

MIS 5208 – Data Analytics for IT Auditors Introduction & Course Overview (China)

Week 1: Introductions, Course Outline, Reading, Tools and
Other Administration Issues

Ed Ferrara, MSIA, CISSP

eferrara@temple.edu

Agenda

- Introductions
- Course Description
- Tools
 - Audit Control Language (ACL)
 - Excel
- Schedule
 - Syllabus
 - Reading List
- Grades and Grading
 - Labs
 - Quizzes
 - Class Participation

Edward S. Ferrara



- Chief Information Security Officer, CSL Behring
 - Cybersecurity services
 - Cloud
 - Metrics
 - Enterprise cybersecurity information architecture
- CISSP #316968
- B.A. Franklin & Marshall College (Economics)
- M.A. University of Delaware (Educational Studies, Computer Science, Cognition)
- M.S. Norwich University (Cybersecurity)
- Twitter: @eferrara
- LinkedIn: [Ed Ferrara](#)

Introductions

- Who am I?
 - Share my interest in this topic with you and help you apply data analytics to IT auditing and cybersecurity
 - West Chester, Pennsylvania
 - I really like sailing
- Who are you?
 - Name
 - Interest in taking this course
 - Career goals



Course Description

- MIS 5208 examines the use and power of data for both fraud detection but also for cybersecurity incident investigation
- You get what you measure.
- The course presents:
 - Basic data analysis concepts and then applies these techniques to cybersecurity and fraud detection problems.
- Tools:
 - Audit Control Language (ACL)

Course Schedule

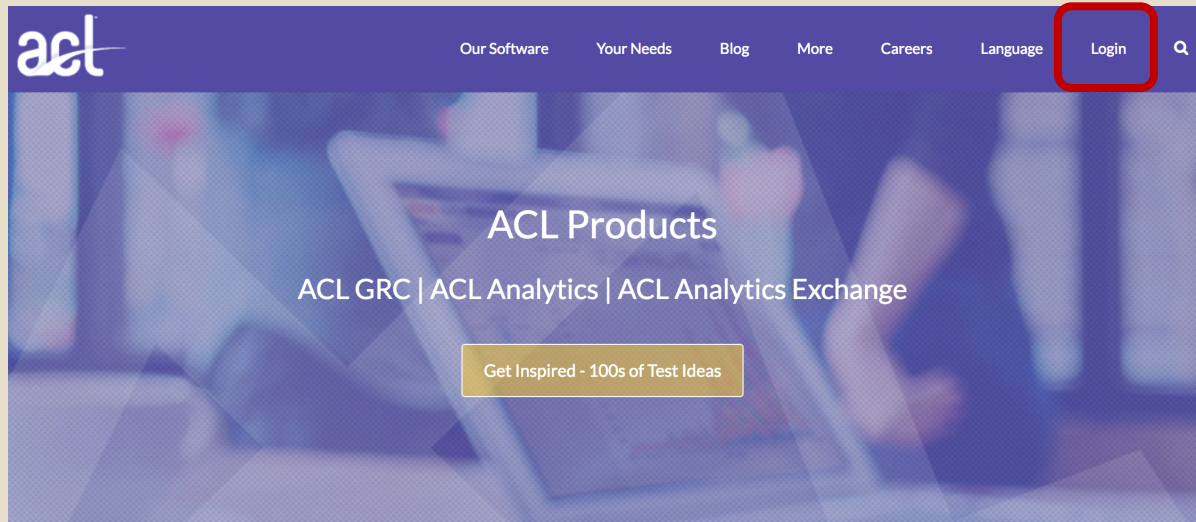
Mission and Learning Objectives

- Understand how to organize and analyze control data
- Understand the principles of transaction-oriented data, and how to store and retrieve data for data sources.
- Understand methods to identify ways in which perpetrators compromise data to affect fraud.
- Identify and compare sources and methods of capturing data throughout a business process.
- Use data mining techniques to identify associations and trends among data.
- Apply data mining techniques to examine control efficacy.
- Integrate data across multiple sources, transforming it into a single view.
- Understand and select appropriate data visualization techniques to effectively communicate the results of an analysis effort.
- Communicate analysis results to stakeholders for ongoing quality assurance and process improvement.

Presentations and Lab 01

- Later in the course you will be asked to present your lab findings on a selective basis – either individually or as a group
- Ideas and proposals in business are now typically communicated via “decks”. Often these decks are not even presented in the formal sense, they just get emailed to the recipient. You need to learn how to communicate your ideas using decks. This is an important skill. You can be the best analyst in the world but if you cannot get your ideas across...
- Writing skills are important but we tend to overemphasize correct grammar and form – not necessarily simple and direct communication – the essence of creating good decks.
- Each slide in your deck should be crafted just like you would craft a canvas of a painting!
- The Cognitive Style of PowerPoint by Edward Tufte (34 Pages)
- Presentation Skills Video: <https://www.youtube.com/watch?v=ayxfblOyUBY> (3:56)
- Presentation Skills Video: <https://www.youtube.com/watch?v=VVp8UGjECt4> (5:20)
- Presentation Skills Video: <https://www.youtube.com/watch?v=whTwjG4ZIJg> (7:18)

Install ACL



- Use the link that I sent you using your Temple email ID.
- TUx99999

Main Screen

ACL GRC



Projects ⓘ

Plan, manage, execute, and report your work in a central location



Results ⓘ

Get "data-driven" by leveraging data from surveys, events, analytics, and visualizations



Risk ⓘ

Assess, score, and visualize enterprise risks.



Reports ⓘ

Build and share comprehensive reports and dashboards

Downloads & Mobile Apps



ACL for Windows Version 12.0.2

Create data analytics that integrate with the entire ACL platform



iOS App

Advanced mobile capabilities for ACL GRC on iOS devices



Analytics Exchange ⓘ

Sustainable, production-scale data analytics platform for Windows Server



Android App

Advanced mobile capabilities for ACL GRC on Android devices



Add-in for Excel

Investigate data by integrating ACL with Microsoft Excel

Optional



ACL Essentials ⓘ

Get insight into your ERP process health, compliance risk & financial exposure

Content & Community



Peer Community

Connect with your peers, ask questions, and suggest product ideas



Tools & Templates

Accelerate success through content and templates for your audit, risk, and compliance programs



Training

Explore online courses and training content through ACL Academy



Help Docs

Access quick starts and user guides



Tech Support

Contact our Support team with questions or issues

Download ACL

ACL for Windows

Connect to any data, analyze any risk and visualize your results

Access the world's most trusted data-driven GRC tool by downloading and installing the latest version of ACL for Windows. The ACL for Windows installation package contains ACL Analytics, Analysis Apps, and the Project Manager Client.

Not sure what the big deal is? [Learn More](#)

Download Version 12.0.2

713 MB | 2016-10-07

Patch available for ACL for Windows

If your current version of ACL Analytics is 12.0.0 or 12.0.1, download and run this patch to upgrade to version 12.0.2. To see which version of ACL Analytics you currently have installed, select Help > About from the Analytics main menu. The patch contains all the fixes introduced in version 12.0.2.

Download Upgrade 12.0.2.886

13.6 MB | 2016-10-08

Instructions

To install:

1. Download the ACL for Windows installation package by clicking the link above.
2. Close all other Windows applications.
3. Double-click the installation package and follow the instructions.

For more information, see [ACL for Windows Installation and Activation Guide](#)

Activation / Other Info

After you have installed ACL for Windows, you need to activate it using your ACL user ID and password.

The activation assigns one of your organization's subscription licenses to you.

Expand your experience with

ACL Direct Link

Remove barriers to data access and tap powerful intelligence hidden in SAP

Not sure what this is? Learn more about [Direct Link](#)

Download Version 7.5

21.5 MB | 2016-09-12

Installing ACL Direct Link

Direct Link requires that ACL Analytics and the SAP GUI are already installed on your computer.

For help with the installation, see [Installing Direct Link](#)

Download Excel Add-In

Add-in for Microsoft® Excel

Upgrade Excel with powerful audit and investigation functionality and directly integrate it with ACL products.

Learn more about [Add-in for Microsoft® Excel](#)

Download Upgrade 6.0.0

78 MB | 2016-09-12

Installing the Add-In for Microsoft® Excel

Before installing, ensure you already have Microsoft® Excel installed and if you want to connect to your Analytics Exchange server you will need to get the server connection information from your Analytics Exchange administrator before starting the installer.

To install the add-in on your machine:

1. Download the Add-In for Excel installation package by clicking the link above.
2. Close all other Windows applications.
3. Double-click the installation package and follow instructions. Ensure the "Skip Settings" is not selected during install if you wish to configure access your Analytics Exchange server.

For more information, please review the [Installation Guide](#)

ACL Training

ACL Analytics Foundations | 3+ days (24-30 hours)

Basic

Prerequisites: None

This beginner-level course teaches the basics needed to start leveraging ACL Analytics.

By the end of this course, you'll be able to:

- Reduce time and resources needed to analyze data
- Detect gaps and control failures
- Leverage hundreds of built-in data analysis commands and tools
- Access and reconcile data from various systems in order to identify potential issues
- Identify outliers and issues
- Analyze data to achieve objectives
- Combine data from multiple source types in order to make comparisons between them
- Identify trends between issues that may be indicative of the root cause(s) of the problem
- Create working paper documentation detailing your objectives, the analysis steps taken to achieve them, and the results returned
- Use basic scripting to automate processes and initiate continuous monitoring
- Communicate your findings using engaging and interactive visualizations and storyboards
- Define and automate remediation processes



Enroll

Thank you.