

Forensic Accounting and Fraud Investigations Training

Officers of the Forensic Audit Unit, as well as the Auditor General completed various courses in a Forensic Accounting and Fraud Investigations Programme over the last three years with the Algonquin College, Canada. The Graduate Certificate Programme included a twelve courses module. The courses are as follows:

- i. Introduction to Forensic Accounting and Fraud Investigations
- ii. Computer Forensics and Data Mining
- iii. Forensic Accounting and Fraud Investigations- Advanced
- iv. Technology Fraud Investigations
- v. Interviewing and Presentation of Evidence
- vi. Detection and Prevention of Fraud
- vii. Communication- Report Writing and Witness Testimony
- viii. Criminology and Ethics
- ix. Legal Components in a Forensic Investigation
- x. Analysis and Critique of Current Fraud Cases
- xi. Governmental, Small Medium Enterprise (SME) and Not for Profit Frauds
- xii. Money Laundering and Asset tracing

Other

- 1) Auditing for wrongdoing, fraud and corruption & preliminary Forensic Auditing
- 2) Forensic Examination
- 3) Fraud Indicators (prevention, detection & investigation techniques)
- 4) Tools and Techniques for Auditors Forensic Auditing
- 5) IT Governance- IT Fraud. Risk & Control
- 6) Forensic and Investigative Accounting
- 7) Role of Internal Auditor in Detecting Money Laundering Transactions

Also, the Unit had various in-house training in the use of various Auditing Software. These were:

- i. Case Ware IDEA Basic
- ii. Case Ware IDEA Advance
- iii. ACL- (used during the data mining module courses)
- iv. Encase

Skills acquired using by the use of Forensic Auditing Software

The software programs allow the department the following advantages when performing forensic audits. These are: improving audit performance, fraud detection, increase audit value and adding technical support.

The software enables the auditor to perform data mining techniques on data provide. The analysis when performed reveals if information examined reflects a true and fair view of the data.

Below are tests that are performed using the forensic auditing software.

Data Analysis	Software Techniques	Potential Fraud
Aging	Aging produces established cutoff dates on data.	(Financial) Timing Differences
Append/Merge	Append/Merge Combines two files with identical fields into a single file. An example would be to merge two years worth of accounts payable history into one file.	Skimming – such as understatement, unrecorded, write off schemes, unconcealed, Lapping schemes
Calculated Field/ Functions	Creates a calculated field (which can use a Field/ function such as ABS for the absolute value of Functions the field) using data within the file. For example, the net payroll pay to an employee could be recalculated using the gross pay field and deducting any withholding/taxes.	Payroll Schemes Falsified wages- test preformed would test the accuracy of the calculation of payroll
Digital Analysis/ Benford’s Law	Audit technology designed to find abnormal duplications of specific digits, digit combinations, specific numbers, and round numbers in corporate data. Since the objective is to find abnormal duplications, auditors need a benchmark that indicates a normal level of duplication. Benford’s Law gives auditors the expected frequencies of the digits in tabulated data. The premise is that we would expect authentic and unmanipulated data to exhibit these patterns. If a data set doesn’t follow these patterns, this may be a cause for auditor concern and review.	Asset/ Revenue – overstatements, Fictitious: revenues, sales (depends which data Bedford is use to analysis)
Duplicates	Duplicates Identifies duplicate items within a specified field in a file. For example, this report could be used to identify duplicate billings of invoices within	Billing Schemes, Personal Purchases, Fictitious expenses

	the sales file.	
Gaps	Identifies gaps within a specified field in a file. For example, identify any gaps in check sequence.	Invoice numbers, cheque numbers- (Fraudulent Disbursements)
Index/Sort	Index/Sort Sorts a file in ascending or descending order. An example would be sorting a file by social security number to see if any blank or “999999999” numbers exist.	

Advantages of using these software on a fraud investigation as follows:

- It allows the investigator quicker and more accurate analysis of data.
- It is ideal for large volume of data and allows for flexibility of the investigation.
- There is a speed up to report time – investigator would be able to complete investigation faster.

Involvement of the Audit Office in fraud cases over the last five years

The Audit Office of Guyana was involved in number of different fraud cases during the last five (2009-2013) years. These are:

Subject Ministry	Name of Entity/Area	Status
Ministry of Public Works and Communication	Demerara Harbour Bridge	
Ministry of Public Works and Communication	Guyana Civil Aviation Authority	
Ministry of Education	President’s College	
Ministry of Legal Affairs	Deeds Registry	
Ministry of Home Affairs	General Registrar Office	
Ministry of Local Government	Region № 4	Disciplinary action against perpetrators and before the court
Accountant General’s Dept.	Region № 1 – Sub-Treasury	

Four special investigations were finalized during 2010 - 2011 while four were in progress at September 2011. The following sets out the list of subject ministries and the relevant entities/areas that were investigated:

Subject Ministry	Name of Entity/Area	Results
------------------	---------------------	---------

<u>Investigation completed</u> Mayor and City Council Accountant General's Department Ministry of Home Affairs Accountant General's Department	Public Relations Department Region No. 1 Sub-treasury General Registrar Office Pension Section	Disciplinary action against perpetrators Disciplinary action against perpetrators
<u>Investigation in progress</u> Ministry of Human Services and Social Security Guyana Revenue Authority Demerara Harbour Bridge Ministry of Local Government	En-cashing of old age pension coupons Customs and Trade Administration Store NDCs in Region Nos. 4 & 7	Matter before the court