

Computer Science and Information Technology Associate-Level Curricular Guidelines

Elizabeth K. Hawthorne
Union County College
1033 Springfield Avenue
Cranford, NJ 07016
908.497.4232
ehawthorne@acm.org

Robert D. Campbell
CUNY Graduate Center
365 Fifth Avenue
New York, NY 10016
212.817.7350
rcampbell@gc.cuny.edu

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

Anita M. Wright
Camden County College
College Drive, P.O. Box 200
Blackwood, NJ 08012
856.227.7200
amwright@acm.org

ABSTRACT

This poster presentation will feature draft curriculum guidelines recently developed by the Two-Year College Education Committee (TYCEC), a standing committee of the ACM Education Board. The TYCEC is charged with developing and updating computing curricula guidelines for associate-degree granting institutions worldwide. To this end, the TYCEC is in the process of substantial revisions of the associate-level curriculum guidelines for transfer Computer Science degree programs and career Information Technology degree programs.

Categories and Subject Descriptors

K.3.2 [Computers and Education] Computer and Information Science Education – *Curriculum*.

General Terms

Standardization.

Keywords

Curriculum Guidelines.

INTRODUCTION

Computing programs in associate-degree granting institutions are typically designed with one of two goals in mind for graduates: transfer into the upper division of a baccalaureate program (a “transfer” program) or immediate entry into the workforce (a “career” program). Note that *associate degrees* are a completion point after the first two years of a four-year college program of study. While the concepts of *associate degrees*, *matriculation into the upper-division programs* and *transfer-versus-career education* are prominent in North America, similar considerations can be found in a variety of settings across many different continents, such as Europe, Asia, and Australia. The TYCEC guidelines are written to be of service to a variety of curriculum models worldwide.

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The ACM Two-Year College Education Committee (TYCEC) is in the process of substantial revisions of transfer curriculum guidelines in Computer Science and career curriculum guidelines in Information Technology. The curriculum guidelines for Computer Science were revised in conjunction with the five-year Interim Review of the baccalaureate-level Computer Science Volume. These TYCEC Guidelines facilitate inter-institution articulation and seamless transfer into the upper division of baccalaureate programs. The TYCEC curriculum guidelines for Information Technology, also known internationally as Information and Communications Technology (ICT), suggest new horizons in the career degree programs beyond the standard web development, desktop support, and networking programs currently offered by most two-year colleges. Please visit <http://wiki.acmtyc.org/>, the community Wiki for TYCEC where you can obtain additional information as well as give your constructive feedback on these draft guidelines.

In prior years, the TYCEC has produced curriculum guidelines for other computing disciplines: Information Systems (2004), Transfer Software Engineering (2005), and Transfer Computer Engineering (2007). All guidelines have been approved by the ACM Education Board. An overview of the computing sub-disciplines and their associated curriculum guidelines, developed under the auspices of the ACM Two-Year College Education Committee, are freely available online at www.acmtyc.org.

The *Guidelines for Associate-Degree Transfer Curriculum in Computer Engineering* detail a program of study designed for students intending to transfer into baccalaureate programs awarding computer engineering degrees. The *Guidelines for Associate-Degree Transfer Curriculum in Software Engineering* specify a software engineering curriculum track within the computer science degree program at associate-degree granting institutions. These transfer *Guidelines* are specifically designed to promote articulation by aligning computer and software engineering curricula in associate-degree granting institutions with those offered in baccalaureate-degree granting institutions.