Automating Academic Program Assessment Reporting with our In-House Tool

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Office of Institutional Research University of Houston

Southern Association of Institutional Research (SAIR) Alexandria, Virginia September 30, 2025





Background

- University of Houston
 - Founded in 1927
 - Flagship of the University of Houston System
 - Public, Tier One research university
 - US News # 132, Forbes # 107, Princeton Review # 37, Times Higher Ed # 401
 - 285 undergraduate, graduate, and professional programs ¹
 - Fall 2024 enrollment: 47,980²





Why a New Tool: Optimizing our Operations

- Automating the manual process
- Improving our workflow and efficiency
- Meeting modern demands
- Simplifying our work
- Data should be easily accessible
- Focus on key metrics



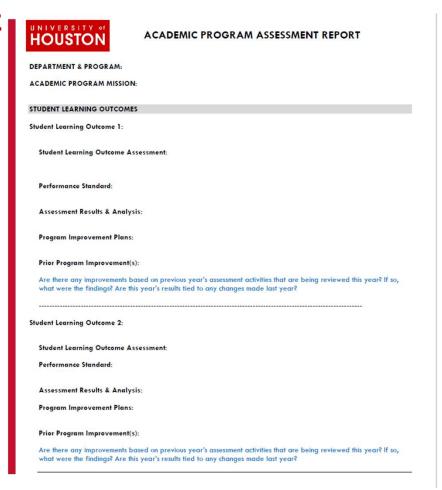
What is APAR?

- APAR Academic Program Assessment Report
- Describes student learning outcomes and assessment activities for each degree program
- Elements
 - Assessment items, Learning & Program Outcomes
 - Assessment Results and Analysis
 - Program improvement plans and historical data
- Method
 - Performance/assessment data is collected, analyzed, and reported annually



Assessment Report Template

- Manually created each year for every degree plan.
- Series of Word files created, turned into PDFs.
- Takes hours to complete.





Student Learning Outcome 3:

Student Learning Outcome Assessment:

ACADEMIC PROGRAM ASSESSMENT REPORT

Performance Standard:	
Assessment Results & And	alysis:
Program Improvement Pla	ins:
Prior Program Improveme	nt(s):
	ts based on previous year's assessment activities that are being reviewed this year? It e this year's results tied to any changes made last year?

PROGRAM OUTCOMES

Program Outcome 1 (Student Achievement – FTIC Undergraduate Graduation Rate [If Applicable]):
The percentage of a First Time in College bachelors (or equivalent) degree-seeking cohort who graduated within six academic years or less.

Program Outcome Assessment:
Performance Standard:
Assessment Results & Analysis:

Program Improvement Plans

Program Outcome 2 (Student Achievement – FTIC Undergraduate Retention Rate [if applicable])

Percentage of First Time in College **bachelors** (or equivalent) degree-seeking undergraduates from the previous fall who are again enrolled in the current fall.

Program Outcome Assessment

Performance Standard:

Assessment Results & Analysis:

Program Improvement Plans:

Prior Program Improvement(s):

5



Assessment Report Template

STUDENT LEARNING OUTCOMES

Student Learning Outcome 1:

Student Learning Outcome Assessment:

Performance Standard:

Assessment Results & Analysis:

Program Improvement Plans:

Prior Program Improvement(s):

PROGRAM OUTCOMES

Program Outcome 1 (Student Achievement – FTIC Undergraduate Graduation Rate [If Applicable]):

The percentage of a First Time in College bachelors (or equivalent) degree-seeking cohort who graduated within six academic years or less.

Program Outcome Assessment:

Performance Standard:

Assessment Results & Analysis:

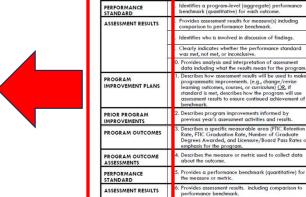
Program Improvement Plans:

Are there any improvements based on previous year's assessment activities that are being reviewed this year? If so, what were the findings? Are this year's results tied to any changes made last year?



Assessment Report Checklist

- Learning Outcome Assessments
- Assessment Results
- Performance Standard
- Performance Improvement Plans
- Prior Program Improvements



PROGRAM IMPROVEMENT PLANS

Additional Comments

LEADNING OUTCOMES

LEARNING OUTCOME

Expectations Clearly Established

Learning outcomes clearly and concisely describe who students will know or be able to do.

Describes at least one direct measure for each lean outcome including the rationale for use. Assessment document is attached or discussed.

Skill or knowledge assessed by measure is directly aligned to the focus of the learning outcome.

7. Identifies who is involved in discussion of findings (suchy).

8. Clearly indicates whether performance standard was men, and me, in the me, with inconclusive.

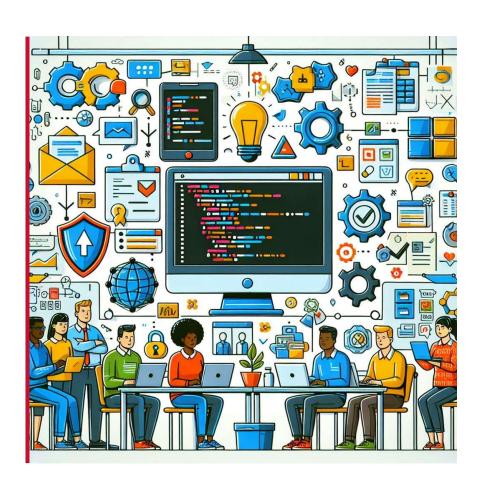
8. Provides analysis and interpretation of assessment data including what the results mean for the program. Observise how assessment results will be used to make programmatic improvements, (e.g., change/revise learning outcomes, course, or curriculan) Q.B., if standard is met, describes how the program will use sussessment results to ensure continued achievement of

Describes program improvements informed by previous year's assessment activities and results



Tool Requirements & Challenges

- Security
- Data privacy issues
- Scalability
- Integration with the existing system
- Vendor dependency
- Cost management
- 24/7 support
- User Access control
- Customization flexibility
- User training and adoption





Microsoft Entra Authentication **Data Flow Overview** ORACLE ORACLE Data Warehouse / Hosting APAR Web Application Reports IR Database



Report Items

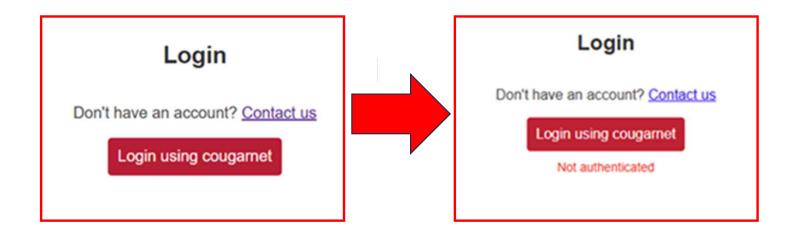




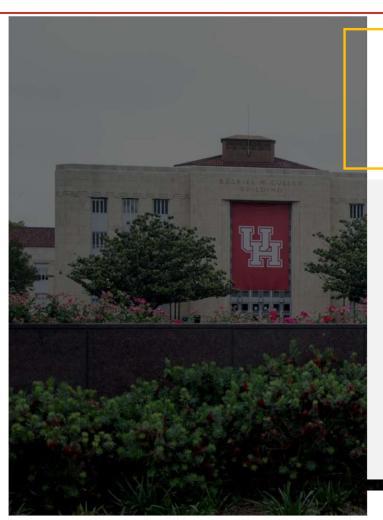
APP Overview: Key Screenshots











M UNIVERSITY OF HOUSTON Microsoft 365

Sign in

CougarNetID@cougarnet.uh.edu

Can't access your account?

Next

**** Important Security Information ****

Use of University of Houston computing and network facilities requires prior authorization. Unauthorized use is prohibited. Usage may be subject to security testing and monitoring. Misuse is subject to criminal prosecution. Users have no expectation of privacy except as otherwise provided by applicable privacy laws.

A complete manual of security policies and procedures is available at www.uh.edu/infotech.

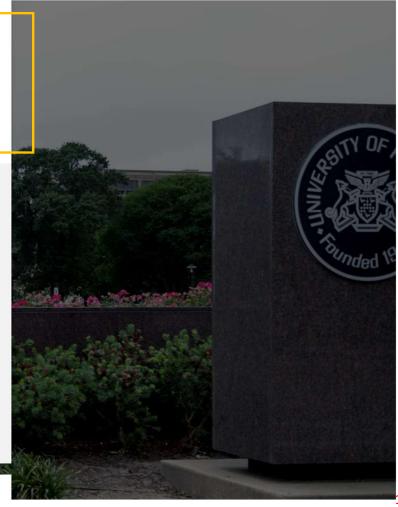
UH enforces use of Strong Passwords in accordance with Texas Administrative Code 202, which requires complex passwords to protect systems, data, and networks at state universities.

UH Strong Passwords need to have: 1. Minimum length: 8 characters 2. At least one character from each of the following: a. Upper or lower case (a-z, A-Z) b. Numeric: 0-9 c. Special Character: ! # % & () *

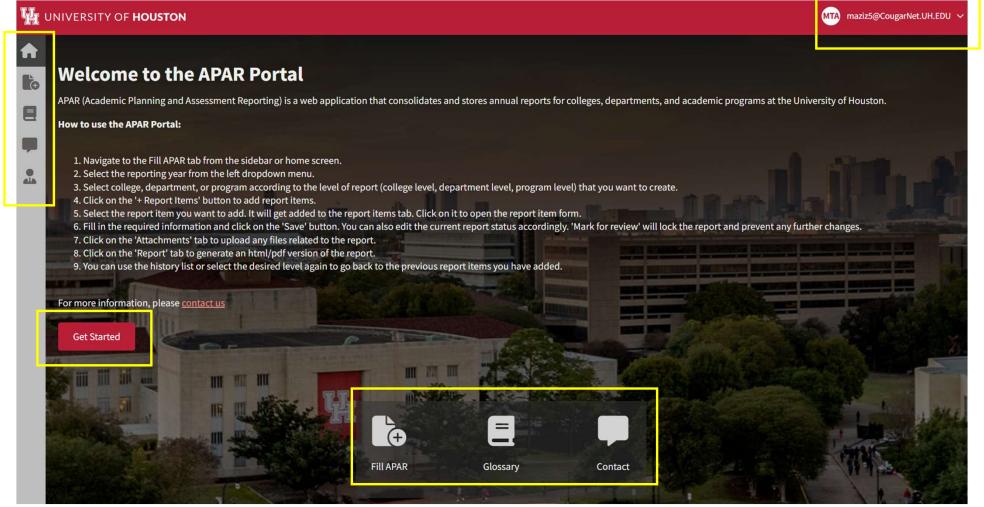
More information: www.uh.edu/strongpasswords



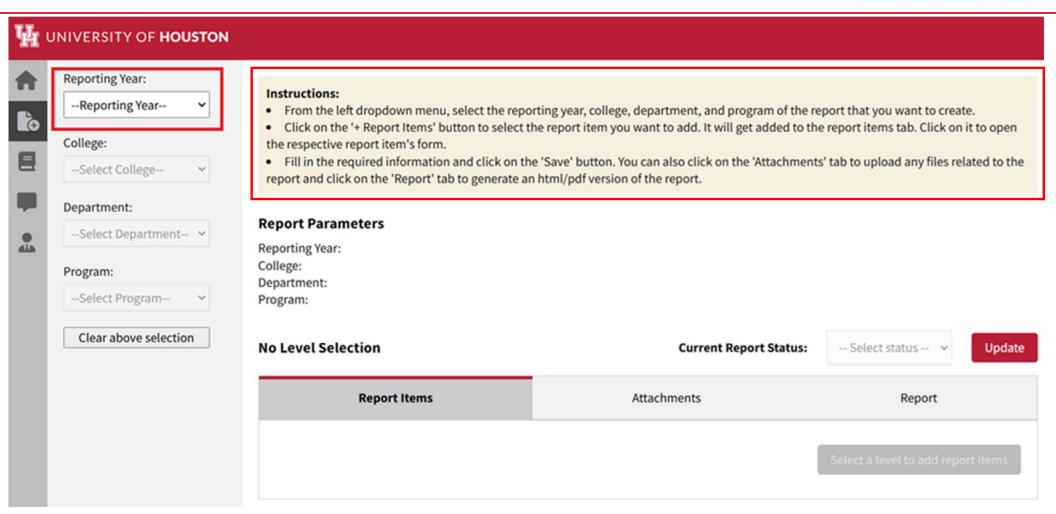
Sign-in options



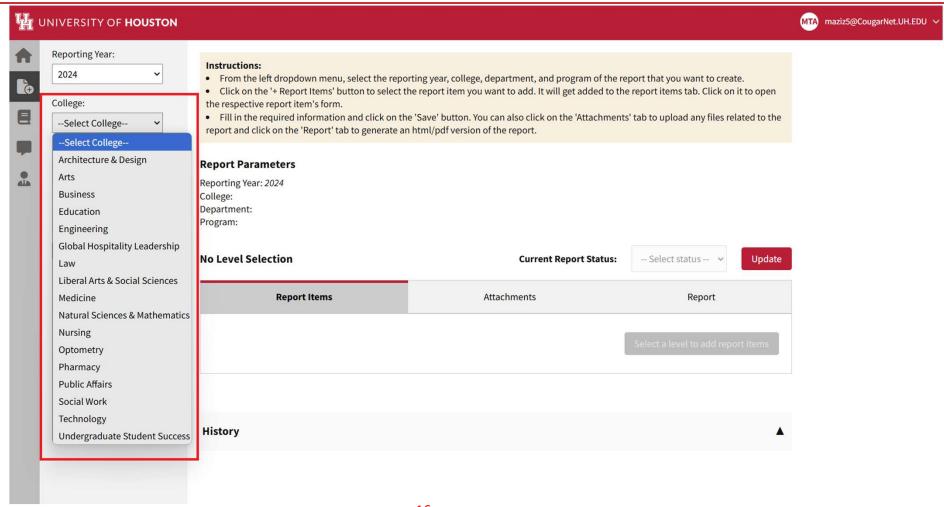




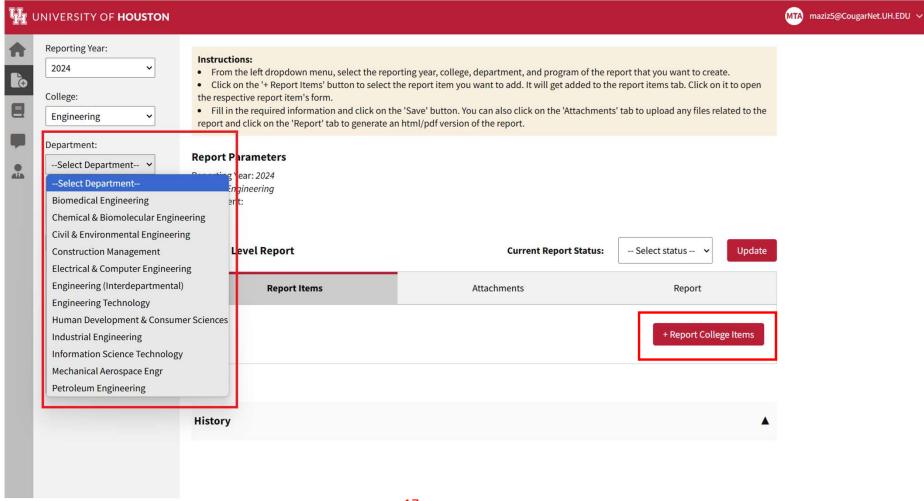




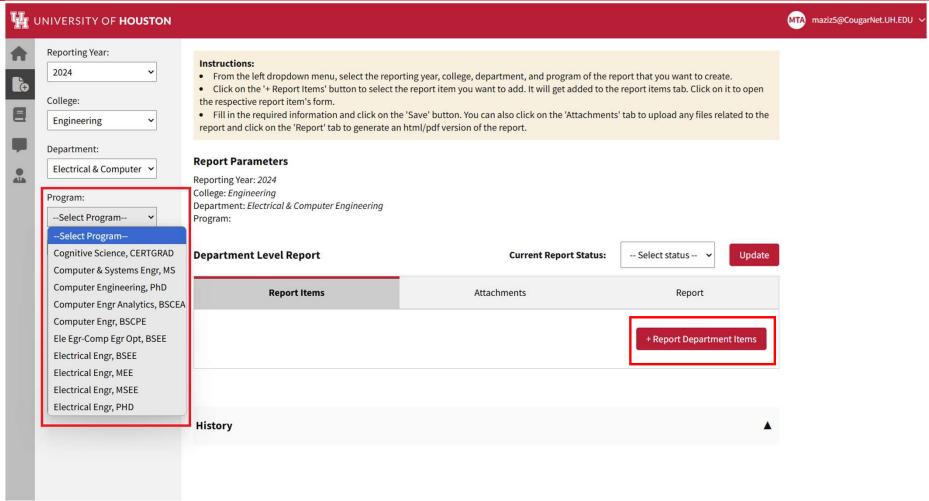




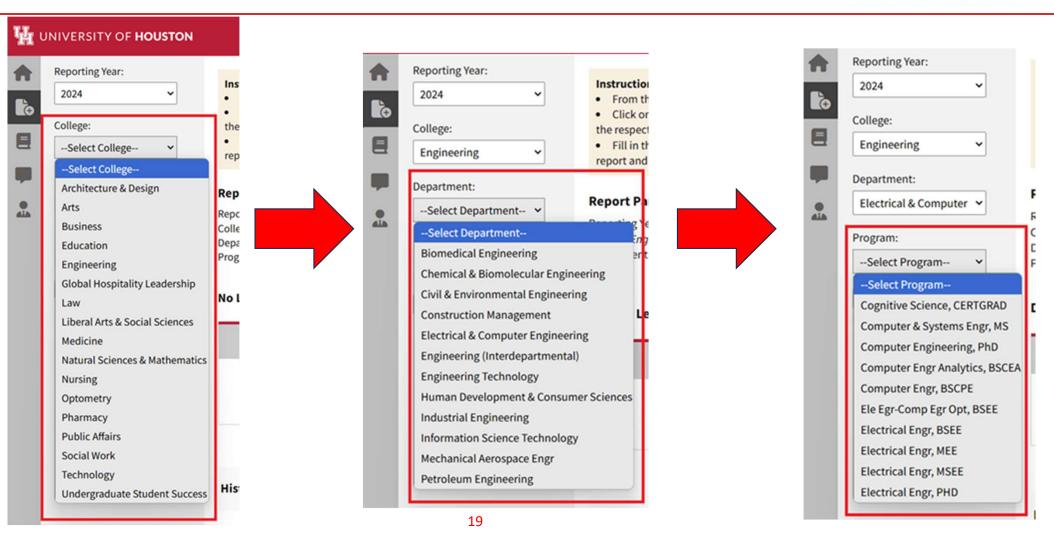




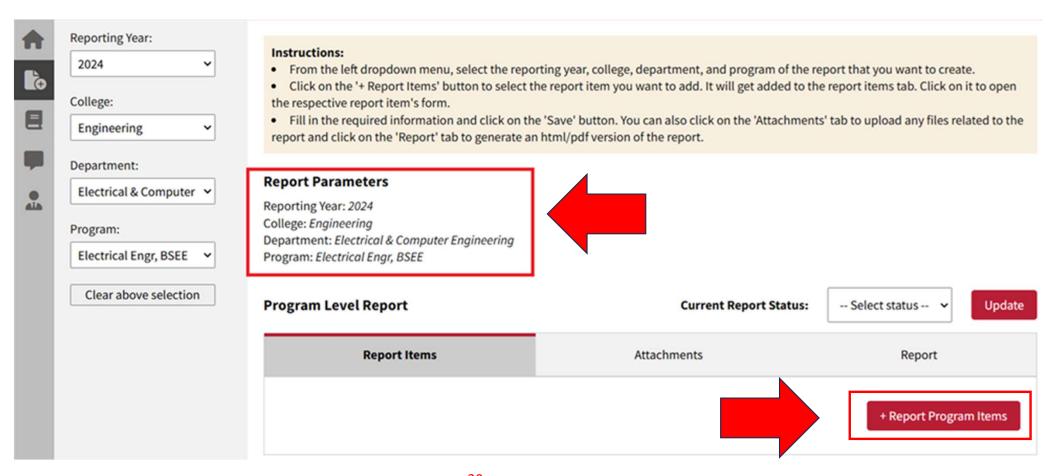




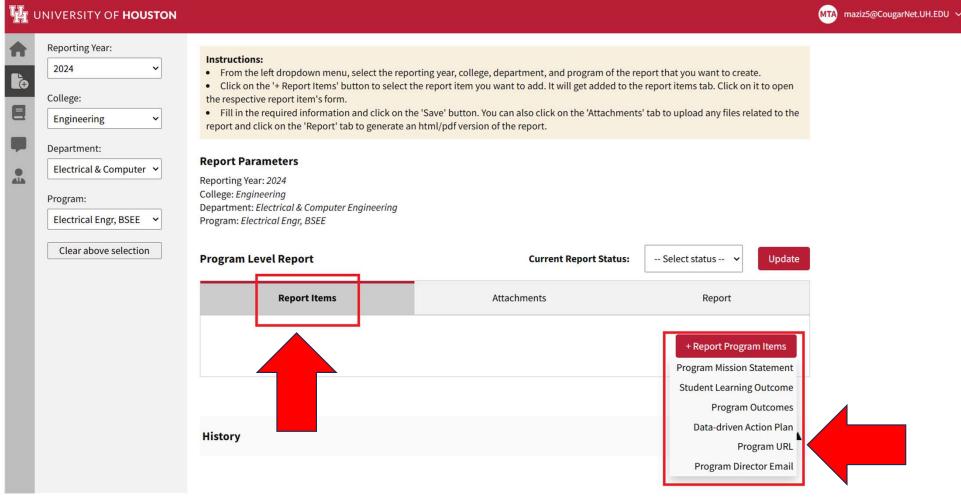




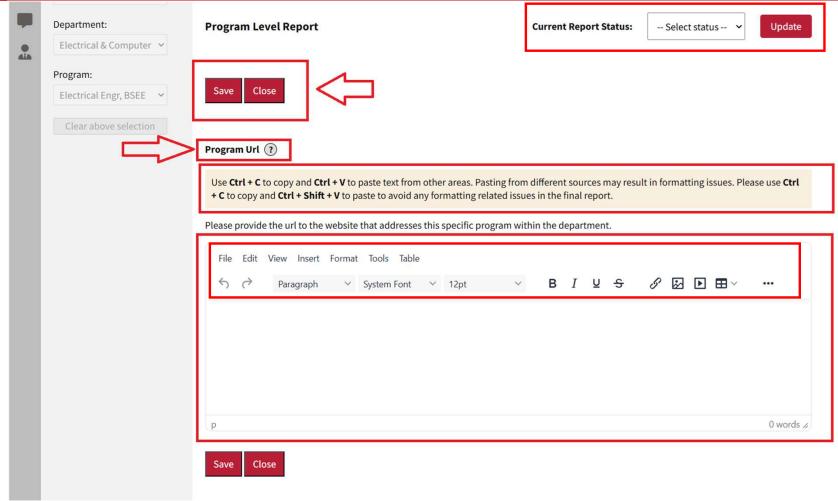




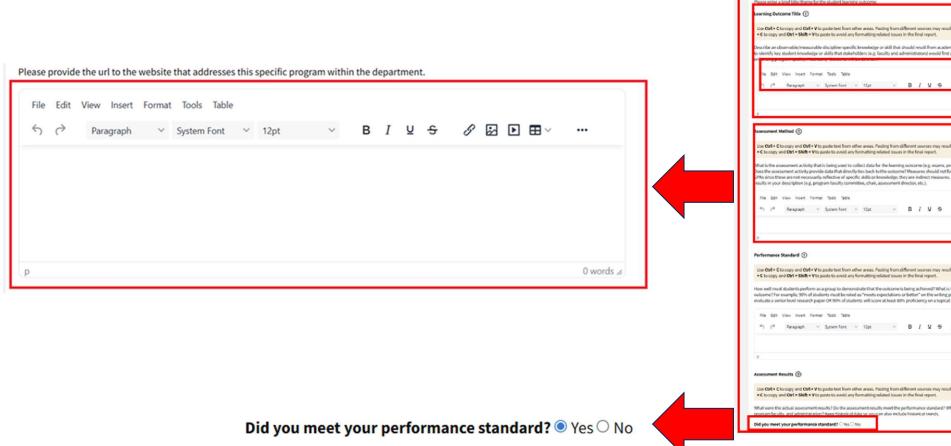


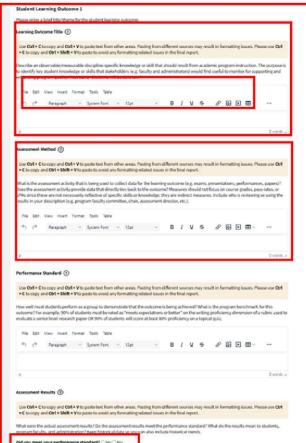




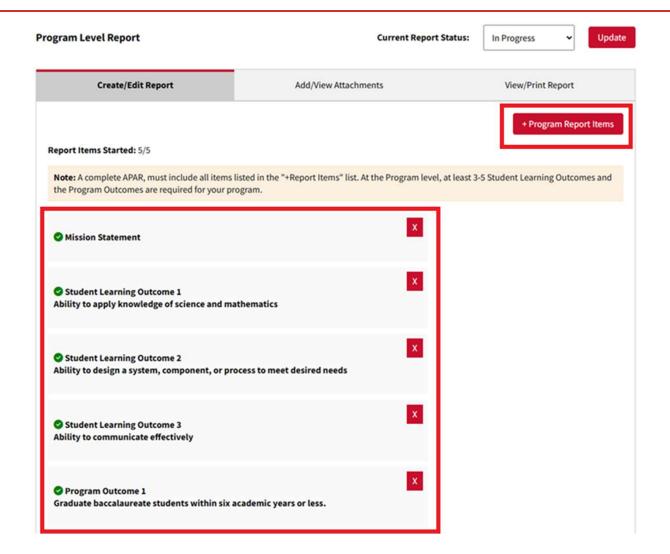






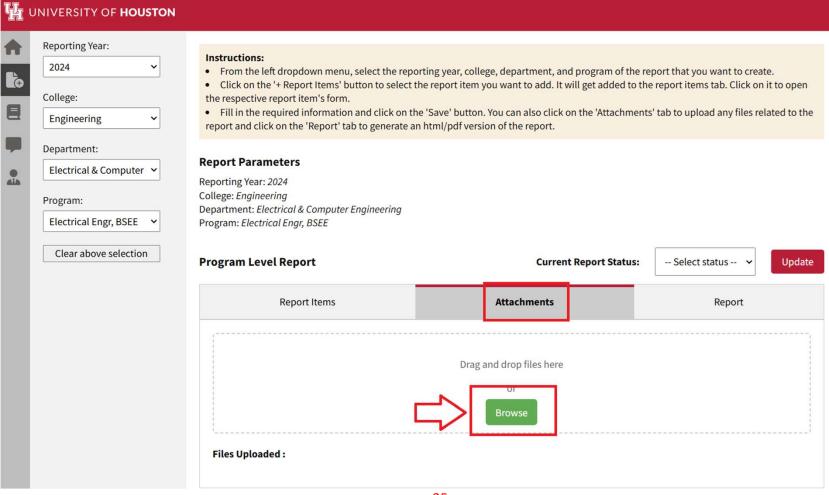




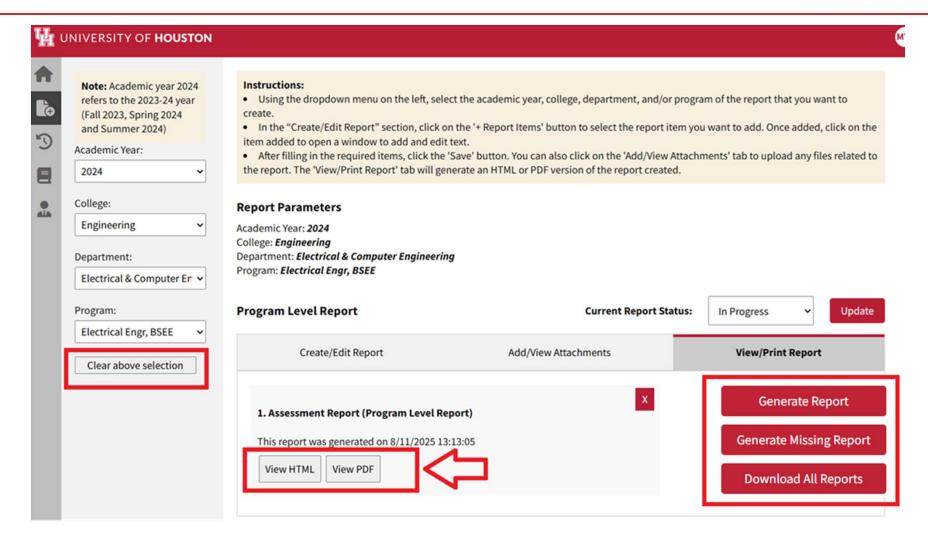




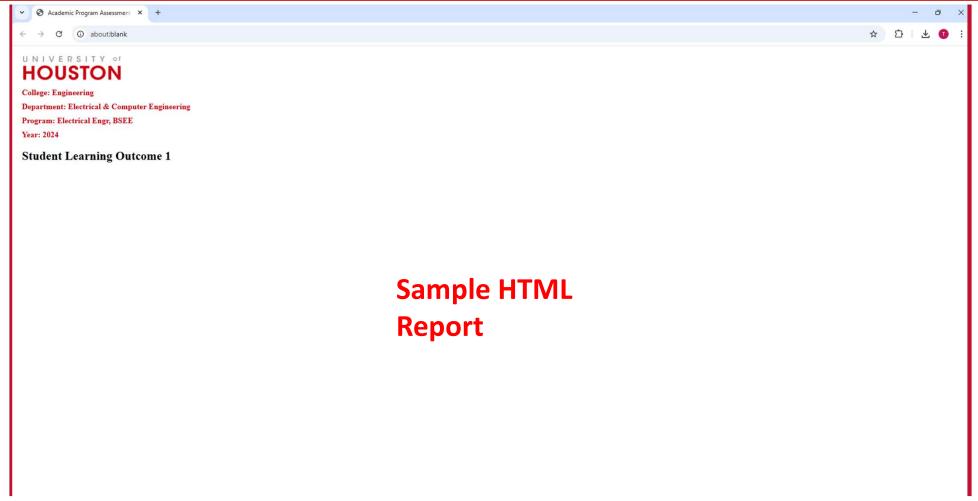
MTA maziz5@CougarNet.UH.EDU ~













HOUSTON

College: Engineering

Department: Electrical & Computer Engineering

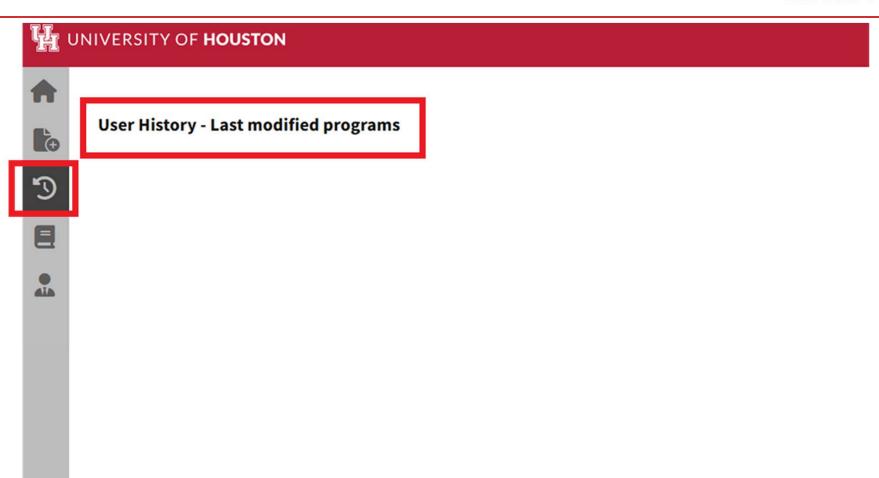
Program: Electrical Engr, BSEE

Year: 2024

Student Learning Outcome 1

Sample PDF Report









UNIVERSITY OF HOUSTON













Reporting Glossary

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z



A

Academic Career

A term used in UH's student information system, PeopleSoft/Campus Solutions. It is a way to identify either the level of the students (Undergraduate or Graduate) or if the student is in a professional program at the university.

Academic Year (AY)

Defined as the fall, spring, and summer sequence of semesters and identified by the second calendar year in the sequence. For example, the sequence fall 2021, and spring and summer 2022 is classified as AY 2022 or AY 22.

Note: An academic year is essentially aligned to a fiscal year in Texas.

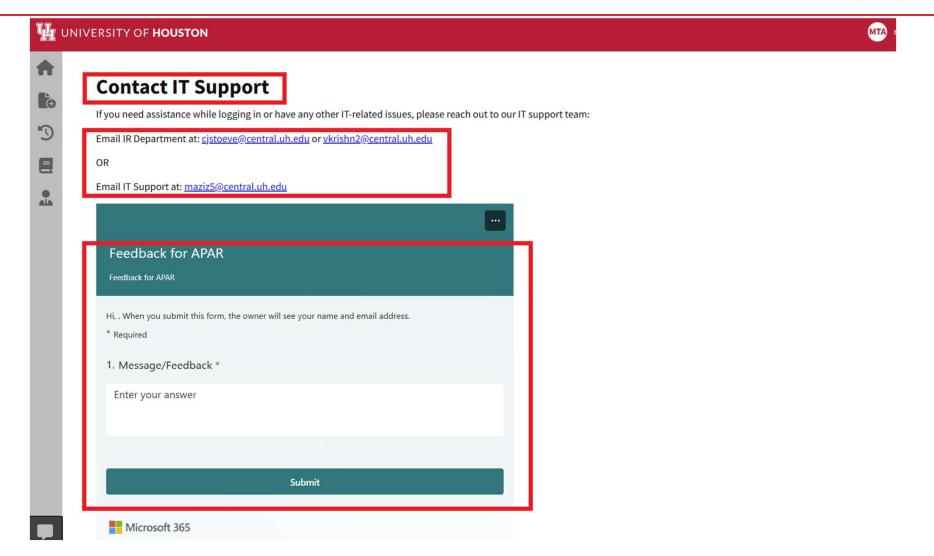
ACT (American College Test)

National standardized test provided to 'college-bound' high school students by the American College Testing Program to provide a measure of the student's academic preparation. The current ACT addresses four areas with each scored separately: English, Mathematics, Reading, and Science Reasoning. An ACT composite score is derived from the separate scores. UH uses ACT composite score as an admissions criterion for First-Time-in-College students who do not submit SAT scores.

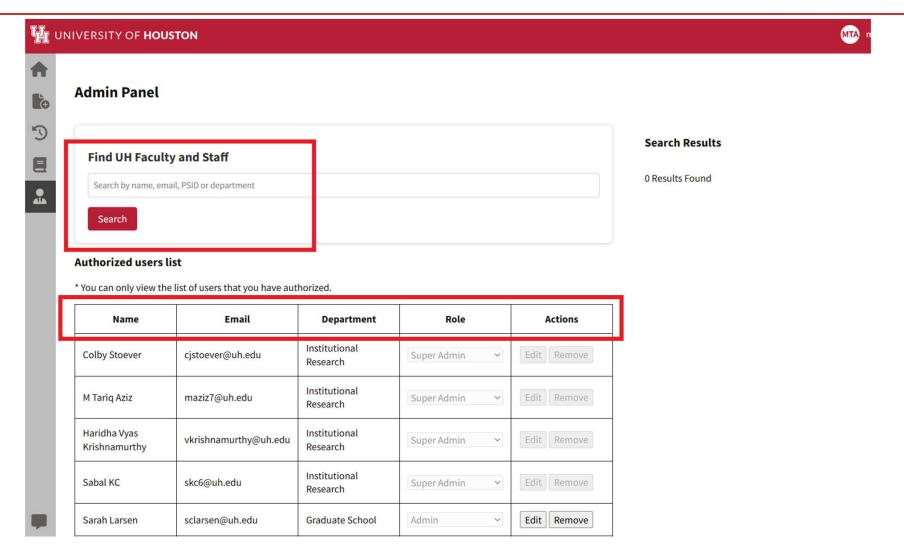
Applied (Completed), Admitted, and Enrolled

Headcount of the number people who have a completed application. Among the completed applications, how many were admitted into the UH, and among the number who were admitted, how many enrolled in classes. A completed application refers either the authorization of all and auticle to be appointed for admission of the desired to althorough a day, admission to

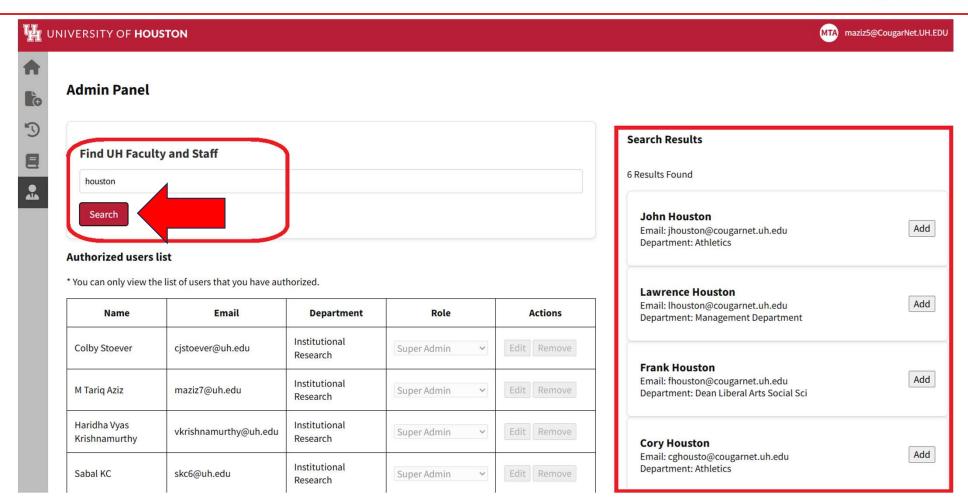














Lessons from our Experience

- Prioritize Security from day one
- Full Stack Integration (Oracle, Tableau, Microsoft 365, Various Programming Languages)
- Crafting User-Friendly Interfaces
- User Authentication & Role-Based Authorization
- Collaboration is Everything: Cross-Functional, Teamwork
- Project Plan, Execute, and Improve
- Single Sign-On

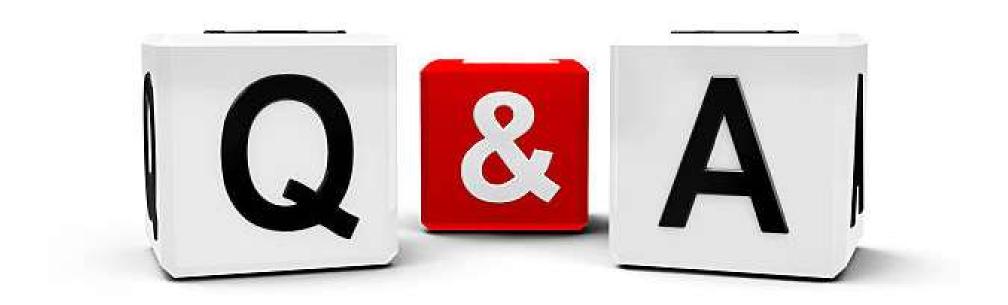


What's Next?

- Tableau metrics and KPIs for colleges, departments, and programs
- Condensed 1 2 page Red & White Report
- Restricted user access for editing
- Read-only access for designated users
- Feedback and comments feature, tied to every report
- Assessment report checklist



Any questions?





Thank you!



Contact:

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Business Intelligence Developer | Office of Institutional Research

