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Applied Science Accreditation Commission  
Computing Accreditation Commission  
Engineering Accreditation Commission  
Technology Accreditation Commission

August 01, 2011

Robert P. Marande  
Dean, College of Science and Technology  
Bloomsburg University of Pennsylvania  
Room 176 Hartline Science Center  
400 East Second Street  
Bloomsburg, PA 17815

Dear Dr. Marande :

Computing Accreditation Commission (CAC) of ABET recently held its 2011 Summer Meeting to act on the program evaluations conducted during 2010-2011. Each evaluation was summarized in a report to the Commission and was considered by the full Commission before a vote was taken on the accreditation action. The results of the evaluation for Bloomsburg University of Pennsylvania are included in the enclosed Summary of Accreditation Actions. The Final Statement to your institution that discusses the findings on which each action was based is also enclosed.

The policy of ABET is to grant accreditation for a limited number of years, not to exceed six, in all cases. The period of accreditation is not an indication of program quality. Any restriction of the period of accreditation is based upon conditions indicating that compliance with the applicable accreditation criteria must be strengthened. Continuation of accreditation beyond the time specified requires a reevaluation of the program at the request of the institution as noted in the accreditation action. ABET policy prohibits public disclosure of the period for which a program is accredited. For further guidance concerning the public release of accreditation information, please refer to Section II.L. of the 2010-2011 Accreditation Policy and Procedure Manual (available at [www.abet.org](http://www.abet.org)).

A list of accredited programs is published annually by ABET. Information about ABET accredited programs at your institution will be listed in the forthcoming ABET Accreditation Yearbook and on the ABET web site ([www.abet.org](http://www.abet.org)).

It is the obligation of the officer responsible for ABET accredited programs at your institution to notify ABET of any significant changes in program title, personnel, curriculum, or other factors which could affect the accreditation status of a program during the period of accreditation.

Please note that appeals are allowed only in the case of Not to Accredit actions. Also, such appeals may be based only on the conditions stated in Section II.G. of the 2010-2011 Accreditation Policy and Procedure Manual (available at [www.abet.org](http://www.abet.org)).

Sincerely,

A handwritten signature in black ink, appearing to read "Allen Parrish".

Allen Parrish, Chair  
Computing Accreditation Commission

Enclosure: Summary of Accreditation Action  
Final Statement

cc: David L. Soltz, President  
Curt Jones, Chairperson Mathematics, Computer Science & Statistics  
David P. Kelly, Report Team Chair

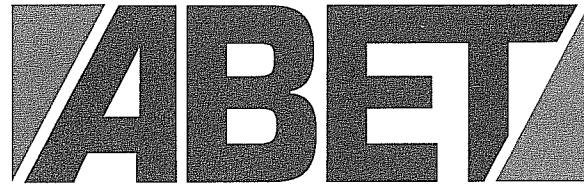
ABET, Inc.

Computing Accreditation Commission  
Summary of Accreditation Actions  
for the  
2010-2011 Accreditation Cycle

**Bloomsburg University of Pennsylvania**  
**Bloomsburg, PA**

**Computer Science (BS)**

Accredit to September 30, 2013. A request to ABET by January 31, 2012 will be required to initiate a reaccreditation evaluation visit. In preparation for the visit, a Self-Study Report must be submitted to ABET by July 01, 2012. The reaccreditation evaluation will be a comprehensive general review.



Computing Accreditation Commission

Final Statement of Accreditation  
to  
**BLOOMSBURG UNIVERSITY OF PENNSYLVANIA**  
Bloomsburg, PA

2010-11 Accreditation Cycle

*Leadership and Quality Assurance in Applied Science, Computing, Engineering, and Technology Education*

# BLOOMSBURG UNIVERSITY OF PENNSYLVANIA

## FINAL STATEMENT

*This is a confidential statement from the Computing Accreditation Commission to the institution. It is intended for internal use only and is not for release except as allowed by policies of ABET, Inc.*

### I. INTRODUCTION

The following program at Bloomsburg University of Pennsylvania was evaluated during the 2010-2011 cycle for possible accreditation under the CAC/ABET Criteria for Accrediting Computing Programs dated October 29, 2005:

- B.S. Degree in Computer Science, evaluated under the Criteria for Computer Science Programs

The BS program in Computer Science was previously evaluated in 2006-07. As a result of that accreditation action, the institution was required to submit an Interim Report in 2008. As a result of the evaluation of the interim report, the institution was required to submit an additional Interim Report in 2010.

### II. REPORT OF FINDINGS

The *Criteria* are divided into seven criteria for computer science programs, each containing a statement of *intent* and *standards*. The intents provide the underlying principles that each program must meet to be accredited. The standards provide a description detailing how a program can meet the intent. A program can meet an intent by either satisfying all the associated standards or by demonstrating an alternate implementation.

This section contains the findings from an evaluation of the interim report. It also includes an evaluation of any information provided by the program during the due process response.

A program's accreditation action will be based upon the findings summarized in this statement. Actions will depend on the program's range of compliance or non-compliance with the criteria. This can be determined from the following terminology:

- **Deficiency:** A deficiency indicates that a criterion, policy, or procedure is not satisfied. Therefore, the program is not in compliance with the criteria.

- **Weakness:** A weakness indicates that a program lacks the strength of compliance with a criterion, policy, or procedure to ensure that the quality of the program will not be compromised. Therefore, remedial action is required to strengthen compliance with the criterion, policy, or procedure prior to the next evaluation.
- **Concern:** A concern indicates that a program currently satisfies a criterion, policy, or procedure; however, the potential exists for the situation to change such that the criterion, policy, or procedure may not be satisfied.
- **Observation:** An observation is a comment or suggestion that does not relate directly to the accreditation action but is offered to assist the institution in its continuing efforts to improve its programs.

## BS in Computer Science Program

Status of Shortcomings from the Previous ReviewProgram Weakness

1. Criterion I, Objectives and Assessment. The following factors contribute to this weakness.
  - a. (Standards I-3 and I-4) Although periodic surveys of alumni have apparently been in existence for many years, these assessment mechanisms have not been formally included in the program continuous improvement process and are not clearly related to the program's objectives, thus limiting the efficacy of the process.

Status: The shortcoming with respect to Standard I-4 is resolved. The shortcoming with respect to Standard I-3 remains, but is now a concern.

Program Concern

1. Criterion I, Objectives and Assessment. (Standard I-1) It is not clear the program's objectives adequately characterize the anticipated accomplishments of graduates from the program and therefore that they will be adequate when evaluated against the criteria that will be in effect at the program's next general review.

Status: This concern is now addressed as an Observation.

Findings from the Current ReviewProgram Concern

1. Criterion I. Objectives and Assessment. The criterion requires the program has documented, measurable objectives, including expected outcomes for graduates; and the program regularly assess its progress against the objectives and use the results of the assessments to identify program improvements and to modify the program's objectives.

The program has continued to evolve its assessment process and associated instruments since the time of the last interim review. The program has a documented assessment plan which identifies direct and indirect measurements for the educational learning objectives. The assessment plan also identifies the scheduling of the assessment instruments. Two new assessment instruments have been developed and implemented to support evaluating specific educational learning objectives. The first instrument placed selected questions on the final exam of a junior level Algorithms and Data Structures course. The student's performance on the questions was reviewed in January 2010 against an established rubric the program had developed. Faculty review of the assessment data identified no opportunities for program improvements. The second assessment instrument utilizes a programming contest paradigm.

Students are given 5 problems of varying levels of difficulty to be solved. The results of the problems are analyzed and judged against established rubrics. Faculty reviewed the results of the assessment instrument in March 2010. This assessment technique is being presented in a paper at CCSCE2010.

The program has developed a graduate survey, but has not yet administered the new survey. Some informal graduate feedback has been provided at career days, but this is not part of the program's official assessment plan. The challenges in developing and implementing a graduate survey that provides useful assessment data may be related to the lack of broad program educational objective statements that describe the career and professional accomplishments the program is preparing graduates to achieve, in the current set of program objectives. The program is also working to develop an employer survey with plans for deployment in May 2011.

Standard I-3 requires that data relative to the objectives must be routinely collected and documented, and used in program assessments. While the program assessment plan and new assessment mechanisms provide data for assessing the objectives, there is a concern with Standard I-3. The new alumni survey instrument has yet to be implemented and, given the current set of program objectives, its ability to provide useful data to the program's continuous improvement process has yet to be demonstrated.

Due-process response: The program did not submit a due process response.

Due-process evaluation: The concern with Standard I-3 remains unresolved. The new alumni survey instrument has yet to be implemented and, given the current set of program objectives, its ability to provide useful data to the program's continuous improvement process has yet to be demonstrated.

The program satisfies the Criteria for Computer Science Programs with no shortcomings except as noted above.

#### Program Observation

1. The new criteria that will be in effect for the next general review will require additional changes relative to the assessment of objectives and outcomes. In particular, the current program educational learning objectives are statements that describe what students are expected to know and be able to do at the time of graduation; they align with the new CAC criteria's student outcomes. There are no educational learning objectives that align with the new CAC criteria's program educational objectives. The program should evaluate the necessity of this and other changes, and begin working as needed to comply with the new criteria.



### III. SUMMARY

The following is a summary of this evaluation for Bloomsburg University of Pennsylvania during the 2010-11 cycle:

#### BS Computer Science Program

##### Concerns:

- Criterion I, Objectives and Assessments. The new alumni survey instrument has yet to be implemented and, given the current set of program objectives, its ability to provide useful data to the program's continuous improvement process has yet to be demonstrated. (Standard I-3)