Skills Workshop Proposal

30 November 2017

To: Pardis Mahdavi and Frank Laird

**Purpose**

In partnership with the Pardee Center, I would like to propose a series of workshops designed to provide students at Korbel with a brief introduction to applied data science tools as well as other research-related skills. These workshops will create opportunities for interaction across programs, facilitate collaboration through a shared base of knowledge, and motivate students to seek more training through coursework. As an added benefit for research centers, the training will help promote current research projects, recruit talented and interested students as research assistants, and prepare these students to contribute to the data collection and research process.

I reiterate that these workshops are introductions to material and do not take the place of coursework. The best compliment to these workshops would be additional training, hopefully within Korbel, where students will use these skills in the context of their studies. The workshops also allow students to see some content before they enroll in such courses. A preview of the content and challenge associated with learning these skills should help set expectations for students in their coursework and reduce the number of complaints stemming from a misunderstanding or lack of exposure to materials.

Two of the Pardee Center Research Staff (David Bohl and Mickey Rafa) and I will design the workshops as one and a half hour sessions to introduce participants to a scheduled topic. These workshops are experiential learning opportunities for all participants. One faculty/staff member will serve as an instructor and the others will be facilitators, providing hands-on support during the workshop. I have attached a sample workshop exercise for the first topic in the schedule.

**Proposed Schedule (Spring Quarter 2018)**

1. Introduction to Data Science Using R - Jason Renn
2. Data Management – Quick Queries, Sorting, and Merging - Mickey Rafa
3. Excel and Tableau - David Bohl
4. Summary Statistics and basic GIS/Data Visualization in R - Jason Renn
5. Network Analysis - David Bohl
6. Literature Reviews, References, and Citation Management - TBD

**Support**

As part of this proposal, we ask that Korbel help support these workshops by providing feedback on the proposal and scheduled topics, advertising through the weekly newsletter and various centers, and providing food to encourage attendance. It would also help us develop and update materials if instructors and assistants were compensated for the time needed to develop and teach the materials. I estimate that the total hourly commitment for the design and instruction of a workshop is about 6-7 hours for an instructor and 2 hours for a facilitator. In the longer term, students could serve as facilitators as part of their work as Research Assistants.