What is the D2K Learning Lab?

In the D2K Learning Lab, companies, community organizations, and researchers partner with Rice University to sponsor teams of students that work on a semester-long data science project.

Student teams work on a sponsor-defined data science problem with the sponsor’s data.

Teams of 4-6 students come from a variety of disciplines and experience levels (e.g. advanced undergraduate and graduate students).

Teams are co-mentored by a sponsor mentor and a Rice data science faculty mentor.

Teams produce a data science research report and deliver all software and scripts used in the report.

Teams will exclusively use open-source software such as R and Python.

With a sponsored research agreement, sponsors will own any resulting Intellectual Property (IP). Students agree to provide timely information on their projects.

What is the D2K Lab sponsored research agreement?

The sponsored research agreement is the mechanism under which affiliates can sponsor a D2K Learning Lab student team and own any resulting Intellectual Property. The agreement is “turn-key”. For the value of the agreement, we are not able to negotiate terms.

A non-disclosure agreement for the students and faculty mentor is built into the sponsored research agreement. Rice will educate students and faculty as to the particular clauses of this agreement. We ask the company sponsors to alert course faculty and the D2K Executive Director if students will have access to any confidential information so that we can be even more vigilant in ensuring these clauses are understood and followed.

What are the benefits of sponsoring a D2K Learning Lab project?

Highlight your organization and projects of interest to data science students at Rice University;

Feature your organization’s logo on the team’s work and D2K events as a D2K sponsor,

Engage more closely with Rice’s exceptional data science students,

Own IP created (if any) as a result of your sponsored project, with which your organization may choose to file patents, continue work on the project, or otherwise protect any novel IP.
What types of projects are appropriate?

Projects should be real-world, impactful projects that are meaningful and motivating for the students.

Projects should be challenging with well-defined objectives. Ideally, objectives should be tiered in nature, with some that are easily achievable within a semester and with others that are a stretch to motivate and challenge the students.

While data wrangling and exploratory data analysis are important to any data science project, the most effective projects will require use of statistical or machine learning models to address specific objectives.

How will Rice protect confidential or proprietary data?

For most projects, we encourage sponsors to share data that they own but that is not proprietary or confidential. However, confidential data or data including personally identifiable information (or other information protected by privacy laws such as HIPAA or FERPA) could be used provided that secure access is established.

Companies may choose one of two paths for access to data used in D2K projects:

- **Non-sensitive, non-confidential data:** Copies of company-owned, non-confidential data could be shared directly with the project group. Such data would be stored in Box, an enterprise cloud-based storage and collaboration service, and offline Rice computing resources would be used in the conduct of the project; or
- **Confidential, protected, or sensitive data:** Confidential data could be kept on a company-controlled server or preferred secure third-party platform to which students must be provided access for the duration of the project. Activities involving student access to, or manipulation or analysis of, confidential data must take place remotely on company-controlled systems.

What is the timeline for Fall 2019 D2K Learning Lab Projects?

**Before semester starts**

- **April 15, 2019** Call for proposals
- **June 3, 2019** Proposals due
- **June 7, 2019** Notification whether proposal is accepted
- **July 1, 2019** Sponsored research agreement signed (FIRM DEADLINE)
- **August 1, 2019** Data transferred to Rice or secure access to data provided
- **September 2, 2019** Invoice due to Rice University

**During Fall 2019 semester**

- **August 28, 2019** Orientation and sponsors meet student teams, 5:00 - 6:30pm
- **December 4, 2019** Fall 2019 D2K Learning Lab Showcase
- **December 18, 2019** Final report and code due