BUSN 159: SURVEY OF BUSINESS AND DATA ANALYTICS

1. Course Information

Subject
BUSN - Business

Course Number
159

School
Business and Social Sciences

Course Title
Survey of Business and Data Analytics

2. Hours

Semester Hours
1

Lecture
1

Lab
1

Practicum
0

3. Catalog Description

For display in the online catalog
This course introduces students to Business applications of Data Analytics without requiring extensive prior knowledge of computer programming. Students will also utilize software in discovering patterns and relationships in data, which can be used to better understand concepts and decision-making in the fields of Economics and Business.

4. Requisites

Prerequisites
NONE

Corequisites
NONE

5. Course Type

Course Fee Code
2

Course Type for Perkins Reporting
vocational (approved for Perkins funding)

6. Justification

Describe the need for this course
This course is part of a Certificate in Data Analytics and part of an A.S. Business Option in Data Analytics. It serves to conveniently introduce students to this in-demand field without extensive prior coursework being needed. Students have the opportunity to gain an industry credential related to topics such as data visualization or machine learning.

7. General Education

Will the college submit this course to the statewide General Education Coordinating Committee for approval as a course, which satisfies a general education requirement?
No

If the course does not satisfy a general education requirement, which of the following does it satisfy:
Program-specific requirement

8. Consistency with the Vision and Mission Statements, the Academic Master Plan, and the strategic initiatives of the College

Please describe how this course is consistent with Ocean County College's current Vision Statement, Mission Statement, Academic Master Plan, and the strategic initiatives of the College:

	Add item
1	Offer comprehensive educational programs that develop intentional learners of all ages and ensure the full assessment of student learning in these programs. (Mission Statement)
2	Foster educational innovation through effective teaching-learning strategies, designed to develop and nurture intentional learners who are informed and empowered. (Vision Statement)
3	Employ technology and learning outcomes assessment to ensure student success in an increasingly diverse and complex world. (Vision Statement)
4	Prepare students for entrance into the workforce and empower students through the mastery of intellectual and Practical Skills. (Academic Master Plan)
5	Challenge students to transfer information into knowledge and knowledge into action. (Academic Master Plan)

9. Related Courses at Other Institutions

Comparable Courses at NJ Community Colleges
Institution
Warren County CC

Course Title
Digital Analytics

Course Number
BUS 204

Number of Credits
3

Comments
This course is not entirely comparable as the main focus is on digital marketing and the number of credits is significantly different.

Institution
County College of Morris

Comments
Non-credit coursework in Data Analytics and Data Visualization are offered, including non-credit coursework in Tableau

Transferability of Course

Georgian Court University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
		Unable to determine status

Kean University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
		Unable to determine status

Monmouth University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
		Unable to determine status

Rowan University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
		Unable to determine status

Rutgers - New Brunswick, Mason Gross School of the Arts

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
		Unable to determine status

Stockton University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
		Unable to determine status

If not transferable to any institution, explain:
Many institutions such as those referenced in the table offer similar courses but require students to already have Statistics and/or Computer Studies. It is therefore assumed that these courses are at a more advanced level and not similar enough for direct transfer.

10. Course Learning Outcomes

Learning Outcomes

	Students who successfully complete this course will be able to:
CLO1	Explore basic concepts of business and data analytics including the field's development over time, interdisciplinary nature, and associated ethical issues.
CLO2	Identify basic statistics used in data analysis and the concept of probability distribution.
CLO3	Perform simple statistical inference and hypothesis testing and apply to business situations.
CLO4	Utilize various types of software to examine and visualize data relationships.
CLO5	Demonstrate data collection, cleansing, selecting and transformation techniques.
CLO6	Construct and select models of supervised and unsupervised machine learning best suited to various business applications.
CLO7	Use models to find data relationships and make predictions useful in business applications.

11. Topical Outline

(include as many themes/skills as needed)

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
TO1	Introduction a. Development of field of Data Science b. Ethics in Data Science c. Use of data in Business	Reading materials, lecture, discussions	Quiz and/or exam, exercises and/or assignments	CLO1
TO2	Application of Basic Statistics a. Overview of probability measures and statistics b. Hypothesis testing c. Business examples (such as testing for a difference in means in order to determine if one group of customers purchases more of a product than another)	Reading materials, lecture, exercises	Quiz and/or exam, exercises and/or assignments	CLO2, CLO3

| TO3 | Practical Issues in Data Science
a. Options in software and programming languages for data analysis
b. Refine data
c. Visualize data | Reading materials, lecture, exercises | Quiz and/or exam, exercises and/or assignments | CLO4, CLO5 |
| TO4 | Models for Business Applications (such as fraud detection or customer churn)
a. Construct or select models
b. Evaluate models
c. Use models for prediction | Reading materials, lecture, exercises | Quiz and/or exam, exercises and/or assignments | CLO6, CLO7 |

12. Methods of Instruction

In the structuring of this course, what major methods of instruction will be utilized?
Lecture, hands-on laboratory experience

13. General Education Goals Addressed by this Course (this section is to fulfill state requirements)

Information

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Technological Competency
Yes

Related Course Learning Outcome
CLO4, CLO5, CLO6

Related Outline Component
TO3, TO4

Assessment of General Education Goal (Recommended but not limited to)
Quiz and/or exam, exercises and/or assignment

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Independent/Critical Thinking
Yes

Related Course Learning Outcome
CLO1, CLO6, CLO7

Related Outline Component
TO1, TO4

Assessment of General Education Goal (Recommended but not limited to)
Quiz and/or exam, exercises and/or assignment

14. Needs

Instructional Materials (text etc.):
Reading materials and software to be chosen by Department

Technology Needs:
Access to a computer lab with relevant software

Human Resource Needs (Presently Employed vs. New Faculty):
Presently employed or new faculty

Facility Needs:
Access to computer lab, also periodic access to Business lab and software

Library needs:
N.A.

15. Grade Determinants

The final grade in the course will be the cumulative grade based on the following letter grades or their numerical equivalents for the course assignments and examinations

A: Excellent

B+: Very Good

B: Good

C+: Above Average

C: Average

D: Below Average

F: Failure

I: Incomplete

R: Audit

For more detailed information on the Ocean County College grading system, please see Policy #5154.

16. Board Approval

History of Board approval dates
New course board approved: September 23, 2021