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http://sites.uci.edu/compass/
Student analytics is the collection, analysis, measurement, and reporting of data about learners and their contexts, for purposes of understanding and optimising student outcomes.

Generally the aim is to improve retention, time to degree, and completion rates, identify and remediate risk factors, and provide targeted outreach and intervention to various student populations.
Evolving UCI characteristics:

- Over 50% First Generation
- Close to 20% International
- Over 40% low income
- Hispanic Serving Institution

What data can we leverage to enhance student success at UCI?
Project Background

- **Student Success Collaborative**
  - 2014 Pilot involving campus advisors
  - Better suited to schools with retention issues

- **New Direction**
  - Leadership from CIO, Vice Provost of Teaching & Learning, Vice Provost for Academic Planning, Assistant Vice Chancellor for Institutional Research
  - A 2016 baseline review
2016 Review

- Partnership between OIT and Division of Teaching and Learning

- Internal research
  - Advising units, student affairs, faculty
  - “low-hanging fruit”

- External research
  - Vendors, comparable schools
  - “one size does not fit all”
2016 Proof-of-Concept

- Proof-of-concept work Fall 2016
  - Build 2 reports for advisors
  - Use existing staff (OIT, OIR, DTL)
  - Use existing technology (Cognos)

- Reports Generated
  - Demographics
  - Probation

- Results
  - Immediate value
  - On-demand aggregation is key
Feedback

“I have been able to run reports myself, no requests for the Registrar’s Office. With Compass, it takes mere minutes to compile the information needed!”

- Engineering

“Compass has saved hours of work and allows me to quickly respond to requests by the dean or associate dean.”

- Social Sciences

“Having direct access to Compass data equates to a savings of a few weeks per year on the part of one staff member.”

- Business

“It's really easy to sort and find specific populations of students. It's helped with programming and outreach for programs like Honors programs and events, a program for low-income students, a program for first-generation students, etc.”

- Social Ecology

“Compass is a much easier and efficient way to gather, sort, and compile data needed by all departments.”

- Physical Sciences
Cross-unit Collaboration

- Execution of project: OVPTL + OIR + OIT

- Input/use of project: Academic Advisors, student support services on campus (DUE, Students Affairs, others), instructors, and students

- Oversight: Vice Provost for Teaching and Learning + Compass Advisory Committee
Current Focus

● Descriptive analytics for improving advising & teaching
  ○ More academic insight and progress reports for advisors
  ○ Recreate existing Registrar reports (also Cognos)
  ○ Course demographics dashboard (in beta)
  ○ Source more data!

● Predictive analytics aimed at institutional change
  ○ 2nd-year retention
  ○ Curricular pathways & bottlenecks
  ○ Curricular complexity
Goal

Provide campus advisors, faculty, and students themselves with actionable information to improve student outcomes by providing a set of Cognos reports for campus advisors to facilitate student data retrieval and analysis, leading to faster turn-around on key student support actions.

Collaboration

- **Advisors**: primary users, advising expertise, idea generation
- **DTL/DUE**: student success knowledge, idea generation, executive support
- **OIR**: data, data expertise, reporting expertise
- **Registrar**: data, data expertise
- **OIT**: Cognos development, UX design, business analysis, executive support
Who has access to Compass?

● Advisors in undergraduate advising units in the schools (+ Pharm Sci, Public Health, Athletics)
  ○ And advisors in several student support units around campus, including DUE Student Success Initiatives and CAMP

● All users have access to:
  ○ Registrar WebAdmin
  ○ Transcripts within WebAdmin

● All users must:
  ○ Have gone through FERPA training with the Registrar
  ○ Be approved by the Registrar
Consistent filters & columns on all filterable reports

UC Application data (as processed by OIR for SSC data packages)
  - Ethnicity
  - Gender Identity
  - First Generation
  - Low Income
  - California resident
  - International student
  - Veteran

Program participation
  - Student athlete
  - Campuswide Honors Program
Our Reports

**Insights: Learn & Discover**

Quickly identify first generation students for outreach

View the demographics and aggregated bits of academic history of a class

- Reports
  - Student demographics
  - Course grade distribution (preview)
  - Course demographics (pilot)

**Progress: Monitor & Intervene**

Identify struggling students and intervene as soon as possible

Easily spot students who aren’t progressing through general requirements

- Reports
  - **Academic progress**
  - Lower-division writing requirements (preview)
  - UC requirements (preview)
  - Pathway progress (draft)
Streamline academic progress monitoring

- **Need:**
  - Majors: Biological Sciences students
  - GPA: Term GPA < 2.0
  - Timeline: Winter 2017

- **Action:**
  - Reach out to students to schedule appointments and take appropriate academic actions

- **Without Compass:**
  - End-of-term reports from the Registrar are downloaded from WebFiles, merged with old data to compare previous and current term GPA
  - Available week after grades are submitted (typically 4 days)
Support students in a challenging course

**Need:**
- Course: Math 2B course (Calculus)
- Population: First-generation students
- Timeline: Winter 2017

**Action:**
- Conduct outreach to offer opportunities to help students succeed.

**Without Compass:**
- Ad-hoc requests from the Registrar or manual grade lookups in WebAdmin
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Insights: Course Demographics

Optimize teaching for your learners

● **Need:**
  ○ Course: Engineering 54 (Principles of Materials Sciences)
  ○ Timeline: Spring 2017

● **Action:**
  ○ Understand more about demographics of students
  ○ Access helpful resources about various student populations

● **Without Compass:**
  ○ Ad-hoc request from the Registrar and manual WebAdmin lookups
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Faculty Pilot of Course Demographics Insights

● **When:**
  ○ Limited pilot in Fall 2017
  ○ General faculty availability in 2018

● **Goals:**
  ○ Address any issues
  ○ Integrate CEI resources
  ○ Determine usefulness of reports
  ○ Gather feature requests
  ○ Work towards general availability for 2018
New feature: Cohort Markers

- **Problem:**
  - Lots of smaller programs at UCI
  - No way to easily associate program participation to student data

- **With Compass:**
  - New feature: **Cohort Markers**
  - Will be available as filters and columns in relevant reports

- **Pilot participants:**
  - **EASE** (Enhanced Academic Success Experience) in School of Biological Sciences - [https://www.bio.uci.edu/undergraduates/easeprogram/](https://www.bio.uci.edu/undergraduates/easeprogram/)
  - **CAMP** (California Alliance for Minority Participation) - [http://camp.uci.edu/](http://camp.uci.edu/)

- **Timeline:** Starting implementation in early **Fall 2017**
What we’re working on: Fall and beyond

- **Data**: Direct data feeds for more timely data
  - Taking a closer look at the ethnicity categories
- **New report**: Academic Pathways Progress report
  - Look up course grades and enrollment for a set of students
  - Check prerequisites completion, course sequence progress, and more
  - Draft form now, working with advisors to define what they need, then moving to create in Cognos
  - Will also include the Compass population filters
- **Pilot**: Course Demographics Dashboard for instructors
  - Will be available to deans, associate deans
  - Also available to a select group of faculty
  - Gather feedback, make updates
- **Additional filters, features, and tweaks based on direct advisor feedback**
Is there time for more?
Insights: Student Demographics

**Targeted scholarship opportunity**

- **Need:**
  - Population: Hispanic, female students in ICS
  - Timeline: Fall 2016

- **Action**
  - Contact information for a specific population
  - Why: Invite to apply for a scholarship opportunity

- **Without Compass:**
  - Ad-hoc request to Registrar, or manual merging of spreadsheets
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Progress: Lower Division Writing Requirement

Ensure timely completion of degree

- **Need:**
  - Population: International students
  - School: Social Sciences
  - Timeline: Spring 2017

- **Action:**
  - Requirement checking & intervention

- **Without Compass:**
  - Imperfect quarterly lower-division writing report generated by DegreeWorks from the Registrar combined with per-student manual lookups in WebAdmin.

*Note: The UC Requirements report is similar to this report*
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Questions?

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