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

RECEIVED

July 27, 2010

Bradford L. Sims
Dean, College of Technology
Indiana State University
101 North Sixth Street
Terre Haute, IN 47809

AUG 5 2010

DEAN'S OFFICE COLLEGE OF TECHNOLOGY

Dear Dr. Sims:

Technology Accreditation Commission (TAC) of ABET recently held its 2010 Summer Meeting to act on the program evaluations conducted during 2009-2010. 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 Indiana State University 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 2009-2010 Accreditation Policy and Procedure Manual (available at 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).

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 2009-2010 Accreditation Policy and Procedure Manual (available at www.abet.org).

Sincerely,

Kevin D. Taylor, Chair

**Technology Accreditation Commission** 

Enclosure: Summary of Accreditation Action

**Final Statement** 

cc: Daniel J. Bradley, Office of the President

Ming Zhou, ECMET Chair

C. Wayne Unsell, Visit Team Chair

# ABET, Inc.

Technology Accreditation Commission
Summary of Accreditation Actions
for the
2009-2010 Accreditation Cycle

# Indiana State University Terre Haute, IN

# Mechanical Engineering Technology(Main Campus) (BS)

Accredit to September 30, 2016. A request to ABET by January 31, 2015 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, 2015. The reaccreditation evaluation will be a comprehensive general review.

This is a newly accredited program. Please note that this accreditation action extends retroactively from October 01, 2008.



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July 27, 2010

Daniel J. Bradley President Indiana State University Office of the President Terre Haute, IN 47809

Dear Dr. Bradley:

I am pleased to transmit to you the findings of the Technology Accreditation Commission (TAC) of ABET with respect to the evaluation conducted for Indiana State University during 2009-2010. Each of ABET's Commissions is fully authorized to take the actions described in the accompanying letter under the policies of the ABET Board of Directors.

We are pleased that your institution has elected to participate in this accreditation process. This process, which is conducted by approximately 1,500 ABET volunteers from the professional community, is designed to advance and assure the quality of professional education. We look forward to our continuing shared efforts toward this common goal.

Sincerely, Davil X. Holgan

David K. Holger

President

Enclosure: Commission letter and attachments

# ABET, Inc.

# TECHNOLOGY ACCREDITATION COMMISSION

FINAL VISITATION STATEMENT

on

INDIANA STATE UNIVERSITY

Terre Haute, Indiana

Dates of Visit: October 18 – 20, 2009 The statement that follows consists of two parts: the first addresses the overall institution and its engineering technology operation, and the second addresses the individual engineering technology programs. Accreditations actions taken by TAC of ABET will be based upon the findings summarized in this statement and will depend on the range of compliance or non-compliance with ABET criteria, policies, and procedures. The range can be construed from the following definitions for findings:

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

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 which does not relate directly to the accreditation action but is offered to assist the institution in its continuing efforts to improve its programs.

#### **IINDIANA STATE UNIVERSITY**

# Terre Haute, Indiana

### INSTITUTIONAL FACTORS AFFECTING

#### THE ENGINEERING TECHNOLOGY UNIT

#### Introduction

The Technology Accreditation Commission of ABET, Inc. (TAC of ABET) has evaluated the baccalaureate degree program in Mechanical Engineering Technology of Indiana State University. The visit findings were evaluated using the 2009-10 ABET Criteria for Accrediting Engineering Technology Programs and the 2009-10 ABET Accreditation Policy and Procedure Manual.

Indiana State University is a public institution located in Terre Haute, Indiana. The university serves approximately 10,500 students with a variety of undergraduate and graduate programs of study up through the doctorate. The institution is accredited by the Commission on Higher Education of the North Central Association of Colleges and Schools. The Mechanical Engineering Technology program is housed in the Department of Electronics, Computer, and Mechanical Engineering Technology in the College of Technology. The Mechanical Engineering Technology program was submitted for initial accreditation.

# PROGRAM EVALUATION

#### MECHANICAL ENGINEERING TECHNOLOGY

# Baccalaureate Degree

# Introduction

The Mechanical Engineering Technology program educational objectives state that graduates will:

- 1. apply the latest technology and engineering tools to solve technical problems in the practice of mechanical engineering technology and related interdisciplinary fields;
- 2. remain technically current and adapt to rapidly changing technologies through self improvement with continuous learning or post-graduate education;
- 3. demonstrate independent thinking, self-management, and function effectively in team-oriented and open-ended activities in an industrial environment;
- 4. communicate effectively in oral, written, and graphical forms;
- 5. perform ethically and professionally in business, industry, and society;
- 6. develop leadership skills and responsibility in their chosen career field; and
- understand global issues and impact of technology and engineering solutions on the society and environment.

Approximately 80 percent of the courses in this program are offered online to serve the 25 percent of students who are classified as distance students. Distance students typically transfer into the program and hold associate degrees from community colleges. Co-ops and internships are available as elective credit. The Program Criteria for Mechanical Engineering Technology and Similarly Named Programs as published in the 2009-10 TAC criteria document also were

used to evaluate this program. Findings in meeting the provisions of ABET criteria and policies are described below.

# Program Deficiencies

1. <u>Criteria</u>: Criterion 2. Program Educational Objectives states, "Each program must have in place (a) published program educational objectives that are consistent with the mission of the institution and applicable ABET criteria." The program educational objectives for this program are not published or made available to program constituents. Without appropriately published educational objectives, neither potential students nor potential employers of graduates will be informed of the long term career objectives of the program. The program is required to publish its educational objectives in appropriate documents.

<u>Due Process Response</u>: The program submitted verification that program educational objectives are now published in the university online catalog, are now published on the department website, and are now posted on the Mechanical Engineering Technology display board.

Status after Due Process: This Deficiency has been resolved.

2. <u>Criteria</u>: Criterion 3. Program Outcomes states, "Each program must demonstrate that graduates have ... (the specific attributes described in elements [a] through [k])." A mapping matrix was provided to link courses with program outcomes defined by Criterion 3 attributes [a]-[k], but it was not evident that the program was addressing Criterion 3 [h] addressing "...lifelong learning...", Criterion 3 [j] addressing "...diversity, and knowledge of contemporary issues...", or Criterion 3 [k] regarding "...a commitment to quality, timeliness and continuous improvement." Student surveys have been used to assess the achievement of program outcomes,

but these measures alone are not sufficient to demonstrate achievement of outcomes without additional metrics. Display material included samples of student work to indicate that all defined outcomes were being addressed in the curriculum. However, there was no evaluation of assessment data or comparison to benchmarks that would indicate the levels of achievement of those outcomes. Without a formal evaluation of assessment data for each outcome, the program cannot assure that all program outcomes are being achieved. Therefore, the program is required to demonstrate that its graduates are attaining the attributes defined in Criterion 3 [a] through [k]. Due Process Response: The due process response addressed all eleven Learning Outcomes and The response provided evidence that direct measures and all eight Program Outcomes. benchmarks for action are being used for all Learning Outcomes and Program Outcomes. Benchmarks have been established for each outcome, and each outcome has been linked to specific courses. Direct measures are supported by surveys administered to students, alumni, and employers. The due process response provided evidence that Criterion 3 [h], [j], and [k] are incorporated into the program and are evaluated to measure degree of achievement by students. Status after Due Process: This Deficiency has been resolved.

3. <u>Criteria</u>: Criterion 4. Continuous Improvement states, "The program must use a documented process incorporating relevant data to regularly assess its program educational objectives and program outcomes, and to evaluate the extent to which they are being met. The results of these evaluations of program educational objectives and program outcomes must be used to effect continuous improvement of the program through a documented plan." The results from student satisfaction surveys and student self-assessments were used as the basis for making

improvements in the program. However, student satisfaction does not measure level of achievement of knowledge or skills, nor does student self-assessment constitute an objective assessment of knowledge. Without a valid assessment and evaluation process for program objectives and program outcomes, the program cannot identify areas needing improvement and cannot make effective program revisions. Therefore, the program must demonstrate that results from the evaluations of program educational objectives and program outcomes are being used to effect continuous improvement of the program through a documented plan.

<u>Due Process Response</u>: The due process response addressed all eleven Learning Outcomes, all eight Program Outcomes, and all seven Educational Objectives. Direct and indirect measures are being used to assess Learning Outcomes, Program Outcomes, and Educational Objectives; benchmarks for action have also been established. Continuous improvement has led to two program revisions since 2004, and specific course improvements have occurred on a yearly basis. A documented continuous improvement plan was approved on February 2, 2010. Continuous improvement has occurred on a regular basis, and the program now has a documented plan in place.

<u>Status after Due Process</u>: This Deficiency is reduced to a Concern until the program demonstrates that the newly-adopted continuous improvement plan is fully implemented.