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# **Computer Security Training & Awareness Course Compendium**

**Kathie Everhart  
Editor**

U.S. DEPARTMENT OF COMMERCE  
Technology Administration  
National Institute of Standards  
and Technology  
Gaithersburg, MD 20899

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**Kathie Everhart  
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May 1992



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**NATIONAL INSTITUTE OF STANDARDS  
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## Preface

This National Institute of Standards and Technology Interagency Report (NISTIR) is a compendium of computer security training and awareness courses. The purpose of this publication is to assist federal agencies locate computer security training resources. This publication is part of a continuing NIST effort to support federal agencies in accordance with NIST's mandate under the Computer Security Act of 1987. These courses are organized into training areas within audience categories as defined in NIST Special Publication 500-172, Computer Security Training Guidelines.

NIST Special Publication 500-172 was developed to provide a framework for identifying computer security training requirements for a diversity of audiences. It focuses on learning objectives based upon the extent to which computer security knowledge is required by an individual as it applies to his or her job function.

A training matrix was introduced in Special Publication 500-172 to assist agencies in designing training that meets the learning objectives for a particular group. The training and awareness courses in this compendium have been mapped to the matrix (see appendix A) by the training organization/vendor.

The National Institute of Standards and Technology (NIST) makes no claim or endorsement of the computer security courses or their currency in this compendium. Courses listed in the compendium were sent in as a result of a public data call during the 1991 calendar year. The data call consisted of a letter of invitation to known sources of trainers as provided by the Federal Computer Security Program Managers' Forum; and the Federal Information Systems Security Educators' Association. In addition, a CSL Newsletter was disseminated nationwide inviting vendors to participate in this effort. Therefore, this listing is not a complete source of all available security related courses.

Vendors already listed are encouraged to continue to send in changes/updates and new vendors are invited to send in their computer security courses. (See address below.) NIST expresses its appreciation to the many federal, academic, and vendor organizations that participated in this effort for their time and interest in mapping their courses to the matrix in NIST Special Publication 500-172.

Questions or comments regarding this publication should be addressed to Kathie Everhart, Office of the Associate Director for Computer Security, Computer Systems Laboratory, Building 225, Room B154, National Institute of Standards and Technology, Gaithersburg, MD, 20899.

Additional copies of this NISTIR may be purchased through the National Technical Information Service, Springfield, VA. 22161, telephone: (703) 487-4650. SP500-172 may be purchased through the Government Printing Office, telephone: (202) 783-3238.



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## **COMPUTER SECURITY BASICS FOR EXECUTIVES**

COURSE TITLE: Computer Security For End Users

COURSE LENGTH: 1 DAY

### VENDOR

USDA, Graduate School  
600 Maryland Ave, SW  
Washington, DC 20024  
(202) 447-7124

This workshop will give you an overview of the threats to, and vulnerabilities of, computer systems, and appropriate safeguards to protect those systems. We will stress your role in the protection of sensitive data, and in the prevention and detection of computer crime. You will receive checklists and suggestions for becoming more aware of possible computer security problems in your office, and you will be able to get advice on how to deal with concerns that are specific to your agency or installation.

COURSE TITLE: Computer Security For Executives

COURSE LENGTH: 3 HRS

### VENDOR

USDA, Graduate School  
600 Maryland Ave, SW  
Washington, DC 20024  
(202) 447-7124

This briefing will give you a basic understanding of computer security. It includes an overview of threats and vulnerabilities to computer systems and your responsibility for the assessment of your agency's computer security program. We will review briefly the history of computers, then examine current dependencies on computers, applicable laws and regulations, computer crime, viruses, and touch on espionage. Bring your questions because the briefing is designed to be responsive to your needs. Time has been reserved at various points for you to raise concerns from your individual agency perspective.



COURSE TITLE: Computer Security Awareness Training  
COURSE LENGTH: 3 HRS

VENDOR

GSA Training Center  
P.O. Box 15608  
Arlington, VA 22215-0608  
(703) 557-0885

Participants learn to be aware of threats to and vulnerabilities of computer systems, as well as to encourage use of improved security practices. Topics include: Computer Security Act of 1987; computer fraud, waste, and abuse; and types of computer hackers. Also discussed are natural disasters and human errors relating to computer security.

COURSE TITLE: Information Risk Assessment & Security Management  
COURSE LENGTH: 1 SEM

VENDOR

University of Maryland, University Coll  
University Boulevard at Adelphi Road  
College Park, MD 20742-1614  
(301) 985-7155

An examination of the proliferation of corporate data bases and the development of telecommunications network technology as gateways or invitations to intrusion. Ways of investigating the management of the risk and security data and data systems are presented as a function of design through recovery and protection. Issues of risk and security, as they relate to specific industries and government, are major topics in the course. Examples are presented of how major technological advances in computer and operating systems have placed data, as tangible corporate assets, at risk. Both quantitative sampling techniques for risk assessment and for qualitative decision-making under uncertainty are explored.

COURSE TITLE: EDP Auditing:The First Step  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

This seminar provides financial auditors or new information systems auditors with the skills required to audit complex automated applications. Detailed coverage of computerized controls is provided to ensure participants understand the key controls and how to audit them. They will also learn how to audit the data center, data security, systems under development and how to design audit software tests. In addition, we have included a special section on EDI which explains the concepts, the economics and key controls available to ensure electronic transactions are processed accurately and efficiently. A special section on Auditing Trading Partner Agreements is devoted to minimizing the negative impact of EDI and protecting your organization. Each participant will receive detailed checklists and comprehensive audit programs so they can perform Information Systems audits. The audit experiences related by the instructors provides valuable insight on how to locate, identify and rectify control weaknesses in a computerized environment.

COURSE TITLE: Computer Security Executive Overview  
COURSE LENGTH: 2 HRS

VENDOR

Department of Justice Training Center  
Suite 304, Indiana Building  
633 Indiana Avenue, NW  
Washington, DC 20530  
(202) 307-0528

This briefing is designed for executive personnel and will present an overview of applicable laws and other requirements for computer security. The course will emphasize implementation of these requirements at the executive management level, and the role of senior management in supporting security initiatives. The objectives are to aid executives in meeting their responsibilities under the Computer Security Act of 1987 by: Presenting an overview of computer security program elements; emphasizing executive management strategies for ensuring cost-effective implementation of computer security programs; and explaining the risk management decision process. Spaces are available to other federal agencies.



COURSE TITLE: Application Auditing  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

Using the CANAUDIT approach to auditing, participants will learn the risks associated with financial systems, what can go wrong and the need for strong cost-effective internal control.

Emphasis is placed on developing creative audit programs that stress control and more importantly, business solutions to control weaknesses. Our approach recognized that application auditing is more than compliance auditing. We have combined financial auditing with the principles of EDP and operational auditing. Participants will learn how to incorporate these functions into their audits including when to ask for assistance from Technical EDP and Operational Audit Specialists. This course uses comprehensive case studies to reinforce the lecture and discussions. All participants will receive a series of application oriented audit programs which can be tailored to their organization.

COURSE TITLE: Auditing AS/400:A Step By Step Approach  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

IBM's AS/400 computer series is rapidly becoming the work horse of the mini and midi computer world. With a broad industry base, this multi functional machine serves as a primary business platform, as a front end processor or as a process controller. This intensive seminar concentrates on the control and security concerns relating to the AS/400. The participants will learn how to automate the audit using ROBOT, utilities and AS/400 tools. Key control points are identified to enable auditors to focus their efforts to ensure a complete audit while reducing the audit duration. Actual case studies are used throughout the seminar to provide real life examples to reinforce the audit programs and techniques.

COURSE TITLE: Information seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or modules can be selected to provide training on specific subjects in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 3-Getting Started

Module 5-Overview of the ISA Function

Module 6-Overview of Computer Operations

Module 7-A Management Approach to Computer Fraud

Module 8-Introduction to General Controls

Module 9-Organization and Administration

Module 23-Introduction to Application Control Reviews

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT, or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 1-Computers and Their Components  
Module 2-Data and Data Processing  
Module 3-Programs and Languages  
Module 5-EDP Personnel  
Module 6-Access Control and Security

COURSE TITLE: Computer Security Awareness  
COURSE LENGTH: 1 HR

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

The purpose of this course is to provide participants with an awareness of computer security, to sensitize them to the need for computer security policies and practices in the workplace, and to motivate each individual to practice effective computer security techniques. The instructional content of the course is composed of: requirements of computer-security-related laws and circulars; definitions and examples of basic computer security terms; the increasing concern to protect computer assets; and basic computer practices, controls, and countermeasures.

NOTE: Contact the vendor for information concerning specialized agency training.

COURSE TITLE: Microcomputer Security  
COURSE LENGTH: 2 HRS

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

The purpose of this microcomputer security course is to sensitize participants to the need for microcomputer security and to provide each individual with some practical tools to protect their microcomputer assets, especially the stored information.

The course provides practical information on computer security that microcomputer users can implement immediately.

NOTE: Contact the vendor for information concerning specialized agency training.

COURSE TITLE: Computer Security Awareness

COURSE LENGTH: 5-8 HRS

VENDOR

DPEC

1679 Old Henderson Road

Columbus, OH 43220-3644

(800) 223-3732

This is a Computer Based Training (CBT) course using the framework of administrative, physical and logical security. Computer Security Awareness explains contingency planning and precautions against computer crime from the viewpoint of mainframe computers and micros; a computer security checklist is included. This is a modular course lasting 5 - 8 hours. The number of hours is based upon a student interacting with approximately 60-120 screens per hour.

## SECURITY PLANNING AND MANAGEMENT FOR EXECUTIVES

COURSE TITLE: Information Risk Assessment & Security Management

COURSE LENGTH: 1 SEM

### VENDOR

University of Maryland, University Coll  
University Boulevard at Adelphi Road  
College Park, MD 20742-1614  
(301) 985-7155

An examination of the proliferation of corporate data bases and the development of telecommunications network technology as gateways or invitations to intrusion. Ways of investigating the management of the risk and security data and data systems are presented as a function of design through recovery and protection. Issues of risk and security, as they relate to specific industries and government, are major topics in the course. Examples are presented of how major technological advances in computer and operating systems have placed data, as tangible corporate assets, at risk. Both quantitative sampling techniques for risk assessment and for qualitative decision-making under uncertainty are explored.

COURSE TITLE: Computer Security & Contingency Planning  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

Security Administration is now a reality in many organizations. Other companies that do not currently have a security administration function are considering, or are in the process of creating the security function. This seminar is designed to remove the mystery surrounding data security, and to provide participants with a proven approach to securing their computer systems. At the end of the session, participants will understand security administration and the critical items that must be included to enable the function to perform effectively. They will be able to classify data by criticality and confidentiality. They will have an understanding of logical access security, disaster contingency planning, and how to develop and implement security procedures in their organization.



COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or modules can be selected to provide training on specific subjects in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 3-Getting Started  
Module 4-Planning the IS Audit  
Module 5-Overview of the ISA Function  
Module 7-A Management Approach to Computer Fraud  
Module 8-Introduction to General Controls  
Module 23-Introduction to Application Control Reviews

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following module that has been selected for this particular training area:

Module 6-Access Control and Security

## COMPUTER SECURITY POLICY AND PROCEDURES FOR EXECUTIVES

COURSE TITLE: Information Risk Assessment & Security Management  
COURSE LENGTH: 1 SEMESTER

### VENDOR

University of Maryland, University Coll  
University Boulevard at Adelphi Road  
College Park, MD 20742-1614  
(301) 985-7155

An examination of the proliferation of corporate data bases and the development of telecommunications network technology as gateways or invitations to intrusion. Ways of investigating the management of the risk and security data and data systems are presented as a function of design through recovery and protection. Issues of risk and security, as they relate to specific industries and government, are major topics in the course. Examples are presented of how major technological advances in computer and operating systems have placed data, as tangible corporate assets, at risk. Both quantitative sampling techniques for risk assessment and for qualitative decision-making under uncertainty are explored.

COURSE TITLE: UNIX Systems Security

COURSE LENGTH: 3 DAY

VENDOR

Trainix

1686 Bismark Drive

Deltona, FL 32723

(904) 789-1769

This course discusses UNIX security and how system managers and administrators can implement security measures on UNIX. The focus of the course is on the inherent security vulnerabilities commonly found on UNIX systems and how to correct them. Examples are presented which illustrate how to insure a high level of security confidence against unauthorized users from accessing the system. The common methods used to penetrate UNIX systems, gain unauthorized root access permission, become another user, plant trojan horses or spoofs, and other ways of circumventing the normal system protection are disclosed. Each attendee will receive detailed audit checklists and a diskette containing UNIX shell and C programs which will assist in performing security auditing and risk analysis. Prerequisites: UX001-Fundamentals of UNIX and UX006-UNIX System Administration. A knowledge of Shell and C programming is helpful.

COURSE TITLE: UNIX Security For Users  
COURSE LENGTH: 1 DAY

VENDOR

Trainix  
1686 Bismark Drive  
Deltona, FL 32723  
(904) 789-1769

This seminar is designed to make all users aware of the UNIX security vulnerabilities and show them how to prevent an unauthorized user from compromising their login account or data. The security features which are provided as part of the operating system are first discussed. Then, some of the ways in which unauthorized people may use to gain access to a UNIX system or another users files and directories are discussed. Next, the ways of preventing unauthorized access are described in detail, along with exact descriptions of each UNIX command and the way it is used. Each attendee will be provided with a self-assessment checklist and sample programs which will allow them to perform a personal audit on their account. The seminar concludes with a discussion of the actions a user should take if they suspect compromise of their login and/or files.

COURSE TITLE: Auditing AS/400:A Step By Step Approach  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

IBM's AS/400 computer series is rapidly becoming the work horse of the mini and midi computer world. With a broad industry base, this multi functional machine serves as a primary business platform, as a front end processor or as a process controller. This intensive seminar concentrates on the control and security concerns relating to the AS/400. The participants will learn how to automate the audit using ROBOT, utilities and AS/400 tools. Key control points are identified to enable auditors to focus their efforts to ensure a complete audit while reducing the audit duration. Actual case studies are used throughout the seminar to provide real life examples to reinforce the audit programs and techniques.

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 6-Overview of Computer Operations

Module 9-Organization and Administration

Module 10-System Development Life Cycle

Module 11-Change Control and Management

Module 13-"The Time Bomb"

Module 14-Access Control

Module 16-Program Execution

Module 17-Continuity of Operations

Module 20-Data Bases

Module 21-Minicomputer Systems

Module 22-Microcomputer Systems



COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT, or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 2-Data and Data Processing  
Module 3-Programs and Languages

COURSE TITLE: Microcomputer Security  
COURSE LENGTH: 2 HRS

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

The purpose of this microcomputer security course is to sensitize participants to the need for microcomputer security and to provide each individual with some practical tools to protect their microcomputer assets, especially the stored information.

The course provides practical information on computer security that microcomputer users can implement immediately.

NOTE:Contact the vendor for information concerning specialized agency training.



## CONTINGENCY PLANNING FOR EXECUTIVES

COURSE TITLE: EDP Auditing:The First Step  
COURSE LENGTH: 3 DAY

### VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

This seminar provides financial auditors or new information systems auditors with the skills required to audit complex automated applications. Detailed coverage of computerized controls is provided to ensure participants understand the key controls and how to audit them. They will also learn how to audit the data center, data security, systems under development and how to design audit software tests. In addition, we have included a special section on EDI which explains the concepts, the economics and key controls available to ensure electronic transactions are processed accurately and efficiently. A special section on Auditing Trading Partner Agreements is devoted to minimizing the negative impact of EDI and protecting your organization. Each participant will receive detailed checklists and comprehensive audit programs so they can perform Information Systems audits. The audit experiences related by the instructors provides valuable insight on how to locate, identify and rectify control weaknesses in a computerized environment.

COURSE TITLE: Computer Security & Contingency Planning  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

Security Administration is now a reality in many organizations. Other companies that do not currently have a security administration function are considering, or are in the process of creating the security function. This seminar is designed to remove the mystery surrounding data security, and to provide participants with a proven approach to securing their computer systems. At the end of the session, participants will understand security administration and the critical items that must be included to enable the function to perform effectively. They will be able to classify data by criticality and confidentiality. They will have an understanding of logical access security, disaster contingency planning, and how to develop and implement security procedures in their organization.

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COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
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This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 8-Introduction to General Controls

Module 17-Continuity of Operations

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT, or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following module that has been selected for this particular training area;

Module 6-Access Control and Security

COURSE TITLE: Microcomputer Security  
COURSE LENGTH: 2 HRS

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

The purpose of this microcomputer security course is to sensitize participants to the need for microcomputer security and to provide each individual with some practical tools to protect their microcomputer assets, especially the stored information.

The course provides practical information on computer security that microcomputer users can implement immediately.

NOTE:Contact the vendor for information concerning specialized agency training.

## SYSTEMS LIFE CYCLE MANAGEMENT FOR EXECUTIVES

COURSE TITLE: EDP Auditing: The First Step  
COURSE LENGTH: 3 DAY

### VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

This seminar provides financial auditors or new information systems auditors with the skills required to audit complex automated applications. Detailed coverage of computerized controls is provided to ensure participants understand the key controls and how to audit them. They will also learn how to audit the data center, data security, systems under development and how to design audit software tests. In addition, we have included a special section on EDI which explains the concepts, the economics and key controls available to ensure electronic transactions are processed accurately and efficiently. A special section on Auditing Trading Partner Agreements is devoted to minimizing the negative impact of EDI and protecting your organization. Each participant will receive detailed checklists and comprehensive audit programs so they can perform Information Systems audits. The audit experiences related by the instructors provides valuable insight on how to locate, identify and rectify control weaknesses in a computerized environment.

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 8-Introduction to General Controls  
Module 10-System Development Life Cycle  
Module 11-Change Control and Management

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT, or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following module that has been selected for this particular training area:

Module 4-The System Development Life Cycle



**COMPUTER SECURITY BASICS  
FOR PROGRAM AND FUNCTIONAL MANAGERS**

COURSE TITLE: Computer Security For End Users  
COURSE LENGTH: 1 DAY

VENDOR

USDA, Graduate School  
600 Maryland Ave, SW  
Washington, DC 20024  
(202) 447-7124

This workshop will give you an overview of the threats to, and vulnerabilities of, computer systems, and appropriate safeguards to protect those systems. We will stress your role in the protection of sensitive data, and in the prevention and detection of computer crime. You will receive checklists and suggestions for becoming more aware of possible computer security problems in your office, and you will be able to get advice on how to deal with concerns that are specific to your agency or installation.

COURSE TITLE: Computer Security Awareness Training  
COURSE LENGTH: 3 HRS

VENDOR

GSA Training Center  
P.O. Box 15608  
Arlington, VA 22215-0608  
(703) 557-0885

Participants learn to be aware of threats to and vulnerabilities of computer systems, as well as to encourage use of improved security practices. Topics include: Computer Security Act of 1987; computer fraud, waste, and abuse; and types of computer hackers. Also discussed are natural disasters and human errors relating to computer security.

COURSE TITLE: Information Risk Assessment & Security Management  
COURSE LENGTH: 1 SEMESTER

VENDOR

University of Maryland, University College  
University Boulevard at Adelphi Road  
College Park, MD 20742-1614  
(301) 985-7155

An examination of the proliferation of corporate data bases and the development of telecommunications network technology as gateways or invitations to intrusion. Ways of investigating the management of the risk and security data and data systems are presented as a function of design through recovery and protection. Issues of risk and security, as they relate to specific industries and government, are major topics in the course. Examples are presented of how major technological advances in computer and operating systems have placed data, as tangible corporate assets, at risk. Both quantitative sampling techniques for risk assessment and for qualitative decision-making under uncertainty are explored.

COURSE TITLE: Introduction to Computer Security for Managers  
COURSE LENGTH: 8 HRS

VENDOR

Department of Justice Training Center  
Suite 304, Indiana Building  
633 Indiana Avenue, NW  
Washington, DC 20530  
(202) 307-0528

This program is designed to provide mid-level managers with an overview of computer security program planning and management. Presentation will emphasize compliance with P.L. 100-235 and other laws and requirements for classified and unclassified systems. Discussion will emphasize threats against sensitive systems; capabilities of potential adversaries; asset value; sensitivity and definition of protection levels appropriate to the threat; contingency planning; and management risk acceptance. The course will also cover development of security plans, & implementing computer security programs within budget and staff constraints. The objectives are to familiarize mid-level managers with computer security requirements and responsibilities and to increase their awareness of the necessity for computer security. Spaces are available to other federal agencies.

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or modules can be selected to provide training on specific subjects in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 3-Getting Started  
Module 5-Overview of the ISA Function  
Module 6-Overview of Computer Operations  
Module 7-A Management Approach to Computer Fraud  
Module 8-Introduction to General Controls  
Module 9-Organization and Administration  
Module 23-Introduction to Application Control Reviews

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT, or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 1-Computers and Their Components

Module 2-Data and Data Processing

Module 3-Programs and Languages

Module 5-EDP Personnel

Module 6-Access Control and Security

COURSE TITLE: Computer Security Awareness

COURSE LENGTH: 1 HR

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

The purpose of this course is to provide participants with an awareness of computer security, to sensitize them to the need for computer security policies and practices in the workplace, and to motivate each individual to practice effective computer security techniques. The instructional content of the course is composed of: requirements of computer-security-related laws and circulars; definitions and examples of basic computer security terms; the increasing concern to protect computer assets; and basic computer practices, controls, and countermeasures.

NOTE: Contact the vendor for information concerning specialized agency training.

COURSE TITLE: Microcomputer Security

COURSE LENGTH: 2 HRS

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

The purpose of this microcomputer security course is to sensitize participants to the need for microcomputer security and to provide each individual with some practical tools to protect their microcomputer assets, especially the stored information. The course provides practical information on computer security that microcomputer users can implement immediately.

NOTE: Contact the vendor for information concerning specialized agency training.

COURSE TITLE: Computer Security Awareness

COURSE LENGTH: 5-8 HRS

VENDOR

DPEC

1679 Old Henderson Road  
Columbus, OH 43220-3644  
(800) 223-3732

This is a Computer Based Training (CBT) course using the framework of administrative, physical and logical security. Computer Security Awareness explains contingency planning and precautions against computer crime from the viewpoint of mainframe computers and micros; a computer security checklist is included. This is a modular course lasting 5 - 8 hours. The number of hours is based upon a student interacting with approximately 60-120 screens per hour.

COURSE TITLE: Introduction to Computer Security for First-Level Supervisors

COURST LENGTH: 8 HRS

VENDOR

This program is designed for first-level supervisors and emphasizes the role of the supervisor in implementing and managing computer security programs. The course discusses approaches for instilling security awareness in staff, training, security administration, and incident management and reporting. An overview of threats, protection strategies, and implementation of policies and procedures is presented,



## SECURITY PLANNING AND MANAGEMENT FOR PROGRAM AND FUNCTIONAL MANAGERS

COURSE TITLE: Managing Org-Wide Information Security Program  
COURSE LENGTH: 3 DAY

### VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This program examines key issues in building and maintaining a security program that serves more than one division...a program that cuts across traditional boundaries and must deal with geographically and organizationally distinct units. Practical, cost-effective ideas on how to structure a plan, tools for evaluating risks and safeguards, and ways to encourage participation and commitment from all levels of the organization. Legislative and regulatory pressures including but not limited to the Foreign Corrupt Practices Act, copyright protection, and the Computer Security Act of 1987. Take-home materials include articles, checklists, forms, and information sources.

COURSE TITLE: Computer Security for Security & ADP Program Managers  
COURSE LENGTH: 3 DAY

### VENDOR

Department of Justice Training Center  
Suite 304, Indiana Building  
633 Indiana Avenue, NW  
Washington, DC 20530  
(202) 307-0528

This course is designed for ADP program managers and computer security program managers. It provides an overview of Public Law 100-235 and other laws and requirements for computer security. Emphases will be on the concepts and methodologies for developing computer security programs and the Department's policies regarding computer and information security as a background to securing the Department's information resources. The objective is to provide a comprehensive understanding of the full range of the potential threat and the effectiveness of alternative security controls against different threats. Spaces available to other federal agencies.

COURSE TITLE: Building Information Security Awareness  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This seminar shows how to "educate" managers, users, and DP personnel on the importance of protecting information resources. Top managers need to know in macro, bottom-line terms. Data security professionals need detailed technical training. Computer users, operators, and programmers must be shown what they can do on a day-to-day operational basis. This program delivers practical ideas and techniques on how to tailor a computer security training/orientation program to each of these diverse groups. You will learn how to plan a program. You will be shown what types of information should be gathered for presentation, how it should be logically organized for maximum impact, and which meeting and presentation techniques are most effective. And finally, you will be given specific ideas on how to measure the effectiveness of your security awareness program. As a "deliverable," you will develop an individualized training plan to be used in your own environment.

COURSE TITLE: Developing Computer Security Policy & Procedures  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This seminar is for DP managers, data security managers, and security officers responsible for developing computer security policies and procedures and integrating them into a comprehensive data processing security manual. You will learn how to determine what policies are needed, what areas a manual should cover, and how to gather the necessary information. Two different approaches - step-by-step "cookbook" procedures vs. more generalized policy statements. How to establish working liaisons with support staff in other areas, what's needed to get your policies and manual reviewed and approved, and pitfalls that must be avoided. Critique actual samples of procedures and policies currently in use.

COURSE TITLE: LAN Security  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

Local area networks (LANs) are significantly impacting the way organizations do business. As more and more critical work migrates from mainframes to LANs, the need for better controls becomes apparent. Learn about the security and control issues involved with LANs; the types of critical and sensitive data now residing on LANs; the impact of loss, change or disclosure; and realistic remedies for identified vulnerabilities. How transition technologies, topologies, and architectures create complex security, recovery, and integrity problems. Security features of popular LAN systems software and add-on packages. The need for policies, procedures, and administrative controls.

COURSE TITLE: Protecting Networks & Small Systems

COURSE LENGTH: 3 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

Widespread use of microcomputers and telecommunications technology offers greater opportunities for increasing white-collar productivity...and the risk that this technology will proliferate out of control. This seminar provides a security and control perspective of the opportunities and pitfalls in this new environment. It will be valuable for data processing management, communications management and specialists, office automation management, EDP auditors, security officers, and users of small systems. Participants are encouraged to bring a list of specific, relevant security problems currently being faced within their own organizations. Selected "cases" will be analyzed and discussed.

COURSE TITLE: Computer Viruses, Troj Horses, and Logic Bombs  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This seminar examines the insidious threats to computer systems posed by malicious programming, including viruses, Trojan horses, worms, logic bombs, and trap doors. We will examine the broad spectrum of harmful code, the people who create it, how viruses get into systems, demonstrations of illicit programs, and countermeasures. The impact of malignant programming extends well beyond any immediate file damage. Hidden losses, such as reconstruction of programs and data, and exhaustive detective work may be necessary. What types of people would infect our systems....are they employees, competitors, outsiders? We will review the latest legal cases relating to viruses and logic bombs, Examples of anti-virus software - what these "digital pharmaceuticals" can and cannot do. Realistic approaches for controlling the problem, and solutions which have worked. Note: Attendees are encouraged to provide examples, from their own experience, of destructive programming threats and effective technical and administrative countermeasures they have used.

COURSE TITLE: Computer Security For Managers  
COURSE LENGTH: 1 DAY

VENDOR

USDA, Graduate School  
600 Maryland Ave, SW  
Washington, DC 20024  
(202) 447-7124

This workshop will show you how to develop computer security awareness for end-users, and your role in program management, planning, personnel security, contingency planning, and the systems development life cycle. We will briefly review the Computer Security Act of 1987, and cover threats to, and vulnerabilities of, computer systems and appropriate safeguards, and various approaches to risk assessment. You will receive checklists and suggestions for becoming more aware of possible computer security problems in your office, and you will be able to get advice on how to deal with concerns that are specific to your agency or installation.

COURSE TITLE: DSR:No Fail Methodology For Data Security Review  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

The DSR is a unique and tested data security review methodology that provides an organization with a comprehensive, usable analysis and evaluation of its data security environment. If you have been using an unscientific approach to review data security, you will appreciate DSR and this seminar's step-by-step application of its structured methodology. You will use DSR and its technical documentation to conduct an actual data security review. The session's "hands-on" approach assures that you take back to the job a cohesive and cost-effective data security program and a supporting action plan.



COURSE TITLE: Information Risk Assessment & Security Management  
COURSE LENGTH: 1 SEMESTER

VENDOR

University of Maryland, University Coll  
University Boulevard at Adelphi Road  
College Park, MD 20742-1614  
(301) 985-7155

An examination of the proliferation of corporate data bases and the development of telecommunications network technology as gateways or invitations to intrusion. Ways of investigating the management of the risk and security data and data systems are presented as a function of design through recovery and protection. Issues of risk and security, as they relate to specific industries and government, are major topics in the course. Examples are presented of how major technological advances in computer and operating systems have placed data, as tangible corporate assets, at risk. Both quantitative sampling techniques for risk assessment and for qualitative decision-making under uncertainty are explored.



COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or modules can be selected to provide training on specific subjects in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 3-Getting Started

Module 4-Planning the IS Audit

Module 5-Overview of the ISA Function

Module 7-A Management Approach to Computer Fraud

Module 8-Introduction to General Controls

Module 23-Introduction to Application Control Reviews

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following module that has been selected for this particular training area:

Module 6-Access Control and Security

## COMPUTER SECURITY POLICY AND PROCEDURES FOR PROGRAM AND FUNCTIONAL MANAGERS

COURSE TITLE: Building Information Security Awareness  
COURSE LENGTH: 2 DAY

### VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This seminar shows how to "educate" managers, users, and DP personnel on the importance of protecting information resources. Top managers need to know in macro, bottom-line terms. Data security professionals need detailed technical training. Computer users, operators, and programmers must be shown what they can do on a day-to-day operational basis. This program delivers practical ideas and techniques on how to tailor a computer security training/orientation program to each of these diverse groups. You will learn how to plan a program. You will be shown what types of information should be gathered for presentation, how it should be logically organized for maximum impact, and which meeting and presentation techniques are most effective. And finally, you will be given specific ideas on how to measure the effectiveness of your security awareness program. As a "deliverable," you will develop an individualized training plan to be used in your own environment.

COURSE TITLE: Developing Computer Security Policy & Procedures  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This seminar is for DP managers, data security managers, and security officers responsible for developing computer security policies and procedures and integrating them into a comprehensive data processing security manual. You will learn how to determine what policies are needed, what areas a manual should cover, and how to gather the necessary information. Two different approaches - step-by-step "cookbook" procedures vs. more generalized policy statements. How to establish working liaisons with support staff in other areas, what's needed to get your policies and manual reviewed and approved, and pitfalls that must be avoided. Critique actual samples of procedures and policies currently in use.

COURSE TITLE: LAN Security  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

Local area networks (LANs) are significantly impacting the way organizations do business. As more and more critical work migrates from mainframes to LANs, the need for better controls becomes apparent. Learn about the security and control issues involved with LANs; the types of critical and sensitive data now residing on LANs; the impact of loss, change or disclosure; and realistic remedies for identified vulnerabilities. How transition technologies, topologies, and architectures create complex security, recovery, and integrity problems. Security features of popular LAN systems software and add-on packages. The need for policies, procedures, and administrative controls.

COURSE TITLE: Protecting Networks & Small Systems  
COURSE LENGTH: 3 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

Widespread use of microcomputers and telecommunications technology offers greater opportunities for increasing white-collar productivity...and the risk that this technology will proliferate out of control. This seminar provides a security and control perspective of the opportunities and pitfalls in this new environment. It will be valuable for data processing management, communications management and specialists, office automation management, EDP auditors, security officers, and users of small systems. Participants are encouraged to bring a list of specific, relevant security problems currently being faced within their own organizations. Selected "cases" will be analyzed and discussed.

COURSE TITLE: Computer Viruses, Troj Horses, and Logic Bombs  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This seminar examines the insidious threats to computer systems posed by malicious programming, including viruses, Trojan horses, worms, logic bombs, and trap doors. We will examine the broad spectrum of harmful code, the people who create it, how viruses get into systems, demonstrations of illicit programs, and countermeasures. The impact of malignant programming extends well beyond any immediate file damage. Hidden losses, such as reconstruction of programs and data, and exhaustive detective work may be necessary. What types of people would infect our systems....are they employees, competitors, outsiders? We will review the latest legal cases relating to viruses and logic bombs, Examples of anti-virus software - what these "digital pharmaceuticals" can and cannot do. Realistic approaches for controlling the problem, and solutions which have worked. Note: Attendees are encouraged to provide examples, from their own experience, of destructive programming threats and effective technical and administrative countermeasures they have used.



COURSE TITLE: Computer Security  
COURSE LENGTH: 5 DAY

VENDOR

GSA Training Center  
P.O. Box 15608  
Arlington, VA 22215-0608  
(703) 557-0885

Participants learn about federal computer security regulations and guidelines and their implementation in government agencies. Topics include: a threat overview, national computer security policies, an overview of the National Institute of Standards and Technology and the National Computer Security Center, physical security considerations, microcomputer security considerations, introduction to risk assessment, qualitative risk assessment, quantitative risk assessment, other risk assessment methodologies, contingency planning, design reviews and system tests, and security certification and accreditation.

COURSE TITLE: Information Security And Policy  
COURSE LENGTH: 1 SEMESTER

VENDOR

George Washington University/GSAS  
2000 G Street, NW  
Washington, DC 20077-2685  
(202) 994-7061

Computer fraud and effective countermeasures for computer system security. The social and legal environment of information systems, including data privacy and ethics in database management. Information access policy, data security, contracts. Antitrust and other business implications of policies, transborder data flow, technology transfer, electronic funds transfer systems, criminal justice information systems, cross-cultural differences, computer infringement of copyright, and protection of property rights in software. Prerequisite: AdSc 202 and 203.



COURSE TITLE: Information Risk Assessment & Security Management  
COURSE LENGTH: 1 SEMESTER

VENDOR

University of Maryland, University Coll  
University Boulevard at Adelphi Road  
College Park, MD 20742-1614  
(301) 985-7155

An examination of the proliferation of corporate data bases and the development of telecommunications network technology as gateways or invitations to intrusion. Ways of investigating the management of the risk and security data and data systems are presented as a function of design through recovery and protection. Issues of risk and security, as they relate to specific industries and government, are major topics in the course. Examples are presented of how major technological advances in computer and operating systems have placed data, as tangible corporate assets, at risk. Both quantitative sampling techniques for risk assessment and for qualitative decision-making under uncertainty are explored.

COURSE TITLE: UNIX Systems Security  
COURSE LENGTH: 3 DAY

VENDOR

Trainix  
1686 Bismark Drive  
Deltona, FL 32723  
(904) 789-1769

This course discusses UNIX security and how system managers and administrators can implement security measures on UNIX. The focus of the course is on the inherent security vulnerabilities commonly found on UNIX systems and how to correct them. Examples are presented which illustrate how to insure a high level of security confidence against unauthorized users from accessing the system. The common methods used to penetrate UNIX systems, gain unauthorized root access permission, become another user, plant trojan horses or spoofs, and other ways of circumventing the normal system protection are disclosed. Each attendee will receive detailed audit checklists and a diskette containing UNIX shell and C programs which will assist in performing security auditing and risk analysis. Prerequisites: UX001-Fundamentals of UNIX and UX006-UNIX System Administration. A knowledge of Shell and C programming is helpful.

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 6-Overview of Computer Operations  
Module 9-Organization and Administration  
Module 10-System Development Life Cycle  
Module 11-Change Control and Management  
Module 13-"The Time Bomb"  
Module 14-Access Control  
Module 16-Program Execution  
Module 17-Continuity of Operations  
Module 20-Data Bases  
Module 21-Minicomputer Systems  
Module 22-Microcomputer Systems

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT, or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 2-Data and Data Processing  
Module 3-Programs and Languages

COURSE TITLE: Microcomputer Security  
COURSE LENGTH: 2 HRS

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

The purpose of this microcomputer security course is to sensitize participants to the need for microcomputer security and to provide each individual with some practical tools to protect their microcomputer assets, especially the stored information.

The course provides practical information on computer security that microcomputer users can implement immediately.

NOTE: Contact the vendor for information concerning specialized agency training.

## CONTINGENCY PLANNING FOR PROGRAM AND FUNCTIONAL MANAGERS

COURSE TITLE: Planning An EDP Disaster Recovery Program

COURSE LENGTH: 3 DAY

### VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This seminar examines the critical components of the disaster recovery planning process in detail and offers a practical framework for implementing a disaster recovery program. A "big think" approach is required, because recovery planning is tedious, time-consuming, and requires management commitment plus cooperation from all levels of user personnel. Less than 20% of the top 1,000 U.S. firms have workable EDP disaster recovery plans that have been successfully tested. Indeed, many organizations today have no formal plans at all. Some have tried to formulate a plan but failed because they underestimated the scope and complexity of the task. Although a 3-day seminar cannot provide all the details necessary for a comprehensive program, this seminar will give you a firm grounding in the knowledge and skills needed for a successful disaster recovery planning effort.

COURSE TITLE: How To Develop A Disaster Recovery Plan  
COURSE LENGTH: 2 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

This intensive seminar provides proven techniques for creating, implementing, and maintaining an effective EDP disaster recovery plan. You will learn the key components of disaster recovery planning, how to create and test a disaster recovery plan, the emergency plan, backup procedures, and critical application analysis. We will use concrete examples of major tasks, including implementing escalation procedures, managing the recovery process, and integrating plan maintenance into the Systems Development Life Cycle.

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 8-Introduction to General Controls  
Module 17-Continuity of Operations



COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT, or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following module that has been selected for this particular training area;  
Module 6-Access Control and Security

COURSE TITLE: Microcomputer Security  
COURSE LENGTH: 2 HRS

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

The purpose of this microcomputer security course is to sensitize participants to the need for microcomputer security and to provide each individual with some practical tools to protect their microcomputer assets, especially the stored information. The course provides practical information on computer security that microcomputer users can implement immediately.  
NOTE:Contact the vendor for information concerning specialized



## SYSTEMS LIFE CYCLE MANAGEMENT FOR PROGRAM AND FUNCTIONAL MANAGERS

COURSE TITLE: UPS:Design, Selection and Specification  
COURSE LENGTH: 2 DAY

### VENDOR

University of Wisconsin, Milwaukee  
929 North 6th Street  
Milwaukee, WI 53203  
(800) 222-3623

Program objectives of this institute will have been accomplished if, upon completion, the attendee can answer satisfactorily the following questions: Where is UPS needed? When is UPS needed? Should the system be redundant? How should components be chosen? How is a system designed? What level of protection is appropriate? What are the system maintenance requirements? What grounding and noise problems need consideration? How can satisfactory performance be achieved while satisfying the NEC?  
NOTE:Previous attendees will find that material has been added to the program since they last attended.

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 8-Introduction to General Controls  
Module 10-System Development Life Cycle  
Module 11-Change Control and Management

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT, or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following module that has been selected for this particular training area:

Module 4-The System Development Life Cycle

COURSE TITLE: Computer Security In Application Software  
COURSE LENGTH: 2 DAY

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

This course presents a logical sequence of overall computer security activities during the application development life cycle. The course will assist application developers, sponsors, and owners in identifying security activities that should be considered for applications, whether they are being developed, significantly enhanced, or routinely debugged. This course is primarily intended for application software managers and support personnel.

NOTE:Contact the vendor for information concerning specialized agency training.

## **COMPUTER SECURITY BASICS FOR IRM, SECURITY, AND AUDIT**

COURSE TITLE: Becoming An Effective Data Security Officer  
COURSE LENGTH: 3 DAY

### VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

As a Data Security Officer, you may be responsible for creating a data security program or administering and improving one already in place. To a great extent, you will be defining your own role as you proceed. But where do you begin? What skills do you need to do the job? Where do you get the information to enhance your own skills? Who are the "key players" within your organization, and how do you get them committed to making security happen? What are the advantages of the job? The disadvantages? How have others succeeded, and what pitfalls should you avoid? This practical 3-day program will deliver the know-how to help you become a more effective, proficient, and successful Data Security Officer.

COURSE TITLE: Computer Security For End Users  
COURSE LENGTH: 1 DAY

### VENDOR

USDA, Graduate School  
600 Maryland Ave, SW  
Washington, DC 20024  
(202) 447-7124

This workshop will give you an overview of the threats to, and vulnerabilities of, computer systems, and appropriate safeguards to protect those systems. We will stress your role in the protection of sensitive data, and in the prevention and detection of computer crime. You will receive checklists and suggestions for becoming more aware of possible computer security problems in your office, and you will be able to get advice on how to deal with concerns that are specific to your agency or installation.

COURSE TITLE: Computer Security Awareness Training  
COURSE LENGTH: 3 HRS

VENDOR

GSA Training Center  
P.O. Box 15608  
Arlington, VA 22215-0608  
(703) 557-0885

Participants learn to be aware of threats to and vulnerabilities of computer systems, as well as to encourage use of improved security practices. Topics include: Computer Security Act of 1987; computer fraud, waste, and abuse; and types of computer hackers. Also discussed are natural disasters and human errors relating to computer security.

COURSE TITLE: Auditing Fraud: Prevent, Detect, & Control  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

Internal auditors are relied upon more and more to recognize the characteristics of potentially fraudulent activities, and to be knowledgeable about where fraud is most likely to occur in the organization. This intensive seminar examines where and why all types of fraud occur, including white collar crime, computer fraud, insider fraud, and external fraud. In this session you will learn to recognize red flag areas of fraud and strategies for reducing it. This seminar is your short cut to learning how to incorporate prevention, detection, and prosecution of fraud into your annual audit plans.

COURSE TITLE: OS/MVS Op Sys:Security/Audit Facilities  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

This course covers in detail the facilities available within MVS for solving audit and security problems. In this session you will learn how to use these existing software tools for auditing the operating system itself as well as application systems. Course materials include a bibliography of IBM manuals.

COURSE TITLE: Control, Audit, and Security For VM Operating Systems  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

In this seminar, you will gain the technical knowledge and insight necessary to conduct an independent review of VM. Topics included cover all the significant audit and security points in VM as well as specific tips for establishing and implementing sound management practices for the VM environment. Participants should have a general familiarity with VM.

NOTE: A CONTINUING 2-DAY WORKSHOP IS ALSO AVAILABLE.



COURSE TITLE: Audit, Control, and Security Of AS/400  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

In this seminar you will learn about the architecture, security and integrity of AS/400, and about the system's unique object-oriented design and integrated data base management system (DBMS). You will examine the impact of on-line systems on the control objectives within an EDP environment in general, and the security-related concerns and control objectives specific to AS/400. You will leave the seminar with a methodology and techniques for testing AS/400.

NOTE: A CONTINUING 2-DAY WORKSHOP IS ALSO AVAILABLE.

COURSE TITLE: CA-ACF2:Proper Implementation and Security  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

This intensive seminar has been updated to cover the newest features in Release 5.2, including the new GROUP feature and major changes to the CA-ACF2/CICS interface. In this in-depth session you will master the terms and concepts you need to know in order to understand how CA-ACF2 protects files and other resources in your MVS environment. You will discover all of the important testing tools available in this security package, and how to use them effectively. In addition, you will learn how to anticipate the deficiencies most commonly found in CA-ACF2 implementation and administration. You will leave this intensive session with tips for demonstrating risks and for selling common-sense recommendations that have proven track records for working. The course materials you receive will include an in-depth audit program and valuable sample reports.

NOTE: A CONTINUING 2-DAY WORKSHOP IS AVAILABLE.



COURSE TITLE: RACF:Proper Implementation and Security  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

This course introduces you to the facilities of RACF that have an impact upon audit and control objectives. It provides a complete overview of all important functions and terminology associated with RACF. You will learn to identify how RACF functions within your MVS installation and how to audit its use and administration. The course covers the Data Security Monitor and other Auditability enhancements in versions 1.7 and 1.8. You will also learn the internal security features of RACF and how you can conduct tests to insure that control and audit mechanisms are implemented properly. The seminar outline is subject to change based on enhancements and changes to the RACF product. Participants should have attended OS/MVS Operating:Security and Audit.

NOTE: A 2-DAY WORKSHOP IS ALSO AVAILABLE.

COURSE TITLE: CA-TOP Secret:Proper Implementation and Security  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

In this seminar you will learn the functions and components of TOP SECRET and the auditor tools within TOP SECRET to monitor the effective installation and on-going functions of the security system. You will learn all the important features of TOP SECRET and their relationship to the MVS operating system. The workshop covers the audit trails produced by the system and describes how these reports can be used as an effective detective control for monitoring both authorized and unauthorized access to system resources. Participants should first attend OS/MVS Operating System:Security and Audit.

NOTE: A 2-DAY WORKSHOP IS ALSO AVAILABLE.

COURSE TITLE: Omegamon:Audit and Security Features  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

Candle Corporation's OMEGAMON is a leading-edge product used to monitor and control complex MVS environments. Many of its system functions can be used for audit and security purposes. In this seminar you will learn the functions and components of OMEGAMON and become familiar with capabilities within OMEGAMON MVS, CICS, and IMS environments. The course will cover internal and external security, critical commands, and audit usage. In a "hands-on" environment, you will use a microcomputer model of the OMEGAMON system to perform critical commands and audit tests. The course will enable you to develop a detailed audit program based on the facilities and reporting features of the product. Participants in this session should have experience in MVS, or should have attended "Audit and Security Concepts for MVS Operating System."

COURSE TITLE: Introduction to DEC's VAX/VMS Operating System  
COURSE LENGTH: 2 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

This course provides a thorough introduction to VAX/VMS from the perspective of audit and security personnel who need access to the systems-dependent facilities of VAX/VMS. Through case examples you will see demonstrated the major features of VAX/VMS, including DCL, utilities, and analysis of the system. This session is guaranteed to give you a basic knowledge of the VMS operating system and a comfort level in moving around it. The facilities, tools and techniques taught during these two days will dramatically increase your understanding of and productivity in the VMS environment.

NOTE: ADVANCED COURSE AS A FOLLOW-ON ALSO AVAILABLE.

COURSE TITLE: Advanced Audit, Control, and Security/ DEC's VAX/VMS  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

This advanced seminar builds on the concepts and facilities presented in "Introduction to DEC's VAX/VMS Operating System" and focuses on the critical points to consider when auditing VAX/VMS systems and applications. You will come away with a detailed understanding of the VAX/VMS architecture, DCL commands, Digital's Network Architecture (DNA), and VAX built-in and optional security features. Emphasis will be placed on important areas for audit concentration within VMS such as systems generation, systems dump analyzer, VMS protection and privilege levels, systems and user logs, and DECnet and LAN interfaces. Those attending should have experience in the VAX/VMS environment, or should have attended "Introduction to DEC's VAX/VMS Operating System."

COURSE TITLE: Introduction to Computer Security for Managers  
COURSE LENGTH: 8 HRS

VENDOR

Department of Justice Training Center  
Suite 304, Indiana Building  
633 Indiana Avenue, NW  
Washington, DC 20530  
(202) 307-0528

This program is designed to provide mid-level managers with an overview of computer security program planning and management. Presentation will emphasize compliance with P.L. 100-235 and other laws and requirements for classified and unclassified systems. Discussion will emphasize threats against sensitive systems; capabilities of potential adversaries; asset value; sensitivity and definition of protection levels appropriate to the threat; contingency planning; and management risk acceptance. The course will also cover development of security plans, & implementing computer security programs within budget and staff constraints. The objectives are to familiarize mid-level managers with computer security requirements and responsibilities and to increase their awareness of the necessity for computer security. Spaces are available to other federal agencies.

COURSE TITLE: Tandem Security and Control

COURSE LENGTH: 2 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

Tandem computers are widely used in the banking and financial services industries to support Electronic Funds Transfer (EFT) systems. Retail EFT applications, used primarily as ATM and POS drivers, process transactions that are high in volume and carry a moderate individual dollar value. Wholesale EFT applications used for wire transfers process a moderate volume of transactions but at an extremely high dollar value. These systems can exchange the total assets of a bank between other financial institutions in any one day's operation. To help ensure complete and accurate transaction processing of these "fault tolerant" systems, security and integrity controls that are specific to Tandem systems must be understood, evaluated, and tested on a routine basis. This seminar will provide computer security and audit professionals with the tools to review Tandem installations and provide sound, technical, and practical recommendations toward improved integrity controls. GUARDIAN operating system facilities will be examined as well as external security extensions offered by Tandem and Alliance software vendors.

COURSE TITLE: Security and Auditability of the HP3000  
COURSE LENGTH: 2 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

In this seminar you will learn about HP 3000's standard system of control, security, auditability, and file management. HP 3000's system manager, access controls, user-defined commands, audit trails, and source/object version control features will be covered. In addition to the elements of security and audit software, you will learn specific procedures for their use that will assure the integrity of the programs and data running on your HP 3000 installation. Participants should have attended "EDP Auditing and Controls or Auditing Advanced Computer Applications."



COURSE TITLE: Guide To Auditing Novell Networks

COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

Local area networks, and Novell in particular, offer enormous productivity gains to organizations. Unfortunately, along with the benefits, come unique and complex security and control risks. If you are a computer auditor who now must audit networks, this course is for you. In this session you will gain a thorough understanding of basic networking concepts. You will learn the exposures and control concepts within Novell NetWare, the associated environmental control concerns, and the organizational and procedural issues which affect the integrity of networked LANs. The course will detail the specific access control facilities critical to the LAN implementation and administration. You will come away from this course with a framework for determining the auditability of a Novell LAN implementation, and with a foundation for building a LAN audit work program. Participants should have a good understanding of personal computing, the DOS operating system and DOS commands, and the DOS batch language.



COURSE TITLE: Audit, Security-LANs & Micro-To-Mainframe Links  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

This seminar is designed to help you avoid potential problems by establishing strategies which ensure successful, secure LANs and micro-to-mainframe links. This seminar provides a comprehensive view of LAN hardware and software, and micro-to-mainframe linking hardware and software. It presents practical methods for designing and implementing effective links and LANs and covers network performance and data compatibility from the audit and security points of view. In this session you will learn techniques for auditing LANs and links and for implementing data security and data integrity procedures. You will examine hardware and software products designed to enhance LAN and link security as well as those designed to improve audit productivity. The seminar also addresses PC-to-PC links, including remote PC links to LANs and WANs. A basic understanding of the fundamentals of microcomputer, spreadsheets, and data base software is suggested.

COURSE TITLE: On-Line, Dist Comm Sys:Control, Audit & Security  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

In this seminar you will learn the basic concepts of computer communications systems and a simple audit/analysis technique which can help you expose risks with very little in-depth knowledge of the technology. Through examination of the major functions and audit/security concerns in each layer of the ISO "Reference Model," you will learn the components of a more in-depth communications audit and the design and evaluation criteria of internal security controls. The sample work plans you receive, and the guidelines, audit tools, and techniques you learn will be immediately useful in auditing any communications system.

COURSE TITLE: Advanced Data Comm Networks:Security/Auditability  
COURSE LENGTH: 2 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

This seminar builds on the tools and techniques learned in On-Line and Distributed Communications Systems: Control, Audit, and Security, providing a comprehensive study of the data network portions of a computer communications system-OSI layers 1-4. You will explore, in-depth, the audit and security concerns in each layer, and examine the design and evaluation criteria of internal security controls. At the end of this intensive session, you will understand how protocols, public and private communication systems, and local area networks function. You will know how to perform a data communications audit. Participants should first attend "On-Line and Distributed Communications Systems." Participants are invited to bring network maps, protocol lists, and data traffic load statistics from their own installation.  
NOTE: A 2-DAY WORKSHOP IS ALSO AVAILABLE.

COURSE TITLE: Security & Auditing of SNA Networks/ACF/VTAM & NCP  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

This comprehensive seminar presents the concepts, terminology, components, functions, access points, and use of SNA (System Network Architecture) networks. It provides the technical information necessary to ensure that appropriate controls are implemented and are being used. With the information you gain from this seminar you can enhance the integrity, control, and reliability of data transfers within SNA environments and to/from SNA networks. You will learn standard techniques and optional enhancements for implementing and maintaining proven audit and control procedures for SNA systems. The seminar covers IBM's environments. Practical audit and control issues to be addressed include; present and new communications controllers, protocol emulators, Netview and Netview/PC, front end hardware and software, terminal systems, and SNA network management programs. NOTE: A 2-DAY WORKSHOP IS ALSO AVAILABLE.

COURSE TITLE: Audit, Control and Security of CICS  
COURSE LENGTH: 5 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

Telecommunications technology has created a whole new set of concerns regarding the control and auditability of on-line systems. This seminar will show you how to identify the available control and security features within CICS. You will learn how to audit CICS systems to insure those control measures are functioning properly. Participants should first attend "OS/MVS Operating System: Security and Audit." NOTE: A 2-DAY WORKSHOP IS ALSO AVAILABLE.

COURSE TITLE: UNIX Operating System:Security Features  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

This seminar identifies the weaknesses of UNIX and shows you how to detect and prevent unauthorized access. You will learn how to set up, manage, and maintain an enforceable UNIX security policy. The course examines security loopholes and successful ways to plug them. You will learn what to look for when auditing the system for suspected security violations.

COURSE TITLE: Information Risk Assessment & Security Mangement  
COURSE LENGTH: 1 SEMESTER

VENDOR

University of Maryland,University Coll  
University Boulevard at Adelphi Road  
College Park, MD 20742-1614  
(301) 985-7155

An examination of the proliferation of corporate data bases and the development of telecommunications network technology as gateways or invitations to intrusion. Ways of investigating the management of the risk and security data and data systems are presented as a function of design through recovery and protection. Issues of risk and security, as they relate to specific industries and government, are major topics in the course. Examples are presented of how major technological advances in computer and operating systems have placed data, as tangible corporate assets, at risk. Both quantitative sampling techniques for risk assessment and for qualitative decision-making under uncertainty are explored.

COURSE TITLE: Auditing AS/400:A Step By Step Approach  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

IBM's AS/400 computer series is rapidly becoming the work horse of the mini and midi computer world. With a broad industry base, this multi functional machine serves as a primary business platform, as a front end processor or as a process controller. This intensive seminar concentrates on the control and security concerns relating to the AS/400. The participants will learn how to automate the audit using ROBOT, utilities and AS/400 tools. Key control points are identified to enable auditors to focus their efforts to ensure a complete audit while reducing the audit duration. Actual case studies are used throughout the seminar to provide real life examples to reinforce the audit programs and techniques.

COURSE TITLE: The Data Center:Auditing For Profit  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

The audit programs provided in this course are specifically designed to enable the participants to conduct the data center audit with little or no need for additional support. Throughout this session emphasis is placed on ensuring that appropriate preventive controls are in place to prevent unscheduled interruption of processing or inappropriate data access. Disaster contingency planning is discussed in depth, with each participant receiving a copy of our general disaster recovery program. CANAUDIT has also added a module on out-sourcing which provides auditors with a good understanding of the concepts and the related risks. As with all CANAUDIT courses, this seminar makes extensive use of examples and classroom discussion to supplement the lecture.



COURSE TITLE: EDI:New Frontiers For Auditors

COURSE LENGTH: 1 DAY

VENDOR

Canaudit Inc.

P.O. Box 4150

Simi Valley, CA 93093

(805) 583-3723

Electronic Data Interchange is emerging as a major component of many financial, retail and manufacturing applications. Several major companies have made a public commitment to full EDI implementation in the near future. This technology presents the auditor with many new control and security issues in auditing EDI applications. The elimination of physical transactions and paper audit trails will force each financial auditor to perform functions formerly done by the EDP Auditor. This session is designed specifically for those auditors who require a comprehensive audit approach. Modules presented in this seminar include an overview of EDI technology and standards, critical functions of EDI, the controls available in the X12 standard and how to implement them. Each participant will receive a comprehensive audit program as part of the seminar handout.

COURSE TITLE: EDP Audit Workshop  
COURSE LENGTH: 5 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

This workshop is designed for auditors who will be conducting audits in a computerized environment. The workshop assumes no prior knowledge of EDP audit concepts or procedures and provide participants with a sound understanding of the audit risks relating to information systems. Once the groundwork is laid, participants will learn the controls required in computerized applications and a step by step approach to effectively evaluate the EDP control structures. As their understanding grows, participants will progress to more complicated IS audit topics including local area networks, data security, telecommunications networks and operating systems. Extensive coverage of EDI ensures participants are able to be active members of the EDI Implementation Team and ensures appropriate controls are designed into EDI applications. Instructors for this seminar were selected by their extensive IS audit experience and their ability to explain complex technology in simple English; therefore, participants will be sure to grasp the key concepts.



COURSE TITLE: Audit Software:Implementing New Technology  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

Audit software is a tool that has existed for many years, but many auditors have failed to fully utilize this valuable tool effectively. Audit software improves productivity and enables the discovery of control weaknesses that would otherwise go undiscovered. In the past, auditors have had to rely on sampling techniques due to file size limitations; but now that we have more powerful processors the entire data base can be read and multiple tests performed on each record. This greatly improves the quality of the audit while reducing audit risk. In addition to traditional uses of audit software, this session introduces several new audit software techniques such as remote auditing and knowledge bases. These innovative techniques enable broader audit coverage while reducing overall audit costs. Investigative software and silent auditing enable the auditor to check system integrity and detect potential fraud using the surprise audit approach. By the end of this extensive seminar the participants will understand the potential of modern Computer Assisted Audit Techniques, and how to utilize these powerful resources in their environment.

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or modules can be selected to provide training on specific subjects in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 3-Getting Started

Module 5-Overview of the ISA Function

Module 6-Overview of Computer Operations

Module 7-A Management Approach to Computer Fraud

Module 8-Introduction to General Controls

Module 9-Organization and Administration

Module 23-Introduction to Application Control Reviews

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT, or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 1-Computers and Their Components  
Module 2-Data and Data Processing  
Module 3-Programs and Languages  
Module 5-EDP Personnel  
Module 6-Access Control and Security

COURSE TITLE: Computer Security Awareness  
COURSE LENGTH: 1 HR

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

The purpose of this course is to provide participants with an awareness of computer security, to sensitize them to the need for computer security policies and practices in the workplace, and to motivate each individual to practice effective computer security techniques. The instructional content of the course is composed of: requirements of computer-security-related laws and circulars; definitions and examples of basic computer security terms; the increasing concern to protect computer assets; and basic computer practices, controls, and countermeasures.

NOTE: Contact the vendor for information concerning specialized agency training.

COURSE TITLE: Microcomputer Security  
COURSE LENGTH: 2 HRS

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

The purpose of this microcomputer security course is to sensitize participants to the need for microcomputer security and to provide each individual with some practical tools to protect their microcomputer assets, especially the stored information. The course provides practical information on computer security that microcomputer users can implement immediately.

NOTE: Contact the vendor for information concerning specialized agency training.

COURSE TITLE: Audit/Security Concepts-MVS/XA & MVS/ESA  
COURSE LENGTH: 5 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

While attending this program you will develop your technical understanding of the MVS/XA and MVS/ESA operating system and gain the skills you need to successfully review any MVS installation. This session presents a foolproof methodology for conducting a successful MVS operating system review. You will apply this methodology for reviewing an installation and develop the steps for a complete audit program.

NOTE: Participants should have attended OS/MVS Operating System: Security and Audit Facilities or have technical experience in the MVS environment, including familiarity with TSO or the use of IBM utilities.

COURSE TITLE: Enterprise Systems Analysis for MVS/ESA & MVS/XA  
COURSE LENGTH: 4 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

This seminar address the external and internal workings of the MVS/XA and MVS/ESA operating systems, focusing on security and control aspects. This seminar will answer questions and fill in those technical areas you need to understand in order to perform more effective and detailed MVS reviews.

NOTE: Participants should have attended "Audit and Security Concepts for the MVS Operating System" and completed one or more MVS reviews. Participants are requested to bring to the session technical data or code extracted from their own MVS installation.

COURSE TITLE: Conducting a Performance Audit of MVS  
COURSE LENGTH: 2 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

In this seminar you will learn bottom-line impacting measurement and tuning concepts and techniques for assessing and optimizing the performance of your current MVS operating system. When you leave this session you will be able to conduct a performance audit of an MVS system, plus provide valuable guidance in the system and tuning process.

NOTE: Participants should have attended "Audit and Security Concepts and Workshop for MVS/XA and MVS/ESA" and/or have a solid understanding of MVS.

COURSE TITLE: How to Audit and Control TSO  
COURSE LENGTH: 2 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

This workshop will give you a solid background in the functions and components of TSO. You will learn the capabilities within TSO and MVS that enable you to monitor TSO's effective installation and on-going functions. You will learn how to use TSO audit trails to monitor both authorized and unauthorized access attempts to system resources.

NOTE: Participants should be familiar with OS/MVS or should have attended "OS/MVS Operating System: Security and Audit".



COURSE TITLE: EDP Audit & the "CASE" Environment  
COURSE LENGTH: 2 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

This course is constructed to examine the three major topic areas that are of special interest to EDP auditors working in Computer Automated Systems Engineering (CASE) environments. Part one provides a set of clear definitions about the CASE industry, its products, and trends. In part two you will learn how to use CASE-based tools to test systems and data integrity, evaluate internal controls, and generate working papers. In part three you will learn the fundamental issues related to auditing CASE-based applications including change controls, and data and program testing.

COURSE TITLE: Telecom & Lan Mgr Guide to Disaster Prevention Recovery  
COURSE LENGTH: 2 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

This two-day briefing will provide you with the information you need to prevent a system failure and to react appropriately should one occur. The purpose of this briefing is to: introduce you to the areas of greatest exposure and risk in telecommunications systems and local area networks, define the factors and costs you need to consider when developing a disaster recovery plan, help you perform a "self-audit" to determine if your networks are adequately protected, and provide you with the tools you need to effectively avoid, and if necessary, guide your company through a telecommunications disaster.

COURSE TITLE: Computer Security Awareness  
COURSE LENGTH: 5-8 HRS

VENDOR

DPEC  
1679 Old Henderson Road  
Columbus, OH 43220-3644  
(800) 223-3732

This is a Computer Based Training (CBT) course using the framework of administrative, physical and logical security. Computer Security Awareness explains contingency planning and precautions against computer crime from the viewpoint of mainframe computers and micros; a computer security checklist is included. This is a modular course lasting 5 - 8 hours. The number of hours is based upon a student interacting with approximately 60-120 screens per hour.

COURSE TITLE: Auditing LAN Performance, Security & Reliability  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

With organizations stringing together computers at a dizzying rate, today's local area networks (LANs) are carrying more vital engineering, sales, marketing, and shipping data than ever before. As LAN activity increases, decreased network performance can spell disaster. Slow response time, system crash, unauthorized use of system terminals, and/or network incompatibilities can interrupt work flow, dramatically reduce productivity, and undermine your organization's bottom-line. This comprehensive, three-day seminar attacks LAN vulnerabilities head-on and provides you with the know-how to analyze LAN activity to determine if sensitive network traffic is secured and if the network is performing properly.

## SECURITY PLANNING AND MANAGEMENT FOR IRM, SECURITY, AND AUDIT

COURSE TITLE: Developing Computer Security Policy & Procedures  
COURSE LENGTH: 2 DAY

### VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This seminar is for DP managers, data security managers, and security officers responsible for developing computer security policies and procedures and integrating them into a comprehensive data processing security manual. You will learn how to determine what policies are needed, what areas a manual should cover, and how to gather the necessary information. Two different approaches - step-by-step "cookbook" procedures vs. more generalized policy statements. How to establish working liaisons with support staff in other areas, what's needed to get your policies and manual reviewed and approved, and pitfalls that must be avoided. Critique actual samples of procedures and policies currently in use.

COURSE TITLE: Protecting Networks & Small Systems  
COURSE LENGTH: 3 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

Widespread use of microcomputers and telecommunications technology offers greater opportunities for increasing white-collar productivity...and the risk that this technology will proliferate out of control. This seminar provides a security and control perspective of the opportunities and pitfalls in this new environment. It will be valuable for data processing management, communications management and specialists, office automation management, EDP auditors, security officers, and users of small systems. Participants are encouraged to bring a list of specific, relevant security problems currently being faced within their own organizations. Selected "cases" will be analyzed and discussed.

COURSE TITLE: Computer Security for Security & ADP Program Managers  
COURSE LENGTH: 3 DAY

VENDOR

Department of Justice Training Center  
Suite 304, Indiana Building  
633 Indiana Avenue, NW  
Washington, DC 20530  
(202) 307-0528

This course is designed for ADP program managers and computer security program managers. It provides an overview of Public Law 100-235 and other laws and requirements for computer security. Emphases will be on the concepts and methodologies for developing computer security programs and the Department's policies regarding computer and information security as a background to securing the Department's information resources. The objective is to provide a comprehensive understanding of the full range of the potential threat and the effectiveness of alternative security controls against different threats. Spaces available to other federal agencies.

COURSE TITLE: Computer Viruses, Trojan Horses, and Logic Bombs  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This seminar examines the insidious threats to computer systems posed by malicious programming, including viruses, Trojan horses, worms, logic bombs, and trap doors. We will examine the broad spectrum of harmful code, the people who create it, how viruses get into systems, demonstrations of illicit programs, and countermeasures. The impact of malignant programming extends well beyond any immediate file damage. Hidden losses, such as reconstruction of programs and data, and exhaustive detective work may be necessary. What types of people would infect our systems....are they employees, competitors, outsiders? We will review the latest legal cases relating to viruses and logic bombs, Examples of anti-virus software - what these "digital pharmaceuticals" can and cannot do. Realistic approaches for controlling the problem, and solutions which have worked. Note: Attendees are encouraged to provide examples, from their own experience, of destructive programming threats and effective technical and administrative countermeasures they have used.

COURSE TITLE: Becoming An Effective Data Security Officer  
COURSE LENGTH: 3 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

As a Data Security Officer, you may be responsible for creating a data security program or administering and improving one already in place. To a great extent, you will be defining your own role as you proceed. But where do you begin? What skills do you need to do the job? Where do you get the information to enhance your own skills? Who are the "key players" within your organization, and how do you get them committed to making security happen? What are the advantages of the job? The disadvantages? How have others succeeded, and what pitfalls should you avoid? This practical 3-day program will deliver the know-how to help you become a more effective, proficient, and successful Data Security Officer.



COURSE TITLE: Microcomputer Security

COURSE LENGTH: 3 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This participative program examines the security issues around microcomputer use, with emphasis on identifying issues and developing plausible solutions for your real-world environment. The development of PC security issues and what the future holds. Security weaknesses of microcomputers and where PC security differs from mainframe security. Physical protection for the machines and associated media, plus data access control and virus prevention, with demonstrations of related products. Contingency planning for personal computers. Policies and procedures for controlling the spread and use of PCs. Software piracy and how to prevent it in the workplace. The value of a comprehensive and continually updated security awareness program in achieving your PC security objectives. Designed for DP and information center managers, security officers, and EDP auditors.

COURSE TITLE: Computer Security For Security Officers

COURSE LENGTH: 2 DAY

VENDOR

USDA, Graduate School  
600 Maryland Ave, SW  
Washington, DC 20024  
(202) 447-7124

This workshop will show you how to improve the computer security program in your agency. Through lectures, discussion, case studies and checklists you will be able to determine the strength of your current security program, and to pinpoint potential problem areas that need attention. You also will learn about your responsibilities with your agency management in terms of policy development and contingency planning.

COURSE TITLE: Information Risk Assessment & Security Management  
COURSE LENGTH: 1 SEMESTER

VENDOR

University of Maryland, University Coll  
University Boulevard at Adelphi Road  
College Park, MD 20742-1614  
(301) 985-7155

An examination of the proliferation of corporate data bases and the development of telecommunications network technology as gateways or invitations to intrusion. Ways of investigating the management of the risk and security data and data systems are presented as a function of design through recovery and protection. Issues of risk and security, as they relate to specific industries and government, are major topics in the course. Examples are presented of how major technological advances in computer and operating systems have placed data, as tangible corporate assets, at risk. Both quantitative sampling techniques for risk assessment and for qualitative decision-making under uncertainty are explored.

COURSE TITLE: Computer Security & Contingency Planning  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

Security Administration is now a reality in many organizations. Other companies that do not currently have a security administration function are considering, or are in the process of creating the security function. This seminar is designed to remove the mystery surrounding data security, and to provide participants with a proven approach to securing their computer systems. At the end of the session, participants will understand security administration and the critical items that must be included to enable the function to perform effectively. They will be able to classify data by criticality and confidentiality. They will have an understanding of logical access security, disaster contingency planning, and how to develop and implement security procedures in their organization.

COURSE TITLE: Control and Security of LANS  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

As local area networks (LAN's) permeate the organization, security and control issues are often ignored. This seminar takes a hard look at the audit concerns of LAN's and how to install effective controls in this dynamic computer environment. Participants will learn what can go wrong in the LAN environment and what preventive and detective controls are available to mitigate control weaknesses within the LAN or from external connections. LAN Management and the role of the LAN officer is discussed in detail. Special emphasis is placed on management of the hardware and connectivity along with the selection of software. These key items often limit the overall usefulness of the LAN and inhibit the achievement of connectivity and productivity objectives. Each participant will receive detailed audit programs, common control weaknesses and sample recommendations. These are the key tools they need to conduct LAN audits.

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or modules can be selected to provide training on specific subjects in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 3-Getting Started

Module 4-Planning the IS Audit

Module 5-Overview of the ISA Function

Module 7-A Management Approach to Computer Fraud

Module 8-Introduction to General Controls

Module 23-Introduction to Application Control Reviews

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following module that has been selected for this particular training area:

Module 6-Access Control and Security

## COMPUTER SECURITY POLICY AND PROCEDURES FOR IRM, SECURITY, AND AUDIT

COURSE TITLE: Developing Computer Security Policy & Procedures

COURSE LENGTH: 2 DAY

### VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This seminar is for DP managers, data security managers, and security officers responsible for developing computer security policies and procedures and integrating them into a comprehensive data processing security manual. You will learn how to determine what policies are needed, what areas a manual should cover, and how to gather the necessary information. Two different approaches - step-by-step "cookbook" procedures vs. more generalized policy statements. How to establish working liaisons with support staff in other areas, what's needed to get your policies and manual reviewed and approved, and pitfalls that must be avoided. Critique actual samples of procedures and policies currently in use.



COURSE TITLE: Communication Security Principles & Practices  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This workshop is for data processing managers, security officers, and auditors who have little or no knowledge in the communications area. Because communications systems are so complex and vulnerable, the data processing operation is a substantial risk. You will learn about the basic concepts and the terminology needed to communicate effectively with technicians. The emphasis, however, is on vulnerabilities and the practical security safeguards you can implement. Because the largest communications risk faced by most organizations is unauthorized access to their computers, considerable emphasis will be placed on how mainframe access control mechanisms interface with other communication security techniques. In particular, you will learn to address the three major risks - loss of network service, unauthorized access to your network and data center resources, and surveillance of your network traffic. "Special Note" You are encouraged to prepare, in advance of the Workshop, a description of specific communications security problems being faced within your own organization. Cases will be discussed as time permits and as issues arise during the Workshop.

COURSE TITLE: Managing Computer Security-Mergs, Acq, and Divestitures  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

Mergers, acquisitions, and divestitures are common in today's corporate environment. Unfortunately, while these situations can create serious information protection problems, security is usually considered only after the financial, legal, and structural issues have been settled. This seminar for security officers, DP managers, and auditors examines what to do before, during and after a major organizational change to ensure the adequate controls are in place. Computer security problems in merger/acquisition/divestiture situations, and what we can do about them. How major internal reorganizations, functional, consolidation, and plant closings affect security. These days many large corporations are "outsourcing" - getting out of the DP business by contracting all DP operations to an outside vendor. When this occurs, how do we ensure that the vendor properly protects our sensitive data and applications? What conditions increase an organization's vulnerability? Risk-reducing countermeasures.

COURSE TITLE: Protecting Networks & Small Systems  
COURSE LENGTH: 3 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

Widespread use of microcomputers and telecommunications technology offers greater opportunities for increasing white-collar productivity...and the risk that this technology will proliferate out of control. This seminar provides a security and control perspective of the opportunities and pitfalls in this new environment. It will be valuable for data processing management, communications management and specialists, office automation management, EDP auditors, security officers, and users of small systems. Participants are encouraged to bring a list of specific, relevant security problems currently being faced within their own organizations. Selected "cases" will be analyzed and discussed.

COURSE TITLE: Computer Viruses, Trojan Horses, and Logic Bombs  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This seminar examines the insidious threats to computer systems posed by malicious programming, including viruses, Trojan horses, worms, logic bombs, and trap doors. We will examine the broad spectrum of harmful code, the people who create it, how viruses get into systems, demonstrations of illicit programs, and countermeasures. The impact of malignant programming extends well beyond any immediate file damage. Hidden losses, such as reconstruction of programs and data, and exhaustive detective work may be necessary. What types of people would infect our systems....are they employees, competitors, outsiders? We will review the latest legal cases relating to viruses and logic bombs, Examples of anti-virus software - what these "digital pharmaceuticals" can and cannot do. Realistic approaches for controlling the problem, and solutions which have worked. Note: Attendees are encouraged to provide examples, from their own experience, of destructive programming threats and effective technical and administrative countermeasures they have used.

COURSE TITLE: Microcomputer Security

COURSE LENGTH: 3 DAY

VENDOR

Computer Security Institute

600 Harrison Street

San Francisco CA 94107

(415) 905-2200

This participative program examines the security issues around microcomputer use, with emphasis on identifying issues and developing plausible solutions for your real-world environment. The development of PC security issues and what the future holds. Security weaknesses of microcomputers and where PC security differs from mainframe security. Physical protection for the machines and associated media, plus data access control and virus prevention, with demonstrations of related products. Contingency planning for personal computers. Policies and procedures for controlling the spread and use of PCs. Software piracy and how to prevent it in the workplace. The value of a comprehensive and continually updated security awareness program in achieving your PC security objectives. Designed for DP and information center managers, security officers, and EDP auditors.

COURSE TITLE: Computer Security And Privacy

COURSE LENGTH:

VENDOR

Johns Hopkins University  
9601 Medical Center Drive  
Rockville, MD 10850  
(301) 294-7070

This course surveys the broad fields of computer security and privacy, concentrating on the nature of the computer security problem by examining threats to systems security, types of computer systems, and areas of system security and protection. Policy considerations related to the technical nature of the problem as manifested in government regulations and commercial practices are examined. The course develops the student's ability to assess system security weakness and formulate technical recommendations in the areas of hardware. Additional topics include access control (hardware and software), communications and network security, and the proper use of system software (operating system and utilities). The course addresses the social and legal problems of individual privacy in a data processing environment, as well as the computer "crime" potential of such systems. Several data encryption algorithms are examined. A student project or programming assignment may be required.



COURSE TITLE: Computer Security  
COURSE LENGTH: 5 DAY

VENDOR

GSA Training Center  
P.O. Box 15608  
Arlington, VA 22215-0608  
(703) 557-0885

Participants learn about federal computer security regulations and guidelines and their implementation in government agencies. Topics include: a threat overview, national computer security policies, an overview of the National Institute of Standards and Technology and the National Computer Security Center, physical security considerations, microcomputer security considerations, introduction to risk assessment, qualitative risk assessment, quantitative risk assessment, other risk assessment methodologies, contingency planning, design reviews and system tests, and security certification and accreditation.

COURSE TITLE: Information Security And Policy  
COURSE LENGTH: 1 SEMESTER

VENDOR

George Washington University/GSAS  
2000 G Street, NW  
Washington, DC 20077-2685  
(202) 994-7061

Computer fraud and effective countermeasures for computer system security. The social and legal environment of information systems, including data privacy and ethics in database management. Information access policy, data security, contracts. Antitrust and other business implications of policies, transborder data flow, technology transfer, electronic funds transfer systems, criminal justice information systems, cross-cultural differences, computer infringement of copyright, and protection of property rights in software. Prerequisite: AdSc 202 and 203.

COURSE TITLE: Security & Control In Automated Systems-Audit IS  
COURSE LENGTH: 3 DAY

VENDOR

USDA, Graduate School  
600 Maryland Ave, SW  
Washington, DC 20024  
(202) 447-7124

Internal auditors have a major role in reviewing the security and controls in sensitive automated systems. This course provides practical guidelines and techniques for auditing and evaluating the adequacy of security and internal controls in sensitive automated systems. Major problem areas are discussed and examples illustrating the results of inadequate security and controls are presented. In addition, the responsibility of management, internal audit, and data processing personnel is discussed. This course also provides the attendee with a comprehensive methodology for conducting security and internal control audits of sensitive data processing systems. Using a case study approach, the course illustrates how to identify and quantify the vulnerabilities of automated systems to fraud, disclosure, delay, and other threats. The internal control techniques which can be applied to address these vulnerabilities are discussed, as well as the requirements of OMB circulars A-127 and A-130.

COURSE TITLE: Data Center Security And Auditability  
COURSE LENGTH: 2 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

As an auditor in today's business environment, you must be familiar with the information processing function. In this seminar you will learn the components of a data center and the controls necessary to ensure accurate and reliable processing. The course covers data center operations, administration, scheduling, physical and data security, program change control, incident reporting, disaster recovery, and more. The seminar focus is on mainframe data centers, but includes security and audit responsibilities for mini and microcomputer environments as well. Participants should have attended EDP Auditing and Controls or Auditing Advanced Computer Applications.

COURSE TITLE: Audit & Security of DB2  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

In this course you will learn how IBM's newest relational data base operates and how it affects the integrity, security, and control of application systems. You will first gain a thorough understanding of the specific ways in which DB2 exposes your organization to threats such as data security, integrity, reliability, backup and recovery. You will then learn specific audit controls to employ to reduce those risks. You will leave the seminar knowing all the control points and retrieval utilities that are available within DB2. More importantly, you will take back to the job a tested audit approach to use in your DB2 environment.

COURSE TITLE: Audit & Security Concepts:MVS Operating System  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

In this intensive course you will learn the concepts of integrity, security and reliability that influence all versions of the MVS operating system. IBM's stated goals and general design philosophy of MVS will prepare you for future changes in MVS and MVS/ESA. Application of these principles will allow you to detect policy or legal violations against programs or data. Where appropriate, examples for all versions of MVS will demonstrate these principles. The course presents a foolproof methodology for conducting a successful MVS operating system review. You will develop a skeletal program for the review and specific questions to ask in each area. The procedures and techniques you learn in this seminar will give you a 50% start on the review of your MVS operating system. Participants in this course should have attended OS/MVS Operating System:Security and Audit or have technical experience in the MVS environment, including familiarity with TSO and the use of IBM utilities.

COURSE TITLE: Data Security Planning  
COURSE LENGTH: 3 DAY

VENDOR

IBM Management Institute  
19th Floor  
Chicago, IL 60611  
(312) 245-3791

This course incorporates the latest thinking on data security planning and discusses practical methods used by leading companies. It presents the policies and guidelines of IBM and other organizations to help resolve the issues facing you and your organization. This course should be attended by staff or line management responsible for implementing or enhancing the data security program. It is also intended for data security administrators, auditors and others with a specific interest in data security. This is a management course, not a technical course. It is appropriate for organizations with large or small DP installations.

COURSE TITLE: Information Risk Assessment & Security Management  
COURSE LENGTH: 1 SEM

VENDOR

University of Maryland, University Coll  
University Boulevard at Adelphi Road  
College Park, MD 20742-1614  
(301) 985-7155

An examination of the proliferation of corporate data bases and the development of telecommunications network technology as gateways or invitations to intrusion. Ways of investigating the management of the risk and security data and data systems are presented as a function of design through recovery and protection. Issues of risk and security, as they relate to specific industries and government, are major topics in the course. Examples are presented of how major technological advances in computer and operating systems have placed data, as tangible corporate assets, at risk. Both quantitative sampling techniques for risk assessment and for qualitative decision-making under uncertainty are explored.

COURSE TITLE: Computer Viruses:Detect, Prevent, Cure Infections  
COURSE LENGTH: 2 DAY

VENDOR

CENTER for Adv. Professional Develop.  
1820 E. Garry St.  
Santa Ana, CA 92705  
(714) 261-0240

Most of those who work with computers are aware of the existence of something called "computer virus," and the fact that it may be a danger to their computers or data. But it is hard to get good answers to the questions of what, exactly, a virus is, how great a danger it represents, and how to defend against any damage it might cause. Covering technical details where necessary, but always in non-technical language, this course will tell you what viri are, how they attack, how you can defend against them, and what the existence of viri mean to you and your use of computers. The course will give you a complete overview of all known ways that viri have "reproduced," and the various types of damage they have done. New viri are constantly being written so the course is constantly being updated, and research into ways that viri could attack, but haven't yet, will be reported.



COURSE TITLE: UNIX Systems Security  
COURSE LENGTH: 3 DAY

VENDOR

Trainix  
1686 Bismark Drive  
Deltona, FL 32723  
(904) 789-1769

This course discusses UNIX security and how system managers and administrators can implement security measures on UNIX. The focus of the course is on the inherent security vulnerabilities commonly found on UNIX systems and how to correct them. Examples are presented which illustrate how to insure a high level of security confidence against unauthorized users from accessing the system. The common methods used to penetrate UNIX systems, gain unauthorized root access permission, become another user, plant trojan horses or spoofs, and other ways of circumventing the normal system protection are disclosed. Each attendee will receive detailed audit checklists and a diskette containing UNIX shell and C programs which will assist in performing security auditing and risk analysis. Prerequisites: UX001-Fundamentals of UNIX and UX006-UNIX System Administration. A knowledge of Shell and C programming is helpful.

COURSE TITLE: Auditing AS/400:A Step By Step Approach  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

IBM's AS/400 computer series is rapidly becoming the work horse of the mini and midi computer world. With a broad industry base, this multi functional machine serves as a primary business platform, as a front end processor or as a process controller. This intensive seminar concentrates on the control and security concerns relating to the AS/400. The participants will learn how to automate the audit using ROBOT, utilities and AS/400 tools. Key control points are identified to enable auditors to focus their efforts to ensure a complete audit while reducing the audit duration. Actual case studies are used throughout the seminar to provide real life examples to reinforce the audit programs and techniques.

COURSE TITLE: The Data Center:Auditing For Profit  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

The audit programs provided in this course are specifically designed to enable the participants to conduct the data center audit with little or no need for additional support. Throughout this session emphasis is placed on ensuring that appropriate preventive controls are in place to prevent unscheduled interruption of processing or inappropriate data access. Disaster contingency planning is discussed in depth, with each participant receiving a copy of our general disaster recovery program. CANAUDIT has also added a module on out-sourcing which provides auditors with a good understanding of the concepts and the related risks. As with all CANAUDIT courses, this seminar makes extensive use of examples and classroom discussion to supplement the lecture.

COURSE TITLE: EDP Audit Workshop

COURSE LENGTH: 5 DAY

VENDOR

Canaudit Inc.

P.O. Box 4150

Simi Valley, CA 93093

(805) 583-3723

This workshop is designed for auditors who will be conducting audits in a computerized environment. The workshop assumes no prior knowledge of EDP audit concepts or procedures and provide participants with a sound understanding of the audit risks relating to information systems. Once the groundwork is laid, participants will learn the controls required in computerized applications and a step by step approach to effectively evaluate the EDP control structures. As their understanding grows, participants will progress to more complicated IS audit topics including local area networks, data security, telecommunications networks and operating systems. Extensive coverage of EDI ensures participants are able to be active members of the EDI Implementation Team and ensures appropriate controls are designed into EDI applications. Instructors for this seminar were selected by their extensive IS audit experience and their ability to explain complex technology in simple English; therefore, participants will be sure to grasp the key concepts.

COURSE TITLE: Control and Security of LANS  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

As local area networks (LAN's) permeate the organization, security and control issues are often ignored. This seminar takes a hard look at the audit concerns of LAN's and how to install effective controls in this dynamic computer environment. Participants will learn what can go wrong in the LAN environment and what preventive and detective controls are available to mitigate control weaknesses within the LAN or from external connections. LAN Management and the role of the LAN officer is discussed in detail. Special emphasis is placed on management of the hardware and connectivity along with the selection of software. These key items often limit the overall usefulness of the LAN and inhibit the achievement of connectivity and productivity objectives. Each participant will receive detailed audit programs, common control weaknesses and sample recommendations. These are the key tools they need to conduct LAN audits.

COURSE TITLE: Auditing Advanced Information Technology  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

When CANAUDIT set out to rewrite the popular ADVANCED EDP AUDITING seminar, the objective was to make it the most comprehensive Information Systems audit course currently available in the public marketplace. Only a completely new seminar, AUDITING ADVANCED INFORMATION TECHNOLOGY, could incorporate all of the enhancements. AUDITING ADVANCED INFORMATION TECHNOLOGY provides the Information Systems Auditor with the skills required to perform audits of Operating Systems, Local Area Networks, Wide Area Networks, Access Security and DB2. In addition to generic audit programs, participants will receive detailed product specific checklists for MVS, Tandem VAX, AS/400 and Novell. These checklists will enable the IS auditor to conduct audits of those critical components of information technology necessary to ensure their organization's information processing is secure, controlled and effective. Emphasis is placed on improving the quality of management techniques and controls to enable organizations to operate effectively in today's complex information technology environment.

COURSE TITLE: Auditing Datacomm Networks  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

Wide area networks are the lifeblood of corporate information processing and connectivity, yet many organizations have yet to do a complete audit of network operations and management. This seminar provides the IS auditor with a structured audit approach directed to identifying critical control weaknesses in the network, the carriers, the media and network management. Proven solutions to common control weaknesses will be provided to each participant. Focus in this seminar is on a complete audit approach for data and voice communications from a security and cost perspective. Network management tools and problem resolution techniques are the cornerstone of network operations. Special emphasis is placed on using NETVIEW, a popular network management tool to identify network problems. Participants in this session will receive detailed audit programs and checklists which will provide a strong starting point for their first Network Audit.



COURSE TITLE: Auditing IMS  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

This seminar examines the complexities of the IMS database management system. From a conceptual overview of the various IMS facilities to the detail of important control mechanisms within the IMS product software family, it explores the impact of IMS on the work of the auditor and the system development process. Upon completion of this seminar, the participant will understand the IMS environment, the theory and terminology and the operational perspective of running IMS on a daily basis. An audit program is discussed to enable participants to make practical use of the material covered during the seminar.

COURSE TITLE: MVS/ESA:An Audit Approach  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

The operating system is an essential component of system security and control. this seminar explains MVS/ESA, its component and the security implications resulting from control weaknesses. The SYSGEN process, system options and parameters are discussed as they relate to security. The usefulness and recommended use of SMP in the change control process is emphasized. Management procedures and the requirement for management involvement in the SYSGEN and change process are explained from an audit perspective. Each participant will receive an audit program to enable them to conduct a thorough review of MVS/ESA. they will also receive system utilities and JCL to enable them to verify the installation of system controls and identify control deficiencies. An overview of system security packages and how they enhance total system security is also provided.

COURSE TITLE: Auditing CICS/ESA  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

Finally, a course which provides EDP Auditors with a modern approach to auditing CICS! This seminar emphasizes a technical audit of CICS with in-depth coverage of all the control programs and tables. We discuss security concepts and the impact of security violations, along with practical suggestions for implementing the security features inherent in CICS. Sample audit programs and suggested recommendations are provided to each participant. Classroom presentations and discussions enable the participant to merge both theory and practice into a unified audit approach. Critical audit issues such as ON-Line Controls, Security Data Integrity, and Management Concerns are developed throughout the session to enable auditors to explain the business case for control of CICS as it applies to their organization. Since many clients still have not converted from CICS/VS to ESA both version will be covered during 1991 presentations of AUDITING CICS/ESA.

COURSE TITLE: Auditing VAX:A Comprehensive Approach  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

This session is the most comprehensive VAX Audit course currently available. It is intended for auditors who will be auditing the VAX operating system and its components. The seminar provides participants with an understanding of the hardware, software and security requirements as well as depth, along with detailed descriptions of utilities and System Generation controls. Because of the popularity of this topic, we recommend early registration.

NOTE:We recommend that participants attend the AUDITING ADVANCED INFORMATION TECHNOLOGY or EDP AUDIT WORKSHOP seminars or their equivalents prior to attending this course.

COURSE TITLE: Auditing Decnet  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

Many Canaudit clients use the DEC VAX as an integral part of extensive network applications. It is essential that these applications be secure and that communications be safe and confidential. this seminar is specifically designed for Canaudit clients using DECnet, the primary communications architecture for Digital networks. Complete coverage of all aspects of DECnet security including network implementations, Network Control Program and network access control methodologies is included in this concentrated seminar. All participants will learn the critical control features of DECnet and how to evaluate the control structure. In addition they will receive complete audit programs and utilities to automate much of the audit.

NOTE:AUDITING VAX:A COMPREHENSIVE APPROACH is the prerequisite for this course.

COURSE TITLE: Auditing Tandem  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

Tandem computers have successfully penetrated the computing marketplace. From their start as a fault tolerant machine, Tandems are now the processing platform of choice in several industries. Traditionally used in banking, Tandems are now widely used in manufacturing, research and as business processors for critical application processing. The widespread use of Tandems in networked environments make them a target for viral and hacker attacks. As a result, the need for security and control for these systems has never been greater, yet many CANAUDIT clients have not implemented the security and controls provided as part of the Tandem operating system. This seminar will enable participants to perform a complex security review of the Tandem operating system and security functions. The instructor explains potential security pitfalls and control weaknesses in depth and provides participants with Tandem utilities designed to probe the system to detect control weaknesses. Participants will learn proven techniques to remedy security and control weaknesses and how to install them.

NOTE: We recommend that auditors attend the AUDITING ADVANCED INFORMATION SYSTEMS or the EDP AUDIT WORKSHOP seminars or their equivalents prior to attending this session.

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 6-Overview of Computer Operations  
Module 9-Organization and Administration  
Module 10-System Development Life Cycle  
Module 11-Change Control and Management  
Module 13-"The Time Bomb"  
Module 14-Access Control  
Module 16-Program Execution  
Module 17-Continuity of Operations  
Module 20-Data Bases  
Module 21-Minicomputer Systems  
Module 22-Microcomputer Systems



COURSE TITLE: EDP Concepts For Business

COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT, or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 2-Data and Data Processing

Module 3-Programs and Languages

COURSE TITLE: Microcomputer Security

COURSE LENGTH: 2 HRS

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

The purpose of this microcomputer security course is to sensitize participants to the need for microcomputer security and to provide each individual with some practical tools to protect their microcomputer assets, especially the stored information. The course provides practical information on computer security that microcomputer users can implement immediately.

NOTE: Contact the vendor for information concerning specialized agency training.



## CONTINGENCY PLANNING FOR IRM, SECURITY, AND AUDIT

COURSE TITLE: Data Center Security And Auditability  
COURSE LENGTH: 2 DAY

### VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

As an auditor in today's business environment, you must be familiar with the information processing function. In this seminar you will learn the components of a data center and the controls necessary to ensure accurate and reliable processing. The course covers data center operations, administration, scheduling, physical and data security, program change control, incident reporting, disaster recovery, and more. The seminar focus is on mainframe data centers, but includes security and audit responsibilities for mini and microcomputer environments as well. Participants should have attended EDP Auditing and Controls or Auditing Advanced Computer Applications.

COURSE TITLE: Disaster Recovery Planning  
COURSE LENGTH: 3 DAY

### VENDOR

IBM Management Institute  
19th Floor  
Chicago, IL 60611  
(312) 245-3791

The real objective is to develop and maintain recovery capability - not just for DP but - for the applications critical to the conduct of business. It is easier and cheaper to do this right. This course is designed for those who wish to understand the issues, the alternatives, those who have to put a recovery capability into place. Teams from both the DP and user communities are encouraged to attend together. This is a management course, not a technical course and the strategies discussed are independent of any particular hardware or software.

COURSE TITLE: Computer Security & Contingency Planning  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

Security Administration is now a reality in many organizations. Other companies that do not currently have a security administration function are considering, or are in the process of creating the security function. This seminar is designed to remove the mystery surrounding data security, and to provide participants with a proven approach to securing their computer systems. At the end of the session, participants will understand security administration and the critical items that must be included to enable the function to perform effectively. They will be able to classify data by criticality and confidentiality. They will have an understanding of logical access security, disaster contingency planning, and how to develop and implement security procedures in their organization.

COURSE TITLE: The Data Center:Auditing For Profit  
COURSE LENGTH: 2 DAY

VENDOR .

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

The audit programs provided in this course are specifically designed to enable the participants to conduct the data center audit with little or no need for additional support. Throughout this session emphasis is placed on ensuring that appropriate preventive controls are in place to prevent unscheduled interruption of processing or inappropriate data access. Disaster contingency planning is discussed in depth, with each participant receiving a copy of our general disaster recovery program. CANAUDIT has also added a module on out-sourcing which provides auditors with a good understanding of the concepts and the related risks. As with all CANAUDIT courses, this seminar makes extensive use of examples and classroom discussion to supplement the lecture.

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 8-Introduction to General Controls

Module 17-Continuity of Operations

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT, or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following module that has been selected for this particular training area;  
Module 6-Access Control and Security

COURSE TITLE: Microcomputer Security  
COURSE LENGTH: 2 HRS

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

The purpose of this microcomputer security course is to sensitize participants to the need for microcomputer security and to provide each individual with some practical tools to protect their microcomputer assets, especially the stored information. The course provides practical information on computer security that microcomputer users can implement immediately.  
NOTE:Contact the vendor for information concerning specialized agency training.

## SYSTEMS LIFE CYCLE MANAGEMENT FOR IRM, SECURITY, AND AUDIT

COURSE TITLE: AIS Security Strategies  
COURSE LENGTH: 8 DAY

### VENDOR

Information Resources Management Coll.  
Bldg. 175, Washington Navy Yard  
Washington, DC 20374-5086  
(202) 433-4611

The course covers Automated Information System (AIS) security concepts, safeguard and risk analysis methods, and trusted computer system approaches. The course focuses on the incorporation of these concepts, methods, and approaches into AISs during the design, development and procurement phases of the life cycle management process. The course also covers security methods, procedures and techniques that are used to ensure the viability of a major AIS, and the security implications of functional and technical alternatives.

COURSE TITLE: Risk Assessment Techniques For Auditors  
COURSE LENGTH: 2 DAY

### VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

In this seminar you will learn how to design or select and implement a system for preparing your annual audit plan. You will learn ways to define an audit universe and auditable units. The risk concepts and methods you will learn will reduce your subjectivity and improve your efficiency and effectiveness in determining which audits to do when. The program examines techniques used by audit organizations today and compares strengths and weaknesses of the various methods. You will learn risk assessment, priority setting and decision making skills that will enable you to develop effective annual audit plans based upon risk.



COURSE TITLE: Performing Audits of MIS Systems Development Process  
COURSE LENGTH: 3 DAY

VENDOR

USDA, Graduate School  
600 Maryland Ave, SW  
Washington, DC 20024  
(202) 447-7124

Developing automated information and control systems is a critical costly and complex undertaking for any organization. It is also an effort that is fraught with problems if not managed properly. This course will provide auditors in both the public and private sectors with an understanding of the systems development life cycle; a knowledge of problems that can and have been encountered in developing systems and the causes of such problems; and a methodology for auditing the systems development process and providing management with focused recommendations to prevent systems development efforts from failing.

NOTE: This course is designed for all auditors who are or will be, involved in audits of systems prior to installation into production. At least three years of auditing experience is required.

COURSE TITLE: UPS: Design, Selection and Specification  
COURSE LENGTH: 2 DAY

VENDOR

University of Wisconsin, Milwaukee  
929 North 6th Street  
Milwaukee, WI 53203  
(800) 222-3623

Program objectives of this institute will have been accomplished if, upon completion, the attendee can answer satisfactorily the following questions: Where is UPS needed? When is UPS needed? Should the system be redundant? How should components be chosen? How is a system designed? What level of protection is appropriate? What are the system maintenance requirements? What grounding and noise problems need consideration? How can satisfactory performance be achieved while satisfying the NEC?  
NOTE: Previous attendees will find that material has been added to the program since they last attended.

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 8-Introduction to General Controls  
Module 10-System Development Life Cycle  
Module 11-Change Control and Management

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT, or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following module that has been selected for this particular training area:

Module 4-The System Development Life Cycle

COURSE TITLE: Operating System Security Concepts  
COURSE LENGTH: 5 DAY

VENDOR

National Security Agency  
Airport Square  
Baltimore  
(301) 859-6417

An introduction to operating system concepts and terminology in computer security mechanisms. These concepts include operating system services, structures and processes; design principles; architectures; hardware security mechanisms; file systems; domain mechanisms; memory mapping; and device drivers. Specific threats, vulnerabilities and derived countermeasures to operating system security are emphasized. Specific case studies, e.g., MS/DOS, OS/2, MULTICS, UNIX, VAX/VMS, SCOMP and a variety of distributed operating systems. Problems and group exercises reinforce class presentations. Prerequisites: Bachelor's degree in Computer Science/Electrical Engineering/Mathematics or equivalent experience. Experience developing software employing operating systems capabilities is desirable.

NOTE: This course is technical in nature. Call the vendor regarding a clearance.

COURSE TITLE: Trusted Systems Criteria and Concepts  
COURSE LENGTH: 5 DAY

VENDOR

National Security Agency  
Airport Square  
Baltimore  
(301) 859-6417

A study which examines the principles and technology underlying the DoD Trusted Computer System Evaluation Criteria (TCSEC), and the related topics of trusted system evaluations and accreditation. Specific topics include basic principles of trusted systems, mandatory and discretionary access control (MAC & DAC), user accountability, security architectures, formal security models, TCSEC interpretations and other assurance techniques. Students examine how to build secure applications for a trusted system without invalidating the system's evaluation. Students reinforce class presentations by using the Xenix 2 software package in laboratory exercises. Prerequisites: Familiarity with operating systems and a Bachelor's degree in Computer Science/Electrical Engineering/Mathematics or equivalent experience.

NOTE: This course is technical in nature. Call the vendor regarding a clearance.

COURSE TITLE: Theoretical Foundation/Trust of Information Systems  
COURSE LENGTH: 5 DAY

VENDOR

National Security Agency  
Airport Square  
Baltimore  
(301) 859-6417

A study of fundamental concepts of models in computer security. Develops techniques necessary to identify and describe problems in computer security using mathematical and logical concepts. Addresses the development of a formal model for computer security, demonstrates that the model is consistent with its axioms and that the model is used in designing secure systems. Instruction covers classic Bell La Padula (BLP) model, as well as access control, information flow, non-interference, concurrence, network security and take-grant models. Surveys newer models: database, integrity and event-based. Prerequisites: CP-510 and a Bachelor's degree in Computer Science/Electrical Engineering/Mathematics of equivalent experience. Familiarity with mathematical logic is desirable.  
NOTE: This course is technical in nature. Call the vendor regarding a clearance.

COURSE TITLE: Architecture for Secure Systems  
COURSE LENGTH: 5 DAY

VENDOR

National Security Agency  
Airport Square  
Baltimore  
(301) 859-6417

A study of the basic architectural features to support secure computer systems. Using requirements of trusted computer systems evaluation criteria, the student will study design and implementation of various protection systems by addressing required protection and domain separation mechanisms.

Prerequisites: CP-510 and a firm understanding of the Bell La Padula Model. A Bachelor's degree in Computer Science/Electrical Engineering/Mathematics or equivalent experience. Experience in developing software using operating systems capabilities is desirable.

NOTE: This course is technical in nature. Call the vendor regarding a clearance.



COURSE TITLE: Network Security Architecture  
COURSE LENGTH: 2 DAY

VENDOR

National Security Agency  
Airport Square  
Baltimore  
(301) 859-6417

A study covering networking and protocol concepts important for building secure systems in a variety of areas including: (1) network security concepts related to different types of computer networks (2) layered protocol-security in general and the OSI Reference Model in particular (3) the Government Open Systems Interconnection Profile (GOSIP), including a description of the security options supported (4) OSI Security Architecture, describing the OSI security services, mechanisms and management (5) network security design factors for confidentiality, integrity and assured service. Prerequisites: Bachelor's degree in Computer Science/Electrical Engineering/Mathematics or equivalent experience. Familiarity with data communications and computer security concepts/terminology is desirable.----CP-533 and 535 are specifically structured to present a complete component of network information during a five-day week; we highly recommend students take both courses.

NOTE: This is technical in nature. Call the vendor regarding a clearance.

COURSE TITLE: Advanced Network Security Architecture  
COURSE LENGTH: 3 DAY

VENDOR

National Security Agency  
Airport Square  
Baltimore  
(301) 859-6417

A study covering advanced secure network and protocol concepts important for building secure systems in a variety of areas including: (1) the OSI Security Architecture (2) detailed protocol descriptions (i.e., IEEE 802 Standards; data link protocols, X.25 and related standards; Transmission Control Protocol/Internet Protocol (TCP/IP); Security Protocol 4 (SP4)/Security Protocol 3 (SP3); File Transfer, Access and Management (FTAM) Protocol; and Key Management Protocol (KMP)) (3) Secure network performance analysis using probability theory, queuing theory and simulation (4) Integrated Services Digital Network (ISDN) and its relationship to computer security and the OSI Reference Model (5) security services provided by protocols such as confidentiality, integrity and assured service (6) specific network applications including SDNS, BLACKER, CANEWARE, IBM's SNA, Novell's NetWare, Defense Data Network (DDN), FTS 2000 and Electronic Data Interchange (EDI). Prerequisites: CP-533 and a Bachelor's degree in Computer Science/Electrical Engineering/Mathematics or equivalent experience.---CP-533 and 535 are specifically structured to present a complete component of network information during a five-day week; we highly recommend students take both courses.

NOTE: This course is technical in nature. Call the vendor regarding a clearance.

COURSE TITLE: Model Interpretations

COURSE LENGTH: 5 DAY

VENDOR

National Security Agency  
Airport Square  
Baltimore  
(301) 859-6417

A study covering the interpretation and subsequent application of the rules of formal security policy models. Student will compare (map) these rules to a system's software to ensure that the system's performance accurately complies with the formal models. Comparison will require application of these rules to lower specification levels of both operating systems and hardware architectures. Course will also cover state-of-the-art applications of formal models. Prerequisites: CP-510, 520 and 530. Bachelor's degree in Computer Science/Electrical Engineering/Mathematics or equivalent experience. Experience with mathematical logic is desirable.

NOTE: This course is technical in nature. Call the vendor regarding a clearance.

COURSE TITLE: Introduction to Software Verification

COURSE LENGTH: 15 DAY

VENDOR

National Security Agency  
Airport Square  
Baltimore  
(301) 859-6417

A study covering the state-of-the-art in verification techniques and practice using two, endorsed NCSN verification tools. Techniques include a comparison between code and design verification. Student will read, write and execute basic specifications and understand first-order logic and verification systems. Student will develop and prove properties of formal specifications. Prerequisites: MP470 or working knowledge in predicate calculus and first-order logic, CP-510 and a Bachelor's degree in Computer Science/Electrical Engineering/Mathematics or equivalent experience.

NOTE: This course is technical in nature. Call the vendor regarding a clearance.

COURSE TITLE: INFOSEC Evaluations Using Formal Methods  
COURSE LENGTH: 5 DAY

VENDOR

National Security Agency  
Airport Square  
Baltimore  
(301) 859-6417

A study covering the verification paradigm in detail; derivation of the security policy and its corresponding formal model; formulation of a Formal Top Level Specification (FTLS) and Descriptive Top Level Specification (DTLS); and mapping of the FTLS to implementation. Each of the parts of the paradigm will be investigated in terms of content and sufficiency to meet the design specification and verification requirements for the information security system being developed. Examples will cover how verification can be used with cryptographic Communications Security (COMSEC) products. Prerequisites: CP-510 and a Bachelor's degree in Computer Science/Electrical Engineering/Mathematics of equivalent experience. Knowledge of mathematical logic is desirable.

NOTE: This course is technical in nature. Call the vendor regarding a clearance.

## **COMPUTER SECURITY BASICS FOR ADP MANAGEMENT AND OPERATIONS**

COURSE TITLE: Becoming Effective Data Security Officer  
COURSE LENGTH: 3 DAY

### VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

As a Data Security Officer, you may be responsible for creating a data security program or administering and improving one already in place. To a great extent, you will be defining your own role as you proceed. But where do you begin? What skills do you need to do the job? Where do you get the information to enhance your own skills? Who are the "key players" within your organization, and how do you get them committed to making security happen? What are the advantages of the job? The disadvantages? How have others succeeded, and what pitfalls should you avoid? This practical 3-day program will deliver the know-how to help you become a more effective, proficient, and successful Data Security Officer.

COURSE TITLE: Computer Security For End Users  
COURSE LENGTH: 1 DAY

### VENDOR

USDA, Graduate School  
600 Maryland Ave, SW  
Washington, DC 20024  
(202) 447-7124

This workshop will give you an overview of the threats to, and vulnerabilities of, computer systems, and appropriate safeguards to protect those systems. We will stress your role in the protection of sensitive data, and in the prevention and detection of computer crime. You will receive checklists and suggestions for becoming more aware of possible computer security problems in your office, and you will be able to get advice on how to deal with concerns that are specific to your agency or installation.

COURSE TITLE: Computer Security Awareness Training  
COURSE LENGTH: 3 HRS

VENDOR

GSA Training Center  
P.O. Box 15608  
Arlington, VA 22215-0608  
(703) 557-0885

Participants learn to be aware of threats to and vulnerabilities of computer systems, as well as to encourage use of improved security practices. Topics include: Computer Security Act of 1987; computer fraud, waste, and abuse; and types of computer hackers. Also discussed are natural disasters and human errors relating to computer security.

COURSE TITLE: Microcomputer Security  
COURSE LENGTH: 3 HRS

VENDOR

Department of Navy  
Navy Regional Data Automation Center  
San Diego, CA 92135-5110  
(202) 223-9669

This session focuses on a variety of security issues found in a microcomputer environment. safeguards and controls for personal computers, including physical protection measures, backups, media handling procedures, and security awareness programs are described, as well as user responsibilities.



COURSE TITLE: UNIX Operating System:Security Features  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

This seminar identifies the weaknesses of UNIX and shows you how to detect and prevent unauthorized access. You will learn how to set up, manage, and maintain an enforceable UNIX security policy. The course examines security loopholes and successful ways to plug them. You will learn what to look for when auditing the system for suspected security violations.

COURSE TITLE: Information Risk Assessment & Security Management  
COURSE LENGTH: 1 SEMESTER

VENDOR

University of Maryland,University Coll  
University Boulevard at Adelphi Road  
College Park, MD 20742-1614  
(301) 985-7155

An examination of the proliferation of corporate data bases and the development of telecommunications network technology as gateways or invitations to intrusion. Ways of investigating the management of the risk and security data and data systems are presented as a function of design through recovery and protection. Issues of risk and security, as they relate to specific industries and government, are major topics in the course. Examples are presented of how major technological advances in computer and operating systems have placed data, as tangible corporate assets, at risk. Both quantitative sampling techniques for risk assessment and for qualitative decision-making under uncertainty are explored.

COURSE TITLE: Auditing AS/400:A Step By Step Approach  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

IBM's AS/400 computer series is rapidly becoming the work horse of the mini and midi computer world. With a broad industry base, this multi functional machine serves as a primary business platform, as a front end processor or as a process controller. This intensive seminar concentrates on the control and security concerns relating to the AS/400. The participants will learn how to automate the audit using ROBOT, utilities and AS/400 tools. Key control points are identified to enable auditors to focus their efforts to ensure a complete audit while reducing the audit duration. Actual case studies are used throughout the seminar to provide real life examples to reinforce the audit programs and techniques.

COURSE TITLE: The Data Center:Auditing For Profit  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

The audit programs provided in this course are specifically designed to enable the participants to conduct the data center audit with little or no need for additional support. Throughout this session emphasis is placed on ensuring that appropriate preventive controls are in place to prevent unscheduled interruption of processing or inappropriate data access. Disaster contingency planning is discussed in depth, with each participant receiving a copy of our general disaster recovery program. CANAUDIT has also added a module on out-sourcing which provides auditors with a good understanding of the concepts and the related risks. As with all CANAUDIT courses, this seminar makes extensive use of examples and classroom discussion to supplement the lecture.

COURSE TITLE: EDI:New Frontiers For Auditors  
COURSE LENGTH: 1 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

Electronic Data Interchange is emerging as a major component of many financial, retail and manufacturing applications. Several major companies have made a public commitment to full EDI implementation in the near future. this technology presents the auditor with many new control and security issues in auditing EDI applications. The elimination of physical transactions and paper audit trails will force each financial auditor to perform functions formerly done by the EDP Auditor. This session is designed specifically for those auditors who require a comprehensive audit approach. Modules presented in this seminar include an overview of EDI technology and standards, critical functions of EDI, the controls available in the X12 standard and how to implement them. Each participant will receive a comprehensive audit program as part of the seminar handout.

COURSE TITLE: EDP Audit Workshop  
COURSE LENGTH: 5 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

This workshop is designed for auditors who will be conducting audits in a computerized environment. The workshop assumes no prior knowledge of EDP audit concepts or procedures and provide participants with a sound understanding of the audit risks relating to information systems. Once the groundwork is laid, participants will learn the controls required in computerized applications and a step by step approach to effectively evaluate the EDP control structures. As their understanding grows, participants will progress to more complicated IS audit topics including local area networks, data security, telecommunications networks and operating systems. Extensive coverage of EDI ensures participants are able to be active members of the EDI Implementation Team and ensures appropriate controls are designed into EDI applications. Instructors for this seminar were selected by their extensive IS audit experience and their ability to explain complex technology in simple English; therefore, participants will be sure to grasp the key concepts.

COURSE TITLE: Audit Software:Implementation of New Technology  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

Audit software is a tool that has existed for many years, but many auditors have failed to fully utilize this valuable tool effectively. Audit software improves productivity and enables the discovery of control weaknesses that would otherwise go undiscovered. In the past, auditors have had to rely on sampling techniques due to file size limitations; but now that we have more powerful processors the entire data base can be read and multiple tests performed on each record. This greatly improves the quality of the audit while reducing audit risk. In addition to traditional uses of audit software, this session introduces several new audit software techniques such as remote auditing and knowledge bases. These innovative techniques enable broader audit coverage while reducing overall audit costs. Investigative software and silent auditing enable the auditor to check system integrity and detect potential fraud using the surprise audit approach. By the end of this extensive seminar the participants will understand the potential of modern Computer Assisted Audit Techniques, and how to utilize these powerful resources in their environment.

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or modules can be selected to provide training on specific subjects in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

- Module 3-Getting Started
- Module 5-Overview of the ISA Function
- Module 6-Overview of Computer Operations
- Module 7-A Management Approach to Computer Fraud
- Module 8-Introduction to General Controls
- Module 9-Organization and Administration
- Module 23-Introduction to Application Control Reviews



COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT, or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 1-Computers and Their Components

Module 2-Data and Data Processing

Module 3-Programs and Languages

Module 5-EDP Personnel

Module 6-Access Control and Security

COURSE TITLE: Computer Security Awareness  
COURSE LENGTH: 1 HR

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

The purpose of this course is to provide participants with an awareness of computer security, to sensitize them to the need for computer security policies and practices in the workplace, and to motivate each individual to practice effective computer security techniques. The instructional content of the course is composed of: requirements of computer-security-related laws and circulars; definitions and examples of basic computer security terms; the increasing concern to protect computer assets; and basic computer practices, controls, and countermeasures.

NOTE: Contact the vendor for information concerning specialized agency training.

COURSE TITLE: Microcomputer Security  
COURSE LENGTH: 2 HRS

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

The purpose of this microcomputer security course is to sensitize participants to the need for microcomputer security and to provide each individual with some practical tools to protect their microcomputer assets, especially the stored information.

The course provides practical information on computer security that microcomputer users can implement immediately.

NOTE: Contact the vendor for information concerning specialized agency training.

COURSE TITLE: Information Systems Security  
COURSE LENGTH: 1 SEMESTER

VENDOR

Anne Arundel Community College  
101 College Parkway  
Arnold, MD 21012-1895  
(301) 541-2758

A survey of topics in data retention and control and techniques associated with data, computer systems, network and installation security. The student will obtain skills related to occupations in data libraries and data security at computer installations.  
NOTE: Three semester hours; prerequisite: CSI 113 or permission of department head.

COURSE TITLE: Computer Security Awareness  
COURSE LENGTH: 5-8 HRS

VENDOR

DPEC  
1679 Old Henderson Road  
Columbus, OH 43220-3644  
(800) 223-3732

This is a Computer Based Training (CBT) course using the framework of administrative, physical and logical security. Computer Security Awareness explains contingency planning and precautions against computer crime from the viewpoint of mainframe computers and micros; a computer security checklist is included. This is a modular course lasting 5 - 8 hours. The number of hours is based upon a student interacting with approximately 60-120 screens per hour.

COURSE TITLE: Introduction to Computer Security for Managers  
COURSE LENGTH: 8 HRS

VENDOR

Department of Justice Training Center  
Suite 304, Indiana Building  
633 Indiana Avenue, NW  
Washington, DC 20530  
(202) 307-0528

This program is designed to provide mid-level managers with an overview of computer security program planning and management. Presentation will emphasize compliance with P.L. 100-235 and other laws and requirements for classified and unclassified systems. Discussion will emphasize threats against sensitive systems; capabilities of potential adversaries; asset value; sensitivity and definition of protection levels appropriate to the threat; contingency planning; and management risk acceptance. The course will also cover development of security plans, & implementing computer security programs within budget and staff constraints. The objectives are to familiarize mid-level managers with computer security requirements and responsibilities and to increase their awareness of the necessity for computer security. Spaces are available to other federal agencies.

## **SECURITY PLANNING AND MANAGEMENT FOR ADP MANAGEMENT AND OPERATIONS**

COURSE TITLE: Managing Org-Wide Information Security Program  
COURSE LENGTH: 3 DAY

### VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This program examines key issues in building and maintaining a security program that serves more than one division...a program that cuts across traditional boundaries and must deal with geographically and organizationally distinct units. Practical, cost-effective ideas on how to structure a plan, tools for evaluating risks and safeguards, and ways to encourage participation and commitment from all levels of the organization. Legislative and regulatory pressures including but not limited to the Foreign Corrupt Practices Act, copyright protection, and the Computer Security Act of 1987. Take-home materials include articles, checklists, forms, and information sources.

COURSE TITLE: Building Information Security Awareness  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This seminar shows how to "educate" managers, users, and DP personnel on the importance of protecting information resources. Top managers need to know in macro, bottom-line terms. Data security professionals need detailed technical training. Computer users, operators, and programmers must be shown what they can do on a day-to-day operational basis. This program delivers practical ideas and techniques on how to tailor a computer security training/orientation program to each of these diverse groups. You will learn how to plan a program. You will be shown what types of information should be gathered for presentation, how it should be logically organized for maximum impact, and which meeting and presentation techniques are most effective. And finally, you will be given specific ideas on how to measure the effectiveness of your security awareness program. As a "deliverable," you will develop an individualized training plan to be used in your own environment.



COURSE TITLE: Developing Computer Security Policy & Procedures  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This seminar is for DP managers, data security managers, and security officers responsible for developing computer security policies and procedures and integrating them into a comprehensive data processing security manual. You will learn how to determine what policies are needed, what areas a manual should cover, and how to gather the necessary information. Two different approaches - step-by-step "cookbook" procedures vs. more generalized policy statements. How to establish working liaisons with support staff in other areas, what's needed to get your policies and manual reviewed and approved, and pitfalls that must be avoided. Critique actual samples of procedures and policies currently in use.

COURSE TITLE: LAN Security  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

Local area networks (LANs) are significantly impacting the way organizations do business. As more and more critical work migrates from mainframes to LANs, the need for better controls becomes apparent. Learn about the security and control issues involved with LANs; the types of critical and sensitive data now residing on LANs; the impact of loss, change or disclosure; and realistic remedies for identified vulnerabilities. How transition technologies, topologies, and architectures create complex security, recovery, and integrity problems. Security features of popular LAN systems software and add-on packages. The need for policies, procedures, and administrative controls.

COURSE TITLE: Protecting Networks & Small Systems  
COURSE LENGTH: 3 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

Widespread use of microcomputers and telecommunications technology offers greater opportunities for increasing white-collar productivity...and the risk that this technology will proliferate out of control. This seminar provides a security and control perspective of the opportunities and pitfalls in this new environment. It will be valuable for data processing management, communications management and specialists, office automation management, EDP auditors, security officers, and users of small systems. Participants are encouraged to bring a list of specific, relevant security problems currently being faced within their own organizations. Selected "cases" will be analyzed and discussed.

COURSE TITLE: Computer Viruses, Trojan Horses, and Logic Bombs  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This seminar examines the insidious threats to computer systems posed by malicious programming, including viruses, Trojan horses, worms, logic bombs, and trap doors. We will examine the broad spectrum of harmful code, the people who create it, how viruses get into systems, demonstrations of illicit programs, and countermeasures. The impact of malignant programming extends well beyond any immediate file damage. Hidden losses, such as reconstruction of programs and data, and exhaustive detective work may be necessary. What types of people would infect our systems....are they employees, competitors, outsiders? We will review the latest legal cases relating to viruses and logic bombs, Examples of anti-virus software - what these "digital pharmaceuticals" can and cannot do. Realistic approaches for controlling the problem, and solutions which have worked. Note: Attendees are encouraged to provide examples, from their own experience, of destructive programming threats and effective technical and administrative countermeasures they have used.

COURSE TITLE: Becoming Effective Data Security Officer  
COURSE LENGTH: 3 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

As a Data Security Officer, you may be responsible for creating a data security program or administering and improving one already in place. To a great extent, you will be defining your own role as you proceed. But where do you begin? What skills do you need to do the job? Where do you get the information to enhance your own skills? Who are the "key players" within your organization, and how do you get them committed to making security happen? What are the advantages of the job? The disadvantages? How have others succeeded, and what pitfalls should you avoid? This practical 3-day program will deliver the know-how to help you become a more effective, proficient, and successful Data Security Officer.

COURSE TITLE: Microcomputer Security

COURSE LENGTH: 3 DAY

VENDOR

Computer Security Institute

600 Harrison Street

San Francisco CA 94107

(415) 905-2200

This participative program examines the security issues around microcomputer use, with emphasis on identifying issues and developing plausible solutions for your real-world environment. The development of PC security issues and what the future holds. Security weaknesses of microcomputers and where PC security differs from mainframe security. Physical protection for the machines and associated media, plus data access control and virus prevention, with demonstrations of related products. Contingency planning for personal computers. Policies and procedures for controlling the spread and use of PCs. Software piracy and how to prevent it in the workplace. The value of a comprehensive and continually updated security awareness program in achieving your PC security objectives. Designed for DP and information center managers, security officers, and EDP auditors.

COURSE TITLE: Computer Crime & Industrial Espionage  
COURSE LENGTH: 1 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

By the year 2000, projections suggest that an amazing 2.5 billion people will have access to computer systems. Clearly, our old concepts of doing business are changing! The opportunity for misuse of computers increases each day. This seminar is designed to help data processing managers, plant and DP security personnel, and auditors understand the unique nature of computer crime and the vulnerability of their critical and sensitive information to misuse. We will examine the current state of computer crime and explore specific methods used for illicit information gathering. Unauthorized attempts to access corporate data are no longer likely to be teenage hackers playing games. Industrial espionage has become a significant threat as many major corporations adopt the philosophy that it's more important to know what the competition is doing than what the customer wants. You will learn where confidential corporate information is leaking and what can be done to reduce the threat. You will hear about a number of actual incidents of computer-aided crime and the specific steps you can take to prevent similar abuses from occurring in your organization.



COURSE TITLE: Information Risk Assessment & Security Management  
COURSE LENGTH: 1 SEMESTER

VENDOR

University of Maryland, University Coll  
University Boulevard at Adelphi Road  
College Park, MD 20742-1614  
(301) 985-7155

An examination of the proliferation of corporate data bases and the development of telecommunications network technology as gateways or invitations to intrusion. Ways of investigating the management of the risk and security data and data systems are presented as a function of design through recovery and protection. Issues of risk and security, as they relate to specific industries and government, are major topics in the course. Examples are presented of how major technological advances in computer and operating systems have placed data, as tangible corporate assets, at risk. Both quantitative sampling techniques for risk assessment and for qualitative decision-making under uncertainty are explored.

COURSE TITLE: Computer Security & Contingency Planning  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

Security Administration is now a reality in many organizations. Other companies that do not currently have a security administration function are considering, or are in the process of creating the security function. This seminar is designed to remove the mystery surrounding data security, and to provide participants with a proven approach to securing their computer systems. At the end of the session, participants will understand security administration and the critical items that must be included to enable the function to perform effectively. They will be able to classify data by criticality and confidentiality. They will have an understanding of logical access security, disaster contingency planning, and how to develop and implement security procedures in their organization.

COURSE TITLE: Control and Security of LANS  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

As local area networks (LAN's) permeate the organization, security and control issues are often ignored. This seminar takes a hard look at the audit concerns of LAN's and how to install effective controls in this dynamic computer environment. Participants will learn what can go wrong in the LAN environment and what preventive and detective controls are available to mitigate control weaknesses within the LAN or from external connections. LAN Management and the role of the LAN officer is discussed in detail. Special emphasis is placed on management of the hardware and connectivity along with the selection of software. These key items often limit the overall usefulness of the LAN and inhibit the achievement of connectivity and productivity objectives. Each participant will receive detailed audit programs, common control weaknesses and sample recommendations. These are the key tools they need to conduct LAN audits.

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or modules can be selected to provide training on specific subjects in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 3-Getting Started  
Module 4-Planning the IS Audit  
Module 5-Overview of the ISA Function  
Module 7-A Management Approach to Computer Fraud  
Module 8-Introduction to General Controls  
Module 23-Introduction to Application Control Reviews

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following module that has been selected for this particular training area:

Module 6-Access Control and Security

COURSE TITLE: Information Systems Security  
COURSE LENGTH: 1 SEMESTER

VENDOR

Anne Arundel Community College  
101 College Parkway  
Arnold, MD 21012-1895  
(301) 541-2758

A survey of topics in data retention and control and techniques associated with data, computer systems, network and installation security. The student will obtain skills related to occupations in data libraries and data security at computer installations.

NOTE: Three semester hours; prerequisite: CSI 113 or permission of department head.

COURSE TITLE: A Practical Approach to Certifying a System  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This course shows you how to go about certifying the security of a system, whether IBM, DEC, another vendor, or a combination of equipment and software on a network. The approach used in the class will provide you with flexible techniques to conduct risk assessments, to obtain consensus on the standard (whether or not a formal standard exists), to develop a framework for certification, and to identify and evaluate the controls on the system against this framework. The result is a documented summary of the risks and controls, organized in a way that permits easy follow-up and modification if needed. These techniques can be applied to any organizational culture.

COURSE TITLE: The Security-Audit Alliance  
COURSE LENGTH: 3 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This one day session is intended for both auditors and security controls. It will provide both groups of professionals with specific ideas to improve their effectiveness and productivity by working together in non-traditional ways.

## COMPUTER SECURITY POLICY AND PROCEDURES FOR ADP MANAGEMENT AND OPERATIONS

COURSE TITLE: Building Information Security Awareness  
COURSE LENGTH: 2 DAY

### VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This seminar shows how to "educate" managers, users, and DP personnel on the importance of protecting information resources. Top managers need to know in macro, bottom-line terms. Data security professionals need detailed technical training. Computer users, operators, and programmers must be shown what they can do on a day-to-day operational basis. This program delivers practical ideas and techniques on how to tailor a computer security training/orientation program to each of these diverse groups. You will learn how to plan a program. You will be shown what types of information should be gathered for presentation, how it should be logically organized for maximum impact, and which meeting and presentation techniques are most effective. And finally, you will be given specific ideas on how to measure the effectiveness of your security awareness program. As a "deliverable," you will develop an individualized training plan to be used in your own environment.



COURSE TITLE: Developing Computer Security Policy & Procedures  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This seminar is for DP managers, data security managers, and security officers responsible for developing computer security policies and procedures and integrating them into a comprehensive data processing security manual. You will learn how to determine what policies are needed, what areas a manual should cover, and how to gather the necessary information. Two different approaches - step-by-step "cookbook" procedures vs. more generalized policy statements. How to establish working liaisons with support staff in other areas, what's needed to get your policies and manual reviewed and approved, and pitfalls that must be avoided. Critique actual samples of procedures and policies currently in use.

COURSE TITLE: Communication Security Principles & Practices  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This workshop is for data processing managers, security officers, and auditors who have little or no knowledge in the communications area. Because communications systems are so complex and vulnerable, the data processing operation is a substantial risk. You will learn about the basic concepts and the terminology needed to communicate effectively with technicians. The emphasis, however, is on vulnerabilities and the practical security safeguards you can implement. Because the largest communications risk faced by most organizations is unauthorized access to their computers, considerable emphasis will be placed on how mainframe access control mechanisms interface with other communication security techniques. In particular, you will learn to address the three major risks - loss of network service, unauthorized access to your network and data center resources, and surveillance of your network traffic. "Special Note" You are encouraged to prepare, in advance of the Workshop, a description of specific communications security problems being faced within your own organization. Cases will be discussed as time permits and as issues arise during the Workshop.

COURSE TITLE: LAN Security

COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute

600 Harrison Street

San Francisco CA 94107

(415) 905-2200

Local area networks (LANs) are significantly impacting the way organizations do business. As more and more critical work migrates from mainframes to LANs, the need for better controls becomes apparent. Learn about the security and control issues involved with LANs; the types of critical and sensitive data now residing on LANs; the impact of loss, change or disclosure; and realistic remedies for identified vulnerabilities. How transition technologies, topologies, and architectures create complex security, recovery, and integrity problems. Security features of popular LAN systems software and add-on packages.

COURSE TITLE: Managing Computer Security-Mergs, Acq, and Divest  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

Mergers, acquisitions, and divestitures are common in today's corporate environment. Unfortunately, while these situations can create serious information protection problems, security is usually considered only after the financial, legal, and structural issues have been settled. This seminar for security officers, DP managers, and auditors examines what to do before, during and after a major organizational change to ensure the adequate controls are in place. Computer security problems in merger/acquisition/divestiture situations, and what we can do about them. How major internal reorganizations, functional, consolidation, and plant closings affect security. These days many large corporations are "outsourcing" - getting out of the DP business by contracting all DP operations to an outside vendor. When this occurs, how do we ensure that the vendor properly protects our sensitive data and applications? What conditions increase an organization's vulnerability? Risk-reducing countermeasures.

COURSE TITLE: Protecting Networks & Small Systems  
COURSE LENGTH: 3 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

Widespread use of microcomputers and telecommunications technology offers greater opportunities for increasing white-collar productivity...and the risk that this technology will proliferate out of control. This seminar provides a security and control perspective of the opportunities and pitfalls in this new environment. It will be valuable for data processing management, communications management and specialists, office automation management, EDP auditors, security officers, and users of small systems. Participants are encouraged to bring a list of specific, relevant security problems currently being faced within their own organizations. Selected "cases" will be analyzed and discussed.

COURSE TITLE: Computer Viruses, Trojan Horses, and Logic Bombs  
COURSE LENGTH: 2 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This seminar examines the insidious threats to computer systems posed by malicious programming, including viruses, Trojan horses, worms, logic bombs, and trap doors. We will examine the broad spectrum of harmful code, the people who create it, how viruses get into systems, demonstrations of illicit programs, and countermeasures. The impact of malignant programming extends well beyond any immediate file damage. Hidden losses, such as reconstruction of programs and data, and exhaustive detective work may be necessary. What types of people would infect our systems....are they employees, competitors, outsiders? We will review the latest legal cases relating to viruses and logic bombs, Examples of anti-virus software - what these "digital pharmaceuticals" can and cannot do. Realistic approaches for controlling the problem, and solutions which have worked. Note: Attendees are encouraged to provide examples, from their own experience, of destructive programming threats and effective technical and administrative countermeasures they have used.



COURSE TITLE: Microcomputer Security  
COURSE LENGTH: 3 DAY

VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This participative program examines the security issues around microcomputer use, with emphasis on identifying issues and developing plausible solutions for your real-world environment. The development of PC security issues and what the future holds. Security weaknesses of microcomputers and where PC security differs from mainframe security. Physical protection for the machines and associated media, plus data access control and virus prevention, with demonstrations of related products. Contingency planning for personal computers. Policies and procedures for controlling the spread and use of PCs. Software piracy and how to prevent it in the workplace. The value of a comprehensive and continually updated security awareness program in achieving your PC security objectives. Designed for DP and information center managers, security officers, and EDP auditors.

COURSE TITLE: Computer Security  
COURSE LENGTH: 5 DAY

VENDOR

GSA Training Center  
P.O. Box 15608  
Arlington, VA 22215-0608  
(703) 557-0885

Participants learn about federal computer security regulations and guidelines and their implementation in government agencies. Topics include: a threat overview, national computer security policies, an overview of the National Institute of Standards and Technology and the National Computer Security Center, physical security considerations, microcomputer security considerations, introduction to risk assessment, qualitative risk assessment, quantitative risk assessment, other risk assessment methodologies, contingency planning, design reviews and system tests, and security certification and accreditation.

COURSE TITLE: Information Risk Assessment & Security Management  
COURSE LENGTH: 1 SEMESTER

VENDOR

University of Maryland, University Coll  
University Boulevard at Adelphi Road  
College Park, MD 20742-1614  
(301) 985-7155

An examination of the proliferation of corporate data bases and the development of telecommunications network technology as gateways or invitations to intrusion. Ways of investigating the management of the risk and security data and data systems are presented as a function of design through recovery and protection. Issues of risk and security, as they relate to specific industries and government, are major topics in the course. Examples are presented of how major technological advances in computer and operating systems have placed data, as tangible corporate assets, at risk. Both quantitative sampling techniques for risk assessment and for qualitative decision-making under uncertainty are explored.

COURSE TITLE: Computer Viruses:Detect, Prevent, Cure Infections  
COURSE LENGTH: 2 DAY

VENDOR

CENTER for Adv. Professional Develop.  
1820 E. Garry St.  
Santa Ana, CA 92705  
(714) 261-0240

Most of those who work with computers are aware of the existence of something called "computer virus," and the fact that it may be a danger to their computers or data. But it is hard to get good answers to the questions of what, exactly, a virus is, how great a danger it represents, and how to defend against any damage it might cause. Covering technical details where necessary, but always in non-technical language, this course will tell you what viri are, how they attack, how you can defend against them, and what the existence of viri mean to you and your use of computers. The course will give you a complete overview of all known ways that viri have "reproduced," and the various types of damage they have done. New viri are constantly being written so the course is constantly being updated, and research into ways that viri could attack, but haven't yet, will be reported.

COURSE TITLE: UNIX Systems Security  
COURSE LENGTH: 3 DAY

VENDOR

Trainix  
1686 Bismark Drive  
Deltona, FL 32723  
(904) 789-1769

This course discusses UNIX security and how system managers and administrators can implement security measures on UNIX. The focus of the course is on the inherent security vulnerabilities commonly found on UNIX systems and how to correct them. Examples are presented which illustrate how to insure a high level of security confidence against unauthorized users from accessing the system. The common methods used to penetrate UNIX systems, gain unauthorized root access permission, become another user, plant trojan horses or spoofs, and other ways of circumventing the normal system protection are disclosed. Each attendee will receive detailed audit checklists and a diskette containing UNIX shell and C programs which will assist in performing security auditing and risk analysis. Prerequisites: UX001-Fundamentals of UNIX and UX006-UNIX System Administration. A knowledge of Shell and C programming is helpful.

COURSE TITLE: UNIX Security For Users

COURSE LENGTH: 1 DAY

VENDOR

Trainix

1686 Bismark Drive

Deltona, FL 32723

(904) 789-1769

This seminar is designed to make all users aware of the UNIX security vulnerabilities and show them how to prevent an unauthorized user from compromising their login account or data. The security features which are provided as part of the operating system are first discussed. Then, some of the ways in which unauthorized people may use to gain access to a UNIX system or another users files and directories are discussed. Next, the ways of preventing unauthorized access are described in detail, along with exact descriptions of each UNIX command and the way it is used. Each attendee will be provided with a self-assessment checklist and sample programs which will allow them to perform a personal audit on their account. The seminar concludes with a discussion of the actions a user should take if they suspect compromise of their login and/or files.

COURSE TITLE: Auditing AS/400:A Step By Step Approach  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

IBM's AS/400 computer series is rapidly becoming the work horse of the mini and midi computer world. With a broad industry base, this multi functional machine serves as a primary business platform, as a front end processor or as a process controller. This intensive seminar concentrates on the control and security concerns relating to the AS/400. The participants will learn how to automate the audit using ROBOT, utilities and AS/400 tools. Key control points are identified to enable auditors to focus their efforts to ensure a complete audit while reducing the audit duration. Actual case studies are used throughout the seminar to provide real life examples to reinforce the audit programs and techniques.

COURSE TITLE: The Data Center:Auditing For Profit  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

The audit programs provided in this course are specifically designed to enable the participants to conduct the data center audit with little or no need for additional support. Throughout this session emphasis is placed on ensuring that appropriate preventive controls are in place to prevent unscheduled interruption of processing or inappropriate data access. Disaster contingency planning is discussed in depth, with each participant receiving a copy of our general disaster recovery program. CANAUDIT has also added a module on out-sourcing which provides auditors with a good understanding of the concepts and the related risks. As with all CANAUDIT courses, this seminar makes extensive use of examples and classroom discussion to supplement the lecture.



COURSE TITLE: EDP Audit Workshop

COURSE LENGTH: 5 DAY

VENDOR

Canaudit Inc.

P.O. Box 4150

Simi Valley, CA 93093

(805) 583-3723

This workshop is designed for auditors who will be conducting audits in a computerized environment. The workshop assumes no prior knowledge of EDP audit concepts or procedures and provide participants with a sound understanding of the audit risks relating to information systems. Once the groundwork is laid, participants will learn the controls required in computerized applications and a step by step approach to effectively evaluate the EDP control structures. As their understanding grows, participants will progress to more complicated IS audit topics including local area networks, data security, telecommunications networks and operating systems. Extensive coverage of EDI ensures participants are able to be active members of the EDI Implementation Team and ensures appropriate controls are designed into EDI applications. Instructors for this seminar were selected by their extensive IS audit experience and their ability to explain complex technology in simple English; therefore, participants will be sure to grasp the key concepts.

COURSE TITLE: Control and Security of LANS

COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.

P.O. Box 4150

Simi Valley, CA 93093

(805) 583-3723

As local area networks (LAN's) permeate the organization, security and control issues are often ignored. This seminar takes a hard look at the audit concerns of LAN's and how to install effective controls in this dynamic computer environment. Participants will learn what can go wrong in the LAN environment and what preventive and detective controls are available to mitigate control weaknesses within the LAN or from external connections. LAN Management and the role of the LAN officer is discussed in detail. Special emphasis is placed on management of the hardware and connectivity along with the selection of software. These key items often limit the overall usefulness of the LAN and inhibit the achievement of connectivity and productivity objectives. Each participant will receive detailed audit programs, common control weaknesses and sample recommendations. These are the key tools they need to conduct LAN audits.

COURSE TITLE: Auditing Advanced Information Technology  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

When CANAUDIT set out to rewrite the popular ADVANCED EDP AUDITING seminar, the objective was to make it the most comprehensive Information Systems audit course currently available in the public marketplace. Only a completely new seminar, AUDITING ADVANCED INFORMATION TECHNOLOGY, could incorporate all of the enhancements. AUDITING ADVANCED INFORMATION TECHNOLOGY provides the Information Systems Auditor with the skills required to perform audits of Operating Systems, Local Area Networks, Wide Area Networks, Access Security and DB2. In addition to generic audit programs, participants will receive detailed product specific checklists for MVS, Tandem VAX, AS/400 and Novell. These checklists will enable the IS auditor to conduct audits of those critical components of information technology necessary to ensure their organization's information processing is secure, controlled and effective. Emphasis is placed on improving the quality of management techniques and controls to enable organizations to operate effectively in today's complex information technology environment.

COURSE TITLE: Auditing Datacomm Networks  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

Wide area networks are the lifeblood of corporate information processing and connectivity, yet many organizations have yet to do a complete audit of network operations and management. This seminar provides the IS auditor with a structured audit approach directed to identifying critical control weaknesses in the network, the carriers, the media and network management. Proven solutions to common control weaknesses will be provided to each participant. Focus in this seminar is on a complete audit approach for data and voice communications from a security and cost perspective. Network management tools and problem resolution techniques are the cornerstone of network operations. Special emphasis is placed on using NETVIEW, a popular network management tool to identify network problems. Participants in this session will receive detailed audit programs and checklists which will provide a strong starting point for their first Network Audit.

COURSE TITLE: Auditing IMS  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

This seminar examines the complexities of the IMS database management system. From a conceptual overview of the various IMS facilities to the detail of important control mechanisms within the IMS product software family, it explores the impact of IMS on the work of the auditor and the system development process. Upon completion of this seminar, the participant will understand the IMS environment, the theory and terminology and the operational perspective of running IMS on a daily basis. An audit program is discussed to enable participants to make practical use of the material covered during the seminar.

COURSE TITLE: Auditing DB2  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

IBM's DB2 language is now an accepted standard. As a result, auditors are currently faced with yet another area where they must perform a highly technical audit. This seminar provides the auditor with a detailed understanding of DB2, the audit issues and concerns, as well as useful audit programs which address DB2, security and the interfaces with IMS and CICS. This intensive session prepares the auditor for their first DB2 audit. Special emphasis is placed on the controls inherent in DB2 and how to use them.

COURSE TITLE: MVS/ESA:An Audit Approach  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

The operating system is an essential component of system security and control. this seminar explains MVS/ESA, its component and the security implications resulting from control weaknesses. The SYSGEN process, system options and parameters are discussed as they relate to security. The usefulness and recommended use of SMP in the change control process is emphasized. Management procedures and the requirement for management involvement in the SYSGEN and change process are explained from an audit perspective. Each participant will receive an audit program to enable them to conduct a thorough review of MVS/ESA. they will also receive system utilities and JCL to enable them to verify the installation of system controls and identify control deficiencies. An overview of system security packages and how they enhance total system security is also provided.



COURSE TITLE: Auditing CICS/ESA  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

Finally, a course which provides EDP Auditors with a modern approach to auditing CICS! This seminar emphasizes a technical audit of CICS with in-depth coverage of all the control programs and tables. We discuss security concepts and the impact of security violations, along with practical suggestions for implementing the security features inherent in CICS. Sample audit programs and suggested recommendations are provided to each participant. Classroom presentations and discussions enable the participant to merge both theory and practice into a unified audit approach. Critical audit issues such as ON-Line Controls, Security Data Integrity, and Management Concerns are developed throughout the session to enable auditors to explain the business case for control of CICS as it applies to their organization.

COURSE TITLE: Auditing VAX:A Comprehensive Approach  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

This session is the most comprehensive VAX Audit course currently available. It is intended for auditors who will be auditing the VAX operating system and its components. The seminar provides participants with an understanding of the hardware, software and security requirements as well as depth, along with detailed descriptions of utilities and System Generation controls. Because of the popularity of this topic, we recommend early registration.

NOTE:We recommend that participants attend the AUDITING ADVANCED INFORMATION TECHNOLOGY or EDP AUDIT WORKSHOP seminars or their equivalents prior to attending this course.

COURSE TITLE: Auditing Decnet  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

Many Canaudit clients use the DEC VAX as an integral part of extensive network applications. It is essential that these applications be secure and that communications be safe and confidential. This seminar is specifically designed for Canaudit clients using DECnet, the primary communications architecture for Digital networks. Complete coverage of all aspects of DECnet security including network implementations, Network Control Program and network access control methodologies is included in this concentrated seminar. All participants will learn the critical control features of DECnet and how to evaluate the control structure. In addition they will receive complete audit programs and utilities to automate much of the audit.

NOTE: AUDITING VAX: A COMPREHENSIVE APPROACH is the prerequisite for this course.

COURSE TITLE: Auditing Tandem  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

Tandem computers have successfully penetrated the computing marketplace. From their start as a fault tolerant machine, Tandems are now the processing platform of choice in several industries. Traditionally used in banking, Tandems are now widely used in manufacturing, research and as business processors for critical application processing. The widespread use of Tandems in networked environments make them a target for viral and hacker attacks. As a result, the need for security and control for these systems has never been greater, yet many CANAUDIT clients have not implemented the security and controls provided as part of the Tandem operating system. This seminar will enable participants to perform a complex security review of the Tandem operating system and security functions. The instructor explains potential security pitfalls and control weaknesses in depth and provides participants with Tandem utilities designed to probe the system to detect control weaknesses. Participants will learn proven techniques to remedy security and control weaknesses and how to install them.

NOTE: We recommend that auditors attend the AUDITING ADVANCED INFORMATION SYSTEMS or the EDP AUDIT WORKSHOP seminars or their equivalents prior to attending this session.

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 6-Overview of Computer Operations  
Module 9-Organization and Administration  
Module 10-System Development Life Cycle  
Module 11-Change Control and Management  
Module 13-"The Time Bomb"  
Module 14-Access Control  
Module 16-Program Execution  
Module 17-Continuity of Operations  
Module 20-Data Bases  
Module 21-Minicomputer Systems  
Module 22-Microcomputer Systems

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT, or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 2-Data and Data Processing  
Module 3-Programs and Languages

COURSE TITLE: Microcomputer Security  
COURSE LENGTH: 2 HRS

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

The purpose of this microcomputer security course is to sensitize participants to the need for microcomputer security and to provide each individual with some practical tools to protect their microcomputer assets, especially the stored information. The course provides practical information on computer security that microcomputer users can implement immediately.  
NOTE:Contact the vendor for information concerning specialized agency training.

COURSE TITLE: Information Systems Security  
COURSE LENGTH: 1 SEMESTER

VENDOR

Anne Arundel Community College  
101 College Parkway  
Arnold, MD 21012-1895  
(301) 541-2758

A survey of topics in data retention and control and techniques associated with data, computer systems, network and installation security. The student will obtain skills related to occupations in data libraries and data security at computer installations.

NOTE: Three semester hours; prerequisite: CSI 113 or permission of department head.



## CONTINGENCY PLANNING FOR ADP MANAGEMENT AND OPERATIONS

COURSE TITLE: Planning An EDP Disaster Recovery Program

COURSE LENGTH: 3 DAY

### VENDOR

Computer Security Institute  
600 Harrison Street  
San Francisco CA 94107  
(415) 905-2200

This seminar examines the critical components of the disaster recovery planning process in detail and offers a practical framework for implementing a disaster recovery program. A "big think" approach is required, because recovery planning is tedious, time-consuming, and requires management commitment plus cooperation from all levels of user personnel. Less than 20% of the top 1,000 U.S. firms have workable EDP disaster recovery plans that have been successfully tested. Indeed, many organizations today have no formal plans at all. Some have tried to formulate a plan but failed because they underestimated the scope and complexity of the task. Although a 3-day seminar cannot provide all the details necessary for a comprehensive program, this seminar will give you a firm grounding in the knowledge and skills needed for a successful disaster recovery planning effort.

COURSE TITLE: Disaster Recovery Planning  
COURSE LENGTH: 3 DAY

VENDOR

IBM Management Institute  
19th Floor  
Chicago, IL 60611  
(312) 245-3791

The real objective is to develop and maintain recovery capability - not just for DP but - for the applications critical to the conduct of business. It is easier and cheaper to do this right. This course is designed for those who wish to understand the issues, the alternatives, those who have to put a recovery capability into place. Teams from both the DP and user communities are encouraged to attend together. This is a management course, not a technical course and the strategies discussed are independent of any particular hardware or software.

COURSE TITLE: Computer Security & Contingency Planning  
COURSE LENGTH: 3 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

Security Administration is now a reality in many organizations. Other companies that do not currently have a security administration function are considering, or are in the process of creating the security function. This seminar is designed to remove the mystery surrounding data security, and to provide participants with a proven approach to securing their computer systems. At the end of the session, participants will understand security administration and the critical items that must be included to enable the function to perform effectively. They will be able to classify data by criticality and confidentiality. They will have an understanding of logical access security, disaster contingency planning, and how to develop and implement security procedures in their organization.

COURSE TITLE: The Data Center: Auditing For Profit  
COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.  
P.O. Box 4150  
Simi Valley, CA 93093  
(805) 583-3723

The audit programs provided in this course are specifically designed to enable the participants to conduct the data center audit with little or no need for additional support. Throughout this session emphasis is placed on ensuring that appropriate preventive controls are in place to prevent unscheduled interruption of processing or inappropriate data access. Disaster contingency planning is discussed in depth, with each participant receiving a copy of our general disaster recovery program. CANAUDIT has also added a module on out-sourcing which provides auditors with a good understanding of the concepts and the related risks. As with all CANAUDIT courses, this seminar makes extensive use of examples and classroom discussion to supplement the lecture.

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 8-Introduction to General Controls  
Module 17-Continuity of Operations

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT, or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following module that has been selected for this particular training area;  
Module 6-Access Control and Security

COURSE TITLE: Microcomputer Security  
COURSE LENGTH: 2 HRS

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

The purpose of this microcomputer security course is to sensitize participants to the need for microcomputer security and to provide each individual with some practical tools to protect their microcomputer assets, especially the stored information. The course provides practical information on computer security that microcomputer users can implement immediately.  
NOTE:Contact the vendor for information concerning specialized agency training.

COURSE TITLE: Information Systems Security

COURSE LENGTH: 1 SEMESTER

VENDOR

Anne Arundel Community College

101 College Parkway

Arnold, MD 21012-1895

(301) 541-2758

A survey of topics in data retention and control and techniques associated with data, computer systems, network and installation security. The student will obtain skills related to occupations in data libraries and data security at computer installations.

NOTE: Three semester hours; prerequisite: CSI 113 or permission of department head.



**SYSTEMS LIFE CYCLE MANAGEMENT  
FOR ADP MANAGEMENT AND OPERATIONS**

COURSE TITLE: Auditing DB2

COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.

P.O. Box 4150

Simi Valley, CA 93093

(805) 583-3723

IBM's DB2 language is now an accepted standard. As a result, auditors are currently faced with yet another area where they must perform a highly technical audit. This seminar provides the auditor with a detailed understanding of DB2, the audit issues and concerns, as well as useful audit programs which address DB2, security and the interfaces with IMS and CICS. This intensive session prepares the auditor for their first DB2 audit. Special emphasis is placed on the controls inherent in DB2 and how to use them.

COURSE TITLE: Auditing Systems Development

COURSE LENGTH: 2 DAY

VENDOR

Canaudit Inc.

P.O. Box 4150

Simi Valley, CA 93093

(805) 583-3723

System development costs continue to rise, yet often user needs are not satisfied. The key objective of a new system is to meet the business requirements for economical data processing and information retrieval, in a controlled environment. CANAUDIT's experience has shown that early audit involvement in the development process reduces the possibility of control weaknesses and ensures that end user requirements are met. Our experience demonstrates that the development of computerized systems in a well managed and controlled environment results in efficient system products that are reliable and effective. Audit and Quality Assurance from the beginning of the project are essential ingredients for creating a proper control environment and dependable applications. This comprehensive seminar provides participants with the appropriate knowledge to enable them to actively participate in a System Development Review. After the seminar participants will understand the attributes, requirements and techniques for an effective system development methodology, effective project management and control, reliable system design features, adequate internal control measures, comprehensive acceptance testing and effective audit participation.

COURSE TITLE: UPS:Design, Selection and Specification  
COURSE LENGTH: 2 DAY

VENDOR

University of Wisconsin, Milwaukee  
929 North 6th Street  
Milwaukee, WI 53203  
(800) 222-3623

Program objectives of this institute will have been accomplished if, upon completion, the attendee can answer satisfactorily the following questions: Where is UPS needed? When is UPS needed? Should the system be redundant? How should components be chosen? How is a system designed? What level of protection is appropriate? What are the system maintenance requirements? What grounding and noise problems need consideration? How can satisfactory performance be achieved while satisfying the NEC?  
NOTE:Previous attendees will find that material has been added to the program since they last attended.

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 8-Introduction to General Controls  
Module 10-System Development Life Cycle  
Module 11-Change Control and Management

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT, or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following module that has been selected for this particular training area:

Module 4-The System Development Life Cycle

## COMPUTER SECURITY BASICS FOR END USERS

COURSE TITLE: Computer Security For End Users  
COURSE LENGTH: 1 DAY

### VENDOR

USDA, Graduate School  
600 Maryland Ave, SW  
Washington, DC 20024  
(202) 447-7124

This workshop will give you an overview of the threats to, and vulnerabilities of, computer systems, and appropriate safeguards to protect those systems. We will stress your role in the protection of sensitive data, and in the prevention and detection of computer crime. You will receive checklists and suggestions for becoming more aware of possible computer security problems in your office, and you will be able to get advice on how to deal with concerns that are specific to your agency or installation.

COURSE TITLE: Computer Security Awareness Training  
COURSE LENGTH: 3 HRS

### VENDOR

GSA Training Center  
P.O. Box 15608  
Arlington, VA 22215-0608  
(703) 557-0885

Participants learn to be aware of threats to and vulnerabilities of computer systems, as well as to encourage use of improved security practices. Topics include: Computer Security Act of 1987; computer fraud, waste, and abuse; and types of computer hackers. Also discussed are natural disasters and human errors relating to computer security.



COURSE TITLE: Microcomputer Security  
COURSE LENGTH: 3 HRS

VENDOR

Department of Navy  
Navy Regional Data Automation Center  
San Diego, CA 92135-5110  
(202) 223-9669

This session focuses on a variety of security issues found in a microcomputer environment. safeguards and controls for personal computers, including physical protection measures, backups, media handling procedures, and security awareness programs are described, as well as user responsibilities.

COURSE TITLE: Computer Security:For Security Professionals  
COURSE LENGTH: 3 DAY

VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

The purpose of this seminar is to take the mystery out of computer and network technology. You will learn the basics of computer and telecommunications systems, and how they are vulnerable to computer crime, abuse, misuse, errors, and omissions. In a congenial atmosphere surrounded by your own colleagues, you will receive guidelines for preventing, detecting, and responding to virus and other criminal attacks and accidental errors. You will receive models for using these guidelines to protect your own systems.

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or modules can be selected to provide training on specific subjects in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 3-Getting Started

Module 5-Overview of the ISA Function

Module 6-Overview of Computer Operations

Module 7-A Management Approach to Computer Fraud

Module 8-Introduction to General Controls

Module 9-Organization and Administration

Module 23-Introduction to Application Control Reviews

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

EDP Concepts for Business is an interactive computer-based training (CBT) program. The student receives information and is coached based upon the answers to teaching questions. This was designed to involve the student, be flexible, and be responsive to the student's needs; this format focuses on the student. You need only an IBM PC, XT, AT, or any IBM-compatible microcomputer with at least 192K memory. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 1-Computers and Their Components  
Module 2-Data and Data Processing  
Module 3-Programs and Languages  
Module 5-EDP Personnel  
Module 6-Access Control and Security

COURSE TITLE: Computer Security Awareness

COURSE LENGTH: 1 HR

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

The purpose of this course is to provide participants with an awareness of computer security, to sensitize them to the need for computer security policies and practices in the workplace, and to motivate each individual to practice effective computer security techniques. The instructional content of the course is composed of: requirements of computer-security-related laws and circulars; definitions and examples of basic computer security terms; the increasing concern to protect computer assets; and basic computer practices, controls, and countermeasures.

NOTE: Contact the vendor for information concerning specialized agency training.

COURSE TITLE: Microcomputer Security

COURSE LENGTH: 2 HRS

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

The purpose of this microcomputer security course is to sensitize participants to the need for microcomputer security and to provide each individual with some practical tools to protect their microcomputer assets, especially the stored information. The course provides practical information on computer security that microcomputer users can implement immediately.

NOTE: Contact the vendor for information concerning specialized agency training.

COURSE TITLE: Computer Security Awareness  
COURSE LENGTH: 5-8 HRS

VENDOR

DPEC

1679 Old Henderson Road  
Columbus, OH 43220-3644  
(800) 223-3732

This is a Computer Based Training (CBT) course using the framework of administrative, physical and logical security. Computer Security Awareness explains contingency planning and precautions against computer crime from the viewpoint of mainframe computers and micros; a computer security checklist is included. This is a modular course lasting 5 - 8 hours. The number of hours is based upon a student interacting with approximately 60-120 screens per hour.

## SECURITY PLANNING AND MANAGEMENT FOR END USERS

COURSE TITLE: DSR:No Fail Methodology For Data Security Review  
COURSE LENGTH: 3 DAY

### VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

The DSR is a unique and tested data security review methodology that provides an organization with a comprehensive, usable analysis and evaluation of its data security environment. If you have been using an unscientific approach to review data security, you will appreciate DSR and this seminar's step-by-step application of its structured methodology. You will use DSR and its technical documentation to conduct an actual data security review. The session's "hands-on" approach assures that you take back to the job a cohesive and cost-effective data security program and a supporting action plan.



COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

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Module 3-Getting Started  
Module 4-Planning the IS Audit  
Module 5-Overview of the ISA Function  
Module 7-A Management Approach to Computer Fraud  
Module 8-Introduction to General Controls  
Module 23-Introduction to Application Control Reviews

COURSE TITLE: EDP Concepts For Business

COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young

P.O. Box 34260

Louisville, KY 40232-9691

(800) 289-5745

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Module 6-Access Control and Security

## COMPUTER SECURITY POLICY AND PROCEDURES FOR END USERS

COURSE TITLE: Computer Security  
COURSE LENGTH: 5 DAY

### VENDOR

GSA Training Center  
P.O. Box 15608  
Arlington, VA 22215-0608  
(703) 557-0885

Participants learn about federal computer security regulations and guidelines and their implementation in government agencies. Topics include: a threat overview, national computer security policies, an overview of the National Institute of Standards and Technology and the National Computer Security Center, physical security considerations, microcomputer security considerations, introduction to risk assessment, qualitative risk assessment, quantitative risk assessment, other risk assessment methodologies, contingency planning, design reviews and system tests, and security certification and accreditation.

COURSE TITLE: Computer Security:For Security Professionals  
COURSE LENGTH: 3 DAY

### VENDOR

MIS Training Institute  
498 Concord Street  
Framingham, MA 01701  
(508) 879-7999

The purpose of this seminar is to take the mystery out of computer and network technology. You will learn the basics of computer and telecommunications systems, and how they are vulnerable to computer crime, abuse, misuse, errors, and omissions. In a congenial atmosphere surrounded by your own colleagues, you will receive guidelines for preventing, detecting, and responding to virus and other criminal attacks and accidental errors. You will receive models for using these guidelines to protect your own systems.

COURSE TITLE: Computer Viruses:Detect, Prevent, Cure Infections  
COURSE LENGTH: 2 DAY

VENDOR

CENTER for Adv. Professional Develop.  
1820 E. Garry St.  
Santa Ana, CA 92705  
(714) 261-0240

Most of those who work with computers are aware of the existence of something called "computer virus," and the fact that it may be a danger to their computers or data. But it is hard to get good answers to the questions of what, exactly, a virus is, how great a danger it represents, and how to defend against any damage it might cause. Covering technical details where necessary, but always in non-technical language, this course will tell you what viri are, how they attack, how you can defend against them, and what the existence of viri mean to you and your use of computers. The course will give you a complete overview of all known ways that viri have "reproduced," and the various types of damage they have done. New viri are constantly being written so the course is constantly being updated.

COURSE TITLE: UNIX Security For Users  
COURSE LENGTH: 1 DAY

VENDOR

Trainix  
1686 Bismark Drive  
Deltona, FL 32723  
(904) 789-1769

This seminar is designed to make all users aware of the UNIX security vulnerabilities and show them how to prevent an unauthorized user from compromising their login account or data. The security features which are provided as part of the operating system are first discussed. Then, some of the ways in which unauthorized people may use to gain access to a UNIX system or another users files and directories are discussed. Next, the ways of preventing unauthorized access are described in detail, along with exact descriptions of each UNIX command and the way it is used. Each attendee will be provided with a self-assessment checklist and sample programs which will allow them to perform a personal audit on their account. The seminar concludes with a discussion of the actions a user should take if they suspect compromise of their login and/or files.

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

This introductory seminar of computer concepts and controls is designed for the MIS or internal auditing professional who needs to learn about basic computer concepts, computer controls and security, system life cycle planning and control, and contingency planning. Individuals with these backgrounds who complete this seminar will be exposed to every major aspect of information systems auditing and should be able, with the tools provided in the seminar, to perform basic IS Audits. In addition, the seminar will emphasize how ISA is integrated with the internal audit process. This is a five-day, classroom program consisting of stand-alone modules that can be presented as a whole or in shorter-duration programs. Call the vendor for more information regarding the following modules that have been selected for this particular training area:

Module 6-Overview of Computer Operations  
Module 9-Organization and Administration  
Module 10-System Development Life Cycle  
Module 11-Change Control and Management  
Module 13-"The Time Bomb"  
Module 14-Access Control  
Module 16-Program Execution  
Module 17-Continuity of Operations  
Module 20-Data Bases  
Module 21-Minicomputer Systems  
Module 22-Microcomputer Systems



COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

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Module 2-Data and Data Processing  
Module 3-Programs and Languages

COURSE TITLE: Microcomputer Security  
COURSE LENGTH: 2 HRS

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

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The course provides practical information on computer security that microcomputer users can implement immediately.

NOTE:Contact the vendor for information concerning specialized agency training.

## CONTINGENCY PLANNING FOR END USERS

COURSE TITLE: Disaster Recovery Planning

COURSE LENGTH: 3 DAY

### VENDOR

IBM Management Institute

19th Floor

Chicago, IL 60611

(312) 245-3791

The real objective is to develop and maintain recovery capability - not just for DP but - for the applications critical to the conduct of business. It is easier and cheaper to do this right. This course is designed for those who wish to understand the issues, the alternatives, those who have to put a recovery capability into place. Teams from both the DP and user communities are encouraged to attend together. This is a management course, not a technical course and the strategies discussed are independent of any particular hardware or software.

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COURSE LENGTH: 5 DAY

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

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Module 8-Introduction to General Controls

Module 17-Continuity of Operations

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

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Module 6-Access Control and Security

COURSE TITLE: Microcomputer Security  
COURSE LENGTH: 2 HRS

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

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NOTE:Contact the vendor for information concerning specialized agency training.

## SYSTEMS LIFE CYCLE MANAGEMENT FOR END USERS

COURSE TITLE: Information Systems Seminar For Internal Auditors  
COURSE LENGTH: 5 DAY

### VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

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Module 8-Introduction to General Controls  
Module 10-System Development Life Cycle  
Module 11-Change Control and Management

COURSE TITLE: EDP Concepts For Business  
COURSE LENGTH: SELF-PACED

VENDOR

Ernst & Young  
P.O. Box 34260  
Louisville, KY 40232-9691  
(800) 289-5745

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Module 4-The System Development Life Cycle

COURSE TITLE: Computer Security In Application Software  
COURSE LENGTH: 2 DAY

VENDOR

Booz-Allen & Hamilton Inc.  
4330 East West Highway  
Bethesda, MD 20814-4455  
Victor Marshall  
(301) 951-4672

This course presents a logical sequence of overall computer security activities during the application development life cycle. The course will assist application developers, sponsors, and owners in identifying security activities that should be considered for applications, whether they are being developed, significantly enhanced, or routinely debugged. This course is primarily intended for application software managers and support personnel.

NOTE:Contact the vendor for information concerning specialized agency training.

**It is our intention to update this document as the need arises and we welcome any comments and corrections that will yield a better product. Please contact Kathie Everhart (301) 975-3868.**



## TRAINING MATRIX

Training Area Audience Category	COMPUTER SECURITY BASICS	SECURITY PLANNING & MGMT.	COMPUTER SECURITY POLICY & PROCEDURES	CONTIN- GENCY PLANNING	SYSTEMS LIFE CYCLE MGMT.
EXECUTIVES					
PROGRAM & FUNCTIONAL MANAGERS					
IRM, SECURITY, AND AUDIT					
ADP MANAGEMENT AND OPERATIONS					
END USERS					

**KEY: TRAINING LEVEL**

**AWARENESS**



**POLICY**



**IMPLEMENTATION**



**PERFORMANCE**





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(REV. 3-90)

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NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

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NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY  
GAITHERSBURG, MD 20899

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The training and awareness courses in this compendium correspond to the matrix in NIST Special Publication 500-172, Computer Security Training Guidelines. Special Publication 500-172 is used as reference under the OPM regulation that implements Public Law 100-235, the Computer Security Act of 1987, which requires training for all employees responsible for the management and use of federal computer systems that process sensitive information. Under the regulation, agencies will be responsible for identifying the employees to be trained and providing appropriate training.

This publication is divided into five audience categories: 1) Executives, 2) Program/Functional Managers, 3) IRM, Security, and Audit Personnel, 4) ADP Management, Operations, and Programming Staff, and 5) End Users. In addition to the five audience categories, there are five training content areas for each audience category: 1) Computer Security Basics, 2) Security Planning & Management, 3) Computer Security Policy & Procedures, 4) Contingency Planning, and 5) Systems Life Cycle Management. The level of training required in each area will vary from general awareness to specific training courses depending on the training objectives established by each agency.

12. KEY WORDS (6 TO 12 ENTRIES; ALPHABETICAL ORDER; CAPITALIZE ONLY PROPER NAMES; AND SEPARATE KEY WORDS BY SEMICOLONS)

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ADDENDUM

to

NISTIR 4846

Computer Security Course Compendium

June 23, 1992

The courses for the vendor, COMSIS, did not make it into the first printing of NISTIR 4846.





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## **COMPUTER SECURITY BASICS FOR EXECUTIVES**

COURSE TITLE: Federal AIS Computer Security Requirements

COURSE LENGTH: 1 DAY

### VENDOR

COMSIS

8737 Colesville Road, Suite 1100

Silver Spring, MD 20910

(301) 588-0800

This course begins with a review of the Federal Computer Security framework and an introduction to the key players and legislation that has shaped Federal Computer Security policy.

## SECURITY PLANNING AND MANAGEMENT FOR EXECUTIVES

COURSE TITLE: Federal AIS Computer Security Requirements  
COURSE LENGTH: 1 DAY

VENDOR

COMSIS  
8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-0800

This course begins with a review of the Federal Computer Security framework and an introduction to the key players and legislation that has shaped Federal Computer Security policy.

COURSE TITLE: Continuity of Operations/Disaster Recovery Planning: Part I  
COURSE LENGTH: 1 DAY

VENDOR

COMSIS  
8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-0800

This course outlines the steps to be performed to determine backup/recovery requirements, and effectively plan and develop a COOP/DRP for both applications and installations.

COURSE TITLE: Executive AIS Security Briefing  
COURSE LENGTH: 1/2 DAY

VENDOR

COMSIS  
8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-0800

This course provides a brief overview of Federal Computer Security requirements and objectives and explores Senior Managements role in protecting assets.

## COMPUTER SECURITY POLICY AND PROCEDURES FOR EXECUTIVES

COURSE TITLE: Federal AIS Computer Security Requirements

COURSE LENGTH: 1 DAY

VENDOR

COMSIS

8737 Colesville Road, Suite 1100

Silver Spring, MD 20910

(301) 588-0800

This course begins with a review of the Federal Computer Security framework and an introduction to the key players and legislation that has shaped Federal Computer Security policy.

COURSE TITLE: Executive AIS Security Briefing

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COMSIS

8737 Colesville Road, Suite 1100

Silver Spring, MD 20910

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This course provides a brief overview of Federal Computer Security requirements and objectives and explores Senior Managements role in protecting assets.

**COMPUTER SECURITY BASICS  
FOR PROGRAM AND FUNCTIONAL MANAGERS**

COURSE TITLE: Implementing & Managing a Computer Security Program  
COURSE LENGTH: 1 DAY

VENDOR

COMSIS

8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-5922

This course provides an overview of a computer security program, and describes the requirements and rationale for each program element.

COURSE TITLE: Federal AIS Computer Security Requirements  
COURSE LENGTH: 1 DAY

VENDOR

COMSIS

8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-0800

This course begins with a review of the Federal Computer Security framework and an introduction to the key players and legislation that has shaped Federal Computer Security policy.

COURSE TITLE: Risk Assessment  
COURSE LENGTH: 1 DAY

VENDOR

COMSIS

8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-5922

This course provides a global examination of computer security risk assessment and the techniques for applying risk assessment.

**SECURITY PLANNING AND MANAGEMENT  
FOR PROGRAM AND FUNCTIONAL MANAGERS**

COURSE TITLE: Data Communications Security  
COURSE LENGTH: 2 1/2 DAYS

VENDOR

COMSIS  
8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-5922

This course provides an overview of network processing technologies, security threats, safeguards, and protection strategies. The data communications environments covered in this course include Local Area Networks, Wide Area Networks, Distributed Data Processing, and remote mainframe access.

COURSE TITLE: Implementing & Managing a Computer Security Program  
COURSE LENGTH: 1 DAY

VENDOR

COMSIS  
8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-5922

This course provides an overview of a computer security program, and describes the requirements and rationale for each program element.

COURSE TITLE: Application Security Reviews  
COURSE LENGTH: 1 DAY

VENDOR

COMSIS  
8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-5922

This course examines the requirements and objectives of application security and describes the techniques and tools for conducting application security reviews. The course includes the planning process, review of the baseline security goals, sensitivity and criticality determination, data collection methods, and control weaknesses and safeguards determination.

COURSE TITLE: Federal AIS Computer Security Requirements  
COURSE LENGTH: 1 DAY

VENDOR

COMSIS  
8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-0800

This course begins with a review of the Federal Computer Security framework and an introduction to the key players and legislation that has shaped Federal Computer Security policy.

COURSE TITLE: Continuity of Operations/Disaster Recovery Planning: Part I  
COURSE LENGTH: 1 DAY

VENDOR

COMSIS  
8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-0800

This course outlines the steps to be performed to determine backup/recovery requirements, and effectively plan and develop a COOP/DRP for both applications and installations.

COURSE TITLE: Continuity of Operations/Disaster Recovery Planning: Part II Workshop  
COURSE LENGTH: 3 DAYS

VENDOR

COMSIS  
8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-0800

This course will be specifically tailored toward the individual course audiences' environment. To accomplish this, research questionnaires must be completed by course participants prior to attending. These questionnaires will provide the baseline hardware, software, physical, and operational environments critical to the development of a discreet COOP/DRP.



**COURSE TITLE:** Physical Security for Data Processing  
**COURSE LENGTH:** 2 DAYS

**VENDOR**

**COMSIS**

8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-5922

This course provides essential training to personnel in the areas of physical and environmental security in both large scale (mainframes) and small scale (PC) processing environments.

**COURSE TITLE:** Risk Assessment

**COURSE LENGTH:** 1 DAY

**VENDOR**

**COMSIS**

8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-5922

This course provides a global examination of computer security risk assessment and the techniques for applying risk assessment.

## COMPUTER SECURITY POLICY AND PROCEDURES FOR PROGRAM AND FUNCTIONAL MANAGERS

COURSE TITLE: Implementing & Managing a Computer Security Program  
COURSE LENGTH: 1 DAY

### VENDOR

COMSIS  
8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-5922

This course provides an overview of a computer security program, and describes the requirements and rationale for each program element.

COURSE TITLE: Federal AIS Computer Security Requirements  
COURSE LENGTH: 1 DAY

### VENDOR

COMSIS  
8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-0800

This course begins with a review of the Federal Computer Security framework and an introduction to the key players and legislation that has shaped Federal Computer Security policy.

COURSE TITLE: Continuity of Operations/Disaster Recovery Planning: Part I  
COURSE LENGTH: 1 DAY

### VENDOR

COMSIS  
8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-0800

This course outlines the steps to be performed to determine backup/recovery requirements, and effectively plan and develop a COOP/DRP for both applications and installations.

**CONTINGENCY PLANNING  
FOR PROGRAM AND FUNCTIONAL MANAGERS**

COURSE TITLE: Data Communications Security

COURSE LENGTH: 2 1/2 DAYS

VENDOR

COMSIS

8737 Colesville Road, Suite 1100

Silver Spring, MD 20910

(301) 588-5922

This course provides an overview of network processing technologies, security threats, safeguards, and protection strategies. The data communications environments covered in this course include Local Area Networks, Wide Area Networks, Distributed Data Processing, and remote mainframe access.

COURSE TITLE: Application Security Reviews

COURSE LENGTH: 1 DAY

VENDOR

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COURSE TITLE: Continuity of Operations/Disaster Recovery Planning: Part I

COURSE LENGTH: 1 DAY

VENDOR

COMSIS

8737 Colesville Road, Suite 1100

Silver Spring, MD 20910

(301) 588-0800

This course outlines the steps to be performed to determine backup/recovery requirements, and effectively plan and develop a COOP/DRP for both applications and installations.

COURSE TITLE: Continuity of Operations/Disaster Recovery Planning: Part II Workshop  
COURSE LENGTH: 3 DAYS

VENDOR

COMSIS

8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-0800

This course will be specifically tailored toward the individual course audiences' environment. To accomplish this, research questionnaires must be completed by course participants prior to attending. These questionnaires will provide the baseline hardware, software, physical, and operational environments critical to the development of a discreet COOP/DRP.

COURSE TITLE: Physical Security for Data Processing  
COURSE LENGTH: 2 DAYS

VENDOR

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8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-5922

This course provides essential training to personnel in the areas of physical and environmental security in both large scale (mainframes) and small scale (PC) processing environments.

**SYSTEMS LIFE CYCLE MANAGEMENT  
FOR PROGRAM AND FUNCTIONAL MANAGERS**

COURSE TITLE: Implementing & Managing a Computer Security Program  
COURSE LENGTH: 1 DAY

VENDOR

COMSIS

8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-5922

This course provides an overview of a computer security program, and describes the requirements and rationale for each program element.

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COURSE LENGTH: 1 DAY

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**COMPUTER SECURITY BASICS  
FOR IRM, SECURITY, AND AUDIT**

COURSE TITLE: Implementing & Managing a Computer Security Program  
COURSE LENGTH: 1 DAY

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Silver Spring, MD 20910  
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**SECURITY PLANNING AND MANAGEMENT  
FOR IRM, SECURITY, AND AUDIT**

COURSE TITLE: Data Communications Security

COURSE LENGTH: 2 1/2 DAYS

VENDOR

COMSIS

8737 Colesville Road, Suite 1100

Silver Spring, MD 20910

(301) 588-5922

This course provides an overview of network processing technologies, security threats, safeguards, and protection strategies. The data communications environments covered in this course include Local Area Networks, Wide Area Networks, Distributed Data Processing, and remote mainframe access.

COURSE TITLE: Implementing & Managing a Computer Security Program

COURSE LENGTH: 1 DAY

VENDOR

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COURSE LENGTH: 1 DAY

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(301) 588-0800

This course begins with a review of the Federal Computer Security framework and an introduction to the key players and legislation that has shaped Federal Computer Security policy.

COURSE TITLE: Continuity of Operations/Disaster Recovery Planning: Part I  
COURSE LENGTH: 1 DAY

VENDOR

COMSIS

8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-0800

This course outlines the steps to be performed to determine backup/recovery requirements, and effectively plan and develop a COOP/DRP for both applications and installations.

COURSE TITLE: Continuity of Operations/Disaster Recovery Planning: Part II Workshop  
COURSE LENGTH: 3 DAYS

VENDOR

COMSIS

8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
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This course will be specifically tailored toward the individual course audiences' environment. To accomplish this, research questionnaires must be completed by course participants prior to attending. These questionnaires will provide the baseline hardware, software, physical, and operational environments critical to the development of a discreet COOP/DRP.

COURSE TITLE: Risk Assessment

COURSE LENGTH: 1 DAY

VENDOR

COMSIS

8737 Colesville Road, Suite 1100

Silver Spring, MD 20910

(301) 588-5922

This course provides a global examination of computer security risk assessment and the techniques for applying risk assessment.

COURSE TITLE: Physical Security for Data Processing

COURSE LENGTH: 2 DAYS

VENDOR

COMSIS

8737 Colesville Road, Suite 1100

Silver Spring, MD 20910

(301) 588-5922

This course provides essential training to personnel in the areas of physical and environmental security in both large scale (mainframes) and small scale (PC) processing environments.

**COMPUTER SECURITY POLICY AND PROCEDURES  
FOR IRM, SECURITY, AND AUDIT**

COURSE TITLE: Implementing & Managing a Computer Security Program  
COURSE LENGTH: 1 DAY

VENDOR

COMSIS

8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-5922

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COURSE TITLE: Federal AIS Computer Security Requirements  
COURSE LENGTH: 1 DAY

VENDOR

COMSIS

8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-0800

This course begins with a review of the Federal Computer Security framework and an introduction to the key players and legislation that has shaped Federal Computer Security policy.

COURSE TITLE: Continuity of Operations/Disaster Recovery Planning: Part I  
COURSE LENGTH: 1 DAY

VENDOR

COMSIS

8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-0800

This course outlines the steps to be performed to determine backup/recovery requirements, and effectively plan and develop a COOP/DRP for both applications and installations.

## CONTINGENCY PLANNING FOR IRM, SECURITY, AND AUDIT

COURSE TITLE: Data Communications Security

COURSE LENGTH: 2 1/2 DAYS

VENDOR

COMSIS

8737 Colesville Road, Suite 1100

Silver Spring, MD 20910

(301) 588-5922

This course provides an overview of network processing technologies, security threats, safeguards, and protection strategies. The data communications environments covered in this course include Local Area Networks, Wide Area Networks, Distributed Data Processing, and remote mainframe access.

COURSE TITLE: Application Security Reviews

COURSE LENGTH: 1 DAY

VENDOR

COMSIS

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Silver Spring, MD 20910

(301) 588-5922

This course examines the requirements and objectives of application security and describes the techniques and tools for conducting application security reviews. The course includes the planning process, review of the baseline security goals, sensitivity and criticality determination, data collection methods, and control weaknesses and safeguards determination.

COURSE TITLE: Continuity of Operations/Disaster Recovery Planning: Part I

COURSE LENGTH: 1 DAY

VENDOR

COMSIS

8737 Colesville Road, Suite 1100

Silver Spring, MD 20910

(301) 588-0800

This course outlines the steps to be performed to determine backup/recovery requirements, and effectively plan and develop a COOP/DRP for both applications and installations.

COURSE TITLE: Continuity of Operations/Disaster Recovery Planning: Part II Workshop  
COURSE LENGTH: 3 DAYS

VENDOR

COMSIS

8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-0800

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COURSE TITLE: Physical Security for Data Processing  
COURSE LENGTH: 2 DAYS

VENDOR

COMSIS

8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-5922

This course provides essential training to personnel in the areas of physical and environmental security in both large scale (mainframes) and small scale (PC) processing environments.



## SYSTEMS LIFE CYCLE MANAGEMENT FOR IRM, SECURITY, AND AUDIT

COURSE TITLE: Implementing & Managing a Computer Security Program

COURSE LENGTH: 1 DAY

VENDOR

COMSIS

8737 Colesville Road, Suite 1100

Silver Spring, MD 20910

(301) 588-5922

This course provides an overview of a computer security program, and describes the requirements and rationale for each program element.

COURSE TITLE: Risk Assessment

COURSE LENGTH: 1 DAY

VENDOR

COMSIS

8737 Colesville Road, Suite 1100

Silver Spring, MD 20910

(301) 588-5922

This course provides a global examination of computer security risk assessment and the techniques for applying risk assessment.

COURSE TITLE: Application Security Reviews

COURSE LENGTH: 1 DAY

VENDOR

COMSIS

8737 Colesville Road, Suite 1100

Silver Spring, MD 20910

(301) 588-5922

This course examines the requirements and objectives of application security and describes the techniques and tools for conducting application security reviews. The course includes the planning process, review of the baseline security goals, sensitivity and criticality determination, data collection methods, and control weaknesses and safeguards determination.

**COMPUTER SECURITY BASICS  
FOR ADP MANAGEMENT AND OPERATIONS**

COURSE TITLE: Federal AIS Computer Security Requirements  
COURSE LENGTH: 1 DAY

VENDOR

COMSIS  
8737 Colesville Road, Suite 1100  
Silver Spring, MD 20910  
(301) 588-0800

This course begins with a review of the Federal Computer Security framework and an introduction to the key players and legislation that has shaped Federal Computer Security policy.

COURSE TITLE: Implementing & Managing a Computer Security Program  
COURSE LENGTH: 1 DAY

VENDOR

COMSIS  
8737 Colesville Road, Suite 1100  
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This course provides an overview of a computer security program, and describes the requirements and rationale for each program element.

COURSE TITLE: Computer Security for the End-User  
COURSE LENGTH: 1 DAY

VENDOR

COMSIS  
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This course provides training to end-users who operate sensitive and mission-critical systems and/or rely upon automated information systems to perform their work.

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COURSE LENGTH: 1 DAY

VENDOR

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## SECURITY PLANNING AND MANAGEMENT FOR ADP MANAGEMENT AND OPERATIONS

COURSE TITLE: Data Communications Security

COURSE LENGTH: 2 1/2 DAYS

VENDOR

COMSIS

8737 Colesville Road, Suite 1100

Silver Spring, MD 20910

(301) 588-5922

This course provides an overview of network processing technologies, security threats, safeguards, and protection strategies. The data communications environments covered in this course include Local Area Networks, Wide Area Networks, Distributed Data Processing, and remote mainframe access.

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COURSE TITLE: Continuity of Operations/Disaster Recovery Planning: Part I

COURSE LENGTH: 1 DAY

VENDOR

COMSIS

8737 Colesville Road, Suite 1100

Silver Spring, MD 20910

(301) 588-0800

This course outlines the steps to be performed to determine backup/recovery requirements, and effectively plan and develop a COOP/DRP for both applications and installations.

COURSE TITLE: Continuity of Operations/Disaster Recovery Planning: Part II Workshop

COURSE LENGTH: 3 DAYS

VENDOR

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COURSE TITLE: Physical Security for Data Processing  
COURSE LENGTH: 2 DAYS

VENDOR

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Silver Spring, MD 20910  
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## COMPUTER SECURITY POLICY AND PROCEDURES FOR ADP MANAGEMENT AND OPERATIONS

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FOR ADP MANAGEMENT AND OPERATIONS**

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