



UNIVERSITY OF
APPLIED SCIENCES IN NYSA



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TITLE OF THE COURSE

International Business Analytics

COURSE DESCRIPTION

This course has the objective of preparing students for the advent of big data and analytics as a management resource in their organizations, with a focus on harnessing the features offered by AI. In addition the course will examine the possibilities from the current wave of emerging technologies. Using current academic and practice-based readings and case studies, the course will examine the key issues in the establishment, utilization and maintenance of the necessary analytical tool framework and resources and how these can affect managerial decisions making. While based primarily on academic articles and practice-based papers, which students will read and present as a summary to class, they will also be invited to identify potential big data sources that might be relevant to their current or expected organizations, and design an analytical implementation program to take advantage of the opportunities it provides, while identifying relevant problem areas. Students, working in teams, will develop and present a practical, business analytics proposal as part of the course.

HOST PROFESSOR

Prof. Geoffrey Dick, St John's University New York

Dr. Geoffrey Dick currently teaches at St John's University in New York City where is also the Director, International Programs for the Collins College of Professional Studies . First appointed full Professor of Information Systems in 2009, he has taught in many universities in the United States and around the world. He has a particular interest in online education and its future, including how was affected by the Covid-19 pandemic. He teaches in a range of Information Technology areas including IT management, Cybersecurity, Emerging Technologies and Business Intelligence.

Geoff has taught and researched Information Systems for over 30 years. His research (over 100 publications) is mainly in the areas of telecommuting (his PhD) and on-line education – he is the recipient of the ICIS prize for best paper in education and was awarded the 2009 Emerald Management Review Citation of Excellence for one of the best papers published worldwide in the top 400 business journals. Recent publications have been in CAIS, JITCAR, JISE and JITE-R. He has been a visiting fellow at UC Davis, the University of Malaya, the Tec de Monterrey in Mexico, University of Agder in Norway and has taught in the prestigious programs of the ESAN Summer School in Lima, Peru, the CETYS International Summer Program in Ensenada (where he holds a Foreign Professor appointment) and at ITAM in Mexico City.

Course Level

Bachelor-level: Suitable for students from various disciplines, including law, business, management

Language of Instruction: English

Duration: June 30 – July 11, 2025

Working Time (Lesson Hours – 45 min/day): 4 hours per day



Number of ECTS Credits: 4

Teaching Method: lectures, group discussion, paper presentations by students, cases.

COURSE OBJECTIVES

This course is designed for all students interested in the use of analytics along with related AI to solve business problems and take advantage of opportunities. The advent of high-speed processing power, communications links and cheap storage have led to the use of data as an information asset – in particular of “big data”. Organizations using analytics as a form of business intelligence are outperforming their competitors who are not. However, problems and pitfalls abound. The course will look at ways to take advantage of this emerging technology for competitive advantage – indeed the survival of the organization. It will also look at ways to overcome some of the obstacles and impediments to successful implementation. Students participating in this course are expected to come from a wide range of specializations at their home universities – analytics is everywhere! They will identify analytics as a competitive strategy for use in modern organizations.

COURSE CONTENT

1. Introduction, overview of course.
 - Introduction to Business Analytics and Lessons from Industry so far.
 - Big Data – industry Use, Discussion on readings, preliminary thoughts on managing the function
2. Types of Analytics
 - Data Scientists – who are they? How to recruit them? How to manage them?
 - Role of AI
3. The role and responsibilities of the Chief Data Officer
4. Managerial Implications from Data Technologies Interview with Data Analyst
5. The CAO and The CDO Outsourcing the Chief Data Officer and Analytics Functions
6. Management issues: Data Governance,
 - Ethical issues
 - Security and privacy
 - Implications of the Internet of Things
 - Use of AI in decision making
7. Responsibilities of the IT Professional (and the data analyst!)
8. Closing: Course review, presentation preparation time and in team consultations
 - Team Presentations

VERIFICATION OF LEARNING OUTCOMES

- Class Attendance and Active Participation: 20%
- Student paper presentations and group projects: 40%
- Final Project: 40%



PREREQUISITES

This course will be taught in English. It requires students to have proficiency in the English language allowing them to read and comprehend the required readings, write reports and compile presentations, understand the lectures presented, interact successfully with the instructors and fellow classmates, and engage effectively in class discussions and presentations.

SUGGESTED LITERATURE

1. Tableau "Six trends in Retail Analytics" 2017
2. Taite "How One Marketing Team Made AI Part of Its Daily Work" HBR 2024
3. Davenport et al "How Big Data is Different", Sloan 2012
4. Davenport "Analytics 3.0"; HBR 2013
5. Purdy and Williams "How AI Can Help Leaders Make Better Decisions Under Pressure" HBR 2023
6. Short and Todd, "What's Your Data Worth?" Sloan 2017
7. Stadler and Reeves "Three Lessons From Chatting About Strategy With ChatGPT" Sloan 2023
8. Harris and Mehrotra "Getting Value From Your Data Scientists"; Sloan 2014
9. Power "Data science - supporting decision-making" DSS 2016
10. Redman "Are You Ready for a Chief Data Officer?" HBR 2013
11. Davenport and Redman "Great Data Teams" 2021
12. Marchand and Peppard "Why IT fumbles Analytics"; HBR 2013
13. Kearney "Big Data and the Creative Destruction of Today's Business Models" Columbia 2022
14. IBM "Insights for the New Chief Data Officer", 2014
15. O'Regan "Chief analytics officer: The ultimate big data job?" Computerworld 2014
16. Bednarz "Major League Baseball" Network 2021
17. Maras "IoT Security and Privacy"; Security and Privacy 2015
18. Arias et al "IoT Wearables Privacy and Security"; IEEE 2015
19. Andriole "Optimizing Operational and Strategic IT" IEEE 2015
20. "You are now remotely controlled" NYT 2021
21. "Spyware Wars" NYT 2022