COURSE BREAKDOWN

Instruction: 30%
Practical application: 30%
Presentations: 15%
Feedback and discussion: 15%
Office hours: 10%

PREREQUISITES

You must be able to interpret, clean, and analyze data using spreadsheets before attending the course. You will complete assignments using your preferred program(s), so we recommend familiarity with at least one of the following: PowerBI, Python, R, SQL, Tableau, and/or related tools and software.

Business-Driven Data Analysis

Pragmatic Institute's ***Business-Driven Data Analysis*** masterclass teaches you how to translate a business problem into data analysis that provides actionable insights. Through a curriculum of real-world challenges, practice presentations, peer discussion and instructor feedback, you'll get hands-on practice with new skills. Master the Pragmatic Data Insights Model and learn how to define, prepare, refine, analyze and present complex data analysis to diverse stakeholders. You'll leave this eight-week, part-time course able to optimize your approach to data projects and advance from a tactical role to being a strategic contributor.

COURSE OBJECTIVES

MAIN OBJECTIVE: Figure out what a stakeholder truly wants, refine the project based on available data, produce results and provide strategic insights.

Get to the heart of the problem and effectively define the analysis to solve with the data at hand.

- Ask questions that arrive at the crux of the problem
- Disambiguate terms and translate vague or figurative requests into objective, measurable goals
- Distinguish the actual problem from assumptions, misconceptions and jargon that may be embedded into the initial request
- Clearly define the goals and desired outcome
- Identify potential data sources and establish the timeline to collect information

Assess the data quality for analysis and quantify the project requirements by defining measurements, thresholds, and data quality.

- Create clear research questions and hypotheses that can be tested with evidence
- Generate consensus on thresholds
- Establish minimum data requirements for both quality and quantity
- Identify factors that can influence the selection of data
- Define the value of the data available

Evaluate data sources available for the analysis and determine whether the available data is sufficient or needs to be augmented.

- Select the most useful data format—time series, ratings, categorizations—to answer your research question
- Choose the most effective tools and technologies to gather and wrangle data
- Identify available proxy variables to provide additional insight
- Validate the representativeness of your samples

Analyze the data with purpose and select the most effective methods to interpret actionable insights.

- Identify the strengths and limitations of each analytical method
- Choose methods that match your research questions and data format
- Focus on methods that are most likely to lead to actionable insights with measurable ROI
- Choose a method to aggregate results, if using more than one analytical method

Ensure alignment by effectively communicating actionable insights and next steps to diverse stakeholders.

- Frame the findings and their implications with an engaging narrative
- Visualize information in a way that leads to immediate understanding
- Clearly outline the potential return on investment for the proposed solution

COURSE TOOLS AND TEMPLATES

Pragmatic courses are designed to be practical, actionable and high-impact. We provide a toolkit you can put into action immediately back at work.

- Pragmatic Data Insights Model
- AdventureWorks Database
- Communication Styles Guide
- Define Guide: Focus on the specific business problem
- Prepare Guide: Explore the available data and most useful methods
- Refine Guide: Revise questions and expectations as necessary
- Analyze Guide: Build models to find actionable insights
- Present Guide: Communicate actionable insights and next steps

COURSE MODULES

01 Evaluating the Data Analysis Process

Learn a proven, repeatable approach you can leverage across data projects and toolsets to deliver timely, actionable insights and strong return on investment.

02 Defining Problems and Possibilities

Focus on the specific business problem you want to solve with data. Clearly communicate what is possible to ensure alignment with stakeholders.

03 Preparing for Analysis

Streamline the ways you explore the available data. Identify the most useful methods that connect your data analysis to business insights.

04 Refining Problems and Possibilities

Ensure your data project is moving in the right direction by revisiting questions and expectations with stakeholders as challenges arise in the analysis and implementation.

05 Analyzing with Purpose

Maximize impact by focusing models on controllable factors that can bring about the desired outcome.

06 Presenting Actionable Insights to Stakeholders

Transform the way you present your findings through visualizations and presentations focused on actionable insights that clearly communicate the expected return on investment for your recommendations.

07 Developing Professional Networking Skills

Improve the way you foster collaboration in the data space and apply best practices for better cooperation and increased productivity.

08 Excelling Throughout the Data Analysis Process

Put what you've learned into practice immediately by applying the Pragmatic Data Insights Model to a business problem at your own organization.

COURSE EVALUATION

Upon successful completion of the curriculum, you will have acquired expertise in communicating and executing business-focused data projects for diverse stakeholders. Transform the way you present insights to business leaders and ensure alignment by figuring out what a stakeholder truly wants and refining the project based on available data to produce actionable insights.

Attendees are required to participate in group discussion, in-class analysis and complete homework outside of class (2-4 hours per week) to ensure immediate application. You must successfully complete five data analysis assignments, which involve performing advanced data analysis and presenting their insights and recommendations for managers, executives or clients to better address important business issues. Attendees must also execute a final project—applying real-world data to solve a practical business problem at your own organization—to the satisfaction of the instructor.