

# **MERCY** OLLEGE

### 2022 IT ANNUAL REPORT



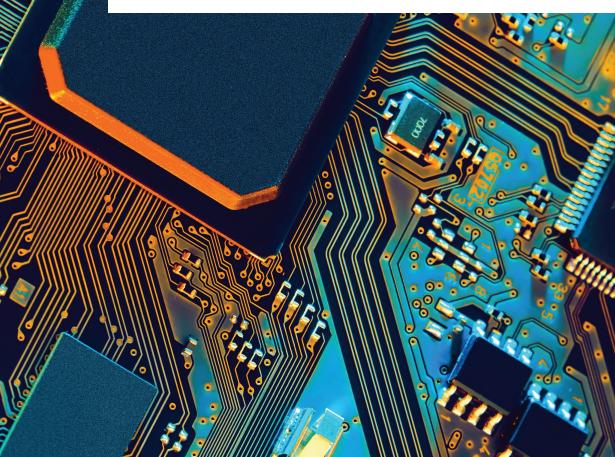






# TABLE OF CONTENTS

Message from the CIO | 3 Executive Summary | 5 Project & Portfolio Leadership | 8 Information Security & Infrastructure Services | 10 End User Services & Academic Technology | 12 Enterprise Applications | 17 Data Analytics | 19





Camille Shelley Chief Information Officer Mercy College

**Since my arrival in 2020,** on the cusp of a pandemic that forced Mercy to pivot its entire business model, a core principle has guided the IT department and remains steadfast: *ensure technology drives Mercy College's mission of providing students the opportunity to transform their lives through higher education.* 

As such, the IT department began its journey toward digital transformation in 2020. We looked at the scores of systems in our institution and recognized the need to modernize. We launched initiatives and partnered with the college community to simplify digital interactions; made significant enhancements to our sustainability and security infrastructure; integrated critical systems to improve efficiencies; and proudly launched analytics to support student success.

The department's commitment to our students resulted in national recognition: in July 2022, Mercy College was awarded a grant from the U.S. Department of Commerce's National Telecommunications and Information Administration's Connecting Minority Communities Pilot Program. Because of this award, Mercy will receive more than \$2.6 million for enhanced access to high-speed Internet, technological devices, and technology education and support. These critical funds will help the College provide even more resources for its deserving students.

It gives me great pleasure to share the achievements of the IT department, which is representative of our incredible partnerships across the institution. What stands out is our team's resilience; our ability to meet continually evolving technology demands; and our dedication to putting our students' success at the center of every endeavor. Mercy College is thriving. We look forward to providing technology that opens more opportunities for our students in the years ahead.

PROVIDING MOTIVATED STUDENTS THE OPPORTUNITY TO TRANSFORM THEIR LIVES THROUGH HIGHER EDUCATION





Mercy College's strategic vision closely aligns the success of our students with the evolving technological needs of our institution.

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# **MAJOR IT ACCOMPLISHMENTS**

IT's accomplishments focused on five key areas.

### DIGITAL TRANSFORMATION/MODERNIZATION

### Simplified Digital Interactions:

- Launched an integration-focused modernization and digitization initiative across all areas of the College to provide mission-critical, state-of-the-art technology such as up-to-date portals, network, wireless, and more that supports a world-class student experience.
- Piloted the new Mercy Connect Experience during Fall 2022, with production launch planned for Spring 2023, which will modernize existing portal technology and enhance the "digital campus" experience by providing an intuitive user interface and single point of entry into our institution.

### Modernized the Student Information System (SIS):

- Implemented Banner 9 Self-Service for Finance, HR, and Student to offer a more modern, self-directed student and employee experience.
- Renewed Secure Shell License (SSL) certificates to ensure business continuity of applications. All cloud applications were renewed to ensure IT security and prepare for the Oracle 19c database migration.
- · Updated Ellucian Identity Solution (EIS) to the latest version to further secure the IT environment and prepare for the new Oracle 19c database migration.
- Migrated to the new Oracle 19c database to ensure we are operating the latest version and guarantee support and compliance for the College's Banner enterprise resource planning (ERP) software.

### **SUSTAINABILITY & SECURITY**

### Expanded Cybersecurity:

- · Launched a cybersecurity initiative to ensure the College meets mandatory regulatory compliance guidelines to protect our users, data, and community from threats.
- · Leveraged artificial intelligence (AI) software to protect the College's assets from cyber-attacks and ransomware.
- Provided the entire community with convenient access to a cybersecurity user training program, via LinkedIn Learning, to ensure they could meet the annual mandatory cybersecurity training requirements.
- Partnered with a virtual Chief Information Security Officer (vCISO) to augment Mercy's cybersecurity staff and provide best-practice, objective, and ongoing improvements to our cybersecurity efforts.

### MAJOR IT ACCOMPLISHMENTS (CONTINUED)

### **PROCESS IMPROVEMENT**

### **Optimized Operational Efficiency:**

- · Integrated critical systems with Banner to provide a better user experience for students and employees.
- · Shifted authentication to Azure to ensure high availability of critical systems.
- Enabled online transcripts and eDiplomas so Mercy students can easily order and receive their diplomas and transcripts within minutes.
- Enabled electronic student bills so students can quickly and easily access their bills online, which saves the College time, money, and valuable resources associated with printing thousands of bills every month.
- Implemented project and portfolio tools, processes, and practices to provide visibility into IT's efforts from a strategic and tactical perspective, facilitate increasingly accurate capacity and resource management, and enable better delivery to Mercy.

### ACADEMIC TECHNOLOGY

### Improved service delivery and providing digital access

### to learning opportunities:

- Implemented a new IT Asset Management System to track and manage all Mercy-owned hardware (i.e., computers, tablets, printers, displays, projectors, etc.) and software from the time they are purchased through disposal.
- Implemented Distance Learning Technologies in 150+ classrooms and labs across Mercy's three campuses to enable "Blended Synchronous" learning and allow students to join face-to-face classes remotely during the COVID-19 pandemic.
- Supported Mercy Online's Development of master courses to optimize the courses for online delivery and improve student outcomes.
- Launched loaner laptop program for students to lessen the digital divide for students that do not have a functional computer to remotely attend classes.
- Launched the "Dobbs Ferry Tech Stop"— an extension of the IT Help Desk for walk-in technology support. Located at the west side of Main Hall Library, the Tech Stop provides Dobbs Ferry students, faculty, and staff with a wide variety of technology services such as repairing hardware issues on Mercy computers and devices and troubleshooting technical issues.

### STUDENT LIFE-CYCLE (SLC) ANALYTICS

### Designed and developed an interactive SLC analytics dashboard

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- for the college community:
- Restructured academic data so Banner reflects the College's academic organizational structure. Created
  the academic hierarchy of School, Division, Department in Banner, eliminating the need for custom tables.
- Built a data warehouse with Tableau dashboard to help users effectively understand and leverage data to inform strategic decisions.

# MAJOR IT INITIATIVES (IN FLIGHT)



### PILOT PROGRAM

Mercy College received \$2.6 million grant from the Biden-Harris administration to advance equitable digital access. We will provide the students and the community members with access to high-speed internet, technological devices, and technology education and support.



### **ARTIFICIAL INTELLIGENCE**

The College is implementing a chatbot on the website to support student service by providing a 24/7 communication model, which is expected to reduce call volume and free up IT staff to focus on other high-impact activities.



Continued development efforts focus on integrating critical systems into a data warehouse and building dashboards for divisions with a focus on student success and early intervention.



### DIGITAL CAMPUS

New Mercy Connect launch planned in Spring 2023. Includes integrationfocused modernization and digitization initiative across all areas of the College to provide missioncritical, state-of-the-art technology – such as up-to-date portals, network, wireless, and more – that supports a world-class student experience.



A focus on providing students access to progress towards their degree and the ability to develop curriculum plans. Consolidating on an institutional CRM aligned with an integrated communication strategy for students, throughout their college career.



### PROJECT & PORTFOLIO Leadership

Efforts continue to develop and refine the IT project management process and portfolio beyond the IT department. A fully integrated approach is necessary to our overall success.



# PROJECT & Portfolio Leadership

The Project Management Group is responsible for developing and supporting the IT portfolio of projects and managing selected projects within the portfolio. A series of connected Smartsheets, dashboards and reports provide the processes and practices necessary to increase project and portfolio maturity.



### **ACCOMPLISHMENTS**

- **Rolled out Smartsheet** to manage projects where everyone can work and collaborate in real-time, making it easy to understand project progress and better contribute to the project's overall success.
- **Documented project management processes** to manage IT projects, prioritize new projects, support IT capacity allocation and resource usage.
- **Developed institutional-facing dashboard** and an internal IT dashboard to provide visibility into the IT portfolio. (*Featured above*)
- **Developed process and approach** to enable functional areas to request projects.
- Set up and started managing Ocelot chatbot, virtual campus, and Transact Instant ID projects.

# WE WORK RIGOROUSLY TO IMPROVE THE RELIABILITY & STABILITY OF OUR INFRASTRUCTURE FOR TODAY AND TOMORROW

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The Information Security & Infrastructure Services Team supports core cyber/ information security and infrastructure at all college campuses and residence halls, including data center operations, firewalls, switches, routers, wireless access points, servers/virtual machines, telecommunication, enterprise applications, private cloud (Azure), Tier-3 tech support and IT security and vulnerability management.

- **Infrastructure Network Team:** supports the College Data Center Operations, WAN (wide area network), LAN (local area network), networking infrastructure, IT Security and Vulnerability Management.
- Infrastructure Telecom Team: supports Telecommunication, VoIP (Voice over IP) Phone System & Voicemail, Mobile Phone services & eFax services.
- Infrastructure Systems Team: supports Servers & Virtual Machines, Enterprise Apps (such as Active Directory, 0365 Suite, File Shares), Enterprise Data Backups, and System monitoring.

### **KEY CHANGES THIS YEAR:**



The team has initiated a few major initiatives for Information Security and Regulatory Compliance, including infrastructure projects such as core fiber upgrades at the Dobbs Ferry campus, including the residence halls, and rollout of latest Server 2022, Windows 11, and more. These changes will improve the reliability, redundancy, and stability of core infrastructure services. The team is also working on a few major cybersecurity initiatives in partnership with Human Resources, including policy development, Gramm-Leach-Bliley Act (GLBA) compliance, annual awareness initiatives, and more.



# ACCOMPLISHMENTS

The Information Security & Infrastructure Services Team made significant enhancements to cybersecurity, core/backbone infrastructure service, servicing wired and wireless networks and vast array of Cloud and SaaS Services.

- InfoSec Team for Regulatory Compliance successfully rolled out new policies and standards including a modern, Acceptable Use Policy.
- Implemented state-of-the-art Crowd Strike Falcon—which includes 24/7 managed detection and response (MDR) and Security Operations Center (SOC), endpoint security, endpoint detection and response (EDR), and next-generation anti-virus (NGAV)—to keep applications secure.
- Began new partnership with Grey Castle Security Services to provide expert consulting on cyber and information security, including penetration testing, annual assessments, vulnerability scans, policy development, Institutional Research (IR) tabletops, and more.
- In collaboration with HR, launched mandatory training programs including on-boarding cybersecurity training, LinkedIn cybersecurity training, and continued offering sessions focused on information security, password security, data privacy, mobile device security, and more. Deployed phishing simulation campaigns to educate members of the College community about phishing scams.
- Rolled out new enhancements to improve operations, reliability, and redundancy of the core infrastructure services, including new-and-improved remote access via Azure, EOL switch and servers, new and Wi-Fi 6 access points in dorms, and heavy traffic administrative areas (i.e., labs, classrooms).
- Initiated new integration and single sign-on (SSO) with Microsoft Azure, which provides high availability, redundancy, and SSO to critical applications like Blackboard LMS, Blackbaud and more—backed by Microsoft's Global Data centers.
- · Upgraded the college-wide network fibering for enhanced connectivity experience for students, staff, and faculty.

These strategic projects will provide stable, reliable, and redundant core infrastructure services for the college community and residence halls, including wired, wireless, and voice over IP (VoIP) access. Initiatives such as core fiber and infrastructure upgrades will help provide 24/7 uptime with zero unplanned outages.









# END USER SERVICES & ACADEMIC TECHNOLOGY

The End User Services and Academic Technology is responsible for the help desk, field support, and academic technology (classroom and online) at all college campuses. The details regarding these functions many and are outlined below:

- **Help Desk:** provide a 24 x 7 help desk operation that includes communicating with faculty, staff, and students via email or telephone to troubleshoot and diagnose hardware and software issues both in-person and via remote support tools, and install new software on clients' machines.
- **Field Support:** tier II support of end user technology and devices including, but not limited to, desktop computers, laptops, tablets, smartphones, printers, and scanners.
- Academic Technology & Audiovisual: provide the following services: ongoing planning, installation, support, and operation
  of Mercy's audiovisual equipment in instructional spaces, meeting rooms, and special event locations. This also includes
  support of the College's software systems used for asynchronous and synchronous online learning, i.e. Blackboard Learn,
  Blackboard Collaborate, and Zoom.

# ACCOMPLISHMENTS

From launching the Dobbs Ferry Tech Shop to supporting over 25 virtual events this year — the End User Services and Academic Technology Teams continue to provide first class services to our academic community.

Launched the "Dobbs Ferry Tech Stop" – an extension of the IT Help Desk–for walk-in technology support.
 Located at the west side of Main Hall Library, the Tech Stop provides Dobbs Ferry students, faculty, and staff with a wide variety of technology services including:

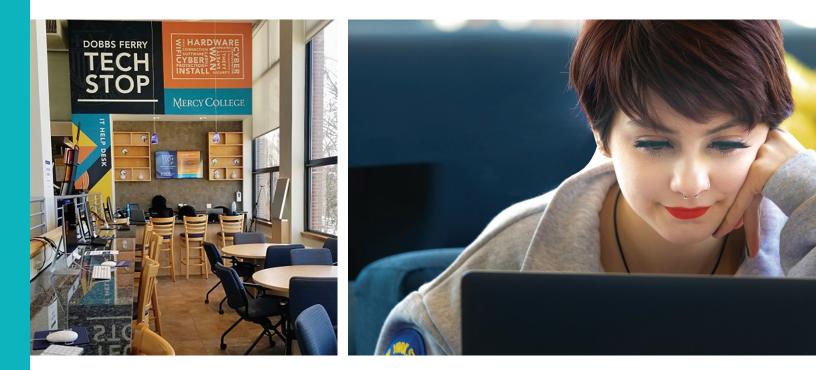
- Connecting their devices to campus Wi-Fi
- Installing Microsoft Office 365
- Assisting with password issues/resets
- Troubleshooting antivirus and performance issues
- Repairing hardware on Mercy devices and providing repair advice for student devices
- Troubleshooting technical issues

(Featured below)

### • Developed a self-service software application that enables faculty to copy an online course in Blackboard Learn

from the prior term and re-use it for the current term, preventing them from having to re-create course content each semester. Before this new application was released, Help Desk staff manually copied these courses for faculty, which consumed more than 500 hours per year of staff time. This new feature to automate the Blackboard course copy process will virtually eliminate the labor hours required to complete the course copies, freeing up IT staff to focus on other high-impact activities and providing a better experience for the faculty.

**Coordinated and planned Project Management Professional (PMP) training for the IT and Facilities Departments** to enable staff to become PMP certified. The course, delivered by a PMI-certified trainer, was designed to provide staff with the proven, practical body of project management knowledge and skills needed to demonstrate project management mastery on the job.



### ACCOMPLISHMENTS (CONTINUED)

· Negotiated a new contract with LinkedIn Learning,

a training website that provides on-demand access to over 16,000 courses, allowing Mercy's faculty and staff to learn business, software, technology, and creative skills to achieve their professional goals and advance the College's mission. LinkedIn Learning launched and became available to all faculty and staff in partnership with the Office of Human Resources in March 2022.

- **Delivered the following training sessions** to support Mercy's ability to deliver hybrid teaching modalities:
- 11 Level 2 Classroom Training Sessions
- 11 Experiential Learning Classroom Training Sessions
- Delivered training sessions in collaboration with the Professional Development Team on securing Zoom events/Zoom and strategies to prevent Zoom Bombing.
- Implement Windows 11 imaging to allow students, staff, and faculty to stay current with latest functionality. Design new Mercy portal for students, faculty, and staff using Ellucian Experience to replace existing application.



### • Supported and assisted with planning the following virtual events using Zoom and/or audiovisual technology:

- Virtual Graduate Open House
- Clinical Lab Sciences White Coat Ceremony (live-streaming)
- Trustees Dinner Reception (live-streaming, Zoom interaction, & outdoor)
- Mercy Scholars (live-streaming, Zoom interaction, & outdoor) Featured in image bottom left
- School of Business Executive Business Series (hybrid)
- Alumni Open House
   (hybrid with Zoom interaction using wireless cart)
- Michele Lee Dedication Ceremony (hybrid)
- Virtual Nursing Orientation
- Virtual Length of Service Ceremony
- Increasing Student Success at Mercy and Beyond
- Screening of Documentary, "Unlikely" (virtual)
- Virtual Black History Month Community Reception hosted by Mercy College President Tim Hall
- Virtual Faculty Seminar Day
- Virtual Staff Convocation
- Virtual Faculty Convocation
- Women's Empowerment Conference (live-streaming/Zoom interaction)
- Westchester STEM Ambassador Presentation (hybrid)
- Virtual Accepted Students Day
- SBUS Student-Preneur Conference and Business Plan Competition (hybrid/multi-campus)
- Doctor of Physical Therapy Ceremony (live-streaming)
- Alpha Eta event (live-streaming)
- Westchester Undergraduate Research Conference (live-streaming/Zoom interaction)
- CNR Class of 1975 Reunion Gathering (hybrid with Zoom interaction using wireless cart)
- Faculty Senate meetings (hybrid)
- SSBS Honors Society and Program Awards (hybrid)
- Communication Disorders White Coat Ceremony (live-streaming)
- SBUS Honors Celebration (live-streaming)
- Rivertown Parents Event (hybrid/Zoom interaction)







### ACCOMPLISHMENTS (CONTINUED)

- Given the Generation Z shift away from cable and move to "bring your own content," IT decommissioned and discontinued Cable TV (CATV) services in the Dobbs Ferry Residence Hall (Hudson and Founders) rooms, effective Fall 2021. CATV services continue to be offered in select lobby and common area spaces in Hudson and Founders Hall. As a result of these changes, the College will save approximately \$40,000 annually or \$120,000 over three years.
- In partnership with the Director of Community Programs and Events, IT supported hosting commencement at the Dobbs Ferry Campus for the first time in 35 years. The commencement ceremonies were livestreamed for family and friends.
- To assist faculty with voice projection while wearing a mask in their face-to-face classes during the COVID-19 pandemic, IT developed a process for faculty to electronically request portable microphone systems, which were available for pickup at their respective campuses. Forty-three faculty portable microphone systems were provided since inception of the program in September 2021.
- Converted classroom G5 in Dobbs Ferry Main Hall into the new Center for Teaching and Learning (CTL) and upgraded three other classrooms with technology to support hybrid learning.
- **Collaborated with Facilities and Technical Services** to renovate the Veterinary Technology Lab in Main Hall 302 and adjacent offices to ensure Mercy met or exceeded the requirements of the accrediting body American Veterinary Medical Association (AVMA) Committee on Veterinary Technician Education and Activities. This project included installing Mercy's standard classroom technology, distance learning equipment, and presentation systems.
- Installed new classroom technology to support the three Anatomage Virtual Dissection Tables in Dobbs Ferry MH 279 and two Anatomage Virtual Dissection Tables in Bronx Campus Room 3295. These virtual dissection tables allow health care professionals to learn about human anatomy and coupled with the technology in the classroom, allow for more flexibility and delivery via face-to-face and hybrid modalities.





### BY THE NUMBERS HELP DESK RESULTS



# 13,187 TICKETS CLOSED

- **PHONE: 7,136**
- 🔀 EMAIL: 6,045
- 🔒 ONSITE: 4
- 🛞 WEB: 1

# 95% 🖒 SATISFACTION RATE

### **AVERAGE SPEED TO ANSWER**



### INCIDENT REQUEST TYPES



USER ACCOUNT & PASSWORDS ISSUES: 4,376









HARDWARE/SOFTWARE SUPPORT: 2,384



ERP APPLICATION (BANNER): 373

# **ENTERPRISE APPLICATIONS**

The Enterprise Applications team supports all enterprise resource applications, including Banner, Xtender, Argos, E-Print, DegreeWorks, and more.

## ACCOMPLISHMENTS

- **Upgraded** Banner, Oracle 19c, Ellucian Identity, and DegreeWorks campus wide to ensure the College is using the most up-to-date technology to reduce security risks.
- All paper transcripts from the College of New Rochelle (CNR) are now imaged and indexed into Banner Document Imaging, making it easier for staff to provide consistent services to students.
- Integrated Education Advisory Board (EAB) with Banner Registration, enabling seamless capability between applications for students to register.
- **Implemented e-Transcripts** to enable students to request transcripts online.
- Student payment plans now use the NelNet application, making it seamless for students to create payment plans.
- Integrated Pyramed with New York State Immunization Information System (NYSIIS) to provide seamless access to students' immunization records, contributing to a higher immunization rate and a healthier population.
- Updated computer desktop and laptop computer images with new models to ensure students have the latest technology.
- Implemented Self Service 9 application to provide students with new user interface and intuitive dashboard.
- Provided continued assistance in ensuring staff is enabled for college-wide business processes related to CARES funding, such as direct loan waiver for COVID, fall and winter course inserts, and registration restrictions for non-vaccinated students.
- **Integrated Acalog** to provide easily accessible catalog for faculty, students, and staff with Banner data.
- Implemented the Slate-Banner checklist to enable admissions data to flow seamlessly between applications allowing staff to confirm admissions checklist has been completed.

- Integrated Document Management with Finance
   Fund Management to enable staff to easily track fund attachments from Banner Phase 1 roll-out to Finance team.
- Integrated NeoED for Human Resources to recruit new employees and seamlessly move data to Banner.
- **Enabled document file uploads** in Self Service Banner 9 so students can upload Financial Aid documents to their advisors to support faster student services.
- Integrated PyraMed for the Office of the Registrar to integrate data and allow students to register for classes in person or online, depending on vaccination status.
- Integrated Analytics for Learn with Banner to enable IR to perform capture data from Banner ERP.
- Integrated Chalk & Wire LT and Argos reports with Banner to provide seamless data for the Provost's Office.
- **Created auditing reports for COVID vaccinations** to enable data-driven decision-making.
- **Created ad hoc Argos reports** to support report requests that enable data driven decisions.
- Implemented a seamless process for e-billing within Student Accounts, allowing end users to send bills to students in a streamlined manner.
- **Updated federal cohorts in Banner**, providing Institutional Research with an easier process to run IPEDS report.
- Web services team collaborated with our web design partners to launch the new Mercy website. Post launch coordination and support for the site occurred seamlessly.



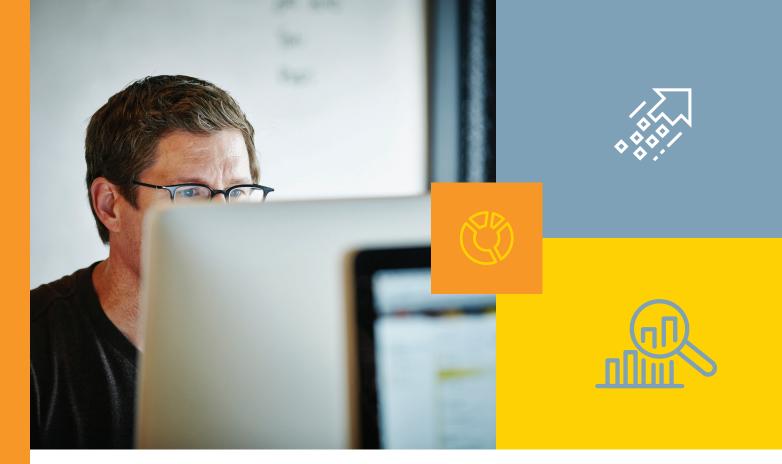




# ONGOING

We are continually moving forward and keeping up-to-date on many important technology initiatives including:

- Design new Mercy portal for students, faculty, and staff using Ellucian Experience to replace existing application.
- **Provide DegreeWorks functionality and scribe training** for the latest versions.
- **Implement intelligent learning platform** (ILP) for two-way, real-time communication between Blackboard Learning management system and Banner ERP.
- Automate requests and approvals for Banner student data access across business offices and departments to align with job roles.
- **Implement Parchment Award Diploma/Certificate service** to enable Mercy to issue digital credentials and provide diploma/ certificate printing services, including design, print, and mailing hard copy credentials to specified learners.
- Mercy Academic Restructure will create the academic hierarchy of School, Division, Department in Banner, eliminating need for custom tables for reporting.
- **Implement an AI-powered chatbot** to answer questions posed by constituents that are seeking information or have questions about the College.
- **Track all data** associated with Mercy College's new contract with adjunct faculty that includes new titles, compensation, dues, yearly increases, and longevity and provide audit reports to the Provost's Office.
- Roll out Banner 9 Self-Service, which has a much better user interface, a more modern look and feel, and integrates better with DegreeWorks.
- Provide clean address check capability within self-service and Banner applications, allowing students, staff, and faculty to make address changes online following institution data standards.



# DATA ANALYTICS

The Data Analytics Team supports all data analytics services for the college including Blackboard Analytics, Pyramid, and more.

### **Blackboard Analytics:**

Blackboard Analytics combines the extensive data from our Banner SIS utilizing both Student and Finance tables within a data warehouse designed to provide information in various forms and visualizations while providing "ONE VERSION OF THE TRUTH" – Consistent, Reliable, Verifiable data with Intuitive Report Development capability to create comprehensive dashboards and reporting on our students, courses, instructors, as well as our Admissions, Enrollment, Registration, Retention, Graduation, Financial Aid, Budget, Accounts Payable, AR/Billing, Student Financials, PO's and Requisitions, Vendor Management, and in depth Financial detail.

### **Bb Analytics4Learn (A4L):**

Blackboard Analytics for Learn combines the extensive data from Blackboard Learn with student and course attributes from Mercy's SIS Banner to create comprehensive reports and dashboards of our students, courses, instructors for staff and leadership. A4L is a robust reporting tool that gives administrators a deeper view of student data in their course such as logins, minutes spent and interactions. The reports focus on real time learning statistics that will help determine at-risk students.

# ACCOMPLISHMENTS

The Data Analytics Team, in partnership with Institutional Research, made significant enhancements to the Analytics data warehouse and reporting systems for several cross functional departments throughout the course of the year.

- · Tableau Integration
- Master Tables
- SFS Dashboard
- · Grade Center Dashboard
- School of Business Dean Dashboard
- · DFWI extracts
- · Tableau dashboards
- DFWI dashboard
- Student Risk

- IPEDS Cohorting
- Pyramid dashboards
- · Rapid Online Analytical Reporting Probability Pass Prediction
- · EAB/Slate data extract
- · DegreeWorks Data extract
- · Data Validation and mapping
- AWS Migration for Analytics

These strategic projects will contribute to the progression of more accurate, stable, and reliable Data Analytics reporting, systems, and services for the College. Initiatives such as the Tableau master table build out and implementation of external data into the data warehouse will help provide stakeholders and the College with reliable, truthful, single-source data in real time to utilize towards business decisions and Student Success.







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