

# Student & Instructor Success Analytics Objectives and Strategy

## Mission Statement

Improve the student and instructor experience by providing online tools and analytics powered by cutting-edge data science.

## Objectives

### 1. Build Partnerships across UW's three Campuses and Beyond

#### *Engage stakeholders and provide transparency into our work*

In 2019, AXDD will continue to develop partnerships with units and key individuals who focus on student success. By engaging stakeholders early and often, communicating frequently about new tools and updates, participating in student success initiatives, and involving stakeholders in user research, we will strengthen the partnerships we began building in 2018. To maximize the UW's capacity and focus on student success, we will identify shared interests among groups on all three campuses. This will be accomplished by hosting meetings with retention experts at the three campuses, meeting regularly with the Office of University Registrar's (OUR) leadership team, and convening leadership from the Retention Task Force/American Talent Initiative, Student Life, OMAD, and UAA to provide updates and receive feedback on our work.

#### *Partner with a UW unit to provide advising tools*

The success of our analytics program depends on partnering with those advisers and their leadership who are eager to use student success tools. Our collaboration with OMAD (Office of Minority Affairs and Diversity) will continue this year as we help their group envision improvements to their homegrown adviser dashboard.

#### *Build partnerships with student success leaders beyond UW*

With the goal of knowledge sharing and collaboration, we have an ongoing call with UMN, Minneapolis and will arrange similar conversations with at least three other universities by the end of 2019. We currently lead the Internet2 Learning Record Store SIG, which includes almost two dozen universities and key vendors. On the vendor front, we will partner with Instructure and Panopto to develop a Student Engagement Dashboard for instructors. Conference travel will focus on building additional relationships with universities and vendors.

### 2. Deliver New Tools and Data Science for Improving Student Success

It is important that we continue to demonstrate our ability to deliver reliable, timely, accurate, and useful analytics. We have made strides in the area of descriptive analytics with applications such as MyUW's Course Dashboard and Pivot. We now need to focus on delivering predictive analytics tools in 2019.

### *Deliver innovative tools and data science*

Three projects currently underway support this objective. First, we are developing an academic planning tool called the Course Prereq Map, launching spring 2019, that helps students and administrators navigate the complex landscape of prerequisites. Additional tools for improving academic planning and discovery are a course planning and discovery tool that shows students and admins the patterns of course-taking of successful past UW students, and a recommendation tool that will collect data about intended majors, while offering students recommendations for majors and minors. Launching these innovative tools will further demonstrate our ability to deliver useful, reliable, and easy-to-use analytics apps to the university community.

We will wrap up several data science projects this year for various campus partners: exploring course-taking patterns of FIGS (First-Year Programs), Educational Opportunity Program student demographics (OMAD) and an analysis of desired major upon admission compared with what degree these students actually obtained (Provost's Office).

While we have begun to demonstrate our ability to deliver analytics and data science, we have yet to demonstrate our ability to deliver *predictive* analytics. This will begin by evaluating a 1.5 GPA retention strategy and providing a more sophisticated approach for determining at-risk students using predictive modeling (Student Life). Delivering these analyses and solutions will further demonstrate our expertise in this area and enable us to build partnerships and trust among those UW offices focusing on retention.

### *Validate models through peer review*

Our goal in this area this year is to collaborate with the iSchool's DataLab and the Center for Statistics in the Social Sciences on student success projects. Through this collaboration we can improve and validate our approaches. Peer review of our work by these groups should alleviate concerns over the legitimacy of our analytical approaches.

### *Share successes*

It is critical that the above projects are marketed in order to gain visibility and communicate to campus both what is possible and what UW-IT is accomplishing in the domain of data analytics. For our products, this entails conducting demos and publishing stories in university publications. For our data science work, this entails distributing white papers and presenting to stakeholders.

## **3. Develop the Infrastructure Needed to Drive Our Analytics Engine**

We are currently in the process of developing a Learning Records Store that will collect fine-grained learner data from various online tools (e.g., Canvas, Panopto, Poll Everywhere). We have designed a reference architecture with several peer universities and will begin developing dashboards by the end of the year.