ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

COMMON COURSE OUTLINE

Course discipline/number/title: BUS 2510: Strategic Business Analytics and AI Integration

A. CATALOG DESCRIPTION

1. **Credits: 3**
2. **Hours/Week: 3**
3. **Prerequisites (Course discipline/number):** None
4. **Other requirements:** None
5. **MnTC Goals (if any):** NA

B. COURSE DESCRIPTION: This capstone course provides students with a comprehensive understanding of strategic business analytics and the integration of artificial intelligence in organizational settings. Students will learn to design and implement data-driven strategies, construct data pipelines, and create effective workflows for analytics processes. The course covers the role of business analysts, data governance, and ethical considerations in analytics and AI. Students will gain hands-on experience with AI platforms and learn to leverage these tools for business process improvement and decision making. BUS 2508 Business Analytics and Data Visualization and BUS 2212 Business and Economics Statistics are recommended.

C. DATE LAST REVISED (Month, year): February, 2024

D. OUTLINE OF MAJOR CONTENT AREAS:

1. Strategic design of business analytics programs
2. Data source identification and integration
3. Data pipeline construction and management
4. Data dictionaries and data flow diagrams
5. Business analyst roles and responsibilities
6. Workflow design for data analytics processes
7. Introduction to Artificial Intelligence (AI) and Major AI platforms
8. AI integration in business processes
9. Data governance and ethical considerations in AI usage
10. Practical applications of AI in business analytics
11. Future trends and considerations in business analytics and AI

E. LEARNING OUTCOMES (GENERAL): The student will be able to:

1. Design comprehensive strategies for implementing business analytics within an organization
2. Identify and evaluate various data sources relevant to business operations
3. Develop and manage data pipelines for efficient data processing and analysis
4. Create and interpret data dictionaries and data flow diagrams
5. Understand and articulate the role of a business analyst within an organization
6. Design effective workflows for data analytics processes
7. Explain the history and development of Artificial Intelligence
8. Demonstrate proficiency in using major AI platforms for business applications
9. Implement proper data governance practices in AI and analytics processes
10. Evaluate ethical considerations in the use of AI and data analytics
11. Develop strategies for leveraging AI to improve business processes and decision-making
12. Assess potential future trends and their impact on business analytics and AI integration

F. LEARNING OUTCOMES (MNTC): NA

G. METHODS FOR EVALUATION OF STUDENT LEARNING: Methods may include but are not limited to:

1. Case study analyses
2. Strategic analytics plan development
3. AI integration project
4. Data pipeline and workflow design assignments
5. Final capstone project presentation

H. **RCTC CORE OUTCOME(S).** This course contributes to meeting the following RCTC Core Outcome(s):
Critical Thinking. Students will think systematically and explore information thoroughly before accepting or formulating a position or conclusion.

I. **SPECIAL INFORMATION (if any):** None