#### **INDIANA TECH**

#### **STEM MBA: Business Analytics (36-39 Total Credits)**

### **Bridge (3 Credit Hours) if required**

MBA 6000 - Analytics Boot Camp (3 Credit Hrs)

### **Core Courses (21 Credit Hours)**

MBA 5050 - Executive Leadership (3 Credit Hrs)

MBA 5125 - Economic Decision Making for Managers (3 Credit Hrs)

MBA 5140 - Accounting and Finance Decision Making for Managers (3 Credit Hrs)

MBA 5225 - Marketing and Innovation (3 Credit Hrs)

MBA 5410 - Operations and Technology Management (3 Credit Hrs)

MBA 5400 - Statistical Learning and Analytics (3 Credit Hrs)

MBA 7000 - Business Policy and Strategy (3 Credit Hrs)

MBA 6990 - Business Praxis (3 Credit Hrs)\*

### **Concentration Courses (15 Credit Hours)**

MBA 6020 - Actionable Analytics and Model Building (3 Credit Hrs)

MBA 6100 - Problem Framing and Sense Making (3 Credit Hrs)

MBA 6520 - Data Communication and Visualization (3 Credit Hrs)

MBA 6010 - Data Wrangling and Big Data (3 Credit Hrs)

MBA 6050 - Forecasting Methods (3 Credit Hrs)

<sup>\*</sup>MBA 6990 Business Praxis [Curricular Practical Training (CPT)] can be substituted for MBA 7000.

## MBA 6000 - Analytics Boot Camp

**Prerequisites(s):** None

Credits: 3

This course helps prepare students for the analytical masters by covering basic prerequisite knowledge for success in studying analytics in enterprise.

#### **MBA 5050 - Executive Leadership**

Prerequisite(s): None

Credits: 3

An interactive study of theories, concepts, trends and best practices in personal leadership development, this course focuses on the optimization of leadership potential. Designed for professionals at all levels, this course provides the framework for lifelong continuous improvement of leadership practices. Students will recognize and leverage personal leadership competencies. A personalized Leadership Development Plan (LDP), created through the lens of self-assessments, discussions, reflections, and targeted feedback, will be a primary outcome of this course. Students will review management practices including task / project management, interpersonal and relationship management, change management, and strategic planning.

### **MBA 5125 - Economic Decision Making for Managers**

Prerequisite(s): MBA 5050

Credits: 3

This course explores microeconomic and macroeconomic market forces that impact managerial decision making. Price dynamics, consumer behavior and pricing strategies, cost analysis and market strategies, banking, monetary policy, and global economics are covered.

### **MBA 5140 - Accounting and Finance Decision Making for Managers**

Prerequisite(s): MBA 5050

Credits: 3

This course integrates principles from accounting and finance. Students will learn how to analyze and evaluate financial information for effective planning, controlling and decision-making activities. Significant emphasis is placed on the interpretation, analysis and communication of financial information.

#### MBA 5225 - Marketing and Innovation

Prerequisite(s): MBA 5050

Credits: 3

This course explores strategic marketing and innovation. Strategic marketing topics include strategic market analysis, marketing strategy development, implementation of plans associated

with the targeted marketing of products and services and their pricing, promotions, and distribution. Innovation topics include design thinking and entrepreneurial marketing.

### MBA 5410 - Operations and Technology Management

Prerequisite(s): MBA 5050

Credits: 3

This course provides a practical view into the vast area of operations management, including the application of tools used for both tactical and strategic areas. Operations management includes critical facets such as supply chain, logistics and project management. This course is specifically designed to provide you with a greater perception of operations management to understand competitive advantage, identify areas for improvement, and gain efficiencies while encouraging collaboration across multiple functional departments.

## MBA 5400 - Statistical Learning and Analytics

Prerequisite(s): MBA 5050

Credits: 3

This course helps managers build statistical frameworks and ways of thinking when processing large amounts of information. Applications of statistical learning, including the degree to which conclusions can be generalized and the implication of statistical relationships, will be explored and applied to various business situations. The focus of the course is building functional models and drawing conclusions from data for organizational learning and decision making.

#### MBA 7000 - Business Policy and Strategy

Prerequisite(s): MBA 5050; All core course completed

Credits: 3

Enrollment requires advisor's approval. A review of the applied research for managerial planning decisions and actions that assist in determining the long-run performance of organizations. Emphasis is placed on the process of strategy formulation, implementation, evaluation, and control for organizations of all sizes.

### MBA 6990 - Business Praxis (can be substituted for MBA 7000)

Prerequisite(s): MBA 5050; Permission of the College of Business Dean.

Credits: 3

Application of business skills, knowledge, and abilities to business projects and/or consulting experiences. This course may be repeated for additional credit.

### MBA 6020 - Actionable Analytics and Model Building

Prerequisites(s): MBA 5400

Credits: 3

This course helps managers understand the benefits and risks of analytical decision-making and explores how to apply it effectively across teams and organizations. Students will make practical use of statistical, analytical, and decision technologies to quantify organizational decisions. The course teaches managers the role of optimization analytics in the decision intelligence framework and how analytics can help frame both agile and strategic decisions.

## MBA 6100 – Problem Framing and Sense Making

Prerequisites(s): None

Credits: 3

This course covers the strategic management of decision-making heuristics from situational awareness to sense-making for organizational opportunity capacity. The course explores the foundations of logic and sense-making to frame the problems organizational stakeholders face. Students then build on this understanding to build teams around unique organizational valueadding solutions and construct strategies-based enterprise data, both quantitative and qualitative.

#### MBA 6520 - Data Communication and Visualization

Prerequisite(s): MBA 5400

Credits: 3

This course helps managers understand the role of various team members and stakeholders in the decision-making process. Further, this class explores the tools used to optimize decisionmaking in organizations through effective communication and visualization. The course specifically identifies how the art and science of data visualization work together to share insights and inspire action.

### MBA 6010 - Data Wrangling and Big Data

**Prerequisites:** None

Credits: 3

This course covers applications to the management of data and big data in enterprise. Application of cloud computing and data engineering for exploratory analysis in enterprise. Emphasis on the benefits and responsibilities of digital enterprise's collection and use of data.

# **MBA 6050 - Forecasting Methods**

**Prerequisites:** None

Credits: 3

This course covers the management and analysis of forecasting methods in making enterprise decisions. Application of appropriate tools for time and frequency analysis. Emphasis on applying forecasting models to improve organizational problem-solving.