**Day 1**

**Session 1: Introduction to Web Scraping**

* Introduction and course overview
* Understanding the basics of web scraping
* Benefits and ethical considerations of web scraping
* Demo: Collecting data from a simple website using each tool (Excel, Google Sheets, R, and Python)
* Setting up the environment and installing necessary packages/add-ons (R and Python)

**Session 2: Excel and Google Sheets for Web Scraping**

* Advantages and limitations of using spreadsheets for web scraping
* Using Excel's Web Query feature to import data from the web
* Demonstrating data filtering and basic data cleaning in Excel
* Google Sheets' IMPORTXML, IMPORTDATA, and IMPORTHTML functions for web scraping
* Hands-on exercise: Scraping a basic website and structuring data in Google Sheets

**Session 3: Web Scraping with R**

* Overview of R and its capabilities for web scraping
* Using rvest package for simple HTML web scraping
* Reading and parsing HTML content from websites
* Handling dynamic websites using RSelenium package
* Storing scraped data (e.g., CSV)
* Hands-on exercise: Scraping a dynamic website and extracting specific information

**Day 2**

**Session 4: Advanced Web Scraping with Python**

* Web scraping with Pandas
* Python's powerful libraries for web scraping (e.g., BeautifulSoup, Requests, Selenium)
* Sending HTTP requests and parsing responses
* Handling dynamic websites
* Scraping data from APIs
* Storing scraped data (e.g., CSV)
* Hands-on exercise: Scraping a dynamic website and extracting specific information

**Session 1: AI-Assisted Document Analysis**

* Introduction to AI in document analysis and its potential benefits.
* Demonstration of AI tools (Copilot, ChatGPT, Gemini, Perplexity etc.)
* Hands-on exercise: Analyzing a sample document using AI tools and extracting key information.
* Ethical considerations and potential biases in AI document analysis.

**Session 2: AI-Powered Report Writing**

* AI's role in enhancing report writing efficiency and consistency.
* Demonstration of AI tools (Copilot, ChatGPT, Gemini, Perplexity etc.)
* Best practices for AI-assisted report writing, including prompt engineering.
* Hands-on exercise: Generating a draft report using AI tools and refining the output.
* Q&A session to address challenges and concerns.