TAIR / PROFESSIONAL DEVELOPMENT

Summer 2026 Online Workshops

Workshop descriptions and learning outcomes • Five sessions across four topics

WORKSHOP 01 / 04

SQL 101: A Hands-on Introduction for Institutional Researchers

DATES	TIME	COST
June 10 and August 12, 2026	**1:30–4:30 PM**	**$75 per session**

DESCRIPTION

Institutional researchers with little or no SQL experience will explore the fundamentals of SQL through interactive exercises. Using an online SQL tool, participants will utilize a sample student database and execute basic SQL queries to manage, filter, and analyze data. The session focuses on building a solid SQL foundation while providing practical skills directly applicable to real-world data analysis tasks. Attendees will learn how to retrieve, filter, and summarize data from relational databases, join tables, and apply conditional logic. Step-by-step instructions, practical exercises, and sample code will allow participants to follow along and practice each new skill in real time.

LEARNING OUTCOMES

By the end of the session, participants will be able to:

- Retrieve, filter, and organize data from relational databases using fundamental SQL commands like SELECT, FROM, WHERE, and ORDER BY.
- Join tables, apply conditional logic, and summarize data through aggregate functions.
- Use GROUP BY, HAVING, and UNION to analyze and combine data.

Presenter: Emily Rhodes | UT Health San Antonio

This workshop was offered twice with the same description: June 10 and August 12, 2026.

WORKSHOP 02 / 04

Exploring IPEDS: A Guided Tour of the “Use the Data” Tools

DATE	TIME	COST
June 24, 2026	1:30–4:30 PM	$75

DESCRIPTION

The IPEDS “Use the Data” page offers a powerful suite of free public tools for exploring, analyzing, and downloading higher education data—but many institutional researchers only scratch the surface of what’s available. This session provides a live demonstration of the most useful IPEDS data tools, including Compare Institutions, Summary Tables, Data Trends, and Custom Data Files. Participants will learn how to select the right tool for their task—whether benchmarking peer institutions, exploring faculty salary trends, or creating visual tables for reports. The session also previews features for saving sessions, uploading variable lists, and accessing data efficiently.

LEARNING OUTCOMES

Participants will:

- Understand the various IPEDS tools.
- Know which tool to use efficiently and effectively.

Presenter: Carolyn Mata | Independent Colleges and Universities of Texas

WORKSHOP 03 / 04

Introduction to Machine Learning

DATE	TIME	COST
July 22, 2026	9:00 AM–12:00 PM	$75

DESCRIPTION

Machine Learning offers powerful tools for predictive modeling. As IHE leaders increasingly look to IR for forecasting and decision-support, ML knowledge has become essential. However, the ML toolkit looks very different from traditional IR and classical statistics. This course's goal is to build ML expertise on top of IR professionals' existing domain knowledge and technical skills but does not require prior experience with ML. We will cover the core concepts of ML, introduce the Python ML stack, and work through example project(s). We hope to offer a 2nd, intermediate-level ML workshop at the 2027 TAIR conference which will build on this intro course.

LEARNING OUTCOMES

Participants will:

- Understand core machine learning concepts
- Recognize common ML challenges
- Explore a hands-on ML project using the Python ML stack (using free cloud-based Google Colab service)

Presenter: Scott Cook | Tarleton State University

WORKSHOP 04 / 04

Streamlining IPEDS Submissions: Creating Uploadable Flat Files for Accuracy and Efficiency

DATE	TIME	COST
August 5, 2026	**1:30–4:30 PM**	**$75**

DESCRIPTION

Tired of manually entering data into IPEDS? Discover a smarter, faster way to manage your submissions in this hands-on workshop designed for institutional researchers and data professionals.

Manual data entry is not only time-consuming—it's also prone to errors. By learning how to create reproducible flat files for IPEDS uploads, your institution can save valuable time and improve data accuracy. This session will walk you through the entire process, from locating the necessary documentation to generating and uploading your files with confidence.

LEARNING OUTCOMES

Participants will:

- Understand the Benefits of using flat file uploads to streamline IPEDS submissions and reduce errors.
- Find Key Resources for building files that meet IPEDS specifications.
- Create Upload-Ready Files using a step-by-step approach that ensures completeness and compliance.
- Define Required Variables to ensure your data is accepted and accurately reflected in the IPEDS portal.
- Review the Upload Procedures and best practices for validating your data post-submission.
- Explore SQL/SAS Code Examples that automate file creation and enhance reproducibility.

Presenter: John Carroll | Tarleton State University