



EL PASO COMMUNITY COLLEGE PROCEDURE

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CS-4 Information Security

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AUTHORIZING BOARD POLICY: CS

Classification: Institutional

Responsible Vice President or Associate Vice President: Vice President of Information Technology/Chief Information Officer

Designated Contact: Chief Information Security Officer

OBJECTIVE: To guide students, faculty* and staff in providing information security protection to El Paso Community College Information Resources. All computer systems, networks, network connections, hardware and software are the property of El Paso Community College.

I. General

Information Resources are: Any and all computer printouts, online display devices, magnetic storage media, and all computer-related activities involving any device capable of receiving email, browsing Web sites, or otherwise capable of receiving, storing, managing, or transmitting electronic data including, but not limited to, mainframes, servers, personal computers, notebook computers, hand-held computers, personal digital assistants (PDA), pagers, distributed processing systems, network-attached and computer-controlled medical and laboratory equipment (i.e. embedded technology), telecommunication resources, network environments, telephones, fax machines, printers and service bureaus. Additionally, included are the procedures, equipment, facilities, software and data that are designed, built, operated, and maintained to create, collect, record, process, store, retrieve, display, and transmit information.

II. Process

A. Purpose

1. Ensure that El Paso Community College (EPCC) complies with state and federal laws and regulations regarding the use of and security of Information Resources.
2. Establish prudent and reasonable practices for the protection and security of information resources.
3. Educate employees, students, and others who may use information resources about the responsibilities associated with such use.
4. Protect automated information resources against accidental or unauthorized disclosure, contamination, modification or destruction, as well as to ensure the security, reliability, integrity and availability of information.

It is the policy of El Paso Community College to protect all data and information resources in accordance with the Texas Department of Information Resources (DIR) *Information Security Standards for Institutions of Higher Education* published in the *Texas Administrative Code*, 1 TAC 202.70-78.

B. Use of Information Technology Resources

1. Access to College information resources must be controlled and managed. EPCC policy requires that College-owned information resources be used only for official EPCC purposes except that incidental personal use of computer resources by employees is permitted, subject to review and reasonable restrictions by the employee's supervisor; adherence to applicable EPCC policies and state and federal law; and as long as such usage does not interfere with the employee's accomplishment of his or her job duties and does not result in any additional costs to the College.
2. Information which is sensitive or confidential must be protected from unauthorized access or modification.

* Note: The word "faculty" denotes instructors, counselors and librarians.

3. Data which are essential to critical EPCC functions must be protected from loss, contamination, or destruction.
4. Risks to information resources must be managed. The expense of security safeguards must be appropriate to the value of the assets being protected, considering value to both the College and potential intruder.
5. The integrity of data, its source, its destination, and processes applied to it are critical to its value.
6. In the event a disaster or catastrophe disables information processing and related telecommunication functions, the ability to continue critical EPCC services must be assured.
7. Security needs must be considered and addressed in all phases of development or acquisition of new information processing systems.
8. Security awareness of employees must be continually emphasized and reinforced at all levels of management. All individuals must be accountable for their actions relating to information resources.
9. The EPCC Information Security Program must be responsive and adaptable to changing vulnerabilities and technologies affecting information resources.
10. The College must ensure adequate separation of functions for tasks that are susceptible to fraudulent or other unauthorized activity.

C. **Responsibilities for Information Resource Security**

Various categories of persons have responsibilities for the security of data, software, hardware and other information resources at EPCC.

1. Information security function. *Texas Administrative Code* (1 TAC 202.70-78) requires that each state agency head institute an information security function to administer the agency information security program. The El Paso Community College President has designated the Chief Information Officer's Information Security Manager to be responsible for coordinating the College's information security function. The information security function is charged with these tasks:
 - a. Cultivate, review, and interpret new sources of information on current and emerging laws, rules, regulations, and industry practice in relation to information technology security. Liaison with state and federal authorities requiring information and reports on security incidents to include campus police, Federal Bureau of Investigation, and other law enforcement agencies.
 - b. Review and understand the District's information technology infrastructure. Work with information technology infrastructure owners, and under the authority of the Chief Information Officer, implement and maintain the information technology security program. Research applicable hardware and software.
 - c. Design, implement, and monitor cost-effective security programs for the overall security and integrity of the District's electronic information, information systems, and information networks. Establish a reporting process to ensure that management is kept apprised of the effectiveness of information technology security and problem resolution.
 - d. Design, implement, and provide training policies, standards, guidelines, and security monitoring processes in relation to general control, security programs, privacy regulations, and development and operation of the District's technology infrastructure.
 - e. Prepare a District-wide information technology security plan to ensure compliance with Federal and Texas State Department of Information Resources (DIR) regulations.

- f. Recommend policies and establish procedures and practices, in cooperation with owners and custodians, necessary to ensure the security of information assets against unauthorized or accidental modification, destruction or disclosure.
 - g. Report, at least biennially, to the President or his/her designated representative on the effectiveness of information resources security controls.
2. Owner of an Information Resource – A person responsible for a business function and for determining controls and access to information resources supporting that business function. Owners are responsible for and authorized to approve access and to formally assign custody of an information asset, judge the asset’s value, specify data control requirements and convey them to users and custodians, and ensure compliance with applicable controls. College owners will, typically, be EPCC administrators.
 3. Custodian of an Information Resource – The person responsible for implementing owner-defined controls and access to an information resource. Custodians also provide physical and procedural safeguards for information resources, assist owners in evaluating the cost-effectiveness of controls and monitoring, and implement monitoring techniques and procedures for detecting, reporting and investigating breaches in information security. Because custodians, by virtue of their system responsibilities, have access to information resources that are generally outside the scope of their positions, they also have additional ethical and procedural responsibilities, shown in the *System Administrator Code of Ethics* in section C.4, below. College custodians, typically, will have database management and server administration responsibilities.
 4. User of an Information Resource – An individual or automated application authorized to access an information resource in accordance with the owner-defined controls and access rules. Users of information resources have the following responsibilities:
 - a. Individuals authorized to use College computing resources are prohibited from attempting to violate the security of other computer users on any system accessible via the College computer network. The violation or attempted violation of system security is grounds for revocation of computer access privileges, suspension or discharge of employees, suspension or expulsion of students and prosecution under one or more of the following laws or policies:
 1. *Texas Computer Crimes Statute* (Section 1, Title 7, Chapter 33 of the *Texas Penal Code*);
 2. *Federal Copyright Law*, Title 17, Section 117;
 3. *Family Educational Rights and Privacy Act* of 1974 (FERPA);
 4. *Texas Public Information Act*; and
 5. EPCC College procedure CS-2 *Computer System Security*.
 - b. Individuals are responsible for the security of any computer account issued to them and will be held accountable for any activity that takes place in their accounts. Any discovered violation or attempted violation of system security must be reported immediately to the Information Security Manager.
 - c. Each EPCC faculty and staff member (including student staff) who has access to the College’s central computer systems or any terminal or workstation device connected to the College computer network is responsible for using only those resources and materials required to fulfill his or her job functions. Moreover, such use must be appropriate and consistent with those job functions and must not violate or compromise the privacy or security of any data and/or systems accessible via the College computer network. Users will formally acknowledge that they will comply with the College security policies and procedures.
 - d. Users must follow recommended security procedures for machines under their control, including, but not limited to, the use of scanning software for malicious software and application of software and operating systems updates, and will be held accountable for any activity that takes place on those machines.

- e. Users are responsible for ensuring that backup copies of essential data and software used on personal computers under their control are made frequently enough to prevent unacceptable loss of such data and software.
- f. Each person having access to an administrative database is responsible for ensuring the privacy and security of any information accessible to him/her in the normal course of his/her work.
- g. Each person is responsible for the security of any terminal or workstation device accessible to him/her in the normal course of his/her work.

D. System Administrator Code of Ethics

- 1. Certain designated persons are given broader access to the resources of computer systems because their job responsibilities require such access. Typically, such persons are responsible for providing administrative services on the designated computer(s), services such as system maintenance, data management, and user support. The term “broader access” covers a range from wider access than given to an ordinary system user, up to and including complete access to all resources on the computer system. Persons with the broadest (complete) access are sometimes called “superusers.”
- 2. This code of ethics applies to all persons given broader-than-normal access to any resources on EPCC multi-user computer systems. It also applies to persons who authorize such access. The points contained in this code are considered additions to the responsibilities acknowledged by all ordinary computer users and by the authorizers of computer privileges.

Responsibilities of Privileged Access Users

Superusers (individuals with full access to files) and all other persons given broader-than-normal access privileges on EPCC computer systems agree:

- 1. Not to “browse” through the computer information of system users while using the powers of privileged access unless such browsing: is a specific part of their job description (e.g. a corporate computer auditor); is required during file system repair, management, or restoration; is necessary to investigate suspicious or system-impairing behavior or possible violations of EPCC policy; or is specifically requested by, or has the approval of, the person who authorized their privileged access. Browsing should never be done unless it is in the best interest of EPCC.
- 2. Not to disclose, to any unauthorized person, computer information observed while operating with privileged access.
- 3. Not to copy any computer information for any purpose other than those authorized under their defined job responsibilities or pursuant to an authorized investigation or review.
- 4. Not to intentionally or recklessly damage or destroy any EPCC computing resources.
- 5. Not to accept favors or gifts from any user or other person potentially interested in gaining access to EPCC computer systems.
- 6. Not to do any special favors for any user, member of management, friend, or any other person regarding access to EPCC computers. Such a favor would be anything that circumvents prevailing security protections or standards.
- 7. Not to tell or disclose to any unauthorized person the information required to gain privileged access, or to engage in careless practices that would reveal that information to unauthorized persons.
- 8. Not to attempt to gain or use privileged access outside of assigned responsibility (e.g., on other machines) or beyond the time when such access is no longer required in assigned job functions.
- 9. Not to change or develop any computer software in a way that would disclose computer information to persons not authorized to have it, or make it possible to retain any special access privilege once that authorized privilege has been terminated by management.

10. Not to make arrangements on computer system(s) under their charge that will impair the security of other systems. In order to comply with this restriction, a system administrator setting up authorized networking connections should make use of available controls and protections as fully as reasonably possible.

Furthermore, superusers and all other persons given broader-than-normal access privileges on EPCC computer systems agree that they will:

1. Report all suspicious requests, incidents, and situations regarding an EPCC computer to an appropriate member of local management, the Chief Information Officer, the Information Security Office, the IT Help Desk or EPCC Police. Use the Incident Reporting Form whenever possible.
2. Use all available software protections to safeguard computer system(s) under their charge from unauthorized access by any person or another computer.
3. Take steps to the best of their ability to comply with all computer security standards and policies in force at EPCC and furthermore, advise management and/or designated computer security representatives at EPCC of deficiencies in these standards.
4. Conduct themselves in a manner that will foster security awareness and understanding among users.

Responsibilities of Management

Management should restrict the number of persons granted privileged access to a minimal practicable number. Management should tell the person who is responsible for overall administration of a system the names of all other persons who have been granted privileged access and what functions those persons have been assigned. Persons who are to be given privileged access to EPCC computer system should be selected (or approved) by the Administrator of the department that owns or manages the operation of the computer system or by another member of management to whom this responsibility has been delegated.

E. Risk Analysis Procedure

Risk analysis is the vehicle for systematically evaluating the vulnerabilities of an information system and its data to the threats facing it in its environment; it is an essential part of any security and risk management program. Although absolute security against all threats is unachievable, risk analysis provides a framework for weighing losses which may be expected to occur in the absence of an effective security control against the costs of implementing such a control. Risk management is intended to ensure that reasonable steps have been taken to prevent situations that can interfere with accomplishing the EPCC mission. To that end, the following measures shall be taken:

1. An internal audit of the information security function shall be performed periodically, based on risk assessment, as directed by the Chief Information Officer acting on delegated authority for risk management decisions.
2. Owners of information resources shall periodically complete and/or commission a risk analysis of all information resources in their custody. The degree of risk acceptance (i.e. the exposure remaining after implementing appropriate protective measures, if any) must be identified and documented.
3. The Chief Information Officer shall biennially (per *Texas Administrative Code* 1 TAC 202.70-78) complete and/or commission a risk analysis of information resources considered essential to the College's critical mission and functions. He or she shall also prepare, commission, and maintain a written and cost-effective Disaster Recovery Plan that provides for the prompt and effective continuation of critical College missions in the event of a disaster. The Disaster Recovery Plan will be tested and updated periodically to assure that it is valid and remains current.

F. Human Resources Practices

1. People are the most important components of an information security program. People also represent the greatest threats to information security; therefore, maintaining employee awareness and motivation is an integral part of the security program. Managers are responsible for taking all measures necessary to ensure that departmental staff maintain an appropriate level of confidentiality

of information retrieved from College information sources. Examples of such information include personnel and payroll records, transcript and grade records, financial aid information, and other sensitive data. Use of such information for unauthorized purposes is prohibited; as is access to such information in any form whatsoever by unauthorized individuals.

2. The College's Information Security Office maintains an Information Security Handbook that details specific steps that should be taken to protect information resources at EPCC. A series of Information Security Standards defines operating practices for all pertinent Information Security subjects. The use of College information resources implies that the user has knowledge of, and agrees to comply with, the processes and practices contained and referenced in the handbook and standards. Managers are responsible for ensuring that all faculty, staff, and student members of their respective departments, including part-time or temporary employees, read and agree to the policies and procedures as outlined in this procedure, in the Information Security Handbook and in the Information Security Standards.
3. The Technology Resource Center shall provide literature and/or training to emphasize security awareness and the importance of individual responsibility with respect to information security. Supervisors must continually reinforce the value of security consciousness in all employees whose duties bring them into contact with confidential or sensitive information resources.
4. Supervisors are responsible for ensuring that access privileges are revoked or modified as appropriate for any employee in their charge who is terminating, transferring, and/or changing duties. Supervisors should provide notification to the appropriate custodian of an information resource whenever an employee's access privileges should be revoked or changed as a result of the employee's change in status. The custodian of each information resource shall establish procedures to ensure that all security privileges associated with an employee's job function are revoked once it is known that the employee has ceased employment with the College. The separating employee shall cease to have any further access to confidential and sensitive information via College computing resources.

G. Physical Security Procedures

Without physical control over the access to information resources, there can be no security from unauthorized use of those resources because malicious or inexperienced persons could obtain access to the operating system of servers and/or desktop machines and thereby view, copy, delete, or otherwise cause harm to the files on the system. Therefore, the following procedures are critical to protecting the College's information resources:

1. All College information processing areas must be protected by physical controls appropriate for the size and complexity of the operations and the criticality or sensitivity of the systems operated at those locations.
2. Managers shall conduct reviews of physical security measures annually, as well as whenever facilities or security procedures are significantly modified.
3. Physical access to centrally administered computer facilities is restricted to individuals having prior authorization from Information Technology. Authorized visitors shall be supervised.
4. The responsibility for securing departmentally administered computer facilities and/or equipment from unauthorized physical access and/or improper use rests with the manager responsible for the facility and/or equipment.
5. Information resources shall be protected from environmental hazards. Designated employees shall be trained to monitor environmental control procedures and equipment and shall be trained in appropriate responses in case of emergencies or equipment problems. Emergency procedures shall be developed and regularly tested.
6. No terminal or workstation logged in to a current job session capable of accessing confidential or sensitive information shall be left unattended unless appropriate measures, such as password protected keyboard locking, have been taken to prevent unauthorized use. The owner of the logged-in account is responsible for any activity that occurs during a job session logged-in under that account.

7. Data and software essential to the continued operation of critical College functions will be backed up. The security controls over the backup resources will be as stringent as the protection required of the primary resources. Backup of data and software stored on centrally administered computer systems is the responsibility of Information Technology. Departments administering networks are responsible for establishing regular schedules for making backup copies of all mission-critical data and software resident on their networks and for ensuring that the backups are stored in a safe location.

H. Information Safeguards

1. Information Technology will purchase and maintain virus protection software for use on all College-owned or operated computers.
2. Each College department shall, as part of its contingency plan, provide for an alternate means of accomplishing its program objectives in case the system or its communication network becomes unavailable. Alternative procedures shall be established that enable College personnel to continue critical day-to-day operations in spite of the loss of the communication network.
3. When confidential or sensitive information from another College or state agency is received by EPCC in connection with the transaction of official business, EPCC shall maintain the confidentiality or sensitivity of the information in accordance with the conditions imposed by the providing agency or college.
4. Except for public users of systems where such access is authorized, or for situations where risk analysis demonstrates no need for individual accountability of users, each user of multiple-user automated systems shall be assigned a unique personal identifier or user identification. User identification shall be authenticated before the system may grant that user access to automated information.
5. Mission-critical College systems which use passwords for authentication shall conform to the federal standard on password usage contained in the *Federal Information Processing Standard Publication 112* (FIPS PUB 112), which specifies minimum criteria and provides guidance for selecting additional password security criteria when appropriate.
6. Appropriate audit trails shall be maintained to provide accountability for changes to confidential or sensitive information, software and automated security or access rules.
7. Encryption techniques for storage and transmission of information shall be used based on documented security risk management decisions.
8. Test functions shall be kept either physically or logically separate from productions functions. Copies of production data shall not be used for testing unless all personnel involved in testing are authorized access to the production data.
9. Appropriate information security and audit controls shall be incorporated into new systems. Each phase of systems acquisition shall incorporate corresponding development or assurances of security controls.
10. Public access systems must authenticate the identity of any individual retrieving, creating, and/or updating sensitive or confidential information about themselves.
11. Public access systems must have security procedures in place to protect the privacy and confidentiality of individuals who access those systems, in accordance with federal and state laws.
12. Any individual who connects a machine to the campus network is responsible for maintaining security on that machine system (including password security) and for performing appropriate security updates so as to prevent security breaches to the campus network.
13. The custodian of an information resource must take steps where possible, such as using an encryption system, to ensure that passwords cannot be obtained by interception of data communications transmissions or access to a storage device.

14. Network access to an application containing confidential or sensitive data, and data sharing between applications, shall be as authorized by the application custodians and shall require authentication of any user of the application.

I. Security Breaches

Breaches to information resource security controls shall be investigated promptly by the owner of the information system, assisted by the Information Security Manager if such assistance is requested. If criminal action is suspected, the owner or investigating agency must contact the EPCC Police Department, who shall investigate and take appropriate legal action. Violations of policy shall be reported to a faculty or staff member's supervisor or, if the violation is by a student, to the Dean of Students.

J. Sanctions

1. Machines on the campus data communications network will be disconnected if they are deemed by the Information Security Manager to be dangerous to the remainder of campus or to the Internet in general.
2. Penalties for violation of this procedure range from loss of computer resource usage privileges to dismissal from the College, prosecution, and/or civil action. Each case will be determined separately on its merits and in accordance with existing College disciplinary policies and procedures. Referrals for adverse action will be made through the Vice President for Information Technology/Chief Information Officer.
3. If the offender is a faculty member, the procedures to be followed are those specified in El Paso County Community College District Board Policy 3.38.01: *Dismissal or Suspension of Faculty*.
4. If the offender is a staff member, the procedures to be followed are those specified in El Paso County Community College District Board Policy 3.36.01: *Dismissal or Suspension of Contracted Administrative, Professional Support, and Classified Staff*.
5. If the offender is a student, the procedures to be followed are those specified in the *Code of Student Conduct*. If the student in violation of this procedure is also an employee of the College, sanctions may include termination of employment.