

# FLORIDA ATLANTIC UNIVERSITY™

## Graduate Programs—NEW COURSE PROPOSAL<sup>1</sup>

UGPC APPROVAL \_\_\_\_\_  
 UFS APPROVAL \_\_\_\_\_  
 SCNS SUBMITTAL \_\_\_\_\_  
 CONFIRMED \_\_\_\_\_  
 BANNER POSTED \_\_\_\_\_  
 CATALOG \_\_\_\_\_

DEPARTMENT SCHOOL OF ACCOUNTING

COLLEGE BUSINESS

RECOMMENDED COURSE IDENTIFICATION (TO OBTAIN A COURSE NUMBER, CONTACT [NMALDONADO@FAU.EDU](mailto:NMALDONADO@FAU.EDU))

PREFIX ACG COURSE NUMBER 6496 LAB CODE (L or C) \_\_\_\_\_

COMPLETE COURSE TITLE: **ADVANCED ACCOUNTING APPLICATIONS OF DATA ANALYTICS**

### EFFECTIVE DATE

(first term course will be offered)

SPRING 2018

CREDITS<sup>2</sup>

TEXTBOOK INFORMATION

3

Forensic Analytics: Methods and Techniques for Forensic Accounting Investigations, 1<sup>st</sup> Ed. (2011), by Mark Nigrini, Published by John Wiley & Sons, Inc.,

GRADING (SELECT ONLY ONE GRADING OPTION): REGULAR X SATISFACTORY/UNSATISFACTORY \_\_\_\_\_

COURSE DESCRIPTION, NO MORE THAN THREE LINES:

ADVANCED APPLICATIONS OF DATA ANALYTICS IN AUDITING, FORENSIC ACCOUNTING, FRAUD EXAMINATION, AND FINANCIAL STATEMENT ANALYSIS.

PREREQUISITES\*

ADMISSION TO COLLEGE OF BUSINESS  
 MASTER'S PROGRAM AND ACG 6686 OR  
 ACG 6635 OR EQUIVALENT AND QMB  
 3600 OR EQUIVALENT

COREQUISITES\*

REGISTRATION CONTROLS (MAJOR, COLLEGE, LEVEL)\*

\* PREREQUISITES, COREQUISITES AND REGISTRATION CONTROLS WILL BE ENFORCED FOR ALL COURSE SECTIONS.

MINIMUM QUALIFICATIONS NEEDED TO TEACH THIS COURSE:

MEMBER OF THE GRADUATE FACULTY OF FAU AND (1) DOCTORAL DEGREE OR (2) MASTER DEGREE WITH 5 YEARS OF PROFESSIONAL EXPERIENCE WITH DATA ANALYTICS APPLICATIONS IN ACCOUNTING

Faculty contact, email and complete phone number:  
 George Young, [gyoung@fau.edu](mailto:gyoung@fau.edu), (561) 297-3636

Please consult and list departments that might be affected by the new course and attach comments.<sup>3</sup>  
 Information Systems & Operations Management (ITOM); see attached email

Approved by:

Department Chair: \_\_\_\_\_

College Curriculum Chair: Wm R. McDonald

College Dean: Ken N. [Signature]

UGPC Chair: \_\_\_\_\_

Graduate College Dean: \_\_\_\_\_

UFS President: \_\_\_\_\_

Provost: \_\_\_\_\_

Date:

3/17/17

4-13-2017

4-13-2017

1. Syllabus must be attached; see guidelines for requirements:

[www.fau.edu/provost/files/course\\_syllabus.2011.pdf](http://www.fau.edu/provost/files/course_syllabus.2011.pdf)

2. Review Provost Memorandum:

**Definition of a Credit Hour**

[www.fau.edu/provost/files/Definition\\_Credit\\_Hour\\_Memo\\_2012.pdf](http://www.fau.edu/provost/files/Definition_Credit_Hour_Memo_2012.pdf)

3. Consent from affected departments (attach if necessary)

## RE: New Courses Proposed by Accounting

Tamara Dinev <tdinev@fau.edu>

Fri 8/26/2016 9:25 AM

To: George Young <Gyoung@fau.edu>;

Hi George:

Per the syllabus you attached, ITOM has no objections to the course. It is clearly very Accounting discipline specific and enriches the SOA's and college's curriculum in Data Analytics. This is exactly in line of what I thought and proposed to the Dean as a strong cross-disciplinary college program in Business Analytics

Best Regards:

Tamara

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Tamara Dinev, Ph.D.  
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Dean's Research Fellow  
Department of Information Technology and Operations Management  
College of Business  
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e-mail: tdinev@fau.edu

From: George Young  
Sent: Friday, August 26, 2016 7:58 AM  
To: Tamara Dinev <tdinev@fau.edu>  
Subject: New Courses Proposed by Accounting

Hello Tamara,

The School of Accounting is proposing the creation and offering of a new course titled "Advanced Accounting Applications of Data Analytics".

I have attached the syllabus.

I believe that we have, in the creation of this course, conformed to the agreement that you and I have to not teach the basics but rather to review some basics and focus on the accounting applications of the subject. Note that the prerequisites include QMB 3600 or its equivalent. The phrase "or its equivalent" was added because we expect to offer this course in the School of Accounting Executive Programs and realize that some of the students in the 30+ states who enroll in our program may have already taken the equivalent of QMB 3600.

Please let me know, at your earliest convenience, whether ITOM has any objections to the School of Accounting offering this course.

Thank you, Tamara!

George

George Young, Ph.D., CFE, CPA  
Director  
School of Accounting  
College of Business  
Florida Atlantic University  
(561) 297-3636



Florida Atlantic University  
COLLEGE OF BUSINESS

## **Advanced Accounting Applications of Data Analytics**

**ACG 6496-xxx (3 Credit Hours)**

**CRN number**

**Term**

**Class Location**

**Class Meeting Time(s)**

### **Professor Information**

Name

Office Address

Email address

Phone Number

### **Office Hours**

TBD

### **Required Text and Materials**

Forensic Analytics: Methods and Techniques for Forensic Accounting Investigations, 1<sup>st</sup> Ed. (2011), by Mark Nigrini, Published by John Wiley & Sons, Inc., ISBN: 978-0-470-89046-2

Computerized Auditing Using ACL Data Analytics, 3<sup>rd</sup> Ed., by Alvin A. Arens, Randal Je. Elder, and Carol J. Borsum, Published by Armond Dalton Publishers, ISBN: 978-0-912503-43-1.

Communicating Data with Tableau, 1<sup>st</sup> Ed., by Ben Jones, Published by O'Reilly Media, Inc., ISBN: 978-1-449-37202-6

Fraud Analysis Techniques Using ACL, by David Coderre, Published by John Wiley & Sons, Inc., ISBN: 978-0-470-39244-7

### **Recommended Text**

Statistical Techniques for Forensic Accounting, 1<sup>st</sup> Ed., by Saurav K. Dutta, Published by Pearson FT Press, ISBN: 10-0-13-313381-8

## **Software Resources**

ACL ([www.acl.com](http://www.acl.com))

Tableau ([www.tableau.com](http://www.tableau.com))

Access Data Forensic Toolkit (FTK, [www.accessdata.com](http://www.accessdata.com))

Microsoft Excel ([www.microsoft.com/excel](http://www.microsoft.com/excel))

## **Course Description**

Advanced applications of data analytics in auditing, forensic accounting, fraud examination, and financial statement analysis.

## **Course Prerequisites and Credit Hours and Class Time Commitments**

Prerequisites: Admission to College of Business master's program *and* ACG 6686 or ACG 6635 or equivalent *and* QMB 3600 or equivalent

## **Course Learning Objectives**

Students will gain a theoretical understanding of data analytics applications in auditing, forensic accounting, fraud examination, and financial statement analysis. In addition, students will gain hands-on skills in applying data analytics to accounting cases.

## **Grading Scale**

A = 100 - 90	C = 76 - 70
A- = 89	C- = 69
B+ = 88 - 87	D+ = 68 - 67
B = 86 - 80	D = 66 - 60
B- = 79	D- = 59
C+ = 78 - 77	F = below 59

## **Course Evaluation Method**

Two examinations (200 points apiece)	400
Paper	100
Discussion threads (4 at 10 points apiece)	40
Ethics assignment	<u>50</u>
Total points	<u>590</u>

## **Missing Exams**

Every effort should be made to take exams as scheduled in the course schedule. Any excusable absence (official university event, religious holiday, job interview, etc.) must be documented by a verifiable source and be submitted at least one week prior to the exam. If you are absent from

an exam due to an illness or emergency, you must notify the professor by e-mail within 24 hours after the exam, and documentation is required. Unexcused and non-documented absences are not eligible for make-up. Unexcused absences include the inability to leave work on time, oversleeping, lack of transportation, minor illnesses, fatigue, and so forth.

**Late Assignments**

No make-up exams, except in dire circumstances and at the instructor’s discretion and only if student has made arrangements with the instructor prior to the exam. Assignments will not be accepted as late submissions unless permission is acquired prior to the due date.

**Attendance Policy**

Attendance, whether in-person or by watching recorded lectures, is usually necessary to obtain the full benefit of an educational experience. Attendance is not required, but is strongly encouraged.

**Writing Policy**

All written assignments are to be grammatically correct. Any direct or indirect quotes must be attributed. All assignments must be in your own words. Submissions must be in Word format. All assignments must be turned in by the due date. Written components of any assignment or project may be submitted to anti-plagiarism software to evaluate the originality of the work. Any students found to be submitting work that is not their own have violated the University’s honor code.

**Assignments**

Week	Topics Covered	Chapters Covered	Assignments from A/R/E, Corderre, and Jones
1	Accounting Analytics with Excel, ACL, and Tableau	Nigrini Chapters 1 & 2	Jones Chapter 1
2	Forensic Reports, Communicating Data	Nigrini Chapter 3	Jones Chapter 2
3	High-level Data Overview	Nigrini Chapter 4	Corderre Chapters 1-3 Jones Chapter 3
4	Presentation of Accounting Data via Visual Analytics	Jones Chapters 4 & 5	Jones Chapters 4 & 5
5	Benford’s Law Overview as Applied	Nigrini Chapters 5 & 6	Corderre Chapter 8

	To Financial Irregularities		
6	Benford's Law Tests for Irregular Accounting Transactions	Nigrini Chapters 6-8	A/R/E Case: Richland Equipment (inventory)
7	Fraud Detection via Internal Diagnostics over Multiple Periods (includes Alumni Gifts case)	Nigrini Chapter 9	
8	Subsets / Relative Size	Nigrini Chapters 10-11	A/R/E Case: Wayland Manufacturing (accounts payable)
9	Abnormal Duplications in Subset Transaction Data	Nigrini Chapter 12	
10	Time Series and Correlations Analysis (with applications to heating oil sales and construction data)	Nigrini Chapters 13-14	Corderre Chapter 5
11	Fraud Risk Assessments of Forensic Units	Nigrini Chapter 15	
12	Risk Scoring from Accounting Data	Nigrini Chapter 16	Corderre Chapter 7 A/R/E Case: Lenrold Plastics (payroll)
13	The Detection of Financial Statement Fraud	Nigrini Chapter 17	
14	Using Analytics on Purchasing Card Transactions	Nigrini Chapter 18	A/R/E Case: Benny's Ice Cream Shop (cash receipts)

### School of Accounting Policies

Students are responsible for School of Accounting policies available at <http://fau.edu/academic/registrar/FAUcatalog/business.php#accounting>. ***These policies are considered to be an integral part of this syllabus.***

### Code of Academic Integrity Policy Statement

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001.

### Disability Policy Statement

In compliance with the Americans with Disabilities Act (ADA), students who require special accommodation due to a disability to properly execute coursework must register with the Student Accessibility Services Office (<http://www.fau.edu/sas/>) – in Boca Raton, SU 133, (561) 297-3880; in Davie, LA 131, (954) 236-1222; in Jupiter, SR 117, (561) 799-8585 – and follow all SAS procedures.

### Religious Accommodation Policy Statement

In accordance with rules of the Florida Board of Education and Florida law, students have the right to reasonable accommodations from the University in order to observe religious practices **and beliefs with regard to admissions, registration, class attendance and the scheduling of examinations** and work assignments. For further information, please see Academic Policies and Regulations.

### University Approved Absence Policy Statement

In accordance with rules of the Florida Atlantic University, students have the right to reasonable accommodations to participate in University approved activities, including athletic or scholastics teams, musical and theatrical performances and debate activities. It is the student's responsibility to notify the course instructor at least one week prior to missing any course assignment.

### College of Business Minimum Grade Policy Statement

The minimum grade for College of Business requirements is a "C". This includes all courses that are a part of the pre-business foundation, business core, and major program. In addition, courses that are used to satisfy the university's "Writing Across the Curriculum" and Gordon Rule math requirements also have a minimum grade requirement of a "C". Course syllabi give individualized information about grading as it pertains to the individual classes.

### Incomplete Grade Policy Statement

A student who is passing a course, but has not completed all work due to exceptional circumstances, may, with consent of the instructor, temporarily receive a grade of incomplete

("I"). The assignment of the "I" grade is at the discretion of the instructor, but is allowed only if the student is passing the course.

The specific time required to make up an incomplete grade is at the discretion of the instructor. However, the College of Business policy on the resolution of incomplete grades requires that all work required to satisfy an incomplete ("I") grade must be completed within a period of time not exceeding one calendar year from the assignment of the incomplete grade. After one calendar year, the incomplete grade automatically becomes a failing ("F") grade.

### Withdrawals

Any student who decides to drop is responsible for completing the proper paper work required to withdraw from the course.

### Grade Appeal Process

A student may request a review of the final course grade when s/he believes that one of the following conditions apply:

- There was a computational or recording error in the grading.
- Non-academic criteria were applied in the grading process.
- There was a gross violation of the instructor's own grading system.

The procedures for a grade appeal may be found in Chapter 4 of the University Regulations.

### Disruptive Behavior Policy Statement

Disruptive behavior is defined in the FAU Student Code of Conduct as "... *activities which interfere with the educational mission within classroom.*" Students who behave in the classroom such that the educational experiences of other students and/or the instructor's course objectives are disrupted are subject to disciplinary action. Such behavior impedes students' ability to learn or an instructor's ability to teach. Disruptive behavior may include, but is not limited to: non-approved use of electronic devices (including cellular telephones); cursing or shouting at others in such a way as to be disruptive; or, other violations of an instructor's expectations for classroom conduct.

### Faculty Rights and Responsibilities

Florida Atlantic University respects the right of instructors to teach and students to learn. Maintenance of these rights requires classroom conditions which do not impede their exercise. To ensure these rights, faculty members have the prerogative:

- To establish and implement academic standards
- To establish and enforce reasonable behavior standards in each class
- To refer disciplinary action to those students whose behavior may be judged to be disruptive under the Student Code of Conduct.