# Computing Accreditation Criteria

## Snowbird 2004

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# Program Criteria

- Objectives, Outcomes and Assessments
- Students Support
- Faculty Qualifications
- Faculty Size and Workload
- Curriculum
- Technology Infrastructure
- Institutional Support and Financial Resources
- Institutional Facilities

# I. Objectives, Outcomes and Assessments

## General Criteria

- The program has documented measurable objectives and expected outcomes for graduating students, based on the needs of the program's constituencies. The program uses a documented process to regularly assess the extent to which its objectives and expected outcomes are being met. The results of the assessments are used to develop and implement plans to effect continuous improvement of the program.

# Program Criteria for Computer Science

- The documented process incorporates relevant data in its assessment of the extent to which the program's objectives and expected outcomes are being met.

# General Criteria for Information Systems

None

# General Criteria for Information Technology

The program outcomes minimally include the following abilities:

a. Use and apply current technical concepts and practices in the core information technologies;
b. The ability to analyze, identify and define the requirements that must be satisfied to address problems or opportunities faced by organizations or individuals;
c. Design effective and usable IT-based solutions and integrate them into the user environment;
d. Assist in the creation of an effective project plan;
e. Identify and evaluate current and emerging technologies and assess their applicability to address the users' needs;

# Program Criteria for Information Technology (cont.)

e. Analyze the impact of technology on individuals, organizations and society, including ethical, legal, security and global policy issues;

f. Demonstrate an understanding of best practices and standards and their application;

g. Demonstrate independent critical thinking and problem solving skills;

h. Collaborate in teams to accomplish a common goal by integrating personal initiative and group cooperation;

i. Communicate effectively and efficiently with clients, users and peers both verbally and in writing, using appropriate terminology;

j. Recognize the need for continued learning throughout their career.

# General Standards for Objectives, Outcomes and Assessments

I-1. The program must have documented, measurable objectives.

I-2. The program must have documented, measurable expected outcomes for graduating students.

I-3. Documented processes must be in place to periodically review the program relative to its objectives and expected outcomes.

I-4. The assessment process must involve the collection, documentation and evaluation of relevant data.

I-5. The assessment process must take into account the needs of the program's various constituencies.

I-6. The results of the program's assessments must be used to develop and implement plans for program improvement.

I-7. The assessment process must include planned periodic review of the program's objectives and expected outcomes.

I-8. The results of the program's assessments and the actions taken based on the results must be documented.

# Program Standards for Computer Science

- None

# Program Standards for Information Systems

- None

# Program Standards for Information Systems

The program's expected learning outcomes must include the following:

- Use and apply current technical concepts and practices in the core information technologies;
- Analyze, identify and define the requirements that must be satisfied to address problems or opportunities faced by organizations or individuals;
- Effectively design IT-based solutions and integrate them into the user environment;
- Assist in the creation of an effective project plan;
- Identify and evaluate current and emerging technologies and assess their applicability to address the users' needs;

# Program Standards for Information Systems (cont.)

a. Analyze the impact of technology on individuals, organizations and society, including ethical, legal, security and global policy issues;
b. Demonstrate independent critical thinking and problem solving skills;
c. Collaborate in teams to accomplish a common goal by integrating personal initiative and group cooperation;
d. Communicate effectively and efficiently with clients and peers both orally and in writing, using appropriate terminology;
e. Recognize the need for continued learning throughout their career.

# IV. Curriculum

- ***General Criteria***
- The program's requirements are consistent with its objectives and expected outcomes. The curriculum combines technical and professional requirements with general education requirements and electives to prepare students for a professional career and further study in the computing discipline associated with the program, and for functioning in modern society. The technical and professional requirements include up-to-date coverage of basic and advanced topics in the computing discipline associated with the program, and appropriate mathematics.

# Program Criteria for Computer Science

- Students have the following specified amounts of course work or an equivalent educational experience.
- Computer science: 40 semester hours
- Math: 15 semester hours that includes discrete mathematics
- Math and science combined: 30 semester hours
- The computer science component of the program stresses theoretical foundations, problem analysis and solution design. The oral and written communications skills of the students are developed and applied within the program. All students are exposed to a broad range of issues relating to the social and ethical implications of computing. All students are provided with a substantial laboratory science experience.

# Program Criteria for Information Systems

The curriculum is consistent with widely recognized IS model curricula and standards; deviations are the result of *Objectives, Outcomes and Assessment.* The professional requirements include an emphasis on business and management. Students have the following specified amounts of course work or an equivalent educational experience.

# Program Criteria for Information Systems

- Information Systems: 30 semester hours (core plus advanced topics)
  - The core topics (These need not be 3 credit-hour courses) shall include at least 12 semester hours with basic coverage of (1) a modern programming language, (2) data management, (3) networking and data communications, (4) systems analysis and design and (5) role of IS in organizations.
  - Also included in the 30 semester hours, all students must take at least 12 semester hours of advanced course work in information systems that provides breadth and builds on the IS core topics to provide depth

# Program Criteria for Information Systems (cont.)

- The information systems component of the program stresses information systems theoretical foundations, information systems analysis and information systems design.
- Business and Management: at least 15 semester hours. The 15 semester hours must provide basic coverage of functional business areas including accounting, marketing, finance and organizational behavior.
- The oral and written communications skills of the students are developed and applied within the program.

# Program Criteria for Information Systems (cont.)

- All students are exposed to a broad range of issues relating to global, economic, social and ethical implications of technology.
- The collaborative skills of the students are developed and applied in the program.
- Quantitative analysis or Methods:  6 semester hours that includes statistics.

# Program Criteria for Information Technology

None