



COURSE: CSCI 2385, Business Intelligence Reporting and Visualization

CREDITS: 3

CLASS HOURS/WEEK: Blended (2 hours lecture, 3 hours lab per week)

PREREQUISITES: CSCI 2380

DESCRIPTION OF COURSE

Business Intelligence Reporting and Visualization focuses on the use of current tools and techniques for summarizing data and information reporting. A review of data, database, and statistical concepts is provided as they relate to reporting and visualization. Students will explore various reporting techniques. An exploration of various exploratory and explanatory visualization techniques and their use cases is discussed. The development and use of web-based reporting and visualization tools, including dashboards, will be discussed. A survey of advanced topics related to summarizing and categorizing data for reporting will be presented.

STUDENT LEARNING OUTCOMES

After taking this course, a student will be able to:

- Explain the importance of information reporting and visualization in the decision process;
- Understand the use of key performance indicators and scorecards to describe performance.
- Identify and work with different types of charts, graphs, and other visualization methods and understand the purpose/use case for each.
- Understand the difference between exploratory and explanatory visualizations.
- Design and create dashboards to report near real-time information.
- Understand concepts related to advanced modeling topics for categorizing data including machine learning and clustering techniques.
- Demonstrate the use of current reporting and visualization tools and techniques.

GENERAL EDUCATION OUTCOMES

Columbus State Community College's general education outcomes are an integral part of the curriculum and central to the mission of the college. The faculty at Columbus State has determined that these outcomes include the following competencies:

- Critical Thinking
- Quantitative Skills
- Technological Competence
- Communication Competence
- Professional & Life Skills

COURSE MATERIALS REQUIRED

Materials provided by the department and/or are available on Blackboard

GENERAL INSTRUCTIONAL METHODS

- Lecture
- Classroom Discussions
- Group Exercises and Hands-on Activities
- Demonstrations
- Projects and Exercises
- Exams

ASSESSMENT

Columbus State Community College is committed to assessment (measurement) of student achievement of academic outcomes. This process addresses the issues of what you need to learn in your program of study and if you are learning what you need to learn. The assessment program at Columbus State has four specific and interrelated purposes: (1) to improve student academic achievements; (2) to improve teaching strategies; (3) to document successes and identify opportunities for program improvement; (4) to provide evidence for institutional effectiveness. In class, you are assessed and graded on your achievement of the outcomes for this course. You may also be required to participate in broader assessment activities.

STANDARDS AND METHODS FOR EVALUATION

Exams—Students will complete two exams: a midterm and a final. Both exams will be completed through Blackboard at your convenience during the week they are assigned. Students have one attempt for each exam and all exams are open book. No late exams will be accepted unless arrangements have been made with the instructor prior to the exam due date.

Labs—Students will complete a hands-on lab during most class meetings. You must be present in class to hear and participate in the Lecture portion of the class to complete the lab. Labs must be submitted in the manner requested to receive credit. No late labs will be accepted or completed outside of class unless arrangements have been made with the Instructor, *prior* to that class.

Exercises—Weekly exercise will be assigned at the end of each class meeting. Exercises will be submitted through Blackboard at your convenience by/on the due date. No late submissions will be accepted unless arrangements have been made with the instructor prior to the exam due date.

GRADING SCALE (*Subject to change – refer to Blackboard Gradebook for most current data*)

Major Categories	Point Value
In-class labs	100 points
Exercises	150 points
Midterm	100 points
Final Exam	150 points
TOTAL:	500 points

Percentage	Points	Letter Grade
90 - 100%	450 – 500	A
80 - 89%	400 – 449	B
70 – 79%	350 – 399	C
60 – 69%	300 – 349	D
0 – 59%	0 – 299	E

See the Calendar on Blackboard for additional information and due dates

ATTENDANCE POLICY

Class attendance and participation is critical for your success in completing this course. The class will begin promptly and attendance will be taken. Most of the labs cannot be completed until after the initial assignment in class. **If you know you will need to miss a class, it is your responsibility to email me and make any possible arrangements for labs or assignments, *prior* to the class meeting date.** There are **no make-up assignments, quizzes or labs.** Attendance and participation in class is important to your overall grade in this course! If you miss a class, it is your responsibility to go to Blackboard and complete the required assignments.

STUDENT RESPONSIBILITIES

General

The student is responsible for reading the syllabus. Students are expected to attend all classes and to read assigned chapters **prior** to class.

Respect for Others

Please use common courtesy in class. This means avoiding use of inappropriate language and not expressing hostility toward others. Violation of this policy may mean removal from the course in accordance with the Academic Conduct Policy 7-11 and the Student Code of Conduct Policy No 7-12.

Due Dates

Assignments, quizzes, and labs will be due either via hardcopy or posted to Blackboard. Assignments will only be accepted in the manner the Instructor has stipulated. The student will be notified of the method required to submit the assignment. *Assignments are not accepted via email.* Assignments have due dates assigned. **Late submissions of work will not be accepted.**

Institutional Learning Goals

Columbus State Community College's Institutional Learning Goals are an integral part of the curriculum and central to the mission of the college. The faculty at Columbus State have identified the following institutional learning goals:

- Critical Thinking
- Ethical Reasoning
- Quantitative Skills
- Scientific Literacy
- Technological Competence
- Communication Competence
- Cultural and Social Awareness
- Professional & Life Skills

Student Code of Conduct

As an enrolled student at Columbus State Community College, you have agreed to abide by the Student Code of Conduct as outlined in the Student Handbook. You should familiarize yourself with the student code. Columbus State expects you to exhibit high standards of academic integrity, respect, and responsibility. Any confirmed incidence of misconduct, including plagiarism and other forms of cheating, will be treated seriously and in accordance with College Policy and Procedure 7-10.

Americans with Disabilities Act (ADA) Policy

It is Columbus State policy to provide reasonable accommodations to students with disabilities as stated in the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act. If you would like to request such accommodations for access, please contact Disability Services: 101 Eibling Hall, (614) 287-2570. Email or give your instructor a copy of your accommodations letter from Disability Services as soon as possible. Accommodations do not start until the letter is received, and accommodations are not retroactive. Delaware Campus students may contact an advisor in the Student Services Center on the first floor of Moeller Hall, (740) 203-8345.

Counseling Services

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce your ability to participate in daily activities. Services are available to assist you with addressing these and other concerns you may be experiencing. Counseling Services are FREE of charge for all enrolled students. Counseling Services at Columbus State are only offered at the college's downtown Columbus campus. If you are attending classes in Delaware or at a Regional Learning Center and are in search of counseling services closer to home, a list of community providers can be found at the Counseling Services website below. To schedule an appointment or to learn more about mental health services at Columbus State or in your local community, contact Counseling Services at 614-287-2818. You may also obtain more information by visiting the Counseling Services office located in NH Room 010 or via the web at: www.csc.edu/services/counseling

Title IX and Non-Discrimination

Columbus State Community College is committed to creating a learning and working environment that is free of bias, discrimination and harassment by supporting open communication and mutual respect. If you have encountered sexual harassment, sexual misconduct, sexual assault, or discrimination based on race, color, religion, age, national origin, ancestry, sex, sexual orientation, gender identity and expression, genetic information (GINA), military status or disability, please contact one of the following people:

Renee Fambro	Danette Vance	Joan Cook	Darla Van Horn
Title IX Coordinator/ Director	Title IX Deputy Coordinator	Title IX Deputy Coordinator	Title IX Deputy Coordinator
Equity & Compliance SX 143	Equity & Compliance SX 133	Equity & Compliance SX 135	Student Life EB 203(D)
rfambro@csc.edu 614.287.5519	dvance1@csc.edu 614.287.2433	jcook60@csc.edu 614.287.2636	dvanhorn@csc.edu 614.287.2856

For additional information about your options or to file a complaint online, please visit the Equity and Compliance webpage at: <http://www.csc.edu/services/title-ix/>

Tobacco-Free Columbus State

As a result of a proposal by the Ohio Board of Regents in 2012, Columbus State became a tobacco-free institution, as have colleges and universities across the nation, including The Ohio State University, which made the change in 2014. In an effort to support the health and well-being of all students, faculty, and staff, the College has adopted a tobacco-free policy which prohibits the use of all tobacco-related products on College property. The primary emphasis of this approach is to focus on the elimination of tobacco use on all College property with cessation left as a choice for the individual. The effective date for the tobacco-free policy was July 1, 2015.

Financial Aid Attendance Reporting

Columbus State is required by federal law to verify the enrollment of students who participate in Federal Title IV student aid programs and/or who receive educational benefits through the Department of Veterans Affairs. It is the responsibility of the College to identify students who do not commence attendance or who stop attendance in any course for which they are registered and paid. Non-attendance is reported by each instructor for each of their courses every semester and results in a student being administratively withdrawn from the class section. Please contact the Financial Aid Office for information regarding the impact of course withdrawals on financial aid eligibility.

For the purposes of financial aid reporting, a student meets the participation and attendance criteria if s/he has actively engaged in the class and demonstrated a meaningful attempt toward completion of the course. Examples of active engagement may include, but are not limited to: completing a graded course assignment (e.g., homework, quiz, essay, project, or lab); actively participating in studio or practicum sessions; making content-related contributions to an online discussion forum (including responses both to prompts and to student/instructor posts).

Audio/Video Recording of Class

Audio- and video-recording, transmission, or distribution of class content (e.g., lectures, discussions, demonstrations, etc.) is strictly prohibited unless the course instructor has provided written permission via the syllabus or a signed form. Authorization to record extends solely to students in that particular course. Transmitting, sharing, or distributing course content onto public, commercial, or social media sites is strictly prohibited.

Inclement Weather or Other Emergencies

In the event of severe weather or other emergencies that could force the college to close or to cancel classes, such information will be broadcast on radio stations and television stations. Students who reside in areas that fall under a Level III emergency should not attempt to drive to the college even if the college remains open.

Assignments due on a day the college is closed will be due the next scheduled class period. If an examination is scheduled for a day the campus is closed, the examination will be given on the next class day. If a laboratory is scheduled on the day the campus is closed, it will be made up at the next scheduled laboratory class. If necessary, laboratory make-up may be held on a Saturday. Please review the academic department specific policy relative to clinical, practicum, or other missed time due to weather related college closings.

Students who miss a class because of weather-related problems when the class is held as scheduled are responsible for readings and other assignments as indicated in the syllabus. If a laboratory or an examination is missed, contact the faculty member as soon as possible to determine how to make up the missed exam or lab. Remember, it is the student's responsibility to keep up with readings and other assignments when a scheduled class does not meet, whatever the reason.

In the event the college is forced to close during Final Examination Week, exams scheduled for the first missed date will be rescheduled. The faculty member for each section of a course will communicate via email to registered students of the new date, time, and location of the exam. This information will also be posted, by the faculty member, on their Blackboard section as an announcement.