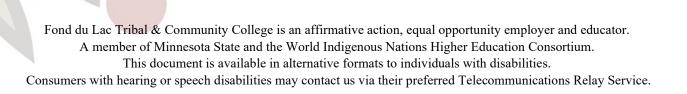


# Technology Master Plan 2023-2028

Fond du Lac Tribal and Community College Updated March 2025



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# The Mission of Information Technology at Fond du Lac Tribal and Community College

The Information Technology department provides technological support for achieving student success and fulfilling the mission at Fond du Lac Tribal and Community College (hereafter: the College). Our system and campus services:

- Enhance teaching, learning, research and community engagement.
- Strengthen leadership, planning, and decision-making.
- Increase employee productivity and effectiveness.
- Support confident, competent, and satisfied students, faculty, and staff.
- Ensure timely and efficient access to information.
- Support universal design and accessibility to ensure technology is not creating an obstacle.
- Provide inclusiveness and equity in access to information, multimedia, data, participation and expression.
- Ensure the above through maintenance of hardware, software and campus cyberinfrastructure.

# Purpose of the Master Plan

The Information Technology (hereafter: IT) master plan for the College is necessary to:

- Fulfill the IT mission, core values and vision of the College, and student success.
- Guide IT priorities and integrate IT with administrative strategic leadership.
- Provide data and information to the Minnesota State System Office to support system-wide initiatives, compliance, and audit requests.

**Definition:** Information Technology in this context means the full range of technology, cyberinfrastructure, assistive technology, and multimedia applications and services, for student, staff and academic uses, in furthering Fond du Lac Tribal and Community College's mission.

#### Planning Alignment and Integration

Actions were taken to ensure that this plan aligns with the College's Strategic Plan 2023 - 2028 and Minnesota State cyberinfrastructure and cybersecurity planning. The IT goals are integrated with the corresponding strategic goals from the Strategic Plan.

This IT Master Plan directly supports the ability for the College to offer a postsecondary education to honor the past, for those living in the present and dreaming the future, through a spirit of respect, cooperation, and unity. This plan aims to enhance IT and enable the College to provide higher education opportunities for its communities in a welcoming, culturally diverse environment.

For example, this plan parallels the College's Strategic Plan in our mutual focus on increasing access to resources for students, faculty, staff, life-long learners and members of the surrounding community. Additional elements parallel current academic goals, including improving the Fond du Lac Tribal and

Community College cyberinfrastructure to support academic activities, expanding technology resources to improve teaching and learning both inside and outside the classroom, and improving communication of IT efforts with the Tribal and surrounding communities.

# **Guiding Principles**

When reviewing the question, "What principles and values do we want to guide the creation and implementation of the mission, vision and strategic plan for IT at Fond du Lac Tribal and Community College?" consensus was reached on the following values and guiding principles.

- IT must support the institution's mission, values, and administrative leadership.
- IT must enhance learning and professional experiences for students and employees.
- IT must be student-centered, dependable, and inclusively accessible.
- IT must balance common, diverse, and unique needs of the entire College.
- IT's investment in people should balance its investment in material technology.
- IT must provide effective and efficient services, based on standards of performance, security, and value, and must be measured accordingly.
- IT must serve as a partner with the College administration, System Office administration, and other Minnesota State system campuses and leadership.
- IT must ensure high quality training availability for IT-related topics in partnership with eLearning support.
- IT must be visionary, accountable, and responsive.
- IT will support data governance, data production and analysis in partnership with institutional research and other areas.

### Planning Elements – 5 Year Vision

This IT Master Plan has been progressively revised after 2021 to reflect IT activities and responsibilities concerning the COVID pandemic and the return to campus. The following IT goals are to be fulfilled by 2028, having been determined through collaboration and discussion with the administration, faculty and staff, and alignment with the current Campus Strategic Plan. Goals:

- Foster a comprehensive understanding and implementation of the College's current and future technology needs.
- Reduce complexity and redundancy of performing tasks, reporting, and daily operations.
- Maintain leadership in providing quality of online, classroom-based and experiential learning by partnering with eLearning support and the Vice President of Academic Affairs.
- Facilitate effective and directly accessible data-driven decision making, planning, and support systems, utilizing emerging technologies such as integrated enterprise reporting, artificial intelligence, agents and assistants.
- Maintain a focus on training, practices, and resources to emphasize cybersecurity and statutory compliance.

- Maximize the use of the website, web-based administrative forms, digital documents, management systems, common file repositories (i.e. OneDrive, Teams) for students, faculty members, and staff.
- Sustain adequate, appropriate and on-going resource investment to support the IT vision and College goals.
- Maximize access to enhanced research and supplemental learning resources for students, staff and faculty.
- Support organization and communication resources to be aligned for effectiveness in teaching, research, and community engagement.

# **Challenges Analysis**

Challenges on the path to this vision of the future are listed below. The intent is not to identify what is missing but to identify what is present that could inhibit the achievement of the vision.

- 1. Reliance on system-wide enterprise systems requires financial dependencies and fixed budget requirements without recourse to increased costs.
- 2. Statutory and policy regulatory compliance for data privacy, cybersecurity, and accessibility are a continuously increasing sunken cost (i.e. FERPA, HIPAA, GLBA, FISMA, NIST 800-171, and WCAG 2.2AA being the largest compliance resource drivers) with no external funding.
- 3. Limited ability to fund staffing increases in the Information Technology area.
- 4. Increased cost of market-based materials and services in the IT sector.
- 5. Managing balance of time and resources between IT strategic leadership and day-to-day tactical operational activities.
- 6. Maintaining 24/7 cybersecurity activities and actions to prevent cyberattacks and data exfiltration.

# Current State of IT Cyberinfrastructure and Services

Summary of cyberinfrastructure and cybersecurity improvements from the previous College Strategic Plan and Technology Master Plan through year 2025 of the current strategic plan.

As an overview of campus cyberinfrastructure, IT maintains a Gigabit fiber backbone throughout the campus, and all areas of campus have strong wireless connection. The network infrastructure is engineered to support current and future data and cybersecurity standards. The IT department also maintains a Voice Over IP phone system that operates over the network.

All classrooms are equipped with a standardized teaching technology platform that supports multimedia audio / visual and conventional face-to-face teaching with a presenter computer, laptop connection, wireless video and document camera. All classrooms and meeting spaces also fully support Zoom and Teams for remote or optional synchronous face-to-face and remote course delivery. Also, there are two PTZ cameras to facilitate presenter view and classroom participant view. There is a projector, remote large wall display panel and ceiling mounted presenter "confidence" monitor in each classroom, as well as ceiling and optional instructor microphones. Ongoing and future classroom technology assessment and improvements are coordinated with the VPAA, faculty association and eLearning professionals.

The network, computer and data environment are managed to provide both forensic and proactive cybersecurity compliance and protection.

#### Completed IT Activities and Projects 2020 - 2025

- All employee workstations changed from conventional desktop computers to laptops with docking station, monitor(s), keyboard and mouse on the desk.
  - o Supports flexible, mobile computing.
  - o Provides ready access to technology in meetings, at remote locations, and for home office work.
  - Computer assets are managed with a four-year lifecycle, full warranty, and accidental damage coverage.
  - All teaching faculty are provided with laptops, regardless of teaching load, to ensure data privacy and cybersecurity compliance, as well as equitable distribution of technology resources.
  - Consolidation of operating system platform to only Windows significantly and measurably reduced total operating expenses, support costs, and reduced cybersecurity risk.
  - o Replenishment lifecycle year: 2026-28.
- Wireless and Ethernet wired network cyberinfrastructure was completely replaced and updated with high-availability, redundant, and cloud managed systems.
  - Significantly updated hardware technology with higher security, situational awareness, reporting, audit and compliance with statutory and regulatory policy requirements.
  - Lower total cost of ownership, support and extensibility for future growth of network capacity needs as informed by the Master Facilities plan.
  - o Replenishment lifecycle year: 2034.
- All classroom / meeting room technology was updated in coordination with faculty governance, the Master Facilities Plan and the College Strategic Plan.
  - Responded to the exigent needs of COVID-19 remote course delivery and facilities closures. Implemented Zoom, teach from home remote technology and support.
  - Upgraded classroom technology to facilitate post-COVID changes in instructional and pedagogy practices to include bi-modal face-to-face and remote Zoom instruction.
  - Facilitation of dual classroom cameras and multiple displays to support active learning, discussion and engagement between remote and classroom students and remote presenters.
  - o Improved sound and microphone capabilities to better comply with accessibility needs of students and instructors, closed captioning, and course recording.
  - Recurring classroom technology training and revised operating instructions for faculty and staff in coordination with faculty governance, eLearning support staff, and accessibility / disability services.
  - Upgraded projectors with higher resolution and brightness to support the use of contemporary multimedia in teaching and improve accessibility.
  - o Replenishment lifecycle year: 2032.

- Commons spaces audio and video systems upgrade
  - The theatrical and performance audio, video and recording technology was upgraded to professional standards.
  - Assistive auditory technology was incorporated in public performance spaces to support hearing assistance that integrates with digital hearing aids, cochlear implants and mobile audio headset units.
- Upgrade of computer device management, identity / access management, cybersecurity and remote access by leveraging Minnesota State system-wide enterprise services and capabilities.
  - Improved the data privacy and cybersecurity of students, faculty and staff using unified enterprise systems that incorporate the Campus with Minnesota State resources and expertise.
  - Improved efficiency of compliance with data privacy and cybersecurity regulations and policies, and better support for logging, reporting and audit of systems.
  - Provided a stronger position against cyber-attacks, ransomware exploitation and other harmful and destructive agents.
  - o Replenishment lifecycle: annually ongoing.
- Upgraded campus video camera security system to modern, managed system
  - Compliance with College and regulatory requirements / policies regarding recording practices, restricted and audited access to live and recorded video, providing discovery and forensic evidence in support of administrative and law enforcement requirements.
  - Significantly improved coverage of sensitive and critical campus areas in coordination with the Safety Committee, administrative ad hoc advisory committee, and an external study following recommendations from security professionals.
  - o Replenishment lifecycle year: progressively 2028-2032.
- Support of enterprise student CRM / holistic student support application North Star (EAB Starfish).
  - Provided necessary vendor set-up, data integration with legacy student information system (SIS).
  - Assisted in implementation, refinement and on-going operations and augmentations to the North Star system responding to and meeting the needs of the College.
  - Established and maintaining a relationship with Minnesota State College Southeast who is our partner in providing daily data extracts from the system office SIS.
  - Anticipation of increased need for resources as part of the transition from current legacy SIS to new the student information system in current Workday ERP: 2025-2028.
  - o Replenishment lifecycle: annually ongoing.
- Upgraded Nursing simulation training facilities.
  - Upgraded bedside computers to support real-world technology and patient digital records system training.
  - o Support training, testing and other clinical simulation and teaching activities.
  - o Replenishment lifecycle year: 2028

- Ensure current high levels of support, and access by students, faculty and staff to common enterprise services and applications for productivity, communication and assessment.
  - Enterprise Microsoft 365 (A5), Microsoft Defender Endpoint (MDE), and Intune systems.
    - All students, faculty and staff have full access to Microsoft 365 Office suite of applications, cloud OneDrive storage and online applications.
    - The College has access to secure, high-availability, high-redundancy data storage and file backup with OneDrive.
    - The College has access to secure, high-availability, high-redundancy data storage with Teams.
    - All students, faculty and staff have access to secure, high-availability, high-redundancy email with Outlook, including cloud backup and archiving.
    - All College computers are now enrolled in MDE and managed for security, data privacy, and data preservation.
    - Replenishment lifecycle: annually ongoing.
  - Adobe Creative Cloud (including Acrobat Pro and all other applications)
    - All faculty, staff and students enrolled in appropriate programs are now licensed to use Adobe products.
    - All employees have access to Acrobat Pro to enable them to create, edit, digitally sign and do accessibility compliance auditing of .pdf files.
    - Replenishment lifecycle: annually ongoing.

# Alignment with current 2023-2028 College Strategic Plan and Five Directions

The IT Master Plan intentionally aligns with the five strategic directions of the College Strategic Plan to provide foundation and support where appropriate using current technology and information systems.

Routine re-examination of alignment between the two plans is important as new technologies emerge, old technologies become obsolete, and enterprise applications/services are developed and adopted by the College and the system office. IT supports and guides the College Strategic Plan and Strategic Direction committees in the use of Microsoft Teams, Forms, and other resources to improve project management, organization, collaboration, and dissemination of information.

#### Strategic Plan Five Strategic Directions:

The Master Technology Plan parallels the current College Strategic Plan in support of the five primary strategic directions. With respect to an overview of these directions, technology will be used to support initiatives through enhancements to the campus website and web presence, improving engagement, staff and community outreach, feedback mechanisms, communication through interactive web pages, forms and social media. More structured information and data on the website regarding events, enhanced directory and campus resources, wellness and cultural awareness, and data integrated

planning / reporting dashboards are being emphasized. This includes resources such as: a central hub for professional development and related materials, employee labor resources, and PACE survey / employer satisfaction survey engagement forum. IT is proving to be a critical resource to support and enhance the successful growth of Workforce Development initiatives and activities. The greatest area of opportunity regarding the application of IT resources is in Strategic Direction Five: Progress through Informed & Transparent Plans.



#### SD1: Creating Campus-Wide Holistic Wellness Model

- IT will support efforts and programs that enhance student life programming, promote a multi-cultural wellness model and campus health services by providing both material and consulting resources.
- Enhanced use of technologies for multimedia, remote learning, MS Teams, and website engagement will be emphasized.
- The use of a regulatory compliance-based patient case and record management system may or may not be required. This will be an area of inquiry.
- Support Foundation fundraising technology.

#### SD2: Developing Processes to Empower Campus Community

- Work has been done to develop and communicate an employee resource guide using MS Forms for survey and Teams to manage the process.
- Ongoing work is being done in the development of website resources that include an employee resource digital hub, and an enhanced campus faculty and staff online directory.
- The website has planned updates to improve the employees and campus community's ability to engage with and provide feedback to the administration and leadership.
- This is especially important concerning the areas of system office and College policies, PACE survey activities and results, and Bias Incident Advisory / Response.
- Additional technology and computer skills support for students and classroom instructors should be expanded. This could include an IT support desk in a location such as the Library or Student Services area that has some scheduled regular hours and would reduce the need for students to come to the IT office for assistance.
- It would be ideal to have an IT employee dedicated to student and classroom support who would be a resource all the time.

#### SD3: Optimizing Opportunities with Community Partners

- IT will support efforts and programs that survey community employer satisfaction, gather information and survey needs assessment and action plans, and Zoom meetings to engage with the Fond du Lac Band and greater community.
- IT (in cooperation with Institutional Reporting) will also assist in developing databases, reporting and data visualization to aid in programs focusing on alumni, graduate professional placement and employment, workforce development programs, and other community partnerships.
- IT can also assist in facilitating the use of technology for the mapping and management of external relationships with organizations, partners, and individuals.

#### SD4: Broadening Supports to Enhance Financial Stability

- IT is in the process of enhancing its already strong relationship with the Workforce Development program in the use of technology to promote and grow their program.
- IT will also, when and where appropriate, support the partnership between the College and the Foundation to their mutual benefit.

#### SD5: Driving FDLTCC's Progress through Informed & Transparent Plans

#### Master Facilities Plan

A major area of IT alignment is with the Master Facilities Plan; planned cyberinfrastructure lifecycle asset / resource management and achieving sustainability, and zero carbon goals. This includes all computers, workstation setups, printers, copiers, network infrastructure, emergency power management and other critical elements of the campus cyber infrastructure. The annual IT budget process includes biennial budget lifecycle and asset replenishment information.

- Campus classroom and teaching technology continues to be a significant area of focus for strategic IT management. This is being coordinated with the Master Facilities Plan to ensure that the teaching and learning environment fully supports student success and the changing demands of multimodal course delivery.
- IT along with accessibility services recommends that the Facilities Master Plan include additional accessible work surfaces in common student areas. Where there are already adjustable and accessible tables and desks, that more are added. Also, classroom and common study area lighting is recommended to be coordinated with IT and accessibility services and upgraded to adjustable soft / warm lighting to facilitate room technology and everyone who has accessibility needs.
- Additionally, accessible desks and work surfaces in classrooms should be reviewed and supplemented.
- Additionally, IT can directly support digital signage; classroom display technology and other communications to highlight and use Ojibwe language and cultural heritage. IT will work with Marketing, the website, and other departments to support these activities.
- IT is planning upgrades in the wide-area wireless network to better serve areas outside of campus buildings (i.e. grounds, parking lots, work and training areas). This will also include faster point-to-point network support for the Environmental Institute.
- IT plans are underway to enhance campus physical security by supporting the integration of keyless entry technology with our current video security camera system.
- IT is also implementing an emergency alert system to augment and enhance our current notification system. The additional technology will provide computer software that can be used to communicate pop-up emergency notifications on employee and student computers in real time. Master Academic Plan

#### Master Academic Plan

Areas that have ongoing and planned IT projects include:

- Microsoft AI Copilot
- Large dataset and image storage for the GIS program and Environmental Institute
- Enhanced capabilities and new technology for Nursing simulation training (i.e. upgraded medical hardware, upgraded teaching laptops for simulations), enhancements, and upgraded capabilities for faculty laptops as part of the asset management lifecycle program, and additional cellular data hotspots for loan to faculty, staff and students requiring access to the internet.
- IT is actively engaged in direct technical and consulting support of faculty and academic research in areas such as genetics, anatomy, biology, 3D printing, computer science, and other areas.
- IT administration assists with supporting the student LMS (D2L Brightspace) in coordination with the eLearning Support Specialist to support faculty requests for Learning Tools Interoperability integrations from third party providers to enhance their pedagogy and teaching.
- IT also acts as a backup LMS administrator to back up the eLearning Support Specialist.
- IT is in support of the administration to explore the possibility of providing a student laptop program, either as a vendor partner standalone program, or as part of a

comprehensive student admissions model through Minnesota State vendor contracts and partner programs, involving other system campuses.

# **Concluding Statement**

Readers should understand that all of these actions are intended to improve the overall Information Technology environment at the College. To best support the mission and values of the College, this Master Technology Plan is intended to be a guideline that should be revisited as needs and technological capabilities change. Formally scheduled revisions and updates should be made to this plan to harmonize with activities in the Campus Strategic Plan and five strategic directions. Information technology continues to be integrated into every aspect of higher education, from the physical campus infrastructure and operation of running the campus to the mission of student success, course delivery, academic program and course learning outcome assessments, recruitment, retention, and beyond. The added responsibility of statutory and policy compliance in the areas of data privacy, cybersecurity, and risk assessment further elevates the importance of fully integrating Information Technology leadership and practices into the strategic planning, leadership, and operations of the College.

# **Technology Master Plan Timeline**

FDLTCC Master Academic Plan Timeline, Spring 2025 to Fall 2028

	Component Category Key IT Plans and Projects (IT), # Strategic Direction IT Support (SD 1-5), Master Academic Plan (MAP)	Category	COMPLETE (X when completed)	ONGOING (X if ongoing)	Responsibility	Expected Completion	Notes			
	2025 Academic Year Projects									
1	Faculty Laptop life-cycle replacement	IT		X	Peter / EIO	Fall 2025	Scheduled life-cycle full faculty laptop replacement = 40			
2	DHCP Server upgrade	IT		X	Brad		Networking infrastructure scheduled upgrade			
3	VPN with MFA upgrade	IT		X	Peter		Virtual Private Network with Multifactor Authentication			
4	Enhance campus alert system – desktop and signage notification	IT		X	Peter		Facilitate computer software for emergency notification			
5	Clinical Student Support – mental health and social services navigator	IT			Peter	Summer 2025	Support software for HIPAA client case work			
6	Microsoft CoPilot for M365	IT	X		Peter	Spring 2025	Provide a go-ahead group of 30 employees with Copilot for M365 for evaluation May '25			
7	Support PACE survey analysis & communications	SD1 SD2			Roxanne Erica, Lori	Spring 2026	Technology support for PACE survey			
8	Support Foundation fundraising technology	SD1				Summer 2025	Facilitate development & fundraising software			

	Component Category Key IT Plans and Projects (IT), # Strategic Direction IT Support (SD 1-5), Master Academic Plan (MAP)	Category	COMPLETE (X when completed)	ONGOING (X if ongoing)	Responsibility	Expected Completion	Notes	
9	Support central hub for professional development materials & comm.	SD2			Lori EIO	Summer 2026	Develop a hub using website, Teams or SharePoint	
10	Support Nursing simulation training	MAP		X	Jessica Peter	Summer 2025	Upgrade computer cart laptops to support advanced SIM training	
11	Support for GIS and Env. Inst. for large data and image storage, drones, summer camps and programs	MAP		X	Mark Courtney EIO	Fall 2025	Large remote data storage on I <sup>2</sup> Research Net, drone support, summer camps	
	2026 Academic Year Projects							
1	IT support Help Desk in student services or library areas	IT			EIO, Damien Bret Anita	Fall 2026	Discuss resources to provide in-place IT support in student areas	
2	IT Staff hire dedicated to student and classroom technology support	IT			EIO, Damien Bret Anita	Spring 2026	Discuss resources to provide timely IT support in classrooms & for students	
3	Faculty Laptop life-cycle replacement	IT		X	EIO	Fall 2026	Scheduled life-cycle remaining faculty laptop replacement = 35	
4	Staff Laptop life-cycle replacement	IT			EIO Brad	Fall 2026	Scheduled life-cycle employee laptop replacement = 50	
5	Enhance exterior campus Wi-Fi / WAN for outside areas and EI a- frame	IT			EIO Brad, Mark		Provide additional network support to exterior areas & Environmental Institute	

	Component Category Key IT Plans and Projects (IT), # Strategic Direction IT Support (SD 1-5), Master Academic Plan (MAP)	Category	COMPLETE (X when completed)	ONGOING (X if ongoing)	Responsibility	Expected Completion	Notes
6	Support integration of keyless entry (facilities) with security camera system	IT SD5			Mark EIO	Summer 2026	Support integration of keyless entry (facilities) with security camera system
7	Improved feedback & communication with leadership	SD2		X	Lori EIO	Summer 2026	Develop Forms, webpage to improve feedback & comms
8	Support Institutional Reporting with database / visualization needs	SD3			James EIO	Spring 2026	Work with System Office to develop data lake from Workday for reporting
9	Support Workforce Development office, conference & instruction	SD4		X	Jeannie, Stacey Jodanna		Continued support for WD tech to achieve their mission
10	Support Facilities to provide accessible desks, work surfaces	SD5			Mark Trish		Classroom & common areas accessible work surfaces
	2027 Academic Year Project	S					
1	RFP printer & copier managed services	IT			EIO	Spring 2027	Review vendors for managed printing & copier services
2	Coordinate with Facilities Master Plan – campus lighting	IT			Mark, Trish Bret		Support lighting upgrades in classrooms & common areas
3	Support graduate and alumni contact management database services	SD3			Damien Sara M	Spring 2027	Assist in establishing CRM resources for graduate & alumni
4	Support external relationship mapping & management	SD3			Damien Sara M		Assist in facilitating management & mapping of external relationships

	Component Category Key IT Plans and Projects (IT), # Strategic Direction IT Support (SD 1-5), Master Academic Plan (MAP)	Category	COMPLETE (X when completed)	Responsibility	Expected Completion	Notes
	2028 Academic Year Project	:S				
1	Advising & support for discussion about Laptop enrollment model	IT		Anita Damien Bret	Spring 2028	Explore admissions / enrollment model for students to get a laptop
2	Support System Office Workday Student transition from ISRS	IT MAP		Kelly IT EIO		Work with System Office, VP of Student Services
3	Evaluate and support student CRM – North Star transition to Workday	IT SD2		Damien Kelly B Kate	Fall 2029	Work with System Office, Southeast partner, Student Services, EAB Starfish transition to Workday Student