

ACM Core IT Learning Outcomes For Associate-Degree Programs

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ABSTRACT

As directed by the ACM Ed Board, the ACM Committee for Computing Education in Community Colleges (ACM CCECC) is engaged in defining the core IT learning outcomes which should be common to all associate-degree IT programs, assembled into a framework of defined domains and accompanied by assessment rubrics. The results are now being made available.

Categories and Subject Descriptors:

Social and Professional Topics: Computing Education; Model Curricula; Information Technology Education

General Terms:

Standardization, Measurement, Management

Keywords:

Two-Year College, Education, Information Technology

1. BACKGROUND

The ACM Ed Board directed that an associate-degree IT curricular task force be constituted under the direction of the ACM CCECC to produce IT guidance which is:

- Built from the ground up on a framework of learning outcomes.
- Constituted by core IT competencies assembled into a framework of defined competency domains.
- Influenced by the current and future needs of business and industry, by certifications and related curricula, by government and standards bodies, and by new and emerging technology.
- Designed in a manner that provides for staying power, breadth and adaptability.
- International in application.
- Accompanied by well-designed assessment rubrics and meaningful evaluation metrics.

2. FINDINGS

There is a need for ACM to provide IT curricular guidance for the associate-degree level. However, the typical model for such guidelines built on a comprehensive *body of knowledge* is not well suited to the dynamic and encompassing field of IT.

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ACM IT curricular guidance should be formulated using a new model, one better suited to the varied and vibrant universe of associate-degree IT programs, and such a model must be built from the ground up on a framework of learning outcomes. ACM IT curricular guidance should be constituted by the collection of learning outcomes which define core IT competencies across all IT-related associate-degree programs, assembled into a framework of defined technical domains and spanning a collection of conceptual domains. The core IT learning outcomes must be influenced by the current and future needs of business and industry, by certifications and related curricula, and by government and standards bodies; must be adaptable and support diversity; must not be overly technology specific or prescriptive; and must have reasonable staying power. Core IT learning outcomes must be accompanied by well-designed assessment rubrics to gain credibility and broad acceptance by both the two-year college community and the business community.

Representatives from two-year college faculty, business and industry, and certification/standards bodies were assembled to define the core IT learning outcomes. The resulting 37 outcomes span three levels of Bloom's taxonomy, and are assembled into a matrix of six technical domains by four competency domains.

3. FOLLOW-UP OPPORTUNITIES

The presenters will share the matrix of core IT learning outcomes intended for all associate-degree IT programs; resources can be accessed via the ACM CCECC website at www.capspace.org.

4. REFERENCES

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