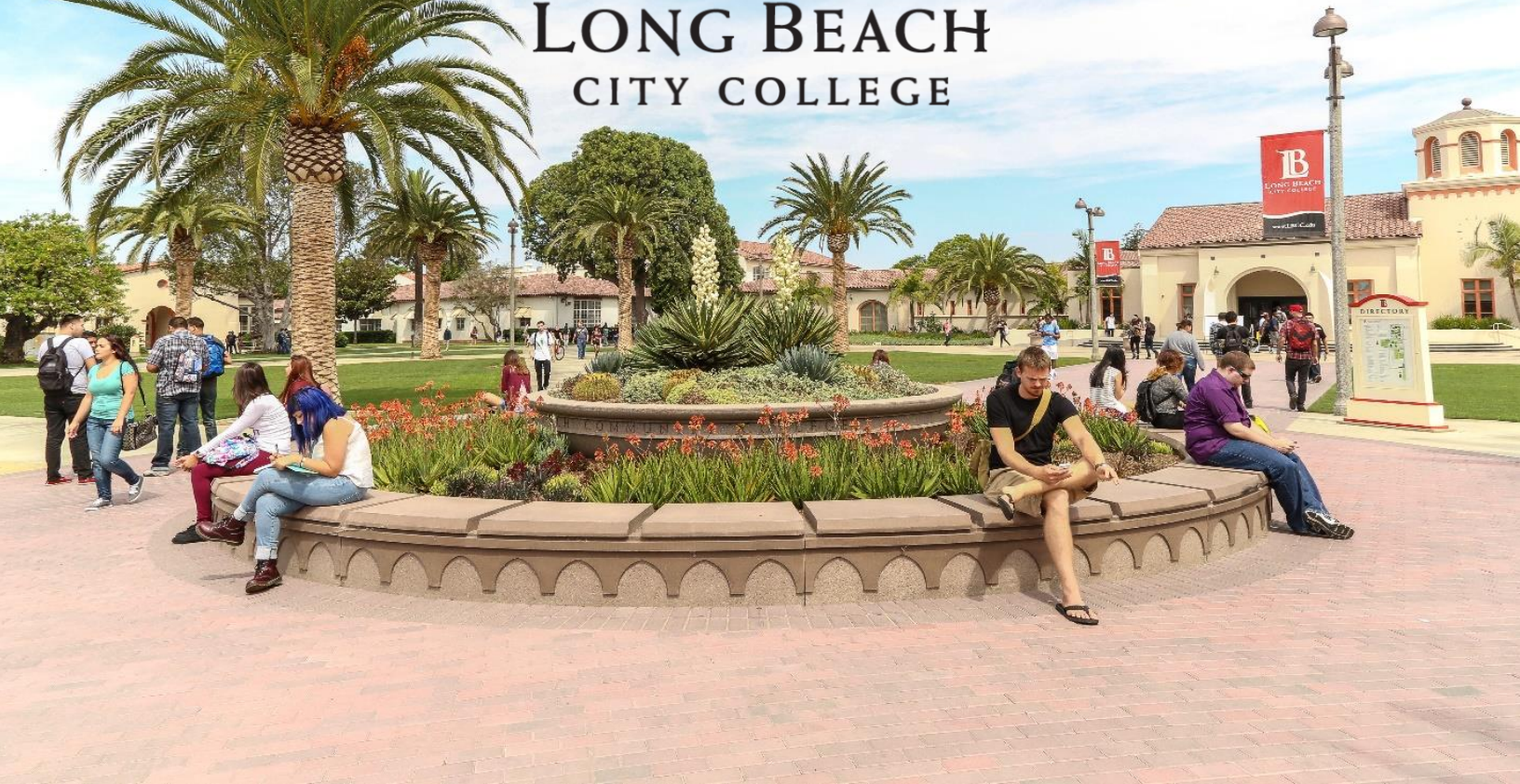




**LONG BEACH
CITY COLLEGE**



2018-2021 Information Technology Plan

Approved by College Planning Committee
November 8, 2018

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INTRODUCTION

Information technology is a key component in how we support our faculty, students, and staff at Long Beach City College. Accordingly, technology has become more pervasive and plays an ever-increasing role in the daily lives of those in our community.

Technology not only supports the demands of the academic environment, the needs of our administration, and the learning and quality of life of our students but also the well-being and safety of our entire community.

Technology connects students with faculty. When information technology initiatives align with the strategic goals of the College, the impact can be transformative – empowering faculty to enhance students’ learning experience, improving business operations to deliver quality services, and inciting improvement through the intelligent use of data.

The 2018-2021 Information Technology Plan was developed by the Information Technology Advisory Committee (ITAC) and staff members of the Instructional and Information Technology Services (IITS) Division. The Information Technology Plan is meant to be a living document, updated on an annual basis to reflect the current direction of the college. Updates to the plan can be found on the Information Technology Plan website at www.lbcc.edu/it-plan.

The plan was designed to demonstrate our commitment to the Long Beach City College [2016-2022 Strategic Plan for Transformational Improvement](#).

The plan was also designed to meet the Accrediting Commission for Community and Junior Colleges (ACCJC) standard IIC which was designed to ensure the college is “Technology services, professional support, facilities, hardware, and software are appropriate and adequate to support the institution’s management and operational functions, academic programs, teaching, and learning, and support services.”

Finally, the plan was designed to support the Security and Accessibility standards as recommended by the California Community College Chancellor’s Office.

COMMITTEE MEMBERS

Committee Chairs

Sylvia Lynch, Chief Information Systems Officer, Instructional and Information Technology Services

Berlyn Cobian, Professor, English

Faculty Representatives

Jorge Ochoa, Professor, Horticulture

Ryan Carroll, Professor, Physical Science

Nenita Buenaventura, Professor, Library

Jeffery Sabol, Professor, Library

Curtis Williams, Part-time Instructor, Physical Science

Administrative Representatives

Dr. Jennifer Rodden, Interim Associate Dean, Library and Learning Resources

Classified Senate Representative

Harold Foot, Instructional Lab Coordinator, English as a Second Language

Classified AFT Representative

Kelly Garcia, Senior Administrative Assistant, Instructional and Information Technology Services

Instructional and Information Technology Services Representatives

Scott Voelker, Deputy Director, Information Security

Dr. Hussam Kashou, Associate Dean, Online Learning and Educational Technology

Mark Guidas, Deputy Director, Network Services

Robert Carman, Director, Application Development and Support

GUIDING PRINCIPLES

Usability & Mobility

Students in the 21st century are driving the need for changes in pedagogy and in technologies within our higher education environments. Students, connected through social media and mobile applications, expect to be connected to faculty, staff, and the college. They want the right information presented to them in familiar formats on demand. Technology on campus will become more useful if it is developed according to today's trends.

Privacy & Safety

As the college continues to store and retain strategic and personal data, so does the need to be vigilant about protecting that data. A security program allows the college to mitigate information risk related to people, processes, and technologies as well as the confidentiality, integrity, and availability of college information. Privacy and safety of our systems and data are at the core of all technology decisions.

Reliability & Sustainability

Requests for technology to advance the college's strategic plan continues to expand. In addition, the need to fund the maintenance of existing equipment and software, and support these technologies which continue to increase. Having a solid governance structure for consultation and planning to implement, monitor, and update technology will continue to bring reliability and sustainability.

Transparency & Simplicity

With a "students first" philosophy, having simple, intuitive, and transparent systems in place will help LBCC meet its strategic objectives towards student success. Where ever the student's learning journey takes them, our goal is to show them the path to achieve their dream.

INITIATIVES

- A. **Emerging Technologies:** A PURPOSEFUL approach towards academic technology
- B. **Accessible Information:** Keeping us FOCUSED on student success
- C. **Service Integration:** A NURTURING system of support
- D. **Data Security:** Being RESPECTFUL of our information
- E. **Reliable Infrastructure:** Keeping us CONNECTED

A. EMERGING TECHNOLOGIES

A PURPOSEFUL approach towards academic technology

Strategic Plan Objectives

- 4.15 Integrate technology that is designed for students to facilitate the achievement of their educational and career goals.
- 4.16 Expand the use of the Learning Management System to support learning in all courses.
- 4.18 Continue to implement educational technologies that support student-paced learning and feedback.
- 4.19 Adopt and support faculty and students' use of Open Education Resources.

Accreditation Standards

- 3C.1 Technology services, professional support, facilities, hardware, and software are appropriate and adequate to support the institution's management and operational functions, academic programs, teaching, and learning, and support services.
- 3C.2 The institution continuously plans for, updates and replaces technology to ensure its technological infrastructure, quality and capacity are adequate to support its mission, operations, programs, and services.
- 3C.5 The institution has policies and procedures that guide the appropriate use of technology in the teaching and learning processes.

Strategies

- I. *Implementation & support for LBCC's Learning Management System (LMS):*
 - a. Adopt and support Canvas as the exclusive LMS.
 - b. Evaluate, test, and integrate instructional resources and technologies within the LMS (such as Apps, plugins, publishers, Aleks, Cengage, Turnitin, Cranium Café, Starfish/Early Alert & more). [EM, INT]
 - c. Support Student Learning Outcomes (SLOs) and disaggregated data collection integration with LMS. [INT]
- II. *Open Educational Resources (OER):*
 - a. Support student success through the development and promotion of OER, ZTC, LTC. [EM]
 - b. Develop low-cost educational opportunities such as Zero Textbook Cost degrees (Z-degrees). [EM]
 - c. Work with Academic Services to flag Zero Textbook Cost sections in the class schedule.

- III. *Adopt a more systematic and rigorous approach to examine, implement, promote, scale, standardize, and support college-wide emerging technology initiatives and participation in statewide technology initiatives:*
- a. Support teaching excellence and student success through the use of Adaptive Technologies, Innovative Classrooms, Cloud Tools, & more [INT Plan]
 - b. In alignment with CCC Chancellor’s Office System wide Technology Initiatives, continue to implement:
 - i. CCC Online Education Initiatives (OEI). [EM]
 - ii. CCC Education Planning Initiative (EPI). [INT]
 - iii. CCC Library Services Project (LSP), Integrated Library System (ILS).
 - c. Develop policies, regulations, standards, and processes for evaluating, prioritizing, implementing and centralizing educational technology initiatives & resources.
 - d. Provide focused faculty, staff, and student support services for emerging technologies.
- IV. *Adopt a more systematic and rigorous approach to examine, implement, promote, scale, and support Online Education and participation in statewide initiatives:*
- a. Support the development of online pathways in alignment with statewide Guided Pathways efforts. [EM]
 - b. Support the increase of online and hybrid course and program offerings. [EM] [INT]
 - c. Utilize strategies and techniques from the Online Educational Initiative (OEI) for increasing success for online students, with the goal of eliminating student equity gaps. [EM]
 - d. Develop polices, regulations, standards, and processes for evaluating, prioritizing, implementing, and supporting faculty and student online learning needs.
 - e. Support and enhance awareness/training on various modes of instruction (face-to-face, blended, flipped classrooms, hybrid, fully-online). [INT]
- V. *Continue to provide professional development opportunities that support expertise in educational technologies and program innovation.* [EM]

[EM] 2017-2020 Strategic Enrollment Management Plan

<https://www.lbcc.edu/sites/main/files/file-attachments/strategic-mgmt-plan.pdf>

[INT] 2017-2019 LBCC Integrated Plan

<https://www.lbcc.edu/sites/main/files/file-attachments/lbcc-integrated-plan-2017-19.pdf>

B. ACCESSIBLE INFORMATION

Keeping us FOCUSED on Student Success

Strategic Plan Objectives

- 1.9 Use technology to ensure that all students guided into a pathway receive automated notifications that are timely and personalized based on progress toward their educational and career goals.
- 4.10 Design and develop student service and support department communication tools and resources that more effectively direct, focus, and motivate students while making students feel both nurtured and empowered.
- 4.12 Redesign the college website utilizing user-centered design and establish processes for maintaining content currency and ease of navigation. Expand the use of the Learning Management System to support learning in all courses.
- 4.14 Continue to invest in a comprehensive business process review and implement technology and process improvements that are informed by efficiency benchmarks and by user-centered design.
- 4.17 Expand the student portal to provide students with access to integrated and dynamic information about college and community resources and supports, help them keep track of their progress against key milestones, and provide them with timely and personalized messages to keep them on track through the completion of their goals.

Accreditation Standards

- 3C.1 Technology services, professional support, facilities, hardware, and software are appropriate and adequate to support the institution's management and operational functions, academic programs, teaching, and learning, and support services.
- 3C.2 The institution continuously plans for, updates and replaces technology to ensure its technological infrastructure, quality and capacity are adequate to support its mission, operations, programs, and services.

Strategies

- I. *Continue to work with student serving and administrative departments to streamline processes and reduce student lines, and automate manual processes to reduce staff time and errors.*
 - a. Implement the Nelnet payment system.
 - b. Integrate student payments within HighPoint portal.
 - c. Secure approval and implement payment plans for student enrollment fees
 - d. Implement electronic bills.
 - e. Re-engineer the drop-for-non-payment process including clear consistent communication.

- f. Review registration processes required to move up registration dates to October for spring registration and April for fall registration. [EM]
 - g. Streamline the graduation application process. [EM]
- II. Support the college's efforts as we move toward implementing a Guided Pathway Framework.*
- a. Review the Degree Audit system and make improvements as identified. [EM] [INT]
 - b. Reverse engineer degree audit and inform students when they successfully complete certificates or degrees. [EM] [INT]
 - c. Assist student service departments with communication to “nudge” students to stay on their path. [EM] [INT]
 - d. Provide transcript evaluation for incoming students who have prior college credit.
 - e. Update website and related web applications to allow students to intuitively explore career pathways, integrated with our roadmaps and meta-majors
 - f. Support the Curriculum Committee and Academic Services as they select and implement Catalog and Program management software.
- III. Review and determine projects necessary to increase Adult Education.*
- a. Reengineer our PeopleSoft student system to allow for alternate degree types.
 - b. Develop reporting system to satisfy compliance requirements.
- IV. In order to maintain security and optimal levels of service to students, update PeopleSoft Campus solutions and stay up-to-date with tools and apply bundle updates.*
- a. Upgrade PeopleSoft to the 9.2 platform.
 - b. Maintain regular bundle update schedule.

[EM] 2017-2020 Strategic Enrollment Management Plan

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[INT] 2017-2019 LBCC Integrated Plan

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C. SERVICE INTEGRATION

A NURTURING system of support

Strategic Plan Objectives

- 4.16 Expand the use of the Learning Management System to support learning in all courses.
- 4.7.1 Support faculty and staff to: Effectively utilize educational technologies to enhance students' learning experiences and to make the delivery of instruction and classroom management more effective and efficient.

Accreditation Standards

- 3C.4 The institution provides appropriate instruction and support for faculty, staff, students, and administrators, in the effective use of technology and technology systems related to its programs, services, and institutional operations.

Strategies

- I. *Provide faculty, staff and student support services on emerging technologies and online education initiatives to enhance teaching & learning.*
 - a. Student readiness: Provide remediation and support as needed for students new to online classes and technology use.
 - b. Support departments in providing the same access to online students as on-campus students and equitable technology access. [INT]
- II. *Expand professional development opportunities and develop technology training programs & resources for faculty, staff, and students:*
 - a. for Online Education. [EM]
 - b. for Open Educational Resources. (OER) [EM]
 - c. on the utilization of Canvas as a tool for web enhancement of face-to-face and online courses to engage students, as well as provide regular and effective student contact. [EM] [INT]
 - d. for IITS technology services & resources including ConferZoom, Office 365, Skype for Business (S4B), Classroom Technologies, PeopleSoft, & more). [INT]
- III. *Develop or procure Information Security Awareness training tutorials.*
- IV. *Develop policies, regulations, standards, and processes for evaluating, prioritizing, implementing and centralizing IITS Help Desk services to assure consistency and excellence of provided services.*
- V. *Student Help Desk Program: (STHD)*

- a. Develop policies, regulations, standards, and processes for evaluating, prioritizing, implementing and centralizing Student Technology Help Desk services to assure consistency and excellence of service provided.
 - b. Provide equitable support to all students and student-centered support for emerging access to LBCC technology.
 - c. Expand STHD program to provide support services to student's enrolled in online courses.
 - d. Utilize strategies and techniques for increasing student success, with the goal of eliminating student equity gaps. [INT]
- VI. *Develop & maintain an Online Resource Center/Portal of technology resources for faculty, staff, & students.* [INT]
- VII. *Implement disaggregated data collection of support services provided to students, staff, and faculty for data-driven services and enhancements.* [INT]

[EM] 2017-2020 Strategic Enrollment Management Plan

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[INT] 2017-2019 LBCC Integrated Plan

<https://www.lbcc.edu/sites/main/files/file-attachments/lbcc-integrated-plan-2017-19.pdf>

D. DATA SECURITY

Being RESPECTFUL of our information

“Information security refers to the protection of information, information systems, equipment, software, and people from a wide spectrum of threats and risks. Implementing appropriate security measures and controls to provide for the confidentiality, integrity, and availability of information, regardless of its form (electronic, optical, oral, print, or other media), is critical to ensure business continuity, and protect information assets against unauthorized access, use, disclosure, disruption, modification, or destruction.”
–California Department General Services

Strategies

- I. *Develop and document systems and practices to protect our data including Governance, Risk Management, Cyber Security, Identity and Access.*
- II. *Implement standards as adopted and developed by the CCC Security Center.*
 - a. Information security policies, regulations, and business processes will be adopted, derived and aligned with the currently adopted CCC’s Information Security Standard.
- III. *Utilize the tools and services offered by the CCC Security Center, including:*
 - a. Splunk - correlates real-time data for threat analysis.
 - b. Tenable Security Center - provides real-time vulnerability scanning.
 - c. Spirion - provides data loss prevention (scans for SSN, credit card numbers, etc.).
 - d. Vulnerability Assessments.
 - e. Security Awareness Training.
 - f. Phishing Assessments.
- IV. *Request funds, purchase and/or implement various industry recognized tools and services designed to support the policies and standards adopted above:*
 - a. Microsoft SCCM – expands the use of applicable security-related features.
 - b. Microsoft Outlook – currently provides data loss prevention for email.
 - c. Jamf – automates patches, upgrades, audits security events, etc. for Apple computers.
 - d. PortalGuard – allows 2-factor authentication, single sign-on, and self-service password resets.
 - e. Research and implement a next generation antivirus solution
 - f. Research the value of a network monitoring service to detect high level attacks
 - g. Research the value of endpoint snapshot tools for instant recovery
 - h. GreyHeller Application Firewall – provides various security layers for PeopleSoft data

E. RELIABLE INFRASTRUCTURE

Keeping us CONNECTED

Strategic Plan Objectives

- 4.23 Support the LBCCD 2041 Facilities Master Plan while designing for energy conservation, environmental sustainability, and a modern and flexible learning and work environment.

Accreditation Standards

- 3C.1 Technology services, professional support, facilities, hardware, and software are appropriate and adequate to support the institution's management and operational functions, academic programs, teaching, and learning, and support services.
- 3C.2 The institution continuously plans for, updates and replaces technology to ensure its technological infrastructure, quality and capacity are adequate to support its mission, operations, programs, and services.
- 3C.3 The institution assures that technology resources at all locations where it offers courses, programs, and services are implemented and maintained to assure reliable access, safety, and security.

Strategies

- I. *In accordance with the 2041 Facilities Master Plan, replace technology according to the determined replacement cycle. The replacement cycle includes the following equipment:*
 - a. Media equipment in classrooms, labs, and meeting rooms.
 - b. Computers in classrooms and teaching stations.
 - c. Computers for permanent positions and computers designated for part-time faculty.
 - d. Data Center equipment including servers, storage, UPS, backup system, communication systems, and the network.
- II. *In order to provide location services for E911, migrate telephony infrastructure and implement Emergency Notification system via phones.*
- III. *In order to maintain security and optimal levels of service to students and staff, upgrade central communication services on a routine schedule.*
- IV. *Build in support mechanisms as academic departments incorporate adaptive software into the curriculum.*
- V. *When procuring new technology, consider cloud technology where appropriate.*