



UR STUDENT

# Information Technology Institutional Research

Special Interest Group

*March 13, 2019*



# Agenda

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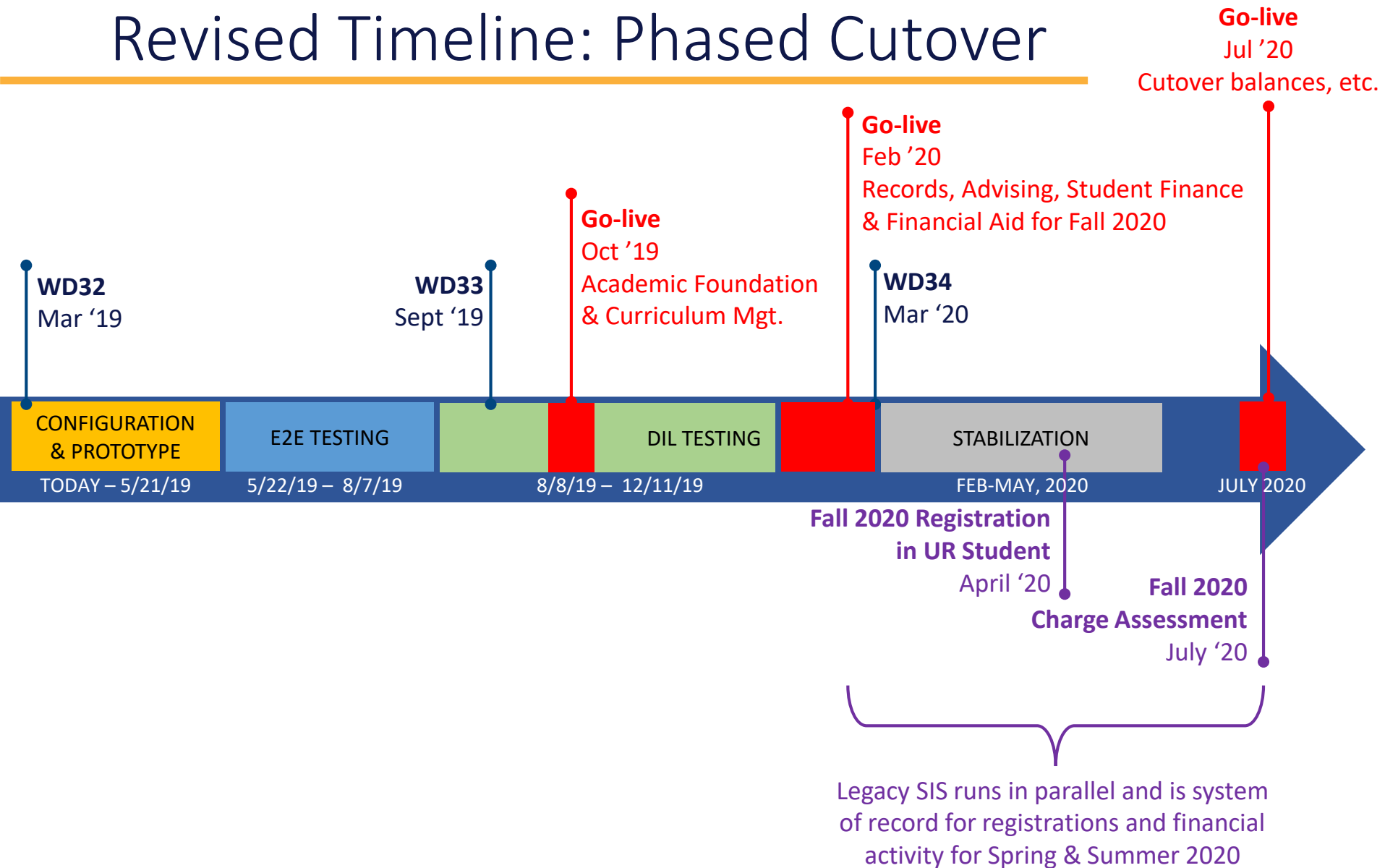
- ▶ Opening
- ▶ Project Updates
- ▶ UR Student Reporting
- ▶ UR Student Data Warehouse Reporting and Analytics
- ▶ Q&A
- ▶ Next Steps

# Why the revised go-live?

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- All high risks identified were realized
- The key messages from January quantitative and qualitative assessment were:
  - The team has made great progress
  - The team is organized and focused
  - The volume of work required between January and July would not be completed in a quality manner to support a quality go-live in July.
  - The prudent thing to do is delay the go-live and immediately re-plan the go-live

# Revised Timeline: Phased Cutover



# UR Student Next Steps

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- ❑ Communicate revised project timeline and cutover approach to University community
- ❑ Complete deliverables for next project milestone
- ❑ Develop post go-live support model
- ❑ Develop and publish training plan
- ❑ Develop Readiness plans with each school
  - Establish Project Champions
  - Understand technical and process impacts
  - Help schools make necessary changes

# Reporting Strategy Update

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## ■ Impacts to Reporting

- SIS-fed, existing data warehouse will continue to be source of record at least through Summer 2020
- Fall 2020 registration will be done in UR Student
- Fall and Spring snapshots will be taken in existing data warehouse
- UR Student and UR Student reports and the new UR Student-fed data warehouse will be available in parallel beginning in February 2020

# Reporting: What's happened so far

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- To ensure a smooth reporting transition:
- Several IT/IR SIG (Information Technology/Institutional Research Special Interest Group) meetings have been held to share information about reporting.
- Over 200 Student data warehouse reports from across the University have been cataloged and grouped to create a smaller collection. Many reports are similar; for example, an enrollment report developed by one school may be virtually the same as a report built at another school just with different filters.
- While effort has been made to capture the majority of our reporting needs, we know we won't catch everything. Reporting requirements change over time and not every ad hoc report can be captured and inventoried.

# Reporting Types

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## ■ 2 Reporting Areas

- UR Student

- Works directly against the Workday reporting objects (up to the minute)
- Focused Operational reports
- Available while in Workday application
- Workday Report Writer tool primarily used by IT and Advanced report authors

- Data Warehouse

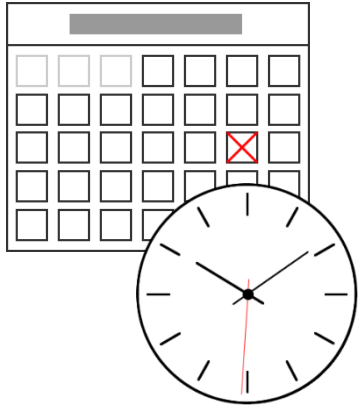
- Updated daily
- Longitudinal analysis
- State and federal reporting (external reporting)
- Data breadth
- Cognos prompted reports
- Tableau dashboards
- Accessible with UR Data Analytics Portal
- Report and dashboard authoring tools available for analysts and staff within schools



# UR Student Reporting

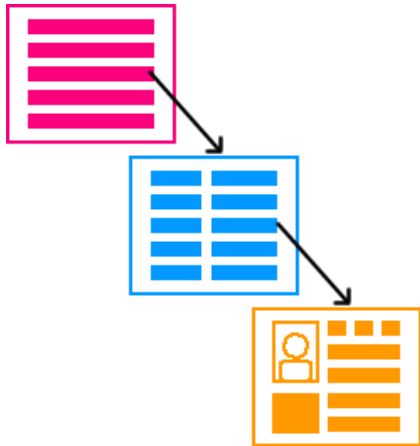
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# Use UR Student Reports for Up-to-the-minute Drillable Data



- Data is viewable in a report as soon as a UI transaction is complete. This is useful for:

- Grading
- Payments
- Rosters
- Anything requiring the most current data



- Many fields contain data that you can click on to find more information. Examples:

- Student Name → The student's information page
- Course Section → Start/End Dates, Credits, Description, etc.
- Program of Study → Overview, Policies, Requirements, etc.

# There are 3 main types of UR Student reports

## Report Examples:

### Student Finance

Student Transactions - Charge Items

Credit Balance Report - Title IV

Employee Tuition Benefits

### Student Records

Missing Grades Report

Students Auditing Classes

Cancel/Defer Report

### Academic Advising

My Advisee List


Students Not Registered for Courses


My Advisee Holds


- There are currently 134 reports in the UR student report inventory
- 122 of these reports are in 1 of the 3 categories above


# Example Prompt Page for a UR Student Report

## MAOP TEST Grade Report - Graded URSTU N1087 Actions

Academic Period \*   **Required Prompt**

Academic Unit  

Course   **Optional Prompts**

Grade  

Filter Name

Manage Filters  
0 Saved Filters

Save

You can save commonly used sets of prompts under a Filter Name so you don't have to re-select them every time you run the report

OK

Cancel

# Example Output from a UR Student Report

## ← MAOP TEST Grade Report - Graded URSTU N1087

Actions



Academic Period Fall 2017 Academic Unit Hajim School of Engineering and Applied Sciences

Prompts used for this report

8987 items



Student	Student ID	Academic Period	Academic Unit	Course Sections			Grade
				Course Section	Course Subject	Number of Enrollments	
Mario Speedwagon	28675309	Fall 2017	Hajim School of Engineering and Applied Sciences	ECON 214-83151 - Econ Theory Of Organizations	Economics	21	B
Mario Speedwagon	28675309	Fall 2017	Hajim School of Engineering and Applied Sciences	PHYS 122-34812 - Electricity & Magnetism	Physics and Astronomy	157	A-
Mario Speedwagon	28675309	Fall 2017	Hajim School of Engineering and Applied Sciences	EAS 141-51756 - Basic Mechanical Fabrication	Engineering and Applied Science	5	A
Mario Speedwagon	28675309	Fall 2017	Hajim School of Engineering and Applied Sciences	ME 242-54358 - Solids & Materials Lab	Mechanical Engineering	74	A-

"Drillable" Fields

# Data Warehouse Reporting

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# What's Coming with the UR Student Data Warehouse?

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## ■ Historical Data Scope

- Data merge of historical student data (from current DW) and UR Student-managed active student data
- Point-in-time data snapshots back to 2007 available for longitudinal analysis by academic calendar milestones (ex. census dates)
- After go-live, data will be refreshed nightly from UR Student

## ■ Broad data scope

- Program enrollment, course registration and performance, student financials subject areas
- All the current metrics in DW + more
- Also continue to provide consolidated student data views across admissions, financial aid, student career services, faculty and research

## ■ Data Comparisons to existing SIS-fed data warehouse

- Existing Student DW to be updated nightly through Spring 2020
- Enable data validation and building trust in new Student DW
- Existing student data warehouse will be available for legacy report conversion and historical data validation

# UR Student Data Warehouse Dashboards and Reports

- 50+ new Tableau Dashboards and Cognos Reports
- Tableau and Cognos reporting and analytics tools will continue to be available to report authors and analysts
- Personalized access to new and legacy Cognos reports and Tableau dashboards provided through UR Data Analytics Portal ([dashboards.rochester.edu](https://dashboards.rochester.edu))

Capability	Tools	Executives	Managers	Staff	Knowledge Workers
<b>Report &amp; Dashboard Consumers</b>	UR Data Analytics Portal	X	X	X	
	Cognos Bursted Reports	X	X	X	
	Workday Operational Reports		X	X	
<b>Ad-hoc Reports and Analysis</b>	Cognos Report Studio		X	X	X
	Tableau Web Author		X		X
	Data Exports and Datasets				X
<b>Dashboard &amp; Report Authoring</b>	Tableau Desktop				X
	Cognos Report Studio				X
	Workday Report Writer				X



# What Analytics will be available in UR Student DW?

Subject Area	Description
Student Term Enrollment	Address questions around current, historical and census enrolled headcounts, as well as term to term retention and academic progress and outcomes.
Student Course Registration	Address questions around course taking behaviors and trends, course demand and , course drop/withdraw rates, performance metrics such as pass/failure rates, course GPA
Student Financial Transactions	Focus is on student financials transactions, charges, payments. Enable year-over-year trends and comparisons.
Student Academic Outcomes	Address questions around cohort multi-year retention and graduation rates, time to degree
Course Instruction	Intended to support faculty counts and instructor workload metrics. Will be combined with advising and faculty research and activity data within the data warehouse
Advising	Intended to answer questions to support advisor interactions with students and advising workload.
Student Degree Audit	Address questions around student degree plans and degree requirements needed.

# Planned Tableau Dashboards

Enrollment 5-Year Trend	Faculty Instruction Trends
Program Enrollment Within School	Faculty Instruction Load Analysis
Graduate Studies Total Enrollment	Course Performance Analysis
<a href="#">Course Taking Analysis</a>	Course Grade Distribution Analysis
Course Demographics	<a href="#">Cohort Department Flows Sankey</a>
International Student Dashboard	Graduate Studies Time Enrolled
Education Abroad Dashboard	Graduate Studies Time Enrolled Program Comparison
Degree Conferred Dashboard	Graduate Program Persistence
<a href="#">Undergraduate Retention and Graduation Rates</a>	Student Persistence
Instructional Workload	Courses Taught by Faculty Member
Instructional Workload	Student Diversity Trend

- See more examples in UR Data Analytics Portal at [dashboards.rochester.edu](https://dashboards.rochester.edu) (UR Student Prototypes category)

# Cognos Reports

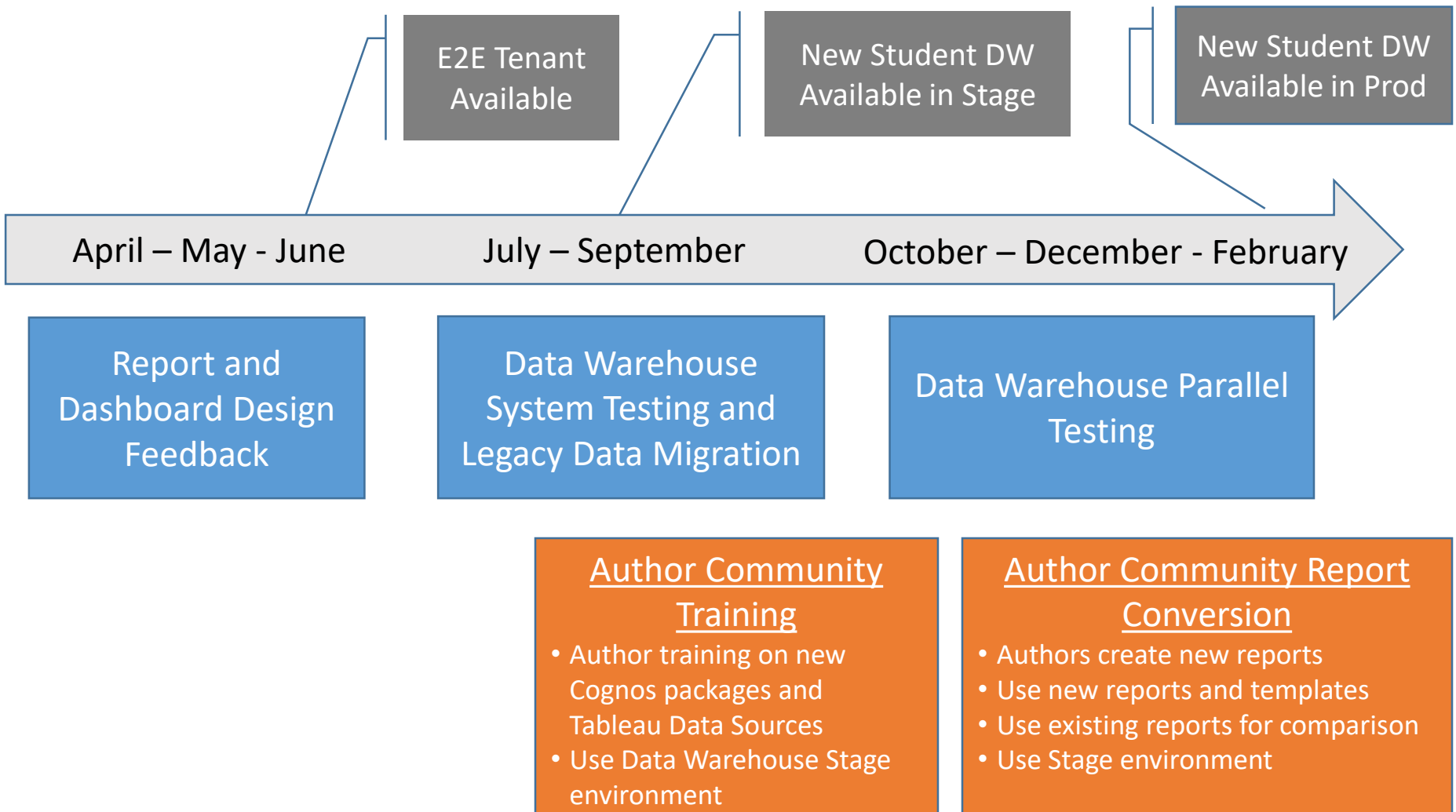
## Cognos Key Features

- Wide range of formatting options
- [Prompt](#) pages for report flexibility
- PDF, XLS, CSV, HTML XML output formats
- Can be scheduled and bursted
- Reusable report templates
- Cognos Report Studio tool can be used for managed and ad-hoc reports
- Accessible by report consumers via UR Data Analytics Portal and scheduled emails

## Planned Cognos Reports

- Enrollment Trend Summary
- Enrollment Trend Program Comparison
- Enrollment List Report (Drill)
- Course Registration List
- Student Academic Profile (Drill)
- Course Enrollment Trend
- Degrees Conferred by School, Division, Department and Major
- Enrollment Summary Credit Hours
- Undergraduate Retention and Graduation Rates
- Departmental Credit Hour Report
- Student Course Performance by Section
- Spring to Fall Enrollment Summary
- [Graduate time to degree & completion rates](#)

# Data Warehouse Timeline



# Homework


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- Here's how you can help:

- Please take some time to review the example dashboards
  - [dashboards.rochester.edu](https://dashboards.rochester.edu)
  - UR Student Prototypes category
- Provide Feedback:
  - Will this collection of dashboards and reports meet your reporting needs?
  - If the answer is no or maybe, what's missing?
  - Is it a specific report you rely on, are data elements within a report missing, could the data be displayed in a more useful manner?
  - Please be as specific as you can be.
- SIG Feedback Mechanisms: Microsoft Teams and Google forms/surveys
  - Engage outside of the meetings
  - Enable prioritization and design feedback

# Next Steps

- Next IT/IR SIG meeting on April 10<sup>th</sup>
- Previous Recorded IT/IT SIG Meetings on UR Student website
  - <http://www.rochester.edu/urstudent/special-interest-groups-sig/institutional-research-and-information-technology-sig-materials/>



The screenshot shows a web page with a navigation menu at the top: UR Student, News, SIG, Faculty, Staff, Students, FAQ, Calendar, Contact. The main heading is "Institutional Research and IT SIG Materials" and "UR Student". Below this, a paragraph states: "Institutional Research and Information Technology SIG meeting materials and recording are located below. Please contact [Babette Barnes](#) for IT, or [John Podvin](#) for Institutional Research regarding any questions related to these two SIGs." There are two meeting announcements: "June 26, 2018 meeting" with an agenda including a presentation from Michael Salisbury on the Data Warehouse scope, and "April 24, 2018 meeting" with an agenda including a presentation from Julia Kraus on the Programs of Study structure. A "May (meeting cancelled)" entry is also present. On the left side, there is a "UR Student" logo with a graduation cap and a "Subscribe" form with an "E-Mail" input field and a "Subscribe" button. Below the form is a "GLOSSARY SEARCH" section with the text "Powered by Data Cookbook" and a search input field.



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UR Student

# Appendix

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- Data Warehouse Analytics
- UR Student Terminology
- University Participation in UR Student
- UR Student Communications and website



# Student Program Enrollment

## Measures

### Enrollments

- Enrolled headcounts
- Census Enrolled headcounts
- Registered headcount

### Academic Progress and Outcomes

- Retention Headcounts/Rates
- Program Retention Headcounts/Rates
- Graduation Headcounts/Rates
- Time to Degree
- Term/Cumulative GPA

**Filter,  
Sort,  
Group  
By**

## Multiple Dimensions

### Student Attributes

- Cohort/Class Year
- Academic Term/Year
- Student Level/Class
- Full/Part Time
- Academic Standing
- Academic Unit (School/Dept)
- Programs of Study/Primary POS (major)
- Admitted Academic Program
- Outcome Academic Program
- Degree/Edu. Credential/Conferral Date
- Advisor
- Demographics
- Geographic Region
- Citizenship/Visa
- Education Abroad participation
- Previous Education
- Test Score Ranges/GPA Ranges
- Financial Aid Recipient

# Student Course Registration

## Measures

### Course Registrations

- Course Registered headcounts
- Course Withdraw headcounts
- Course Withdraw rates
- Course Drop headcounts
- Course Drop rates

### Student Course Performance

- Course GPA/Grades
- Credits Attempted/Earned
- Pass/Fail Rates

**Filter,  
Sort,  
Group  
By**

## Multiple Dimensions

### Course Attributes

- Course Attributes
- Instructor
- Academic Unit
- Cross Listings
- Location/Room
- Capacity
- Course/Section
- Course Schedule
- Registration Status
- Registration Date
- Withdraw Date
- Drop Date

### Student Attributes

- Cohort/Class Year
- Academic Term/Year
- Student Level/Class
- Full/Part Time
- Academic Unit
- Academic Unit (School/Dept)
- Admitted Academic Program
- Outcome Academic Program
- Demographics
- Geographic Region
- Education Abroad participation
- Citizenship/Visa
- School Last Attended
- Test Score Ranges/GPA Ranges
- Financial Aid Recipient
- Advisor

# UR Student Terminology

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- **Academic Level Refers to Division.**

- This includes division 1, 2 or 3 in SIS (UG, Grad, Med). There are many more levels in UR Student to assist with administration of programs

- **Academic Periods**

- Refers to Term/Semester/Quarter. These are dynamic dates

- **Academic Units**

- Refers to Schools/Colleges/Departments

- **Cohorts**

- Cohorts are valuable when the purpose is to INTERACT with and/or TRANSACT on groups of students (otherwise a custom report may be a good choice). They are based on the Academic Record and recorded by academic period
  - Multi-Lifecycle Students will have multiple academic records in UR Student (this allows us to calculate different GPA's for undergraduate v. graduate academic career at UR)

- **Credential**

- Degree

- **Dashboard**

- A collection of reports tailored to the user or role

# UR Student Terminology

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- **Eligibility Rules**

- System based guardrails to enforce policies

- **Enrollment**

- Registration

- **Faceted Search**

- A search where the end user has the ability to identify particular criteria for a population.

- **Onboarding**

- Targeted communications for new and returning students to ensure that tasks and other necessary documentation is completed (FERPA, Financial Responsibility Agreement, etc.)

- **Programs of Study**

- Includes Certificates, Majors, Minors, Clusters

- **Tenant**

- An instance or system environment of UR Student (Workday) where project design and testing work is done. There are several tenants the project team uses for Conversions, Configuration, Integrations. etc.. This will combine into a production build for go live.

# UR Student Interface Terminology

- **Home (University of Rochester Logo)**
  - Will always navigate you back to the landing page
- **Inbox (Envelope)**
  - Contains all activity that is required of you
- **Notifications (Bell)**
  - Displays notifications regarding business processes and rule-based alerts
- **Profile Page (Cloud or Your Photo)**
  - Opens all sections available from the Home page. You can configure your personal setting here as well.
- **Ellipses (Twinkie, Related Action)**
  - Displays the related actions menu for an object (available only if the user has permission to perform additional actions on that object)
- **Search Bar (Magnifying Glass)**
  - Can type three letters of a given word (or the whole word) to receive a response from the system
- **Applications (Picture Icons in the middle of the page)**
  - Workday calls these widgets and they can take you to functional areas, reports, or dashboards
- **Categories (within the search function)**
  - Are the different areas within Workday such as Banking, Payroll, People, Reporting, Student, etc.
- **Student Profile**
  - Includes the student's personal information, registration, billing, financial aid, contact information, etc. in one convenient place
- **Functional Areas**
  - Tabs on the student profile for Academics, Student Financials, Financial Aid, etc.
- **Workday App (for Mobile)**
  - Can be downloaded from the App Store to use on Android, iPhone, or iPad

# University Involvement

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The project team includes membership from all schools with our Special Interest Groups (SIGs). Participation of SIG members is integral to the success of the program; membership is intended to be part-time.

SIG Members Contributions to include:

- Input into common business practices
- Input into system configuration
- Business requirements' definition
- Identification of necessary data for conversion
- Validation of converted data
- Creation of test cases
- Execution of user testing
- Serving as a project champion

Advising SIG

Faculty SIG

Student Records &  
Registration SIG

Student Finance SIG

Institutional Research  
& Reporting SIG

Information  
Technology SIG

# Prepare for UR Student Changes

The UR Student implementation will affect all Faculty, Students and related Staff

- Project Website (<http://www.rochester.edu/urstudent/>)
  - News – Stay in the know on project announcements and system demonstrations, Subscribe for updates
  - Subscribe to receive up to the minute news

The screenshot displays the UR Student website interface. At the top, a navigation menu includes 'UR Student', 'News' (highlighted with a red box), 'SIG', 'Faculty', 'Staff', 'Students', 'FAQ', 'Calendar', and 'Contact'. Below the navigation is the 'UR Student' logo and a 'Subscribe' button. A red box highlights a 'Subscribe to get updates!' section containing an 'E-Mail' input field and a 'Subscribe' button. To the left is a 'GLOSSARY SEARCH' section powered by 'Data Cookbook', featuring a search input field, an 'Exact match?' checkbox, and a 'Search' button. The main content area features a 'Welcome to UR Student!' heading, followed by introductory text about the system replacement. Below this is a 'Welcome' banner with a search bar and a background image of a campus building.



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