

Guidelines for Associate-Degree Programs in Computer Science

Karl J. Klee
Alfred State College
Alfred, NY 14802
607.587.3428
kleekj@alfredstate.edu

Categories & Subject Descriptors: K.3.2
[Computer and Education] Computer and Information Science
Education – *Computer science education, Curriculum*

Abstract:

This poster presentation showcases the recently published ACM/IEEE-CS guidelines for computer science programs at associate-degree granting institutions. These guidelines were produced by the Two-Year College Education Committee, a standing committee of the ACM Education Board. Karl Klee is one of the Committee members.

Three specific implementation approaches for introductory courses provide the backbone for these guidelines: imperative-first, objects-first, and breadth-first. The guidelines present a body of knowledge for computer science in the two-year college setting that include specific learning objectives as well as detailed descriptions of computer science and accompanying

discrete structures courses. Other aspects for a successful computer science program are addressed.

A principle focus is placed on issues of articulation for students transferring into baccalaureate computer science programs. Elective courses are specified to provide curricula to support career-oriented graduates as well as content appropriate for transfer.

These new curricular guidelines update the Computing Sciences volume of the *Computing Curricula Guidelines For Associate-Degree Programs* published by ACM in 1993. The guidelines also shares common goals, outcomes, and topics with the recent computer science curricula recommendations for baccalaureate programs developed by the Joint Task Force on Computing Curricula 2001 established by the Association for Computing Machinery (ACM) and the Institute of Electrical and Electronics Engineers Computer Society (IEEE-CS).

The *Guidelines for Associate-Degree Programs in Computer Science* are available online at www.acmtyc.org.