

Course Project Description	<p>This course is unique within the program. Instead of weekly lectures and quizzes on specific topics, you'll showcase your applied knowledge from all previous courses. This project integrates your entire education and will test your abilities in problem definition, data mining, data cleaning, data integration, insight generation, and communication.</p>
Project Selection	<p>You'll select your own project, if possible. The project must be related to data-driven analytics and be either predictive or prescriptive. Here are some examples of past projects:</p> <ul style="list-style-type: none"> • IT Tickets: Analyzing the root causes and origin factors to recommend how to reduce IT ticket volume. • Insurance Claims: Building a predictive model for high-cost claimants for an insurance company. • Vendor vs. Internal Product: Deciding whether to pay a vendor or build a product internally based on cost estimations, potential ROI, and simulation outcomes. • Customer Churn: Building a model to identify churn in a population, classifying customers, and recommending activities to reduce voluntary terminations. • Marketing Campaign: Testing the efficacy of a new product or marketing campaign using propensity score matching and A/B testing. <p>Start looking for a project immediately. Ideally, you already have one. If not, here are some tips to set you up for success.</p> <ul style="list-style-type: none"> • Choose a project that is appropriately challenging. • Avoid projects that are too easy, as they may not demonstrate the program competencies. • Conversely, avoid projects that are overly complex or ambiguous for an 11-week course. • A suitable project should have clear success criteria, a responsive stakeholder, clear value for the client, and the potential to showcase several skills from your prior courses. • If you don't have a relationship with a company or non-profit to provide a real-world problem, reach out to your instructor or university contacts for assistance.
Project Deliverables	<p>You'll have multiple deliverables associated with the project:</p> <ul style="list-style-type: none"> • Problem Statement and Project Charter: Each team must complete a project definition and problem statement with the client to ensure agreement on the scope and deliverables. After defining the problem, each team must lay out high-level milestones to achieve the goals within the given time frame. • Weekly Check-ins: Teams will submit project updates with weekly work plans prior to weekly meetings with the instructor. Updates are due the day before the lecture at 11:59 pm CT. A portion of the grade will be based on team preparedness for instructor/team meetings. • Project Deliverables: Each team will submit client deliverables, including saved program codes, visualizations, white papers, models, templates, and documentation. • Project Communication: Each group will deliver a mid-semester update and a final presentation. Both require structured communication focused on insights. The mid-semester update serves as a stakeholder/client update on progress and next steps. The final presentation will present final results and recommendations.