This project involved creating a professional multispectral flight plan for a data collection mission at the Atlantic Cape Community College Baseball Field. I utilized Google Earth Pro for site assessment and AI assistance to structure professional mission parameters for the MicaSense Altum-PT sensor. Key tasks included designing a radiometric calibration workflow using a Downwelling Light Sensor (DLS2) and reflectance panels, establishing high-overlap flight parameters, conducting an environmental risk assessment, and outlining analytical deliverables such as NDVI and thermal maps. Through this assignment, I developed specialized skills in multispectral mission planning, environmental assessment, and scientific data collection protocols. This project is highly relevant to professional drone operations, reflecting the strict consistency and calibration standards required for precision agriculture and environmental monitoring.