

## **Courses on Forensics and Fraud Examination in the Accounting Curriculum**

**Heidi Hylton Meier**  
Cleveland State University

**Ravindra R. Kamath**  
Cleveland State University

**Yihong He**  
Monmouth University

*Following the frauds of Enron and MCI and the legislation of Sarbanes-Oxley, critics turned their attention toward universities to determine how accounting programs were preparing students to prevent and detect frauds in the future. The American Accounting Association (AAA) called on educators to develop courses in forensic accounting and fraud examination to enhance curriculum and assist students to pursue careers in these areas. This article reviews the curricula of AACSB Accredited Accounting programs to determine how they responded to these concerns and whether programs of study in the areas of forensic accounting and fraud examination are readily available and accessible.*

### **INTRODUCTION**

Forensic accounting is an area of accounting that requires the accountant to perform their work to a standard that is suitable to be used in a court of law. According to Crumbley and Apostolu (2002), forensic accounting includes coverage in two areas: investigative accounting and litigation support (p. 17). Investigative accounting is working like a detective and looking for fraud, whereas the area of litigation support requires the accountant to become trained to be an expert witness. Therefore, the forensic accountant needs to be able to take a more “proactive, skeptical approach to examining the books of a company” (Crumbley and Apostolu, 2002, p. 16). Since the training that is required to perform an investigative or forensic engagement is not typically part of the current accounting curriculum, specific education in investigative techniques and communication skills is required to prepare for a career in this area.

In 2002, according to *U.S. News and World Report*, forensic accounting was ranked the number one most secure career track (Crumbley and Apostolu, 2002) and the demand for forensic accountants was expected to increase. Rezaee, Crumbley and Elmore (2004) conducted a survey and found that more than 93% of academics and 88% of practitioners responding expected the demand for fraud examination to continue to rise in the future (p. 31). Therefore, because of this overwhelming pressure from professional groups on colleges and universities to offer programs in forensic accounting and fraud examination and

the great increase in demand for professionals in these areas, it would be anticipated that many schools would have expanded their accounting curriculum to include programs and courses in forensic accounting and fraud examination. To determine whether accounting educators have responded to meet this demand, this study examines AASCSB Accredited Accounting programs to determine whether they are providing the type of curriculum to prepare students for careers in forensic accounting and fraud examination.

## LITERATURE REVIEW

The American Accounting Association (AAA) published the monograph *Accounting Education: Charting the Course through a Perilous Future* (2000) which took a critical look at the accounting curriculum that was traditionally being offered at most schools in the United States. The authors, W. Steve Albrecht and Robert Sack described the current status of accounting education as being in a state of crisis and they had several recommendations for changes to the accounting curriculum, one of which was to add a course in forensic accounting (p. 47).

But other factors would also play a role in indicating the need for reform in accounting education. Only two years after Albrecht and Sack (2000) wrote their monograph, scandals at Enron and Arthur Andersen came to light which again brought into question the quality of accounting education. According to Lynn Turner, former Chief Accountant for the Securities & Exchange Commission, who stated that “Curriculums are not designed today to provide the student with sufficient training [to] know ...whether the management judgment being made is right or wrong” (Merritt, 2002). Other educators agreed, the accounting curriculum should be evaluated and changed from being a sub-discipline of finance to including more ethics and cross-disciplinary fields (Pava, 2002).

In response to the Enron scandal and other fraud cases, many colleges did offer courses that were specifically designed to analyze the factors which led up to those fraudulent cases and the demise of those companies. The University of California at Irvine, Massachusetts Institute of Technology, and Notre Dame University are just a few of the schools that began offering courses on corporate fraud in order to enhance the accounting curriculum and attempt to change the way accounting students think (Gullapalli, 2002). Courses about fraud cases are one response to the changing accounting environment, but reflecting back on the directives of Albrecht and Sack (2000), and adding specific courses on forensic accounting and not just on fraud cases, would perhaps be a better approach.

Several studies have been published which discuss the skills and personality traits that are required in order to be successful in the area of forensic accounting and fraud examination. DiGabriele (2008) performed an empirical study which analyzes the relevant skills necessary to be a forensic accountant. According to his study, the most important skills are deductive analysis, critical thinking, unstructured problem solving, investigative flexibility, analytical proficiency, oral communications, and written communications (p. 334). In addition to these skills, certain personality traits have also been documented as being quite beneficial. Rezaee, Lander and Reinstein (1992) stated that curiosity, persistence, creativity, common business sense, and communications skills are personality traits that will help in the development of those skills to be a successful forensic accountant. Given this information, it would seem apparent that any course developed in the area of forensic accounting or fraud examination should be designed around enhancing these skills.

Rezaee, Crumbley, and Elmore (2004) surveyed academicians and practitioners to determine several design aspects of the forensic accounting course. Based on their survey, they provided a ranking of the most important topics that should be included in the forensic accounting course, and compared those rankings for academicians and practitioners. They found some significant differences in the areas of the coverage of types of fraud (e.g., employee vs. management), anti-fraud controls, and the elements of fraud (pressure, opportunity and rationalization) (p. 37). They also provided some suggestions for forensic accounting course descriptions and objectives. Some examples of course descriptions for forensic accounting and fraud examination include: Examination of various aspects of fraud prevention and detection, including the sociology of fraud, elements of fraud, types of fraud involving accounting information, costs of fraud, use of controls to prevent fraud, and methods of fraud detection; Accounting

concern with detection and prevention of fraud and white-collar crime; Study and application of the procedures and techniques used in the prevention, investigation, and detection of fraud and white-collar crime; and Study of social, ethical, legal, and political considerations that surround fraud. Some examples of the course objectives provided by Rezaee, Crumbley and Elmore (2004) include: Provide objectives on pervasiveness of and the causes of fraud and white-collar crime; Explore methods of fraud detection, investigation and prevention; Obtain insight on fraud prevention and identify weaknesses in internal control systems; Acquire a broad overview of the nature and magnitude of the problem of economic fraud; and Provide students with an opportunity to gain an experience in investigative (forensic) accounting. Rezaee, Crumbley and Elmore (2004) also include a list of assignments in their survey that would be suitable for the forensic accounting and fraud examination course.

## **RESEARCH METHODOLOGY**

Accounting educators have been pressured to make changes to the accounting curriculum and to include courses in forensic accounting and fraud examination by professional organizations and legislators as fraud cases have mounted and accountants were criticized for not preparing their students for this professional environment. The objective of this study was to determine whether Accounting programs accredited by the AACSB (The Association to Advance Collegiate Schools of Business) had responded to this challenge and have designed the necessary curriculum in forensic accounting and fraud examination to meet this need. Therefore, all schools that had received separate AACSB Accounting Accreditation as of December 2009 were examined to determine what level, if any, of a forensic accounting or fraud examination curriculum they had developed. In order to do this, the websites of each one of these schools were visited and their program details, concentrations, and course descriptions were collected and analyzed. For those schools that offered a program, track or course in forensic accounting or fraud examination, that information was printed for more detailed review.

## **RESULTS OF THE STUDY**

As of December 2009, there were 171 schools that had received separate AACSB Accounting Accreditation, of which 166 were in the United States. At that time, there were five accredited schools located outside of the United States (one in Singapore, one in Australia and three in China-including one in Hong Kong). Because the incidence of fraud and the need for forensic accounting is not limited to the United States, those schools were included in this study and the curriculum of those schools was reviewed, as well.

These AACSB accredited schools are set apart from other accounting programs in that in addition to the 21 standards that must be met for an AACSB Accredited Business program, they must also meet an additional 15 Accounting standards. These standards are in the areas of: strategic planning, accounting participants (students and faculty) and assurance of learning (Arlinghaus, 2007). In general, these standards are mission driven and emphasize continuous improvement. It is for this reason that these schools were chosen for this study as it was expected that these schools would be the most innovative in terms of curriculum development, and the most responsive toward the pressure of regulators and professional groups in reacting to the demands for new courses. Therefore, with the clamor for this need for forensic accountants, it was anticipated that this study would reveal an abundance of forensic accounting and fraud examination programs and courses.

Following the examination of each of the websites of the 171 schools, it was determined that in fact, that was not the case, and only four schools currently offer a separate program in forensic accounting or fraud examination. The schools and the types of programs that they offer are described in Table 1.

As noted in Table 1, none of these schools offer a complete academic major or minor in forensic accounting or fraud examination. Instead, as seen in Table 1, they merely provide programs that are a certificate program, track, specialization, or concentration. Upon closer inspection of these programs,

most of them require the completion of between three to five courses to complete the program, some of which have very specific requirements while others, do not even have specifically prescribed courses.

**TABLE 1**

**AACSB ACCOUNTING ACCREDITED SCHOOLS WITH PROGRAMS IN FORENSIC ACCOUNTING OR FRAUD EXAMINATION**

<u>Graduate Programs</u>	<u>Undergraduate Programs</u>
<p><b>West Virginia University Certificate in Forensic Accounting and Fraud Investigation</b></p>	<p><b>Rider University Certificate Program in Forensics</b></p>
<p><b>University of Colorado-Denver Specialization</b></p>	<p><b>Georgia Southern University Fraud Examination Track Forensic Accounting Track</b></p>
<p><b>Rider University Concentration in Forensic Accounting</b></p>	
<p><b>Georgia Southern University Forensic Accounting Track</b></p>	

For example, the Certificate Program at West Virginia University is very specific and requires the completion of these four courses: Fraud Investigation, Fraud Data Analysis, Fraud Criminology/Legal Investigation and Advanced Fraud Investigation. While on the other hand, the Specialization at the University of Colorado-Denver is much less specific and permits the student to choose any four courses from the following: Auditing, Professional Judgment and Decision Making in Accounting, Financial Statement Analysis, Fraud Examination, International Accounting, Forensic Accounting, Internal Auditing, Accounting IS Processing and Control, and Advanced Auditing. The Concentration at Rider University at the Undergraduate level requires students to take three prescribed courses in Fraud Examination, Evidence Management and Business Forensics and then lets them choose an elective in either a Systems or Governance course; while their Concentration at the Graduate level requires two courses, one in Fraud and Forensic Accounting and another in Fraud Detection and then permits the student to take one elective. And lastly, the tracks at Georgia Southern University appear to be most stringent, requiring five courses at the Undergraduate level to complete in the areas of Macro Fraud Examination, Micro Fraud Examination, White Collar Crime, Fraud and the Law, and Fraud Investigation and Interrogation. The available information regarding these programs on the websites is in general, very good, and provides detailed course descriptions for interested academics seeking guidance in developing programs and courses in forensic accounting and fraud examination.

The next task in this study was to review the websites of the 171 AACSB Accounting Accredited schools to determine which of these schools offer courses in forensic accounting or fraud examination. After this review, it was ascertained that seven schools offer courses in both forensic accounting and fraud examination, 20 offer at least one course in forensic accounting and 27 offer at least one course in fraud examination. It should be noted that none of these schools are outside the United States. Those schools that offer courses in forensic accounting are found in Table 2.

**TABLE 2**

**AACSB ACCOUNTING ACCREDITED SCHOOLS THAT OFFER COURSES IN FORENSIC ACCOUNTING**

⊙ Clemson University	⊙ Pace University
⊙ College of William and Mary	⊙ Saint Joseph's University
⊙ Florida State University	⊙ University of Southern California
⊙ University of Georgia	⊙ University of Texas-Austin
⊙ University of Illinois at Chicago	⊙ University of Texas-San Antonio
⊙ Loyola University-Chicago	⊙ Texas A&M-Corpus Christi
⊙ Middle Tennessee State University	⊙ Towson University
⊙ University of Missouri	⊙ University of Utah
⊙ University of North Florida	⊙ Villanova University
⊙ Northern Illinois University	⊙ Wake Forrest University

Those schools that offer courses in fraud examination are found in Table 3.

**TABLE 3**

**AACSB ACCOUNTING ACCREDITED SCHOOLS THAT OFFER COURSES IN FRAUD EXAMINATION**

⊙ University of Arkansas	⊙ University of Nevada-Reno
⊙ Baylor University	⊙ University of New Mexico
⊙ Bowling Green University	⊙ New Mexico State University
⊙ Bradley University	⊙ University of North Carolina-Charlotte
⊙ University of Buffalo-SUNY	⊙ University of Notre Dame
⊙ California State University-Fullerton	⊙ Oakland University
⊙ Eastern Illinois University	⊙ Oklahoma State University
⊙ James Madison University	⊙ University of San Diego
⊙ John Carroll University	⊙ Southern Illinois University-Carbondale
⊙ University of Kansas	⊙ Suffolk University
⊙ Marquette University	⊙ Texas A&M University
⊙ Miami University	⊙ Western Illinois University
⊙ Mississippi State University	⊙ Western Michigan University
⊙ Missouri State University	

As noted above, in addition to the schools that are listed in Tables 2 and 3, there are seven schools that offer courses in both areas of forensic accounting and fraud examination. These schools include the four schools which have programs or tracks in forensic accounting or fraud examination: Georgia Southern University, the University of Colorado-Denver, Rider University and West Virginia University; and in addition, there are three other schools: Bentley University, Central Michigan University, and Hofstra University.

It is also interesting to note the breakdown of these courses as to whether they are offered at the Undergraduate or Graduate level. All of the course descriptions that were found on the websites were read and based on those descriptions, the courses were classified and the information prepared in Table 4.

**TABLE 4**

**COURSES IN FORENSIC ACCOUNTING AND FRAUD EXAMINATION CLASSIFIED ACCORDING TO GRADUATE AND UNDERGRADUATE LEVELS**

<b>Course Title</b>	<b>Graduate</b>	<b>Undergraduate</b>	<b>Both Grad &amp; Undergrad</b>	<b>Not Determinable</b>	<b>Not Available</b>
<b>Forensic Accounting</b>	<b>13 (48%)</b>	<b>7 (26%)</b>	<b>3 (11%)</b>	<b>1 (4%)</b>	<b>3 (11%)</b>
<b>Fraud Examination</b>	<b>20 (59%)</b>	<b>9 (26%)</b>	<b>0</b>	<b>3 (9%)</b>	<b>2 (6%)</b>

As presented in Table 4, most of the courses were able to be classified as being offered at either the Graduate or the Undergraduate level. Also, as noted, most of the courses in forensic accounting and fraud examination offered at AACSB Accounting Accredited schools are at the Graduate level. Of the courses in forensic accounting, 48% are at the Graduate level, 26% at the Undergraduate level and 11% are offered as split courses, or offered at both the Graduate and Undergraduate levels. Of the courses offered in fraud examination, 59% are at the Graduate level, and 26% are at the Undergraduate level.

Each one of the course descriptions from the AACSB Accounting Accredited schools was read to determine the major content of the forensic accounting and fraud examination courses. The content of each course was then compared to the major modules provided by Rezaee and Burton (1997). In their study, they performed a factor analysis and were able to explain 28 important topics that they found in forensic accounting and fraud examination courses and classified them according to the following four components: investigation and law, fraud and fraud auditing, financial reporting and ethics (p. 487). Upon the analysis of the course descriptions in this study, it was determined that all of the current course descriptions except one course included at least one of those defined in the content modules that was cited in the Rezaee and Burton (1997) study. However, it is most interesting that only two of the course descriptions in this study explicitly mentioned covering ethics in the course.

## **ANALYSIS AND COMPARISON OF RESULTS**

In general, given the demands on the accounting profession for change to the accounting curriculum and for the development of courses in the area of forensic accounting and fraud examination, it is surprising that there are not more AACSB Accounting Accredited schools offering programs and courses in these areas. The results of this current study reveal that less than three (3) percent of AACSB Accounting Accredited schools have separate programs in forensic accounting or fraud examination; less than 16% have a separate course in forensic accounting and less than 20% of the schools have a separate course in fraud examination. Unfortunately, the results of the current study are rather consistent with those found by Rezaee and Burton (1997), which was conducted more than 13 years ago. In their survey,

68% of academicians felt that forensic accounting should be integrated into current accounting and auditing courses while only 21% felt there should be a separate course. In that same study, Certified Fraud Examiners felt exactly the opposite, and thought that the best way to handle forensic accounting and fraud examination was through a separate course. Arens and Elder (2006) also stated that this was the best approach, as in their study about post-Sarbanes-Oxley accounting education, they stated that "Forensic accounting is a sufficiently complex topic to require a separate elective course instead of trying to cover the material as a part of the basic auditing course" (p. 352). It would appear that over the years, the attitudes of many of those academicians may not have changed dramatically. Rezaee and Burton (1997) surveyed academicians to determine their reluctance in offering separate courses in forensic accounting and fraud examination and found the reasons were the lack of: financial resources, flexibility in the curriculum, course materials, administrative support and faculty interest (p. 485). As noted below, with the increased involvement of professional organizations some of these reasons may no longer be valid as they are actually assisting in the process of bringing more forensic accounting and fraud examination courses into the curriculum.

### **IMPLICATIONS FOR ACCOUNTING PROGRAMS**

Recently, the American Accounting Association (AAA) initiated the Forensic and Investigative Accounting Section for members who were interested in teaching and performing research in the areas of forensic accounting and fraud examination. This new section is working closely with other professional organizations, most notably, the ACFE, the Association of Certified Fraud Examiners, who has been very active in promoting forensic accounting and fraud examination education. If a college or university agrees to offer a separate forensic accounting or fraud examination course, they can join the ACFE Anti-Fraud Education Partnership and will receive free videos, syllabi, books and other materials to help them develop and teach the course (Larson, 2006). For schools that only incorporate one or more fraud modules into an existing course, they can select videos, cases and other materials from the ACFE and apply those materials to those courses. In addition, there have been a number of new textbooks, cases and other materials for educators to utilize for the introduction of these topics or the development of these courses in the past several years.

In conclusion, major frauds have prompted legislation focused toward the accounting profession and professional organizations have pressured accounting educators to make changes in the accounting curriculum to better prepare students in the areas of forensic accounting and fraud examination. However, the empirical evidence provided in the current study has shown that AACSB Accounting Accredited schools have been very slow in adopting programs and courses which reflect this need. Perhaps with the introduction of the new American Accounting Association section and the assistance that they are willing to provide, and the renewed awareness of the demand for forensic accounting professionals, more academicians will be willing to take on the task of developing a course in this very important area of forensic accounting and fraud examination.

### **REFERENCES**

- Albrecht, W. S. and Sack, R. J. (2000). *Accounting Education: Charting the Course through a Perilous Future*. Sarasota, FL: American Accounting Association.
- Arens, A. A. and Elder, R. J. (2006). Perspectives on Auditing Education after Sarbanes-Oxley. *Issues in Accounting Education*, 21, 345-362.
- Arlinghaus, B. P. (2007). Accounting Accreditation. *The CPA Journal*. 77 (8), 6-9.
- Crumbley, D. L. and Apostolou, N. (2002). Forensic Accounting: A New Growth Area in Accounting. *The Ohio CPA Journal*, 61 (3), 16-20.

DiGabriele, J. M. (2008). An Empirical Investigation of the Relevant Skills of Forensic Accountants. *Journal of Education for Business*, 83, 331-338.

Gullapalli, D. (2002). Colleges Offer Courses in Corporate Fraud. *College Journal, The Wall Street Journal Online*, September 9.

Larson, L. L. (2006). Fraud Prevention Education in the Accounting Curriculum. *Strategic Finance*, 85 (5), 16-17 & 61.

Merritt, Jennifer. (2002). Accounting Courses Get a Makeover. *Business Week Online*, February 13.

Pava, M. L. (2002). Enron, Andersen, and the Dismal State of Accounting Education. *The Commentator*, 66 (12).

Rezaee, Z. and Burton, E. J. (1997). Forensic Accounting Education: Insights from Academicians and Certified Fraud Examiner Practitioners. *Managerial Auditing Journal*, 12, 479-489.

Rezaee, Z., Crumbley, D. L. and Elmore, R.. C. (2004). Forensic Accounting Education: A Survey of Academicians and Practitioners (working paper). *Social Sciences Research Network* ([http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=518263](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=518263)).

Rezaee, Z., Lander, G. H., and Reinsten., A. (1992). Forensic Accounting Education: Challenges and Opportunities. *Ohio CPA Journal*, 51 (5), 33-37.