

Colorado BMEF CTE Course – Scope and Sequence

Course Name	Marketing Analytics	Course Details	Credits = .5 (Semester)		
		Course = 0.50 Carnegie Unit Credit	Level 4		
Course Description	Investigates marketing analytics through the optics of a marketing professional. The course focuses on the foundation of marketing analytics by demonstrating an understanding of data management, exploring data analysis and visualization, comparing and contrasting, developing, evaluating and interpretation of models, communicating results to colleagues, clients and executives, and integrating analytics into an organization within a marketing context.				
Note	This is a suggested scope and sequence for the course content. The content will work with any textbook or instructional resource. If locally adapted, make sure all essential knowledge and skills are covered. Course aligns to the CCNS (MAR 2660) competencies. *Please note if you teach this with concurrent or dual enrollment, it may be taught at a level 3 or 4.				
SCED Identification #		Schedule calculation based on 60 calendar days of a 90-day semester. Scope and sequence allows for additional time for guest speakers, student presentations, field trips, remediation, or other content topics.			
All courses taught in an approved CTE program must include Essential Skills embedded into the course content. The Essential Skills Framework for this course can be found at https://www.cde.state.co.us/standardsandinstruction/essentialskills					
REQUIRED COURSE LEARNING OUTCOMES (CLOs): 1. Examine the role that marketing analytics plays in the role of an organization. 2. Discuss how data is structured, collected, analyzed, and visualized. 3. Analyze the importance and limitations of data and cognitive analytics. 4. Compare and contrast modeling techniques in relationship to time, budget, audience, and marketing channels including of auditing and reconciling data. 5. Summarize the benefits and detriments of using Artificial Intelligence (AI) and Automated Machine Learning Model (AMLM). 6. Explain the importance of cluster and market basket analysis in the consumer buying process. 7. Analyze text data to understand consumer behavior. 8. Evaluate data trends to predict and solve marketing problems. 9. Evaluate the performance of digital marketing initiatives to achieve Key Performance Indicators (KPI) results for each marketing channel.					
Instructional Unit Topic	Suggested Length of Instruction	CTE or Academic Standard Alignment	Competency / Performance Indicator	Outcome / Measurement	CTSO Integration
UNIT 1: Synopsis of Marketing Analytics					

Introduction to Marketing Analytics	2 weeks	MBA Marketing: MK:002, MK:009 NBEA: Marketing Concept CTE Marketing Cluster	Define marketing analytics Identify key roles and responsibilities of a marketing analyst Explain the marketing analytics ecosystem	Students will examine how marketing analytics drives organizational decision-making. Assessment: Written reflection + quiz on key terminology. (CLO 1)	FBLA: Marketing Data Analysis Data Science & AI Management Information Systems Business Management Advertising DECA: Marketing Management TDM (MTDM) Marketing Communications Series (MCS) Business Services Operations Research (BOR) Integrated Marketing Campaign – Product (IMCP) Integrated Marketing Campaign – Service (IMCS) Integrated Marketing Campaign – Event (IMCE) Principles of Marketing (PMK)
The Role of Analytics in Organizations	1 week	MBA Marketing: MK:001, MK:014 NBEA: Business Decision Making CTE BMA Cluster	Explain how analytics supports strategic planning, resource allocation, and competitive advantage across marketing channels	Students will evaluate real-world case studies where marketing analytics impacted business outcomes. Assessment: Case study analysis. (CLO 1)	FBLA: Marketing Business Management Data Analysis Organizational Leadership DECA: Marketing Management TDM (MTDM) Business Services Operations Research (BOR) Business Solutions Project (PMBS) Buying and Merchandising Operations Research (BMOR)

UNIT 2: Data Management

Data Structure & Types	1.5 weeks	MBA Marketing: MK:010, MK:011 NBEA: Information Management CTE IT Cluster	Identify structured vs. unstructured data Classify primary vs. secondary data sources Describe common data storage formats (CSV, JSON, databases)	Students will demonstrate understanding of how data is structured and collected. Assessment: Data classification activity + short quiz. (CLO 2)	FBLA: Data Analysis Data Science & AI Management Information Systems Computer Applications Computer Problem Solving DECA: Marketing Management TDM (MTDM) Business Services Operations Research (BOR) Buying and Merchandising Operations Research (BMOR) Sports & Entertainment Marketing Operations Research (SEOR)
Data Collection Methods	1.5 weeks	MBA Marketing: MK:010, MK:195 NBEA: Marketing Research CTE Marketing Cluster	Compare and contrast qualitative and quantitative data collection methods Evaluate the validity and reliability of data sources in a marketing context	Students will design a basic data collection plan for a marketing scenario. Assessment: Data collection plan project. (CLO 2)	FBLA: Data Analysis Marketing Data Science & AI Social Media Strategies Advertising DECA: Marketing Management TDM (MTDM) Buying and Merchandising Operations Research (BMOR) Integrated Marketing Campaign – Product (IMCP) Integrated Marketing Campaign – Service (IMCS)

Data Visualization Fundamentals	2 weeks	MBA Marketing: MK:011 NBEA: Technology Applications CTE IT/Marketing Cluster	Select appropriate visualization types (charts, graphs, dashboards) to communicate marketing data Interpret visualizations to draw marketing insights	Students will create a basic marketing dashboard using a visualization tool. Assessment: Dashboard creation project. (CLO 2)	FBLA: Data Analysis Data Science & AI Computer Applications Management Information Systems Graphic Design DECA: Marketing Management TDM (MTDM) Business Services Operations Research (BOR) Buying and Merchandising Operations Research (BMOR) Finance Operations Research (FOR)
Importance & Limitations of Data	1 week	MBA Marketing: MK:009, MK:014 NBEA: Ethics & Social Responsibility CTE BMA Cluster	Analyze limitations of data including bias, missing data, and privacy concerns Discuss cognitive bias in data interpretation	Students will analyze a flawed marketing dataset and identify limitations. Assessment: Written critique with proposed improvements. (CLO 3)	FBLA: Data Analysis Data Science & AI Business Ethics Business Law Management Information Systems DECA: Business Law and Ethics TDM (BLTDM) Marketing Management TDM (MTDM) Business Services Operations Research (BOR)
UNIT 3: Data Analysis					
Descriptive & Diagnostic Analytics	2 weeks	MBA Marketing: MK:011, MK:014 NBEA: Analytical Thinking CTE Marketing Cluster	Apply descriptive statistics (mean, median, mode, range) to marketing data	Students will perform a descriptive analysis on a provided marketing dataset and interpret findings. Assessment: Lab report. (CLO 2,	FBLA: Data Analysis Data Science & AI Marketing Financial Statement

			Use diagnostic analytics to explain past marketing performance	CLO 8)	Analysis Management Information Systems DECA: Marketing Management TDM (MTDM) Buying and Merchandising Operations Research (BMOR) Sports & Entertainment Marketing Operations Research (SEOR) Finance Operations Research (FOR)
Predictive Analytics	2 weeks	MBA Marketing: MK:014, MK:195 NBEA: Analytical Thinking CTE IT Cluster	Explain predictive modeling concepts Interpret regression outputs in a marketing context Apply predictive analytics to forecast consumer demand or campaign outcomes	Students will use a predictive tool to forecast a marketing metric and present findings. Assessment: Presentation of forecast model. (CLO 8)	FBLA: Data Analysis Data Science & AI Marketing Management Information Systems Business Plan DECA: Marketing Management TDM (MTDM) Buying and Merchandising Operations Research (BMOR) Business Services Operations Research (BOR) Integrated Marketing Campaign – Product (IMCP)
Evaluating Digital Marketing KPIs	2 weeks	MBA Marketing: MK:003, MK:009, MK:014 NBEA: Marketing CTE Marketing Cluster	Define and calculate key performance indicators (KPIs) for digital marketing channels (email, social media, SEO, PPC, display)	Students will evaluate a simulated digital marketing campaign performance report and make data-driven recommendations. Assessment: KPI Analysis Report.	FBLA: Marketing Social Media Strategies Advertising Data Analysis Data Science & AI Introduction to Social Media Strategy

			Evaluate campaign performance against benchmarks	(CLO 9)	DECA: Integrated Marketing Campaign – Product (IMCP) Integrated Marketing Campaign – Service (IMCS) Integrated Marketing Campaign – Event (IMCE) Marketing Communications Series (MCS) Marketing Management TDM (MTDM) Sports & Entertainment Marketing Operations Research (SEOR)
UNIT 4: Analytical Methods					
Modeling Techniques: Overview & Comparison	2 weeks	MBA Marketing: MK:014, MK:195 NBEA: Analytical Thinking CTE IT/Marketing Cluster	Compare and contrast analytical modeling techniques (regression, classification, clustering) in relation to time, budget, audience, and marketing channels Describe when each model is appropriate	Students will complete a comparison matrix of modeling techniques applied to given marketing scenarios. Assessment: Modeling comparison matrix + written justification. (CLO 4)	FBLA: Data Analysis Data Science & AI Marketing Management Information Systems Business Management DECA: Marketing Management TDM (MTDM) Buying and Merchandising Operations Research (BMOR) Business Services Operations Research (BOR) Finance Operations Research (FOR)
Auditing & Reconciling Data	1 week	MBA Marketing: MK:010, MK:011 NBEA: Information	Identify data quality issues Apply data auditing techniques	Students will audit a simulated marketing data set and produce a data quality report.	FBLA: Data Analysis Data Science & AI Computer Applications

		Management CTE BMA Cluster	Reconcile conflicting data sets from multiple marketing channels	Assessment: Data audit report. (CLO 4)	Management Information Systems Accounting DECA: Business Services Operations Research (BOR) Marketing Management TDM (MTDM) Buying and Merchandising Operations Research (BMOR)
AI & Automated Machine Learning Models (AMLM)	2 weeks	MBA Marketing: MK:014 NBEA: Technology Applications CTE IT Cluster	Summarize benefits and detriments of AI and automated machine learning in marketing Identify use cases for AMLM in customer segmentation, content personalization, and ad targeting	Students will create a pros/cons analysis and present recommendations for AI use in a marketing context. Assessment: Persuasive presentation. (CLO 5)	FBLA: Data Science & AI Data Analysis Management Information Systems Business Management Coding & Programming DECA: Marketing Management TDM (MTDM) Business Services Operations Research (BOR) Business Solutions Project (PMBS) Integrated Marketing Campaign – Product (IMCP)
Cluster Analysis & Market Basket Analysis	2 weeks	MBA Marketing: MK:011, MK:195 NBEA: Marketing Research CTE Marketing Cluster	Explain the purpose of cluster analysis for customer segmentation Describe market basket analysis and its application in the consumer buying process Interpret the results of each analysis	Students will analyze a retail data scenario using cluster and market basket concepts to make merchandise recommendations. Assessment: Merchandising recommendation report. (CLO 6)	FBLA: Marketing Data Analysis Data Science & AI Retail Management Introduction to Retail & Merchandising Management Information Systems DECA: Buying and Merchandising

					Operations Research (BMOR) Buying and Merchandising TDM (BTDM) Food Marketing Series (FMS) Retail Merchandising Series (RMS) Marketing Management TDM (MTDM)
Text Analytics & Sentiment Analysis	2 weeks	MBA Marketing: MK:010, MK:014, MK:195 NBEA: Analytical Thinking CTE IT/Marketing Cluster	Explain text mining and natural language processing (NLP) concepts Apply sentiment analysis to understand consumer behavior from reviews, social media, and surveys	Students will analyze consumer review data to identify themes and sentiment, then present findings. Assessment: Sentiment analysis presentation. (CLO 7)	FBLA: Data Analysis Data Science & AI Marketing Social Media Strategies Management Information Systems Advertising DECA: Marketing Management TDM (MTDM) Integrated Marketing Campaign – Product (IMCP) Integrated Marketing Campaign – Service (IMCS) Marketing Communications Series (MCS) Sports & Entertainment Marketing Operations Research (SEOR)
UNIT 5: Analytical Approaches					
Data Trends & Marketing Problem Solving	2 weeks	MBA Marketing: MK:009, MK:014 NBEA: Analytical Thinking CTE Marketing Cluster	Evaluate marketing data trends over time Apply trend analysis to predict future consumer behavior and solve identified marketing problems	Students will identify a marketing trend from a real-world data set and propose a solution strategy. Assessment: Trend analysis project + presentation. (CLO 8)	FBLA: Data Analysis Data Science & AI Marketing Business Plan Management Information Systems Social Media Strategies

			Develop data-driven recommendations		DECA: Marketing Management TDM (MTDM) Buying and Merchandising Operations Research (BMOR) Sports & Entertainment Marketing Operations Research (SEOR) Business Services Operations Research (BOR) Integrated Marketing Campaign – Product (IMCP)
Communicating Analytical Results	1.5 weeks	MBA Marketing: MK:002, MK:009 NBEA: Communication Skills CTE BMA Cluster	Translate complex analytics findings into clear narratives for diverse audiences (colleagues, clients, executives) Design effective presentations and data stories	Students will present a marketing analytics report to a simulated executive audience and field questions. Assessment: Formal presentation with Q&A rubric. (CLO 1, CLO 2)	FBLA: Data Analysis Marketing Business Communication Public Speaking Impromptu Speaking Business Management Sales Presentation DECA: Marketing Management TDM (MTDM) Professional Selling (PSE) Business Services Operations Research (BOR) Integrated Marketing Campaign – Service (IMCS) Business Solutions Project (PMBS)
Integrating Analytics into an Organization	2 weeks	MBA Marketing: MK:001, MK:009, MK:014 NBEA: Business Strategy CTE BMA/Marketing Cluster	Develop a plan for embedding analytics into marketing workflows Identify barriers to adoption	Students will develop a marketing analytics integration plan for a given business scenario. Assessment: Analytics strategy capstone presentation. (CLO 1, CLO 4, CLO 9)	FBLA: Data Analysis Data Science & AI Marketing Business Plan Management Information Systems Business Management

			Evaluate technology platforms and tools used in marketing analytics		Organizational Leadership DECA: Marketing Management TDM (MTDM) Business Solutions Project (PMBS) Business Services Operations Research (BOR) Buying and Merchandising Operations Research (BMOR) Integrated Marketing Campaign – Product (IMCP) Integrated Marketing Campaign – Service (IMCS)
Capstone: Marketing Analytics Portfolio Project	2 weeks	MBA Marketing: MK:001–MK:014 NBEA: All Marketing Standards CTE Marketing/IT Clusters	Synthesize all course competencies into an end-to-end marketing analytics project Demonstrate proficiency in data collection, analysis, visualization, modeling, and communication	Students will complete a full marketing analytics project from data to recommendation and present to a professional panel. Assessment: Capstone portfolio + panel presentation rubric. (CLO 1–9)	FBLA: Data Analysis Data Science & AI Marketing Business Plan Management Information Systems Social Media Strategies Business Management Sales Presentation Organizational Leadership DECA: Marketing Management TDM (MTDM) Integrated Marketing Campaign – Product (IMCP) Integrated Marketing Campaign – Service (IMCS) Buying and Merchandising Operations Research (BMOR) Business

					Services Operations Research (BOR) Business Solutions Project (PMBS) Sports & Entertainment Marketing Operations Research (SEOR) Professional Selling (PSE)
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Academic Standards Alignment

Colorado CTE courses are required to integrate academic and essential skills into course content. The following academic standards have been identified as aligned to this course and should be integrated throughout instruction.

[CO CTE Academic Standards Resources](#) (Rubrics, integration strategies, etc)

[CDE Colorado Academic Standards Online](#) (Online standards lookup tool)

Reading, Writing, & Communicating

Standard 1: Oral Expression and Listening

- **Prepared Graduate 1:** Collaborate effectively as group members or leaders who listen actively and respectfully; pose thoughtful questions, acknowledge the ideas of others; and contribute ideas to further the group's attainment of an objective.
- **Prepared Graduate 2:** Deliver effective oral presentations for varied audiences and varied purposes.

Standard 2: Reading for All Purposes

- **Prepared Graduate 4:** Read a wide range of informational texts to build knowledge and to better understand the human experience.
- **Prepared Graduate 5:** Understand how language functions in different contexts, command a variety of word-learning strategies to assist comprehension, and make effective choices for meaning or style when writing and speaking.

Standard 3: Writing and Composition

- **Prepared Graduate 7:** Craft informational/explanatory texts using techniques specific to the genre.
- **Prepared Graduate 9:** Demonstrate mastery of their own writing process with clear, coherent, and error-free polished products.

Standard 4: Research Inquiry and Design

- **Prepared Graduate 10:** Gather information from a variety of sources; analyze and evaluate its quality and relevance; and use it ethically to answer complex questions.

Note: Mathematics and Science standards will be added in the future. Visit the [Colorado Academic Standards](#) page for the most current version.