Issued March 2019

Integrative Data Science Education Ecosystem
Request for Proposals
Integrative Data Science Initiative
The Offices of the Provost and the EVPRP

Spring 2019

Program Description

In the fall of 2017, faculty and staff across campus discussed, via four open campus forums, opportunities for Purdue to invest and engage in data science at the university level. Based on these conversations a faculty Data Science Working Group complied a set of recommendations to the Provost and EVPRP. These recommendations included "creating a data science education ecosystem", "embedding data science into domain curricula", and establishing an "ecosystem of data fluency throughout campus".

In 2018, the first Integrative Data Science (DS) Education Ecosystem RFP funded nine proposals (see https://www.purdue.edu/data-science/education/education-proposals.php for full list) with the objective of creating new content, courses and partnerships. At the spring 2019 Data Science Education Ecosystem Summit, faculty and staff gathered to share and reflect on what data science education components have been built to date. The purpose of this 2nd round RFP is to build on the initiatives underway and to fill in areas where gaps exist.

Proposed projects should work across departments and colleges to best leverage expertise and resources. The formation of new or expansion of existing partnerships is encouraged. The goal is to create an integrated ecosystem rather than silos with duplication of effort. Proposals should consider and explicitly state how their educational components will connect to and be a part of the existing ecosystem of efforts including but not limited to previously funded IDSI projects and programs listed below:

Existing DS Ecosystem Efforts:	Contact
Data Science Consulting Service	Guang Lin, guanglin@purdue.edu
The Data Mine	Mark Daniel Ward, mdw@purdue.edu
Undergraduate DS Certificate	John Springer, ja@purdue.edu
Graduate DS Online Connector Modules	Peristera Paschou, ppaschou@purdue.edu

Proposals may come from any college(s) and any subject domain area. All areas of data science are of interest, including but not limited to data analytics, methods, applications, data visualization, data curation, big data, data literacy/fluency, informatics, data ethics, digital humanities, societal implications and data science policy. Efforts can but need not include experiential learning, research experiences or courses (e.g. course based undergraduate research experiences), online content, summer courses, and modular content. Focus areas may include data science related fundamentals, applications, and the infusion of data science into other disciplines, majors or subject matter domains.

Scope & Financial Resources

- Budgets may include requests up to $100,000
- Unexpended balances at the end of the project period will be returned to the Provost's Office.
- Matching funds from the college and department are encouraged but not essential. Source of unit funding should be clearly stated in the proposal.

Funds can be used for:

- Faculty support for summer salary
- Student support, e.g. graduate teaching assistant support for teaching or developing content
- Staff time
- S&E** (e.g. computers, software, data collection equipment, etc.)

*** For large computing infrastructure needs that are beyond the scope of the proposal, we encourage you to discuss with Preston Smith, ITAP Research Computing psmith@purdue.edu*

An itemized budget using the provided template (see Appendix A) should be included with the proposal. Grants will be effective for the period June 1, 2019 through August 31, 2020. Awardees will be expected to participate in a review meeting with IDSI leaders at around the 6-month mark to review progress to date and identify solutions to any barriers or challenges. At the end of the grant period, a final report must be submitted to the IDSI and Provost Office and unexpended balances will be returned to the Provost's Office.

Criteria for Selection

- Includes cross department / college or multidisciplinary collaboration to best leverage resources
- Fills a gap in or expands/improves the current data science education ecosystem
- Utilizes high impact practices in teaching and learning
- Expected to have a significant impact on undergraduate and/or graduate students at Purdue and supports the goal of "Data Science for All"
- Supports the goal of diversifying the data science related community and future workforce/leaders

Financial Resources

Program Timeline

The FY19-20 schedule for proposal submission, review and award processes is as follows:

Proposal Due Date	**April 22, 2019**
Project Period	**June 1, 2019 – August 31, 2020**

Proposal Preparation and Submission

1. **Cover Sheet** (1 page)
    a. Project Title
    b. Project Abstract (50 words or less)
    c. Amount of total request
    d. Information for all Investigators
        a. Name, title, department, college, campus address, email, phone
    e. Signature Endorsement of each Investigators Department Head and Dean
        a. We suggest using the electronic signature software, Docusign (available at https://one.purdue.edu) to ease the collection of multiple signatures

2. **Project Summary** (1-2 pages)
    a. Objectives of your proposal
    b. Proposed Plan: What will you create, redesign, extend or implement? How many and which students do you expect to be engaged? How will students access the educational components you are developing and will they fulfill any degree requirements?
    c. Rationale and Justification: What is motivating the proposal? What is the expected impact?
    d. Selection Criteria: Explicitly address how your proposal meets the selection criteria

3. **Budget and Budget Justification** (1 page)
    a. Itemized budget using the provided template (see Appendix A)
    b. Indicate the role of each investigator on the team
    c. Amount and source of any matching funds
    d. Budgets do not need to be prepared through the unit's pre-award centers, but please work with the departmental business office(s).
    e. Large computing infrastructure. If the project has computing infrastructure needs that are beyond the scope of the budget and will require additional partners/investment, please indicate so in your proposal.

Potential campus partners.
There are a number of campus units who might also be good partners for your work. We encourage you to contact the directors if appropriate.

If you are proposing:	We encourage you to explore opportunities for collaboration with:
Summer courses	Office of Summer Session, John Gipson, gipsonj@purdue.edu
Undergrad Research	Office of Undergraduate Research, Amy Childress, childres@purdue.edu
Online courses	Purdue Online Learning, Chris Martin, cjmartin@purdue.edu
Course Design	Center for Instructional Excellence, Chantal Levesque-Bristol,clevesqu@purdue.edu
Learning Technologies	Teaching & Learning Technologies, Jason Fish, jfish@purdue.edu
Comp. Infrastructure	ITAP Research Computing, Preston Smith, psmith@purdue.edu

Questions
For programmatic questions, please contact Jenna Rickus (rickus@purdue.edu), Associate Vice Provost for Teaching and Learning. For questions on proposal budget and submission, please contact Cherise Hall (cherise@purdue.edu), Assistant Provost for Finance and Administration.

Proposals should be signed by the department head(s) and dean(s) of all investigators and submitted electronically as a single PDF with filename structure, DSEd_2019_PILASTNAME.pdf, to Shelly Dunk at sdunk@purdue.edu. We suggest using the electronic signature software, Docusign (available at https://one.purdue.edu) to ease the collection of multiple signatures.