2022

MIRACOSTA COMMUNITY COLLEGE DISTRICT TECHNOLOGY PLAN

MIRACOSTA COLLEGE

The District would like to express its sincere gratitude to the members of the Technology Advisory Committee and all the governance groups for their efforts and valuable input in developing the new five-year Technology Plan.

The Technology Advisory Committee (TAC) is an advisory committee with college-wide representation that engages in collaborative discussion regarding the use of information technology and IT planning documents making the best possible recommendations to meet the district's mission, vision, commitment, institutional values and goals. The committee collaborates closely with Information Technology Services (ITS), *formerly Academic Information Services*, to ensure that IT changes, new directions, and planning is done in a coordinated and cooperative fashion. The committee is also responsible for development, review and updating of the MiraCosta Community College District Technology Plan.

Administrators	Faculty
Anthony Maciel, Associate Vice President/ Chief Information Systems Officer	Abdy Afzali, Associate Faculty, CSIT; Manager Technology Support Services
Charlie Ng, Assistant Superintendent/Vice President, Human Resources	Adrean Askerneese, Faculty, Counseling
Chris Tarman, Dean, Research, Planning & Institutional Effectiveness	Jeff Higginbotham, Faculty Director, Student Accessibility Services
Freddy Ramirez, Dean, Admissions & Student Support	Jim Julius, Faculty Director, Online Education
John Makevich, Dean, Continuing & Community Education	Khang Nguyen, Faculty, Physics
Katie White, Director, Fiscal Services	Lauren McFall, Faculty, Web Services & Emerging Technologies Librarian
Kristen Huyck, Director, Public & Governmental Relations, Marketing & Communications	Mark Stramaglia, Associate Faculty, Computer Science; Senior Enterprise Applications Developer
Linda Kurokawa, Executive Director, Community Education & Workforce Development	Steve Eso, Faculty, Psychology
Mina Hernandez, Director, Purchasing & Material Management	
Timothy Flood, Assistant Superintendent/Vice President, Administrative Services	

Classified Professionals	Students
Aaron Holmes, Access Specialist	Brenda Lopez
Caroline Bischel, Business Systems Analyst	Brittany Shelton
David Santos, Police Officer	Laura Allison Davis
Lori Schneider, Administrative Assistant	Michael Pettric
Michelle Ohnstad, Manager, Library Operations	Pimlada Tantiwuttipong
Steve Schultz, Manager, Infrastructure Systems & Application Development	Prince Maduekwe
Trevor Presley, Interim Lead Groundskeeper	Robin Gralton

Approved by the Technology Advisory Committee, September 23, 2022
Approved by College Council, November 3, 2022
Approved by the Budget and Planning Committee, November 4, 2022
Approved by the Board of Trustees, November 17, 2022

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PLANNING FRAMEWORK

MiraCosta College recently developed the *MiraCosta College Long-Term Planning Framework 2020-2026* to guide its long-term planning efforts. The framework outlines the College's guiding statements related to mission, vision, values, and commitment as well as the 2020-2026 planning goals for the institution. This framework was used in the development of the Technology Plan. The *MiraCosta Community College District Technology Plan* is a five-year plan that is annually reviewed and updated.

LONG-TERM PLANNING FRAMEWORK

The College's long-term planning framework is anchored by the mission, vision, values, and commitment of the institution. The goals represent broad areas of focus that are accomplished via more specific strategies with measurable outcomes. The relationship of the various elements of the long-term framework are illustrated in the following graphic.

MISSION
(Describes the institution)

VISION
(Institution's aspirations)

COMMITMENT
(Speaks to commitment to equity)

VALUES
(What institution stands for)

GOALS
(What institution hopes to achieve)

STRATEGIES
(Measurable approach to achieve goals)

MiraCosta College Mission, Vision and Commitment, Institutional Goals and Potential Technology Impact, and Technology Support Strategies Addressing Institutional Goals provided the foundation for the plan. The Institutional Values (Appendix A), Future Focus and Adaptive Planning, Technology Futures Radar, and the Outcome of the Futures Task Force (Appendix B), and Da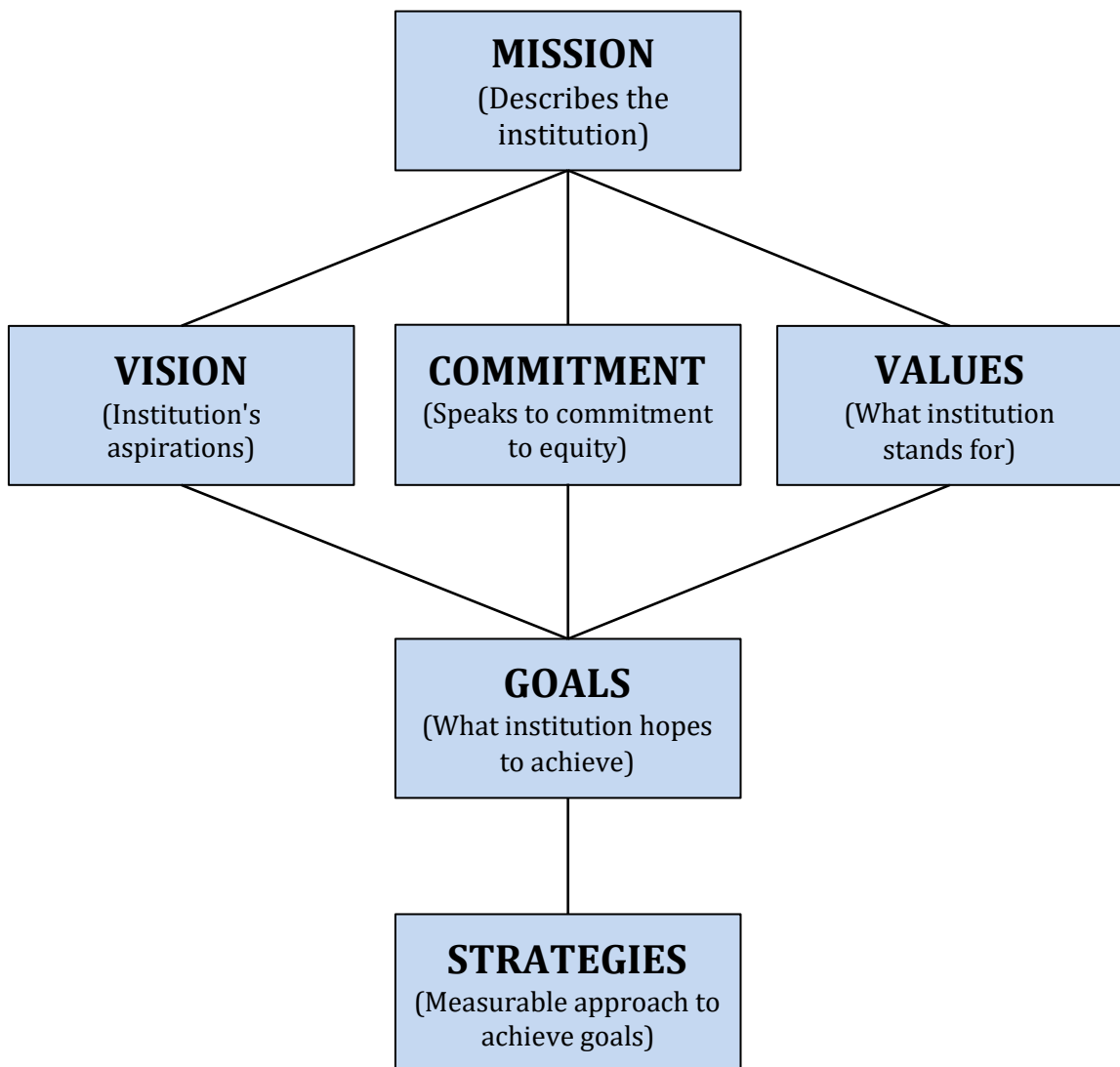ta Summary, Relevant Trends and the Technology Plan Survey (Appendix C) documents provided information used in the development of the plan.

MISSION, VISION, AND COMMITMENT

Each of the statements below incorporate and reflect the input and perspective from multiple college constituent groups. The following definitions provide context to the statements below:

- **Mission** - Describes the institution's broad educational purposes, its intended student population, the types of degrees and other credentials it offers, and its commitment to student learning and achievement.

- **Vision** - A statement of an organization's overarching aspirations of what it hopes to achieve or to become.

- **Commitment** - A statement that was created from a campus desire for the institution to articulate our commitment to equity, including the populations most impacted.

MiraCosta College Mission

MiraCosta College fosters the academic and holistic success of its diverse learners within a caring and equitable environment to strengthen the educational, economic, cultural, and social well-being of the communities it serves.

MiraCosta College achieves this mission through innovative teaching, learning, and support services, and by offering degree, certificate, career education, adult education, transfer, and life-long learning opportunities.

MiraCosta College Vision

MiraCosta College will be a leader and partner in transforming lives and communities through learning.

MiraCosta College Commitment

MiraCosta College is committed to creating a racially just campus climate. Individuals and their diverse cultures and identities are welcomed, nurtured, and validated. MiraCosta College takes institutional responsibility for closing the equity gap for disproportionately impacted populations including Latinx and Chicanx communities, Black and African American communities, Native Hawaiian and Pacific Islander communities, Native American communities, lesbian, gay, bisexual, trans, queer/questioning, intersex, and asexual (LGBTQIA) communities, veteran communities, former foster youth, adult students, and students from low socioeconomic statuses. MiraCosta College will continue to serve all constituents with values rooted in equity, diversity, inclusion, and community.

INSTITUTIONAL GOALS AND THE POTENTIAL TECHNOLOGY IMPACT

A goal is a broad statement of what the institution hopes to achieve. Each of the goals below in bold, is accompanied by action phrases that can be addressed with more specific strategies within college plans. The goals were developed by the long-term planning workgroup with feedback from college employees and students. The Technology Advisory Committee developed the associated potential impacts for each goal.

> **GOAL 1: MiraCosta College will provide equitable access, enhance student success and close equity gaps** by deploying strategies that meet students where they are; create community; and dismantle systems of inequity.

Potential Impact of Technology on Goal 1:

The role of technology in student success has increased dramatically due to the pandemic. Technology has become the primary modality that students experience college, and it is important to enhance the delivery of student services and instruction, to meet student's needs and expectations. MiraCosta College is fully committed to closing equity gaps by developing inclusive policies and procedures as well as using data and technology in student centric ways. The steps listed below will support us in our goal to provide equitable access to technology.

- Assess student access to and use of technology

- Assess access to support for use of technology (days, times, and type of support needed)

- Assess the effectiveness of the current systems in terms of meeting the needs with a DEI perspective in mind

- Designate technology resources to meet the identified needs

- Provide the human resources necessary to provide equitable access to technology

GOAL 2: MiraCosta College will meet identified external community needs by collaborating with community and industry partners to develop strategies that provide workforce solutions; prepare students to be active global citizens; and provide opportunities for cultural educational enrichment.

Potential Impact of Technology on Goal 2:

Technology can be an enabler or inhibitor of engagement with our external community. Technology, when used appropriately, can be a tool for engagement with our broader community. MiraCosta College is fully committed to deploying technology tools that enhance, support, and encourage collaboration with students, external community, and industry partners.

GOAL 3: MiraCosta College will foster academic excellence by strategically developing a culturally competent, adaptive, innovative and relevant teaching and learning environment; co-curricular activities that bridge classroom learning and real-world experience; and intentional professional development for the college community that is responsive to a changing world.

Potential Impact of Technology on Goal 3:

In a rapidly changing world, MiraCosta College will on an ongoing basis and as needs for better technologies arise innovate by evaluating technology tools, services, and emerging technologies. Flexible learning environments provide access for our diverse students. Through content rich and student-driven experiences, MiraCosta College will use technology to enhance academic excellence. Technology tools are only as useful as the people who use them. For this reason, professional learning is critical to ensuring technology leads to student success. Innovative tools, communities of practice tools and specialized applications in the areas of STEM, humanities, art, etc., also ensure technology leads to student success.

> **GOAL 4: MiraCosta College will demonstrate responsible stewardship and sustainability of college and community resources** by deploying strategies that invest in our employees to reach their full potential; maintain a sustainable and transparent financial model; and reduce the environmental impact of our physical resources.

Potential Impact of Technology on Goal 4:

Technology tools can be used for employee growth and to effectively manage financial resources. It is important to acquire and discard technology in a manner that is environmentally responsible. MiraCosta College will do this by enhancing planning documents, forecasting technology expenses, procuring new systems with affordability in mind, and leveraging systemwide resources to remove or minimize costs.

TECHNOLOGY SUPPORT STRATEGIES ADDRESSING INSTITUTIONAL GOALS

Below are listed the technology support strategies that the Technology Advisory Committee developed based on the data and trends presented above for each of the institutional goals.

INSTITUTIONAL GOAL 1: MiraCosta College will provide equitable access, enhance student success, and close equity gaps by developing strategies that:

… meet students where they are by
- providing technical infrastructure to support multiple pedagogies and modalities to accommodate different students' needs
- providing software licensing and/or subscriptions to meet students' needs
- providing hardware to meet students' needs
- providing access to prompt and reliable support services in multiple modalities
- providing technology rich physical spaces that meet the needs of students

… create a sense of community by
- connecting people in virtual and physical hubs for collaboration
- providing communications that are accessible, intuitive, and easy to navigate to help users find the information needed about events and other students, faculty, staff and community partners with common interests seamlessly

… dismantle systems of inequity by
- identifying and implementing technologies that equitably support student success from the beginning of their experience to graduation and beyond

- implementing DEI technologies for employees to target talent acquisition, analytics, development/advancement, and engagement/retention

GOAL 2: MiraCosta College will meet identified external community needs by collaborating with community and industry partners to develop strategies that:

… provide workforce solutions by
- enabling partnerships with local employers and K12 Districts and promote pathways for access through dual enrollment participation and work-based learning
- enabling a portfolio site, with links to job sites like LinkedIn, Glass Door, JAIN, etc. to connect students with employers for jobs, paid internships and other skill building opportunities locally and virtually
- providing real world training and internship opportunities

… prepare students to be active global citizens by
- providing Information Media Literacy Training
- providing Virtual International Exchange Program Support
- providing Digital Citizenship support

… provide opportunities for cultural enrichment by
- creating/enhancing physical and virtual spaces that support collaboration between the College, the local schools, businesses, and industry and provides opportunities for collaboration, community building, and cultural enrichment
- providing support and tools for social justice and equity
- supporting, with technology tools, co-curricular learning for students through Student Life and Leadership, Student Equity, Associated Student Government, and other areas in addition to student government for events and advocacy

GOAL 3: MiraCosta College will foster academic excellence by:

… strategically developing a culturally competent, adaptive, innovative, and relevant teaching and learning environment by
- developing policies, procedures, and identifying technology resources to provide students, faculty, and staff with accessible, cyber-secure, essential computing resources in a timely and equitable way

… co-curricular activities that bridge classroom learning and real-world experience by
- supporting investigation, evaluation, adoption, and support of emerging technologies for rich interaction and engagement such as simulations, augmented and virtual reality, telepresence, and metaverse tools

… intentional professional development for the college community that is responsive to a changing world with

- knowledge/training that is curated, easy to navigate, and easy to access to get the knowledge needed
- tools to help address faculty needs for better teaching online, hybrid, and on the ground

GOAL 4: MiraCosta College will demonstrate responsible stewardship and sustainability of college and community resources by deploying strategies that:

… invest in our employees to reach their full potential by

- providing training and access to new and emerging technologies to improve student engagement and success
- enabling faculty and staff to investigate new technologies to pilot, and if successful, scale up for all to use, e.g., release time for mini sabbaticals
- better leveraging and coordinating professional development activities across the college and across constituency groups to align with the institutional mission, vision, goals, and commitments

… maintain a sustainable and transparent financial model by

- applying the total cost of ownership evaluation of all technology procurements
- management of software and hardware life cycles- sustainable financial and staffing support including training
- maintaining a catalog/map of what tools MiraCosta College has, how to access them, what they do, who uses them and who supports them
- developing a clear set of standards and evaluation procedures when considering adoption of new technologies
- developing a systematic equipment inventory
- developing a plan for sustainable maintenance and replacement of equipment

… reduce the environmental impact of our physical resources by

- buying and disposing of used equipment that can be recycled in a cost effective and environmentally responsible way
- providing one computing device per employee that addresses the requirements to complete their work and/or teaching responsibilities, thereby minimizing the number of computing devices
- minimizing printing with lowest cost possible for appropriate learning or zero cost.

MEASURING PROGRESS ON THE TECHNOLOGY PLAN

The five-year *MiraCosta Community College District Technology Plan* will be revisited annually by the Technology Advisory Committee over the next five years to evaluate progress towards meeting the technology strategies and initiatives described in the plan below.

All data will be analyzed using an equity lens, paying particular attention to measures of disproportionate impact. The Technology Advisory Committee is responsible for overseeing that annual review.

In addition, academic, support services, and administrative departments play a central role in college-wide planning and budget development through the program review process which includes technology initiatives. Driven by the College's Mission, Vision, Values, and Commitment statements as well as the four institutional goals, all departments and programs develop goals and activities in a systematic three-year planning process with annual updates. These departmental plans encourage innovation and creativity in a bottom-up fashion that enhances the College's ability to fulfill its mission and goals. The program review process includes space for reflecting on data and information through student outcomes, program review data, enrollment management data, workforce trends, and other environmental information. MiraCosta College's cycle of program review encourages dialogue on priorities, builds coalitions for change, and provides an avenue for adaptive planning that allows stakeholders to explore solutions in a swiftly changing world.

TECHNOLOGY STRATEGIES/INITIATIVES TO SUPPORT INSTITUTIONAL GOALS

The following tables include technology strategies and initiatives that are or will be deployed for the next five years, from 2022-2027 to support the institutional goals outlined in the *MiraCosta College Long-Term Planning Framework 2020-2026*. The plan will be reviewed and updated annually.

GOAL 1: MiraCosta College will provide equitable access, enhance student success, and close equity gaps by deploying strategies that meet students where they are; create community; and dismantle systems of inequity.						
FUTURES SIGNALS: Remote Work / Technology Ownership / Hybrid Building and Dynamic Spaces / Cybersecurity / Metaverse						
Strategy/Initiative	**Department/Program/ Committee/Group**	**Other plan(s) containing equitable Strategy/Initiatives**	**Needed Resources**		**Expected Completion / Risk Factors**	**Status / % Completion & Implications for Future Years (updated annually)**
1.1 Review current policies and, as needed, develop new policies, procedures, and resources to provide students, faculty, and staff with essential computing resources in a timely, equitable way by: 1.1.1 Enabling network access on-site and remote for faculty, students, and staff when and where needed. 1.1.2 Providing computers and other devices to access learning and registration systems. 1.1.3 Providing software and processes to enable access to prompt and reliable support services that respond to student needs and alert faculty and student services when help is needed. 1.1.4 Training faculty, students, and staff on how to access and use the computing equipment and software and provide opportunities to acquire and/or enhance technology knowledge and skills. 1.1.5 Ensuring the right technology and training for each type of user and the applications they need.	Technology Advisory Committee (TAC) Human Resources (HR) Information Technology Services (ITS)	Facilities Master Plan Equity Plan				

1.1.6 Expanding student success and equity by developing and promoting affordable learning technologies and materials. 1.1.7 Ensuring appropriate staffing levels to support maintenance of current systems; develop new and innovative systems, and provide appropriate service and support to administrators, faculty, staff, and students.						
1.2 Implement Diversity, Equity & Inclusion technologies for employees to target talent acquisition, analytics, development/advancement, and engagement/ retention in cooperation with Human Resources.	Human Resources (HR) Information Technology Services (ITS)	Equity Plan				

1.3 Identify, implement, and continually assess technologies that equitably support student success from the beginning of their experience to graduation and beyond.
    1.3.1 Technology support for increasing the visibility and amount of certificate and degree programs that students may complete through online and flexible attendance options.
    1.3.2 Support Guided Pathways by completing the implementation of TargetX and/or identifying additional technology strategies that support guided pathways and Academic and Career Pathways including proactive student advising and early alert.
	Guided Pathways
	Information Technology Services (ITS)
	Technology Advisory Committee (TAC)
		Educational Master Plan
		Online Education Plan				

1.4 Institutionalize accessibility by identifying and supporting new technologies while insuring accessibility and cyber-secure access for users by: 1.4.1 Conducting assessments of college technology based upon WEB Content	Student Accessibility Services (SAS) Administrative Services (AS) Online Education	Administrative Procedure 3725 Online Education Plan				

Accessibility Guidelines (WCAG) to measure digital accessibility. 1.4.2 Developing, procuring, or enhancing assistive technology, adaptive tutoring systems, and tools. 1.4.3 Enhancing resources and support to help faculty develop online courses that comply with accessibility regulations.	Information Technology Services (ITS)					
1.5 Secure ongoing funding and personnel resources to ensure ongoing access to technology through semester long check outs of laptops and hotspots.	Budget & Planning Committee (BPC) Library Information Technology Services (ITS) Foundation	Educational Master Plan Foundation				

Related References:

https://www.cio.com/article/3374838/diversity-and-inclusion-technology-tools-on-the-rise.html
https://www3.weforum.org/docs/WEF_NES_DEI4.0_Toolkit_2020.pdf
https://www.forbes.com/sites/sap/2021/06/28/how-technology-supports-workplace-diversity-equity-and-inclusion/?sh=4744926e28b8
https://www.shrm.org/resourcesandtools/hr-topics/technology/pages/how-hr-technology-supports-diversity-inclusion.aspx

GOAL 2: MiraCosta College will meet identified external community needs by collaborating with community and industry partners to develop strategies that provide workforce solutions; prepare students to be active global citizens; and provide opportunities for cultural educational enrichment.

FUTURES SIGNALS: Remote Work / Technology Ownership / Hybrid Building and Dynamic Spaces / Cybersecurity / Metaverse

Strategy/Initiatives	Department/Program/ Committee/Group	Other plan(s) containing equitable Strategy/Initiatives	Needed Resources		Expected Completion / Risk Factors	Status / % Completion & Implications for Future Years (updated annually)

2.1 Establish and maintain information technology resources for the development of social networks, student life, college organizations by:
    2.1.1 Developing and maintaining a consolidated, mobile-friendly integrated approach to digitizing student services (e.g., processing applications, submitting required documents, setting appointments, offering online service and support).
    2.1.2 Developing and maintaining an integrated communications systems (text, email, web, social media) that reach target audiences with relevant messaging.
    2.1.3 Institutionalizing and facilitating adoption of PRONTO for student communications.
	Technology Advisory Committee (TAC)
	Information Technology Services (ITS)
	Online Education
	Public Information Office (PIO)
	Student Services					

2.2 Identify, develop, and support technology to enhance the ability for industry and the surrounding community to collaborate with students by:
    2.2.1 Providing opportunities for cultural education
    2.2.2 Strengthening work based and professional learning and technologies to connect students to employers (i.e., associations and organizations).
	Career Center
	Work-Based Learning
	Career Education
	Student Services
	Clubs
	Joyful Teacher and Professional Development & Learning					

	Technology Advisory Committee (TAC) Information Technology Services (ITS)					

2.3 Develop and enhance protocols and practices for prioritizing technology resource investments to support active engagement between students, business, and the surrounding community by:
 	
    2.3.1 Establishing a regular review of all programming and help desk requests to ensure adequate technology support.
    2.3.2 Reviewing all requests quarterly for resource alignment.
	Technology Advisory Committee (TAC) Information Technology Services (ITS) Foundation					

GOAL 3: MiraCosta College will foster academic excellence by strategically developing a culturally competent, adaptive, innovative, and relevant teaching and learning environment; co-curricular activities that bridge classroom learning and real-world experience; and intentional professional development for the college community that is responsive to a changing world.

FUTURES SIGNALS: Remote Work / Technology Ownership / Hybrid Building and Dynamic Spaces / Cybersecurity / Metaverse

Strategy/Initiatives	Department/Program/ Committee/Group	Other plan(s) containing equitable Strategy/Initiatives	Needed Resources		Expected Completion / Risk Factors	Status / % Completion & Implications for Future Years (updated annually)

3.1 Utilize and deploy educational technologies to provide students with effective, efficient learning experiences and support services and support exceptional delivery of instruction in a variety of modalities (e.g., HyFlex) by:
    3.1.1 Developing and maintaining standards for classroom technology that support various learning modalities.
    3.1.2 Supporting teaching excellence and student success by regularly assessing, implementing, and promoting the use of emerging technologies into all facilities to increase and support collaborations.
    3.1.3 Providing access to electronic communications systems and reliable broadband wireless connectivity throughout all campus locations and facilities, including outdoor learning spaces.
    3.1.4 Improving the effectiveness of the Canvas Learning Management System (LMS) by evaluating, integrating, and supporting instructional technologies within Canvas.
	Technology Advisory Committee (TAC)
	Online Education
	Purchasing & Material Mgmt.
	Student Accessibility Services (SAS)
	MiraCosta Online Educators Committee (MOE)
	Campus Advisory Committee (CAC)
		Facilities Master Plan
		Online Education Plan				

3.2 Expand technology professional learning opportunities for the college community by:	Professional Development Program (PDP)	Online Education Plan				

3.2.1 Supporting and enhancing innovative professional learning technologies for the college community fostering active, collaborative, learning techniques and spaces. 3.2.2 Developing and implementing a knowledge base for accessible solutions and information on how to effectively use available teaching and learning tools. 3.2.3 Adopting and teaching universal design principles and training the college community on the development of flexible learning environments and spaces that can accommodate learning differences. 3.2.4 Providing faculty, staff, and students with training and support services on all adopted technologies. 3.2.5 Developing a knowledge base for free tools used in instruction that are compliant with technology review standards.	C3 Teaching & Learning Center Human Resources (HR) Online Education				
3.3 Support new and existing learning environments by: 3.3.1 Establishing an Interactive Media Laboratory (e.g.AR, VR, Video games, and more). 3.3.2 Improving internet access for faculty and students.	C3 Teaching & Learning Center Makers Lab Letters Technology Advisory Committee (TAC) Information Technology Services (ITS)				
3.4 Support content creation and storage by: 3.4.1 Providing all students with ability to create an online presence, where they share their work (portfolio), resume, and other things that would better prepare them for the workforce.	Technology Advisory Committee (TAC)	Online Education Plan			

3.4.2 Hosting faculty created content, such as Open Education Resource materials. 3.4.3 Providing technology that facilitates making high end videos for instruction.					
3.5 Provide an excellent user experience by: 　3.5.1 Building a user experience/instructional design lab that provides for student feedback. 　3.5.2 Providing clear information in the class schedule regarding delivery modality options and permutations. 　3.5.3 Examining which productivity suite (or suites) the college supports, and how the support is provided. 　3.5.4 Improving learning outcomes and planning software.	Technology Advisory Committee (TAC) Online Education	Enrollment Management Plan			
3.6 Develop and streamline the reporting process for core competency assessments so that data can be easily input and disaggregated.	Outcomes Assessment Committee (OAC)	Educational Master Plan			

Strategy/Initiatives	Department/Program/ Committee/Group	Other plan(s) containing equitable Strategy/Initiatives	Needed Resources		Expected Completion / Risk Factors	Status / % Completion & Implications for Future Years (updated annually)
GOAL 4: MiraCosta College will demonstrate responsible stewardship and sustainability of college and community resources by deploying strategies that invest in our employees to reach their full potential; maintain a sustainable and transparent financial model; and reduce the environmental impact of our physical resources.						
FUTURES SIGNALS: Remote Work / Technology Ownership / Hybrid Building and Dynamic Spaces / Cybersecurity						

4.1 Deploy streamlined, easily accessible technologies (e.g., SURF portal, single-sign-on) to fully support all students from entry to completion of their academic goals by:
    4.1.1 Developing a holistic approach to integrate and simplify student access to resources that are institutionally scalable.
    4.1.2 Developing and implementing strategies and tools to enhance, automate, and streamline bi-directional communications with students, while providing students with personalized, just in time, assistance.
    4.1.3 Creating and deploying strategies and tools to enhance, automate, and streamline enrollment management in a manner that facilitates student enrollment, registration, transfer, and completion of educational goals in a timely manner.
	Instructional Services Student Services CRM Task Force Information Technology Services (ITS)	Enrollment Management Plan				

4.2 Provide students with adequate and readily accessible technology support delivered in a variety of formats to meet students' diverse needs by: 4.2.1 Developing and enhancing technical support services for students that address common issues with the learning management system, productivity tools,	Technology Advisory Committee (TAC) Instructional Services MiraCosta Online Educators (MOE) Business Systems Analysts (BSA) Library	Online Education Plan Student Hub				

instructional software and tools, email, and administrative applications. 4.2.2 Enhancing processes and analytical approaches to determine common technical support concerns and enhance support resources accordingly. 4.2.3 Ensuring appropriate computing resources are available to students to meet them where they are.	Information Technology Services (ITS)					

4.3 Adopt a systematic approach to assessing information technology initiatives and implementation resources, services, support, training, policies, and procedures, including replacement cycles by:
    4.3.1 Reviewing and updating and regularly the infrastructure roadmap that embraces a cloud native, cloud first strategy, provides robust access to Wi-Fi and cellular services in administrative, instructional, and public areas, articulates refresh cycle for core infrastructure assets including computers, and outlines standard on equipment, cabling, and installation.
    4.3.2 Onboarding and providing ongoing training resources to all employees for all college technologies.
	Budget & Planning Committee (BPC)
	Information Technology Services (ITS)					

4.4 Develop, document, and widely distribute a review and approval process for technology requests that results in purposeful allocation of resources making equitable and strategic investment in technology and facilities including: 4.4.1 Incorporating the total cost and total life cycle of the hardware/software, including funding from restricted funding sources (grants) and unrestricted general funds. 4.4.2 Enhancing and improving annual program review processes to strengthen Total Cost of Ownership (TCO) calculations for all new technology initiatives. 4.4.3 Developing procurement protocols for the review (functionality, accessibility, cyber-security, contract terms and conditions, pricing/payment), purchase, and maintenance of instructional technology. 4.4.4 Developing District policy and procedures for grant proposals which include technology that include funding for support contracts, replacement at end of life and staffing for installation, training, and support. 4.4.5 Developing a process to evaluate and sunset redundant and antiquated technologies. 4.4.6 Developing and maintaining a user-friendly inventory of tools MiraCosta College has acquired and/or evaluated, including their function, access, user base, and support resources.	Budget & Planning Committee (BPC) Institutional Planning & Review Committee (IPRC) Purchasing & Material Mgmt. Technology Advisory Committee (TAC) Information Technology Services (ITS)				

4.5 Implement a technology tracking system to ensure a single source to manage all software and hardware inventory for asset management, security, and control.	Information Technology Services (ITS)				
4.6 Build capacity and flexibility to uphold Futures thinking.	Futures Thinking and Planning Information Technology Services (ITS)	Educational Master Plan			
4.7 Provide the necessary tools to implement the Security Plan, Business Continuity Plan and the Facilities Security Plan and regularly review the plans and test systems to make sure the college is prepared to respond to potential disruptions.	Technology Advisory Committee (TAC) Information Technology Services (ITS)	Security Plan Facilities Security Plan			
4.8 Develop or enhance systems, practices, policies, and procedures to protect data, including cyber-security, identity and access, privacy, and risk management by: 4.8.1 Developing and delivering regular updates to our community of technology users' actionable information on security, security, data privacy policies, procedures, best practices, and training opportunities. 4.8.2 Using industry best practice security controls to protect the student and staff information assets. 4.8.3 Establishing and implementing protocols for regular security risk assessment, contingency plans, and data recovery plans.	Technology Advisory Committee (TAC) Information Technology Services (ITS)	Security Plan			
4.9 Provide technology and support to ensure the college can meet the Board of Governors sustainability requirements for technology.	Facilities Sustainability Committee	Facility Standards Facilities Master Plan			

	Information Technology Services (ITS)	2021-2022 Final Budget			

APPENDIX A: INSTITUTIONAL VALUES

The values of an institution are statements of what an organization stands for and what can be expected from it. The values listed below were developed by the long-term planning workgroup with feedback from college employees and students.

Equity:
We are committed to centering equity in all that we do to ensure that every student and employee receives what they need to be successful. We acknowledge that systemic barriers and racial inequities exist that negatively affect historically marginalized and disproportionately impacted populations and that everyone is responsible for intentional efforts to remove obstacles to employment, learning, participation, and institutional success.

Institutional Accountability & Responsibility:
As a Hispanic Serving Institution (HSI), veteran and military supportive institution, and Achieving the Dream Leader College, we take the responsibility for closing the equity gaps through empowering marginalized voices, nurturing our many identities and social circumstances, fostering cultural responsiveness, and standing against all manifestations of discrimination. We acknowledge that through supporting a culturally sustaining community of practice among academic and educational professionals, we enhance our ability to serve all students.

Diversity and Inclusion:
We are committed to providing a strong, supportive, authentic and accessible environment where difference is valued, respected, encouraged, and honored, and where all employee and student identities and cultural experiences are recognized and valued with opportunities for engagement both across the campus and within the diverse communities the college serves.

Integrity:
We honorably pursue our professional and institutional endeavors with a united commitment to honesty, responsibility, self-awareness, vision, and accountability.

Excellence:
We strive for the highest quality in all our instruction, programs, and services. We engage in continual improvement and innovation to realize the highest potential of students, employees, and the College.

Mutual Respect:
We nurture a culture of mutual respect through open and civil communication, knowledge sharing, and active listening through empathy, diversity, and truth.

Student-Centeredness:
The success of students inside and outside the classroom is the utmost priority by providing student-centered policies, instruction, support, events, and resources with opportunities for growth from student feedback. Learning is designed with students at the center and is personalized to students' unique needs, interests, identities, and aspirations—and designed with their ideas and voices at the table.

Innovation:
We are committed to pursuing new ideas and courageously experiment, explore, and take risks in developing new ways of teaching and serving students and our community.

Community:
We are committed to building a MiraCosta College community that affirms racial and cultural identities of all its members and empowers them to grow, create connections, and transform their lives. We partner with our diverse communities to engage students and their families in collaborative learning and cultural validation for community uplift and success. We are dedicated to preparing students to be positive contributors to the communities we serve and the global community at large.

Sustainability and Stewardship:
We are committed to the maintenance, conservation, preservation, enhancement, and effective utilization of the fiscal, environmental, human, and physical resources entrusted to us. We pursue innovations that enhance the quality of our communities, improve the environment, and strengthen sustainability in the management of our resources.

APPENDIX B: FUTURE FOCUS AND ADAPTIVE PLANNING, TECHNOLOGY FUTURES RADAR, AND OUTCOME OF THE FUTURES TASK FORCE

The Technology Advisory Committee and the ITS department will participate in the future-focused organization and adaptive planning activities with an eye towards supporting and providing technology and innovation to assist the process and sustain the future-focus and adaptive planning processes at the College.

A future-focused organization is not one that tries to predict the future. Instead, it is one that can imagine several possible Futures and think about how it can make them more likely. It is important to nurture Futures thinking skills within the organization that include the ability to:

- identify and collect **signals** (a local innovation or disruption that has the potential to grow in scale and geographic distribution; evidence of the future that we can find in today's world).

- identify **drivers** (broad, long-term trends that are likely to have a significant impact on the future).

- combine those signals and drivers into possible future scenarios.

- review the Futures Technology information to revise the plan.

MiraCosta College is working to develop as a future-focused institution with a series of facilitator and participant trainings to build Futures skills. Information from these trainings could be applied directly to MiraCosta College's Technology Plan.

In conjunction with a future focus, it is important for an institution to be agile, allowing it to be adaptive, flexible, and resilient when dealing with complexity, uncertainty, and change. Such organizations display several characteristics that include, but are not limited to:

- A clear and compelling purpose that focuses on results.

- Commitment to trust and transparency.

- Ability to provide stability while remaining flexible to adapt and change.

- Enabling rather than directive leadership.

- Collaborative communities and flow of ideas from anywhere in the organization.

It is MiraCosta College's intention to develop planning strategies that allow it to be adaptive to changing conditions and to modify its strategic approach, when necessary, to meet institutional goals. With that in mind, the following strategies for adaptive planning have been identified and should be practiced by the Technology Advisory Committee:

• Regularly collect and review information/data/signals on the College, the community it serves, and the higher education landscape to inform decisions about direction and priorities.

• Ensure that students remain the first priority in all decision making.

• Maintain a finger on the pulse of technology changes and invest appropriately.

• Remain agile in responding to changing student needs and evolving higher education trends related to the delivery of instruction, services, skill building, and credentialing.

• Regularly review programs and activities to ensure that they align with the institutional mission, values and goals and are achieving the intended outcomes, adjusting where necessary.

• Build capacity across the college to remain future focused.

The Technology Futures Taskforce in conjunction with the campus-wide Futures Workgroup identified the top five signals (RADAR with all Futures Signals is listed on the following page)):

1. Hybrid Buildings and Dynamic Spaces
2. Remote Work and Education
3. Metaverse
4. Cybersecurity
5. Technology / Data / Systems Ownership

The taskforce also reviewed equity impacts that these signals could potentially bring about. These are:
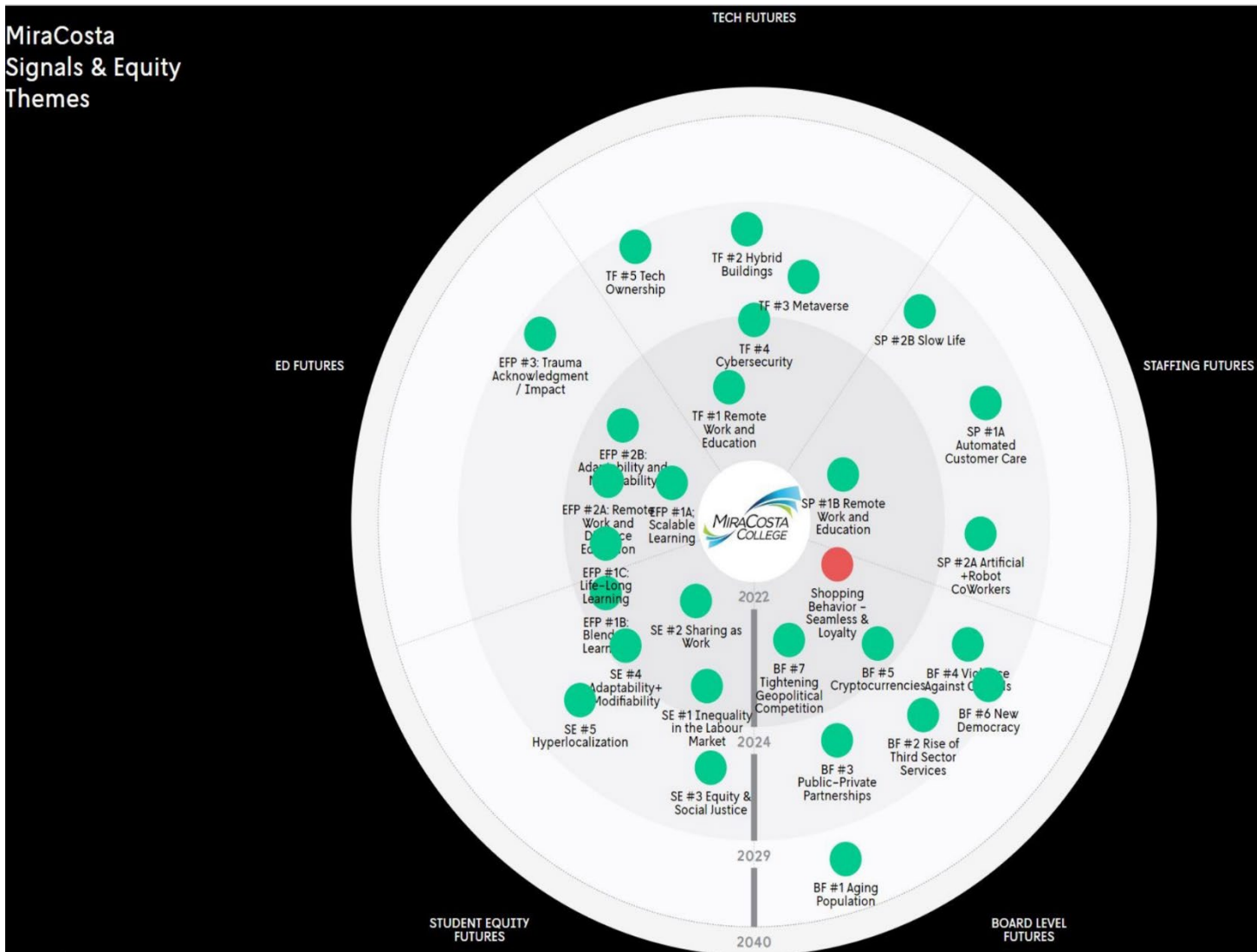
- Technology could improve access, reduce costs, remove/minimize time and distance gaps

- Technology could reduce language and physical barriers, reduce biases based on physical appearances

- Technology could also increase digital divide, loss of in-person/personal interaction except for those who can afford to pay for it, hyper-localization

- Technology could provide inequitable personal data protection due to costs

The Technology Advisory Committee and the ITS department will fully participate in and continue to maintain a future focus. In addition, they will continue adaptive planning by reviewing and updating the Technology Plan at least annually and more often as needed.

Below is the Technology Futures Radar and Outcome of the Futures Task Force:

MiraCosta
Signals & Equity
Themes

TECH FUTURES

ED FUTURES

STAFFING FUTURES

STUDENT EQUITY
FUTURES

BOARD LEVEL
FUTURES

TF #5 Tech Ownership
TF #2 Hybrid Buildings
TF #3 Metaverse
SP #2B Slow Life
TF #4 Cybersecurity
EFP #3: Trauma Acknowledgment / Impact
TF #1 Remote Work and Education
SP #1A Automated Customer Care
EFP #2B: Adaptability and Modifiability
EFP #2A: Remote Work and Distance Education
EFP #1A: Scalable Learning
SP #1B Remote Work and Education
SP #2A Artificial +Robot CoWorkers
EFP #1C: Life-Long Learning
Shopping Behavior – Seamless & Loyalty
2022
EFP #1B: Blended Learning
SE #2 Sharing as Work
SE #4 Adaptability+ Modifiability
BF #7 Tightening Geopolitical Competition
BF #5 Cryptocurrencies
BF #4 Violence Against Others
SE #1 Inequality in the Labour Market
BF #6 New Democracy
SE #5 Hyperlocalization
2024
BF #2 Rise of Third Sector Services
BF #3 Public–Private Partnerships
SE #3 Equity & Social Justice
2029
BF #1 Aging Population
2040

MiraCosta COLLEGE

30

APPENDIX C: DATA SUMMARY, RELEVANT TRENDS, AND THE TECHNOLOGY PLAN SURVEY

Data Summary

For the preparation of this plan, data were analyzed in categories related to the service community, the college, its students, and its employees. Such analysis includes the disaggregation of data by race and ethnicity, age, gender, disability, and socioeconomic status, among others, and identification of populations who are disproportionately impacted with respect to a particular metric. Below are some highlights of that data review that may impact, or be impacted by, the instructional programming of MiraCosta College.

Community (Service Area)
- MiraCosta's service area is getting older.
- MiraCosta's service area is becoming more diverse.
- Geographically, there are age, race/ethnicity and educational attainment variations within the service area.

Student Demographics

The demographic information below includes data up to and through Fall 2019. Therefore, the data do not include the declines that were observed during the semesters affected by COVID-19. The long-term impact of the pandemic will remain to be seen as the college returns to on-site classes and makes other instructional adjustments.

- Credit enrollment peaked in 2015-16 and has declined in recent years.
- Non-credit enrollment has fluctuated slightly. Overall noncredit enrollment has seen minor fluctuations and increased slightly between fall 2011 and fall 2019 (from 11,259 to 11,706).
- The gap between the percentage of White and Latinx students has closed over the past seven years.
- The percentage of students by admit type has remained stable over the past seven years (2012 to 2018).
- The enrollment of part-time students decreased, and full-time students increased from fall 2013 to fall 2019.

Student Success
- Overall course retention rates for first-time in college (FTIC) students have remained consistent over time but equity gaps exist.
- Equity gaps exist for FTIC students in course success rates.
- As with course retention and success, fall-to-fall persistence rates remain fairly consistent over time, but equity gaps exist.
- The overall number of awards granted has increased since 2013-14.

- The percentage of students earning degrees and certificates has also increased over time.
- MiraCosta Allied Health students are highly successful in passing their certification exams.
- Transfers have increased slightly amongst first time-in-college (FTIC) student cohorts.
- After the publication of the Educational Master Plan Update the statistics below were presented to the Board of Trustees:
  - There has been a 12% increase in students completing transfer-level English and a 17% increase in student completing transfer-level Math.
  - English students that completed a transfer-level course in one term (fall 2019) = 70% (statewide average = 61%)
  - First-time math students completed a transfer-level course in one term (fall 2019) = 56% (statewide average = 40%).
  - Equity gaps for completion of Math and English are closing for both LatinX and African American students but more work needs to be done particularly with students over 25 years of age.

Employee Demographics
- The number of full-time faculty has increased over the past five years, and they are slightly more diverse.
- The majority of associate faculty are older and female. In the EEO Plan, it is noted that associate faculty appear to be less diverse.
- More than half of classified staff employees are female, white and over the age of forty-four.
- The majority of administrators are over the age of forty-five and identify as female.

Labor Market and Program Alignment
- Healthcare-related occupations are projected to grow faster than other occupations in San Diego County.
- STEM-related occupations have modest projections of growth of 5% in San Diego County.
- A diverse array of College CE programs have employment rates that exceed regional and state rates.
- MiraCosta's top twenty career education programs prepare students for living wage jobs.
- Enrollment and completion demographics for the top twenty career education programs mirror overall college demographics.
- According to the Center of Excellence, there are increased labor market needs in life science and biotech positions, computer science, information technology and cybersecurity.

Enrollment Projections

At a national level, National Clearinghouse data shows that pre-Covid enrollments in two-year public colleges decreased each year between fall 2015 and spring 2019. In *Demographics and the Demand for Higher Education* (2018), Nathan Grawe reported that a dearth of 2008-09 recession-era births is expected to take a toll on two-year college enrollments with expected declines of 4.3% between 2019 and 2021 and 16% between 2025 and 2029.

Locally, enrollment projections based on San Diego Association of Governments (SANDAG) population forecasts and MiraCosta average participation rates show a decrease in student headcount from 2020 to 2025 and flat growth from 2025 to 2030.

Other Relevant Trends in Higher Education

In developing any planning document, it is important to be aware of the trends that can have an impact on higher education in general, and community colleges specifically. Those trends can occur in a variety of topic areas including education, the economy, the environment, political and legal issues, technology and society and demographics. Below are a few such trends that may have an impact on MiraCosta College and its future planning for educational programming.

- Higher education institutions will need to find new funding avenues as budget cuts for public colleges deepen with declining enrollments.
- The costs of higher education will become a more visible barrier with transparent pricing available at other institutions.
- Online learning will constitute a larger part of the higher education pie but will continue to experience growing pains and perpetuate inequities related to such things as device availability and broadband access.
- The need for student crisis support will continue to escalate. Mental health challenges for students have only escalated during the pandemic and include increased consideration of suicide, increased substance abuse and other mental health stressors such as food and housing insecurity and unemployment.
- Diversity, equity, and inclusion initiatives are becoming a priority in organizations. These initiatives will influence recruiting and hiring practices, individual and organizational behaviors, and communication.
- Learners will no longer follow a single fixed path for learning. Educational institutions will need to provide flexible options that are timely and meet the needs of the working learner.
- Greater emphasis will be placed on closing the skills gap. One solution, competency-based education, is anticipated to continue slow and steady growth as technology changes the ways and rates in which people learn.
- Baby boomers aren't retiring, but instead are choosing semi-retirement. This means that job turnover from one generation to the next may be delayed.

- The "Great Quit" during 2020-21 points toward better working conditions and more flexible job schedules in order to retain quality employees.
- There will be increased competition across higher education to meet student expectations, including: availability of, and access to, online courses amongst community colleges and other higher education institutions; universities encroaching in more traditional community college spaces (i.e., offering associate degrees and workforce skill building); transitions of for-profit institutions to non-profit; increases in online education service providers; and new forms of credentials from non-educational entities (e.g., Google and IBM).
- Greater emphasis will be placed on retraining and lifelong learning as the U.S. workforce tries to stay competitive in the global marketplace and respond to technological changes. Students need to be entrepreneurial and resilient, with the ability to reinvent themselves and their careers multiple times in their lives.
- There will be an increased demand for technology and data science skills. Education will be impacted by technology trends such as: access to high-speed networks, predictive analytics, virtual 3-D simulations, game theory, augmented reality, blockchain, artificial intelligence, cloud computing, and continued movement toward online educational resources.
- There will be continued pressure on sustainable practices and reducing environmental impacts.
- Demand for Information Technology workers is increasing in all sectors leading to higher salaries and demand for alternative working which makes it difficult for technology departments to attract quality staff.

Technology Plan Survey Brief Highlights

The Technology Plan survey informed the development of the plan. The survey was conducted in fall of 2020. Below are some brief highlights:
- There has been an increase in online learning offerings, including the pilot of HyFlex courses.
- 11.1% of students surveyed indicated they didn't have access to reliable internet.
- 13% of students who had trouble with internet reliability didn't complete their schoolwork.
- Students are using a combination of devices.
- Responses suggest students, possibly depending on the course they're taking and other factors, would like to see more online classes offered overall.
- Versatility for classroom setting desired.
- 4.5% of employees don't have regular internet access.

Note: To view the entire report double-click below and the PDF will open.

Report for Technology Plan Survey

Response Counts

Completion Rate:	77%	
	Complete	897
	Partial	268

Totals: 1,165
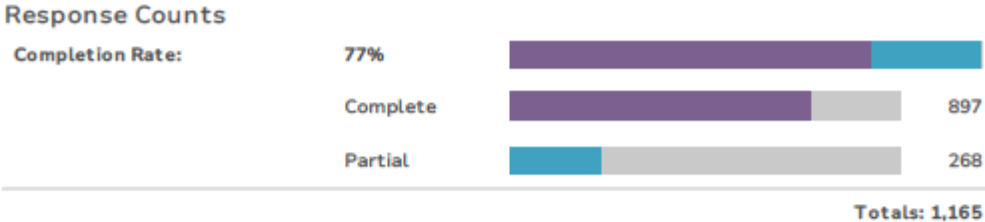
APPENDIX D: APPROVAL TIMELINE AND ADOPTION HISTORY

Technology Plan Development Timeline