Curricular Resources from the ACM

Elizabeth K. Hawthorne, Chair, Union County College
Robert D. Campbell, CUNY Graduate Center
Anita M. Wright, Camden County College
Karl J. Klee, Alfred State College

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Two-Year College Education Committee

Under Revision:

Guidelines for Associate-Degree Curriculum in Information Technology

- **Information Technology ...** involves the design, implementation and maintenance of technology solutions and support for users of such systems. This computing curriculum focuses on crafting hardware and software solutions as applied to networks, security, client-server and mobile computing, web applications, multimedia resources, communications systems, and the planning and management of the technology lifecycle.
- Will revise the <u>Guidelines for Associate-Degree Programs to Support Computing in a Networked Environment</u> published in 2000.
- Will incorporate concepts from the fields of both IST and ICT.

Recently Revised:

Guidelines for Associate-Degree Curriculum in Computer Science

- **Computer Science** ... involves design and innovation developed from computing principles. This computing curriculum focuses on the theoretical foundations of computing, algorithms, and programming techniques, as applied to operating systems, artificial intelligence, informatics and the like.
- Developed in parallel with the five-year *Interim Review* of the baccalaureate volume.
- Includes both program assessment and learning outcomes assessment for CS I, CS II, CS III, and Discrete Structures.

Guidelines for Associate-Degree Curriculum in Computer Engineering

- **Computer Engineering ...** involves the design and construction of processor-based systems comprised of hardware, software, and communications components. This computing curriculum focuses on the synthesis of electrical engineering and computer science as applied to the design of systems such as cellular communications, consumer electronics, medical imaging and devices, alarm systems and military technologies.

Guidelines for Associate-Degree Curriculum in Software Engineering

- **Software Engineering ...** involves the design, development and testing of large, complex, and safety-critical software applications. This computing curriculum focuses on the integration of computer science principles with engineering practices as applied to constructing software systems for avionics, healthcare applications, cryptography, traffic control, meteorological systems and the like.

Guidelines for Associate-Degree Curriculum in Information Systems

- **Information Systems ...** involves the application of computing principles to business processes, bridging the technical and management fields. This computing curriculum focuses on the design, implementation and testing of information systems as applied to business processes such as payroll, human resources, corporate databases, data warehousing and mining, electronic and mobile commerce, finance, customer relations management, transaction processing, and data-driven decision and executive support.

COMPUTING DISCIPLINES

ASSOCIATE-DEGREE TRANSFER AND CAREER CURRICULAR GUIDELINES

Guidelines for Associate-Degree Transfer Curriculum in Computer Science	Guidelines for Associate-Degree Transfer Curriculum in Computer Engineering	Guidelines for Associate-Degree Transfer Curriculum in Software Engineering	Guidelines for Associate-Degree Programs in Information Systems	**Under Revision** Guidelines for Associate-Degree Programs to Support Computing in a Networked Environment **Information Technology**
Emphasis on Theory		⟷		**Emphasis on Application**

Associate Degrees are completion points after the first two years of college study, leading to either

transfer into the upper division of a BA or BS program *(AA or AS degree)*
or
employment as a technology professional *(AAS degree)*