



COMPUTING ACCREDITATION COMMISSION

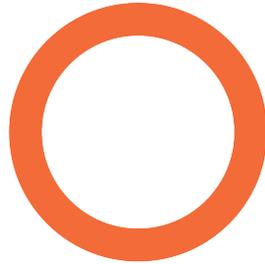
**Summary of Accreditation Actions**

2019–2020 Accreditation Cycle

Arkansas Tech University  
Russellville, AR, United States

**Computer Science (BS)  
Information Systems (BS)**

Accredit to September 30, 2022. A request to ABET by January 31, 2021 will be required to initiate a reaccreditation report evaluation. A report describing the actions taken to correct shortcomings identified in the attached final statement must be submitted to ABET by July 1, 2021. The reaccreditation evaluation will focus on these shortcomings. Please note that a visit is not required.



**ABET**

COMPUTING ACCREDITATION COMMISSION

**ARKANSAS TECH UNIVERSITY**

RUSSELLVILLE, AR, UNITED STATES

**FINAL STATEMENT OF ACCREDITATION**

2019-20 ACCREDITATION CYCLE

# ARKANSAS TECH UNIVERSITY

Russellville, AR, United States

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ABET COMPUTING ACCREDITATION COMMISSION

## FINAL STATEMENT

VISIT DATES: OCTOBER 27-29, 2019

ACCREDITATION CYCLE CRITERIA: 2019-2020

## INTRODUCTION & DISCUSSION OF STATEMENT CONSTRUCT

The Computing Accreditation Commission (CAC) of ABET has evaluated the Computer Science (BS) and Information Systems (BS) programs at Arkansas Tech University during the 2019-2020 cycle for possible accreditation under CAC/ ABET "Criteria for Accrediting Computer Programs" dated November 2, 2018.

The statement that follows consists of two parts: the first addresses the institution and its overall educational unit, and the second addresses the individual programs.

A program's accreditation action is based upon the findings summarized in this statement. Actions depend on the program's range of compliance or non-compliance with the criteria. This range can be construed 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 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 review.
- **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 current accreditation action but is offered to assist the institution in its continuing efforts to improve its programs.

## REVIEW TEAM

The programs listed above were evaluated by the peer review team shown below.

- **Program Evaluator** Janos Tibor Fustos, Metropolitan State University of Denver

- **Program Evaluator** Lisa Marie Landgraf, University of Wisconsin-Platteville
- **Visit Team Chair** Nancy Birkenheuer, Regis University
- **Editor 1** Scott Murray, HCA Healthcare
- **Editor 2** Donna Reese, Mississippi State University

Please note that program accreditation decisions are made solely by the respective Commissions of ABET. Reference to the professional affiliations of the volunteer peer evaluators in no way constitutes or implies endorsement or recommendation of the programs by the listed professional affiliations.

### INFORMATION RECEIVED AFTER THE REVIEW

- **Seven-Day Response** Information was received in the seven-day response period relative to the Institutional Summary.
- **30-Day Due-Process Response** Information was received in the 30-day due-process response period relative to the Computer Science and Information Systems programs.

### INSTITUTIONAL SUMMARY

Arkansas Tech University started in 1909 as a school enabling rural students to gain a high school diploma and learn better agricultural practices. In the 110 years since then, they evolved into a center of higher learning in the heart of the Arkansas River Valley. The university currently enrolls approximately 12,000 students and offers over 100 undergraduate and more than 25 graduate degree programs across seven academic colleges and two campuses. The University has around 51,000 alumni. During the 2018 academic year, Arkansas Tech University employed 308 full time faculty and 195 part time faculty. The College of Engineering and Applied Sciences houses the Department of Computer and Information Sciences which offers the BS in Computer Science and BS in Information Science degrees.

#### Seven-Day Response

The material submitted in the 7-day response has been incorporated into this statement.

# Computer Science

## BS Program

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Evaluated under CAC Program Criteria for  
Computer Science and Similarly Named Computing Programs

### INTRODUCTION

Arkansas Tech University has offered a Bachelor of Science degree in Computer Science since the early 1980s. The Computer Science degree program underwent its initial general review during the 2007-2008 cycle and accreditation of the program was granted retroactive to October 1, 2006. The program underwent its last general review during the 2013-2014 cycle.

Since the last general review in 2013-2014, there have been no major curriculum changes to the Computer Science degree. There have, however, been changes in the administration of the Department of Computer and Information Science which houses the Computer Science degree program.

#### Status of Shortcomings from the Previous Review:

The following is the status at the time of the visit.

#### Program Concern

Criterion 6, Faculty. With a one-year emergency faculty hire and additional adjunct faculty, the program currently satisfies this criterion; however, the potential exists that in the future this temporary faculty support may not continue to be sustained, which could impact the faculty's ability to maintain continuity, stability, oversight, student interaction, and advising.

Status: The concern is unresolved and contributes to the weakness in the current review.

### PROGRAM WEAKNESSES

#### 1. Criterion 6. Faculty

The following factors contribute to this weakness:

- a. This criterion states that the faculty serving in the program must be of sufficient number to maintain continuity, stability, oversight, student interaction, and advising. Because of recent retirements and resignations, currently there are 11 faculty members in the Department of Computer and Information Sciences with 2.5 full time faculty assigned to the CS program. While the standard teaching load is 12 credits, faculty often teach overloads to cover all of the classes. In addition, faculty are advising between 19 and 40 students. The heavy teaching and advising loads leads to diminished continuity, stability, oversight, and student interaction.

b. This criterion states that the competence of faculty members must be demonstrated by such factors as education, professional credentials and certifications, professional experience, ongoing professional development, contributions to the discipline, teaching effectiveness, and communication skills. The team observed that the heavy teaching load limits faculty's opportunity to be involved in professional development and contributions to the discipline. Thus strength of compliance with this criterion is lacking.

### 30-Day Due-Process Response

Summary: The University is currently advertising for three faculty positions for the Department of Computer and Information Science. One faculty position each will be devoted to the Computer Science program, the Information Technology programs, and the Cybersecurity programs. The addition of the Information Technology and Cybersecurity faculty members will allow the current and future Computer Science faculty members to teach exclusively within the Computer Science program.

Evaluation: While the University is actively seeking new faculty members, as yet, those faculty members have not been hired. For both factor a and factor b, without the additional staffing, the heavy instructional and advising load will contribute to diminished stability, continuity, and student interaction while also restricting the opportunity for professional development and contribution to the discipline.

#### Status

The program weakness is unresolved.

#### Notes for Next Review

This weakness will be examined carefully at the next review. In preparation for that review, the CAC anticipates the preparation of documentation with respect to this shortcoming that focuses on the following item:

- Documentation of an adequate number of faculty for the CS program to provide continuity, stability, oversight, and student interaction.
- Documentation of the continued competence of the faculty through involvement in professional development activities and faculty contributions to the discipline.

## 2. Criterion 8. Institutional Support

This criterion states that resources including institutional services, financial support, and staff provided to the program must be adequate to meet program needs. It was observed that there is a classroom scheduling system in place that does not give priorities to special setups and equipment needs for computing programs. All available space can be reserved on a first-come first-served basis which forces some Computer Science classes into spaces that are neither

equipped nor adequate for the subject area. The scheduling issues can impact the students' ability to achieve the outcomes if the courses are not taught in appropriate environments.

### 30-Day Due-Process Response

Summary: Arkansas Tech University has a well-documented and adequate process in place used for class scheduling. In addition, if there are multiple requests for a particular space, there is also an adequate process in place for conflict resolution.

Evaluation: The documented system does provide the necessary information for class assignments to be accurately made.

### Status

The program weakness has been resolved.

# Information Systems

## BS Program

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Evaluated under CAC Program Criteria for  
Information Systems and Similarly Named Computing Programs

### INTRODUCTION

Arkansas Tech University has offered a Bachelor of Science degree in Information Systems since 2002. The Information Systems degree program underwent its initial general review during the 2007-2008 cycle and accreditation of the program was granted retroactive to October 1, 2006. The program underwent its last general review during the 2013-2014 cycle.

Since the last general review in 2013-2014, there have been no major curriculum changes to the Information Systems degree. There have, however, been changes in the administration of the Department of Computer and Information Science which houses the Information Systems degree program.

#### **Status of Shortcomings from the Previous Review:**

The following is the status at the time of the visit.

##### Program Concern

Criterion 6, Faculty. With a one-year emergency faculty hire and additional adjunct faculty, the program currently satisfies this criterion; however, the potential exists that in the future this temporary faculty support may not continue to be sustained, which could impact the faculty's ability to maintain continuity, stability, oversight, student interaction, and advising.

Status: The concern is unresolved and contributes to a weakness in the current review.

### PROGRAM WEAKNESSES

#### **1. Criterion 4. Continuous Improvement**

This criterion states that the results of the evaluation process must be systematically utilized as input for the continuous improvement of the program. The team has found that while there is an assessment process in place to collect data at the course level, not all faculty of the courses used to collect assessment data, including many upper-level classes offered on a limited basis, are participating in the collection of the data. The data from those course sections are not systematically used in the evaluation and improvement process. Using only partial data for evaluating the program does not correctly and accurately measure whether expected outcomes are being achieved at the program level leading to a weakness in this criterion.

## 30-Day Due-Process Response

None received.

### Status

The program weakness is unresolved.

### Notes for Next Review

This weakness will be examined carefully at the next review. In preparation for that review, the CAC anticipates the preparation of documentation with respect to this shortcoming that focuses on the following items:

- Appropriate and adequate data is collected, particularly from high-level course.
- The results of such data are reviewed and evaluated.
- The evaluation of such results are systematically used as input into the continuous improvement process.

## 2. Criterion 6. Faculty

The following factors contribute to this weakness:

a. This criterion states that the faculty serving in the program must be of sufficient number to maintain continuity, stability, oversight, student interaction, and advising. Because of recent retirements and resignations, currently there are only 11 faculty members in the Department of Computer and Information Sciences with 3 full time faculty assigned to the IS program. Their association and assignments in the computing programs are always in flux. While the standard teaching load is 12 credits, faculty often teach teach overloads to cover all of the classes. In addition faculty, are advising between 19 and 40 students. The heavy teaching and advising loads leads to diminished continuity, stability, oversight, and student interaction.

b. This criterion states that the competence of faculty members must be demonstrated by such factors as education, professional credentials and certifications, professional experience, ongoing professional development, contributions to the discipline, teaching effectiveness, and communication skills. The team observed that the heavy teaching load limits faculty's opportunity to be involved in professional development and contributions to the discipline. Thus strength of compliance with this criterion is lacking.

## 30-Day Due-Process Response

**Summary:** The University is currently advertising for three faculty positions for the Department of Computer and Information Science. One faculty position each will be devoted to the Computer Science program, the Information Technology programs, and the Cybersecurity programs. The addition of the Information Technology and Cybersecurity faculty members will allow the current and future Information Systems faculty members to teach exclusively within the Information Systems program.

**Evaluation:** While the University is actively seeking new faculty members, as yet, those faculty members have not been hired. For both factor a and factor b, without the additional staffing, the heavy instructional and advising load will contribute to diminished stability, continuity, and student interaction while also restricting the opportunity for professional development and contribution to the discipline.

### **Status**

The program weakness is unresolved.

### **Notes for Next Review**

This weakness will be examined carefully at the next review. In preparation for that review, the CAC anticipates the preparation of documentation with respect to this shortcoming that focuses on the following item:

- Documentation of an adequate number of faculty for the IS program to provide continuity, stability, oversight, and student interaction.
- Documentation of the continued competence of the faculty through involvement in professional development activities and faculty contributions to the discipline.

## **3. Criterion 8. Institutional Support**

This criterion states that resources including institutional services, financial support, and staff provided to the program must be adequate to meet program needs. It was observed that there is a classroom scheduling system in place that does not give priorities to special setups and equipment needs for computing programs. All available space can be reserved on a first-come first-served basis which forces some Information Systems classes into spaces that are neither equipped nor adequate for the subject area. Non-traditional students also report that class scheduling does not take into consideration their work schedule, especially in their junior and senior years, and they have difficulty in finding sections that fit into their schedules. The scheduling issues can impact the students' ability to achieve the outcomes if the courses are not taught in appropriate environments.

### **30-Day Due-Process Response**

**Summary:** Arkansas Tech University has a well-documented and adequate process in place used

for class scheduling. In addition, if there are multiple requests for a particular space, there is also an adequate process in place for conflict resolution.

Evaluation: The documented system does provide the necessary information for class assignments to be accurately made.

**Status**

The program weakness has been resolved.

# ARKANSAS TECH UNIVERSITY

Russellville, AR, United States

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ABET COMPUTING ACCREDITATION COMMISSION

## FINAL STATEMENT

VISIT DATES: OCTOBER 27-29, 2019

ACCREDITATION CYCLE CRITERIA: 2019-2020

## SUMMARY

The following is a summary of this evaluation for Arkansas Tech University during the 2019-2020 cycle:

### Computer Science Program

Program Weakness:

Criterion 6, Faculty. The following factors contribute to this weakness:

- a. The heavy teaching and advising loads leads to diminished continuity, stability, oversight, and student interaction.
- b. The heavy teaching and advising loads limit faculty's opportunity to be involved in professional development and to make contributions to the discipline.

### Information Systems Program

Program Weaknesses:

Criterion 4, Continuous Improvement. Although a documented assessment process is in place, not all faculty of the courses used to collect assessment data, including many upper-level classes, are participating in the collection of the data; nor is the data systematically used in the evaluation and improvement process.

Criterion 6, Faculty. The following factors contribute to this weakness:

- a. The heavy teaching and advising loads leads to diminished continuity, stability, oversight, and student interaction.
- b. The heavy teaching and advising loads limit faculty's opportunity to be involved in professional development and to make contributions to the discipline.