UNIVERSITY OF PUERTO RICO
RÍO PIEDRAS CAMPUS
SCHOOL OF BUSINESS ADMINISTRATION
ACCOUNTING DEPARTMENT

TITLE

Special Topics in Accounting (Data Analytics in Accounting and Auditing)

CODE

CONT 4997

NUMBER OF CONTACT HOURS & CREDIT HOURS

Three credit hours (45 Contact Hours)

PREREQUIREMENTS

Philosophy, Theory and Problems of Financial Accounting II, also known as Intermediate Accounting II (CONT 4002)
Principles of Auditing and Systems (CONT 4017)
Business Statistics I (ESTA 3041)

DESCRIPTION

Study of the theoretical and practical foundations that support the concept of data analytics and its impact on accounting and auditing. Discussion of the data collection and analysis techniques, the statistical and predictive models, and the use of emerging technologies that support the accounting profession in the process of transforming large volumes of data into useful information that will allow it to continuously improve quality of its services, as well as strengthen decision-making in the organizations it serves. Discussion of topics related to the use of predictive statistical techniques in data analysis, and consideration of data presentation and visualization models, data mining, and use of relevant electronic platforms that facilitate the analysis of large volumes of data, among others.

COURSE OBJECTIVES

At the end of the course the students will

1- Understand how accountants can benefit from data analytics as support in the performance of their functions, as well as in their fiscal responsibility.

2 - Apply different predictive techniques and statistical models to support the analysis of big data and the solution of problems in accounting and auditing.

3- Use data mining techniques that help them to discover patterns, anomalies, irregularities and possible frauds in data management in organizations.

4- Present information that facilitates decision making in organizations, using appropriate data visualization techniques.

5- Communicate ideas orally and in writing through the analysis of cases.

6- Analyze cases in which they will be necessary to determine the impact and possible alternatives or courses of action in order to solve complex problems in accounting and auditing in handling large volumes of data.

COURSE CONTENT AND TIME DISTRIBUTION

Topics	Hours
I. Introduction (course objectives, requisites, and evaluation)	1.5
II. Importance of data analytics in accounting and auditing III. Data Analytics Process	3.0

IV. Statistical modeling and Big Data a. Data Science and Accounting b. Descriptive models c. Predictive models d. Prescriptive models **e.** Data Mining	10.5
V. Use of software and electronic platforms in data analysis a. Data identification and presentation (Excel, R or Alteryx) b. Data visualization and communication (Tableau, Power BI): graphics, dashboards, metrics.	15.0
VI. Data analytics applications in accounting a. Applications in financial reporting b. Applications in auditing c. Applications in forensic accounting	12.0
Exams and case discussions	3.0
Total hours	45.0

LEARNING STRATEGIES

Conferences, discussion and analysis of cases and problems, online modules and videos.

LEARNING RESOURCES

In addition to the text, cases, transparencies, electronic platforms and the Internet are used as a basis for working with some problems.

COURSE EVALUATION

The students will be evaluated according to the following criteria:

* Exams 60%
* Data analytics project 20%
* Cases, problems and assignments 15%
* Attendance and participation 5%

Note: Students with special needs will receive differentiated evaluations.

REASONABLE ACCOMODATION

Students who require reasonable accommodation or receive Vocational Rehabilitation services must contact the professor at the beginning of the semester to plan the necessary accommodation and equipment as per the recommendations of the office that deals with issues for people with disabilities in the unit.

ACADEMIC INTEGRITY

The University of Puerto Rico promotes the highest standards of academic and scientific integrity. Article 6.2 of the UPR Students General Bylaws (Certification 13 of the Board of Trustees, 2009-2010) states that academic dishonesty includes, but is not limited to: fraudulent actions; obtaining grades or academic degrees by false or fraudulent simulations; copying the totality or part of the academic work of another person; plagiarizing totally or partially the work of another person; copying all or part of another person's answers to the questions of an oral or written exam by taking or getting someone else to take the exam on his/her behalf; as well as enabling and facilitating another person to perform the aforementioned behavior. Any of these behaviors will be subject to disciplinary action in accordance with the disciplinary procedure established by the UPR Students General Bylaws.

GRADE SYSTEM
100-90%=A, 89-80%=B, 79-70%=C, 69-60%=D y 59-0%=F

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