Recommended Audience: This class is suited for both newer IT examiners looking for some introduction to these topics and experienced examiners who have encountered these issues and could benefit from further collaboration with other examiners.

April 28-May 2, 2014 ; August 18-22, 2014

IT Risk Specialist Courses

Recommended Audience: The following two courses are recommended for IT risk specialist examiners of all experience levels who are looking to deepen their technical knowledge or be updated on the latest issues.

Network Security *28 Credit Hours*

After reviewing attack vectors and network diagrams, this class provides a further look at network protocols and the OSI and Internet Models. Building on this knowledge, topics such as firewalls, intrusion detection, and security event monitoring are covered to relate and emphasize the necessity for proper device management. At the end of the course the gained knowledge will be used to assess weaknesses in controls during a live pen test lab and demonstration in a simulated banking environment.

July 21-25, 2014

Operating Systems *28 Credit Hours*

This course focuses on the security capabilities and limitations of network and computer operating systems (OS). Systems reviewed include virtualization, the Microsoft OS family (including Windows Server 2008/2012 and Windows 7/8), the UNIX/Linux operating system family, mobile OSes, IBM's OS/400 and network OS. Hands-on exercises use virtualized or native environments, and activities include the review of security parameters and permissions on all platforms.

September 8-12, 2014

STREAM
Supervision Technology Risks
Educate, Analyze and Manage

Last updated: 02/21/2014

IT Topics

IT Topics	Examiner IT Bootcamp	Mobile & e-Banking	ISVM	Net Sec	OS	Sup Themes & Emg Topics
Mobile Banking Technologies and Payments						
Mobile Devices						
E-Banking Technologies						
Common Threats and Vulnerabilities						
Cyber Security / DDoS						
Strong Authentication and Multi-Layer Security (SR 11-9)						
Managing Mobile Banking and E-Banking Risks						
Vendor Management						
Microsoft Security Tools						
Penetration Testing						
Intrusion Detection/ Prevention						
Patch Management						
Incident Response						
Firewall Architecture						
Network Diagramming						
TCP/IP Protocol						
Wireless						
Active Directory						
Microsoft OSes						
Unix/Linux OS						
IBM OS/400						
Network OS						
Virtualization						
BYOD (Bring Your Own Device)						
Cloud Computing						
Data Leak Prevention						
Social Media and Risks						

How to Register

Federal Reserve and State* Examiners
Contact your Reserve Bank training coordinator

U.S. Federal Regulators*
Contact: **Gail Bellamy-Saldano**
Federal Reserve of Chicago
(312) 322-6412
Gail.Bellamy-Saldano@chi.frb.org

Non–U.S. Regulators
Contact: **Maribeth Seraj**
International Training and Assistance
Federal Reserve Board of Governors
(202) 736-5557
BSRInternationalTraining@frb.gov

Registration Questions?
For any other Registration Questions
Contact: **Gail Bellamy-Saldano**
(312) 322-6412
Gail.Bellamy-Saldano@chi.frb.org

*A nonrefundable registration fee of $550.00 will apply to all non-Federal Reserve System State and Agency participants.
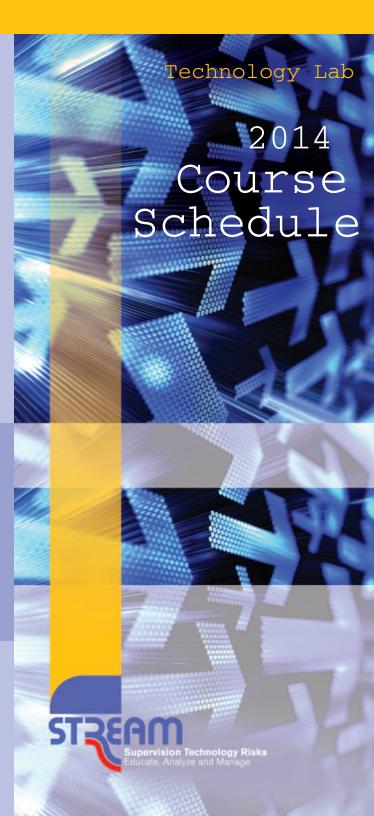
STREAM
SUPERVISION TECHNOLOGY RISKS
EDUCATE, ANALYZE AND MANAGE

STREAM is focused on supporting the 3Rs of Risk Identification, Analysis and Resolution by providing educational and analytical products and services. Key activities of the team include educating examiners, peers and stakeholders on existing and emerging technologies, analyzing technologies and data from a practical and strategic perspective, and managing those risks.

Federal Reserve Bank of Chicago
230 South LaSalle Street
Chicago, IL 60604

Onsite Contact: **Steven Langford**
(312) 322-5768
Steven.Langford@chi.frb.org

2014 Course Schedule

STREAM
Supervision Technology Risks
Educate, Analyze and Manage

Course Offerings

The Technology Lab's underlying premise is that the rapidly increasing complexity of information technology and the increasingly important contribution of IT to operational risk create material knowledge gaps between examiners and industry IT practitioners. The intention is to have a combination of classroom lecture and technical lab "hands-on" exercises. All classes are week-long unless otherwise noted. Through your participation in these classes, we hope to narrow that gap and ensure the stability, integrity and efficiency of the nation's monetary, financial and payment systems.

What's New for 2014

- New class: **"Examiner IT Bootcamp"** will be offered in 2014. This class leverages content across our curriculum and adds foundational IT risk and examination material that position attendees to be able to participate in low risk IT exams.

- New class: **"Payments Systems and Risks".** This course expands upon our original Remote Deposit Capture Clinic and adds payments-related topics including wire transfer, ACH, mobile banking, mobile payments, mobile deposit capture and other emerging trends.

- New labs: The topic of cyber threats has been introduced into various IT classes through hand-on exercises that incorporate foundational and applied network and security concepts to promote an understanding of risks and controls.

Banking Applications Classes

ALM Model Lab *28 Credit Hours*

In addition to asset-liability management theory this course offers hands-on ALM model training to commissioned examiners responsible for ALM model reviews at community, regional and large banking organizations. Topics include stochastic simulation and valuation techniques, rate term structure modeling, multi-factor prepayment models, derivative and hedge modeling per FAS133, and dynamic liquidity modeling. Note: Class registration is limited and completion of prerequisites may apply. Contact Emily Greenwald at 312-322-5377 or Art Porton at 312-322-6814 directly for registration information and availability on this class.

Recommended Audience: Course material is advanced; registrants are expected to have a solid understanding of financial concepts and have exam responsibilities for reviewing ALM models.

April 21-25, 2014 ; August 4-8, 2014 ; November 17-21, 2014

BSA/AML Hands-On Lab *28 Credit Hours*

This course is designed to walk examiners through core principles and procedures of the FFIEC BSA Anti-Money Laundering Examination Manual. Topics include: Examination Scoping and Planning; Risk Assessments; Customer Identification Program/ Customer Due Diligence; Currency Transaction Reports, Office of Foreign Asset Control; Information Sharing; Suspicious Activity Monitoring & Reporting; and, Developing conclusions and finalizing the examination.

Recommended Audience: Safety & Soundness examiners (pre- and post-commissioned) who are expected to perform BSA exams. Registrants should have participated on at least one BSA exam.

June 9-13, 2014 ; September 22-26, 2014

Bank Operations Simulation *32 Credit Hours*

This course provides participants with a simulated bank operations experience. Utilizing an industry-standard general ledger system and related applications, participants receive hands-on training on fundamental banking operations, including cash, teller and check operations, back office operations, investment and loan operations and electronic payments systems (ACH, Wire Transfer, and more.). Participants experience the bank management perspective to manage bank operations, detect misappropriations, and work to mitigate control weaknesses. The participants also improve their understanding of examiner responsibilities by identifying issues and root causes that contribute to control weaknesses.

Recommended Audience: Safety & Soundness examiners (especially pre-commissioned) who are looking for bank operations training. Federal Reserve registrants should have passed Level 1 of the Examiner Commissioning Program curriculum and participated on at least one review of community bank operations. The class is also open to Reserve Bank personnel in other departments who are looking for greater understanding of bank general ledger accounting and operations.

July 14-18, 2014 ; November 3-7, 2014

Payments Systems and Risks *24.75 Credit Hours*

This course provides an in depth examination of the core payment systems in existence today: Automatic Clearing House (ACH); checks and image-based checks; debit and credit cards; wires; mobile banking; and, wholesale payment systems. The participants can gain a thorough knowledge of the characteristics and uses of each payment system, participant roles and responsibilities, the operational aspects of the payment methods, and the potential risks associated with the core payment systems along with the rules and laws governing compliance. The course also covers emerging trends in fraud and fraud prevention, the data security and privacy and evolving risks in the alternative payments..

Recommended Audience: Safety & Soundness examiners who are expected to perform payment exams as part of operational risk or credit risk focus areas.

October 20-24, 2014

Information Technology Classes

IT Generalist Courses

Recommended Audience: The following two courses are recommended for newer IT examiners and for Safety & Soundness examiners who are being cross-trained to do IT exams.

Examiner IT Bootcamp *28 Credit Hours*

The new "Examiner IT Bootcamp Hands-On" course is a foundational course designed for safety and soundness and other examiners who are exposed to IT-related issues during examinations and who have a basic understanding or interests in IT concepts, supervision, and risks for financial institutions. The course presents and builds on foundational concepts including IT audit, risk frameworks, networks and operating systems, and covers applied topics of risks including system management, controls, data management, and emerging technologies. The course includes interactive discussions, multimedia presentations, instructor demonstrations and participant hands-on labs.

May 12-16, 2014 ; September 29-October 3, 2014

e-Banking/Mobile Banking *28 Credit Hours*

This course provides an overview of the technologies and risks fundamental to electronic and mobile banking. Topics include technology overview, common security threats and vulnerabilities, fraud risks, and vendor management sound practices. Evolving trends and risks around mobile banking applications, Bring Your Own Device (BYOD) and mobile OSes are also covered. Hands-on exercises include vulnerability testing, SQL injection compromise, account takeover fraud, and vendor due diligence. Mitigating controls such as web application testing and the FFIEC's strong authentication guidance are also covered.

June 23-27, 2014

IS Vulnerability Management *28 Credit Hours*

This course focuses on the operational aspects of IT vulnerability management. Topics include network and system monitoring, risk assessment and mitigation, patch management, and incident response. Hands-on exercises with penetration testing, vulnerability scanning and patch management tools reinforce the necessity for bank IT managers to have an accurate asset inventory and risk assessment.

June 2-6, 2014 ; October 27-31, 2014

IT Supervisory Themes and Emerging Topics *28 Credit Hours*

This course is designed to highlight emerging topics in supervision of information technology in a condensed and discussion-oriented format. Topics include virtualization, cloud computing, cloud security considerations, vendor management, SSAE16, cloud service management, data leak prevention, social media risks, mobile banking and risk assessment, and cyber threats including Distributed Denial of Service.