University of Massachusetts Amherst, where he has pioneered computer uses in teaching since 1970. In 2003, he was a Fulbright Scholar at Universiti Putra Malaysia for lecturing and research in mathematics education. In 2008, he was a Fulbright Senior Specialist at Japan Advanced Institute of Science and Technology for curriculum assessment in information science.

Founder and leader of the Mathematics and Science Education doctoral program in the department of Teacher Education and Curriculum Studies, he advised UMass faculty teams of Science Technology Engineering Mathematics Teacher Education Collaborative (STEMTEC), funded by NSF for 10 years. He has been a Visiting Professor at MIT, Tokyo Institute of Technology, University of Hawaii, University of California, and Hampshire College.

Specializing in mathematics and computer science education, Peelle has authored over a hundred publications, four books (e.g. Mathematical Computing in J, 2004), and experimental curriculum materials. His awards include: ACM National Lecturer and National Award for Innovative Excellence in Teaching with Technology. Recently, he chaired the Faculty Senate Committee on Faculty Development of Internationalization at UMass and continues to promote education for a better world. Peelle is a 1965 graduate in engineering from Swarthmore College.

Presentation Title:
"Mathematical Computing Notation: Issues for Scientists"

Abstract:

Mathematics -- the formal language of science -- can be expressed in notation executable by computer that provides speed, accuracy, visualization, simulation, and experimentation. Yet, computer programming notation is somewhat dissonant and different from conventional mathematical notation. Which will scientists use in the future?

This short talk will expose some defects in conventional mathematical notation and propose resolving ambiguities and inconsistencies such as: Different symbols used for the same function; the same symbol used for different functions; functions with no symbol; expressions with different meanings; confusing conventions; ad hoc syntax; deficient hierarchy of functions; as well as static language that is difficult to learn.

Reference: Mathematical Computing in J, Howard A. Peelle (Research Studies Press, 2004)

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