



# **STATE OF NORTH CAROLINA**

**AUDIT OF THE INFORMATION SYSTEMS**

**GENERAL CONTROLS**

**SURRY COMMUNITY COLLEGE**

**JANUARY 2008**

**OFFICE OF THE STATE AUDITOR**

**LESLIE MERRITT, JR., CPA, CFP**

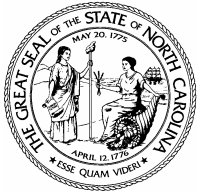
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Leslie Merritt, Jr.,  
CPA, CFP  
State Auditor

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**AUDITOR'S TRANSMITTAL**

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The Honorable Michael F. Easley, Governor  
Members of the North Carolina General Assembly  
The Board of Directors of Surry Community College  
Dr. G. Frank Sells, President

Ladies and Gentlemen:

We have completed our audit of Surry Community College. This audit was conducted during the period from October 18, 2007, through November 13, 2007. The audit was conducted in accordance with *Government Auditing Standards* and *Information Systems Audit Standards*.

The primary objective of this audit was to evaluate information systems (IS) general controls at Surry Community College. The scope of our IS general controls audit included general security, access controls, systems software, physical security, and disaster recovery. Other IS general control topics were reviewed as considered necessary.

This report contains an executive summary and audit results which detail the areas where Surry Community College has performed satisfactorily relevant to our audit scope, where improvements should be made, and where further study is necessary.

We wish to express our appreciation to the staff of Surry Community College for the courtesy, cooperation and assistance provided to us during this audit.

North Carolina General Statutes require the State Auditor to make audit reports available to the public. Copies of audit reports issued by the Office of the State Auditor may be obtained through one of the options listed in the back of this report.

Respectfully submitted,

A handwritten signature in cursive script that reads "Leslie W. Merritt, Jr.".

Leslie Merritt, Jr., CPA, CFP  
State Auditor

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## EXECUTIVE SUMMARY

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We conducted an Information Systems (IS) audit at Surry Community College from October 18, 2007, through November 13, 2007. The primary objective of this audit was to evaluate the IS general controls in place during that period. Based on our objective, we report the following conclusions:

**General security** involves the establishment of a reasonable security program that addresses the general security of information resources. Surry Community College has established a reasonable security program that addresses the general security of information resources. *We did not identify any significant weaknesses in general security during our audit.*

The **access control** environment consists of access control software and information security policies and procedures. We found one weakness in access controls. Due to the sensitive nature of the conditions found in these weaknesses, we have conveyed these findings to management in a separate letter pursuant to the provision of North Carolina G.S. 147-64.6(c)(18).

**Systems software** is the collection of programs that drive the computer. The selection of systems software should be properly approved and the software should be maintained by the computer center. *We did not identify any significant weaknesses in systems software during our audit.*

**Physical security** primarily involves the inspection of the agency's computer center for the controls that should reasonably secure the operations of the computer center from foreseeable and preventable threats from fire, water, electrical problems, and vandalism. *We did not identify any significant weaknesses in physical security.*

A complete **disaster recovery** plan that is tested periodically is necessary to enable Surry Community College to recover from an extended business interruption due to the destruction of the computer center or other Surry Community College assets. *We did not identify any significant weaknesses in disaster recovery.*

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## AUDIT OBJECTIVES, SCOPE, AND METHODOLOGY

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### OBJECTIVES

Under the *North Carolina General Statutes* 147-64.6, the State Auditor is responsible for examining and evaluating the adequacy of operating and administrative procedures and practices, systems of accounting, and other elements of State agencies. IS general control audits are examinations of controls which effect the overall organization and operation of the IS function. This IS audit was designed to ascertain the effectiveness of general controls at Surry Community College.

### SCOPE

General controls govern the operation and management of computer processing activities. The scope of our IS general controls audit was to review general security issues, access controls, systems software, physical security, and disaster recovery which directly affect Surry Community College's computing operations. Other IS general control topics were reviewed as considered necessary.

### METHODOLOGY

We audited policies and procedures, interviewed key administrators and other personnel, examined system configurations, toured the computer facility, tested on-line system controls, reviewed appropriate technical literature, reviewed computer generated reports, and used security evaluation software in our audit of general controls. We conducted our audit in accordance with the standards applicable to performance audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States and *Information Systems Audit Standards* issued by the Information Systems Audit and Control Association.

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## **BACKGROUND INFORMATION**

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Surry Community College, located in Dobson, North Carolina, was chartered by the North Carolina State Board of Education in January 1964. The College is accredited by the Southern Association of Colleges and Schools (SACS) to award associate degrees, diplomas, and certificates. The College offers Associate of Arts, Associate of Science, Associate of General Education, and Associate of Applied Science degrees. It also awards diplomas and certificates in career technology fields. The mission of Surry Community College is to promote personal growth and community development through excellence in teaching, learning, and service.

The information technology division at Surry Community College is referred to as the IT/Computer Services division of the College. The Chief Technology Officer for the College is directly responsible for the entire IT/Computer Services division. This position reports to the Executive Vice President and Chief Financial Officer. The mission of the IT/Computer Services division is to provide technical support for the faculty and staff of the College to enable them to achieve the institution's goals. The function of the IT/Computer Services division is to provide the technical support services necessary to enable the College staff and faculty to accomplish their job tasks in an efficient and effective manner. This includes providing hardware and software purchasing, installation, maintenance and training to faculty and staff.

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## AUDIT RESULTS

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The following audit results reflect the areas where Surry Community College has performed satisfactorily and where recommendations have been made for improvement.

### GENERAL SECURITY ISSUES

General security issues involve the maintenance of a sound security management structure. A sound security management structure should include a method of classifying and establishing ownership of resources, proper segregation of duties, a security organization and resources, policies regarding access to the computer systems and a security education program. Surry Community College has established a reasonable security program that addresses the general security of information resources. *Our audit did not identify any significant weaknesses in general security.*

### ACCESS CONTROLS

The most important information security safeguard that Surry Community College has is its access controls. The access controls environment consists of Surry Community College's access control software and information security policies and procedures. An individual or a group with responsibility for security administration should develop information security policies, perform account administration functions and establish procedures to monitor and report any security violations. We found one weakness in access controls. Due to the sensitive nature of the conditions found in these weaknesses, we have conveyed these findings to management in a separate letter pursuant to the provision of North Carolina G.S. 147-64.6(c)(18).

### SYSTEMS SOFTWARE

Systems software is the collection of programs that the computer center uses to run the computer and support the application systems. This software includes the operating system, utility programs, compilers, database management systems and other programs. The systems programmers have responsibility for the installation and testing of upgrades to the system software when received. Systems software changes should be properly documented and approved. *Our audit did not identify any significant weaknesses in system software.*

### PHYSICAL SECURITY

Controls over physical security are designed to protect a computer center from service interruptions resulting from fire, water, electrical problems, vandalism, and other causes. Surry Community College's physical security controls ensure that the computer service center is reasonably secure from foreseeable and preventable threats to its physical continuity. *Our audit did not identify any significant weaknesses in physical security.*

## AUDIT RESULTS (CONCLUDED)

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### DISASTER RECOVERY

Disasters such as fire and flood can destroy a computer service center and leave its users without computer processing support. Without computer processing, Surry Community College would grind to a halt. To reduce this risk, computer service centers develop business continuity plans. Business continuity procedures should be tested periodically to ensure the recoverability of the data center. *Our audit did not identify any significant weaknesses in disaster recovery.*

## ORDERING INFORMATION

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Audit reports issued by the Office of the State Auditor can be obtained from the web site at [www.ncauditor.net](http://www.ncauditor.net). Also, parties may register on the web site to receive automatic email notification whenever reports of interest are issued. Otherwise, copies of audit reports may be obtained by contacting the:

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