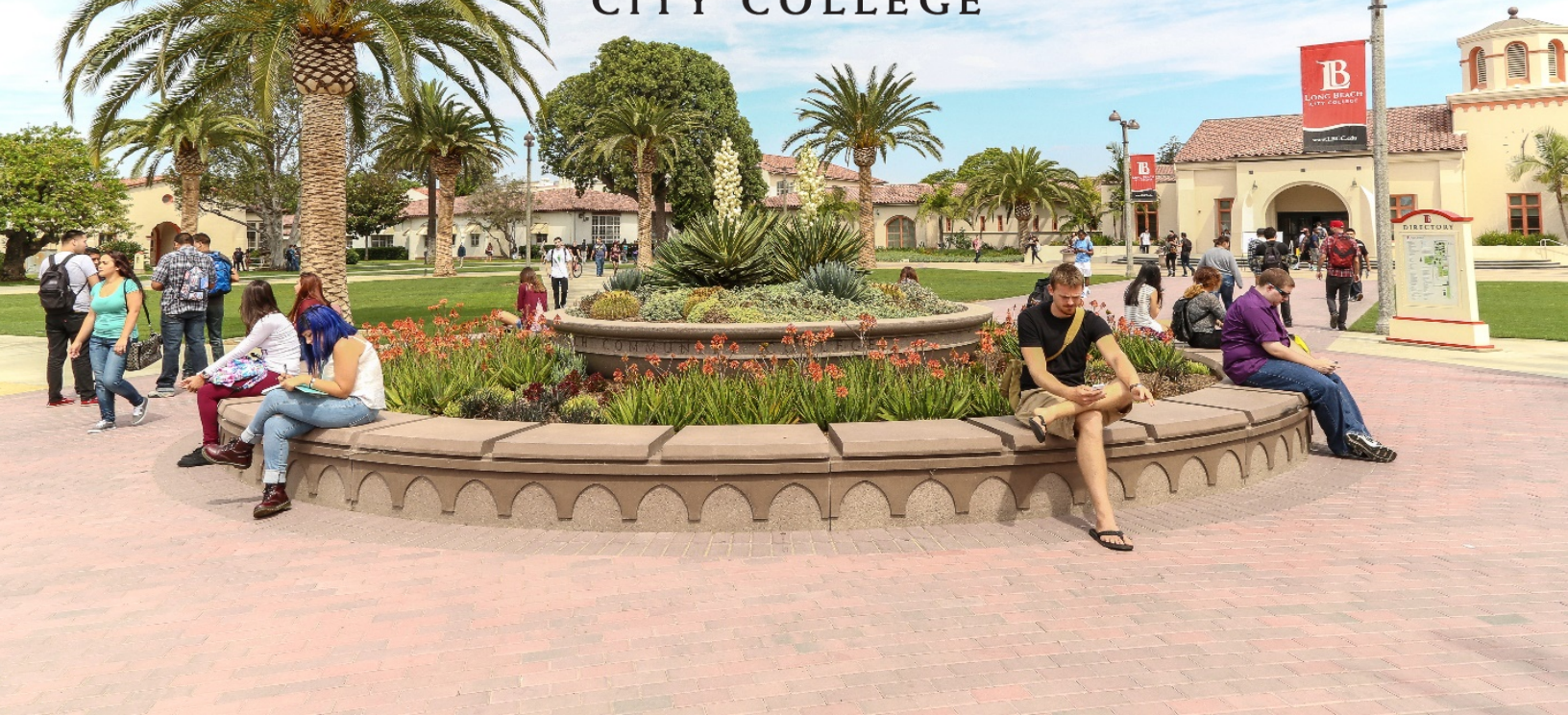




**LONG BEACH  
CITY COLLEGE**



# **2018-2021 Information Technology Plan**

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- 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

(Plan)

## INTRODUCTION

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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 Technology Plan was developed by the Information Technology Advisory Committee (ITAC) and staff members of the Instructional and Information Technology Services (IITS) Division.

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 IIIC 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

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### *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 Representatives*

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

### *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**, Interim Director, Application Development and Support

## **GUIDING PRINCIPLES**

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### ***Usability & Mobility***

Students in the 21<sup>st</sup> 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

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- 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**

- *Implementation & support for LBCC's Learning Management System (LMS):*
  - Adopt Canvas as the exclusive LMS
  - 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]
  - Support Student Learning Outcomes (SLOs) and data collection integration with LMS [INT]
  - Support Guided Pathways integration within the LMS [INT]
- *Open Educational Resources (OER):*
  - Support student success through the development and promotion of OER, ZTC, LTC. [EM]
  - Develop low-cost educational opportunities such as Zero Textbook Cost degrees (Z-degrees) [EM]
- *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:*

- Support teaching excellence and student success through the use of Adaptive Technologies, Innovative Classrooms, Cloud Tools, & more [INT Plan]
  - In alignment with CCC Chancellor's Office Systemwide Technology Initiatives:
    - CCC Online Education Initiatives (OEI) [EM]
    - CCC Education Planning Initiative (EPI) [INT]
    - CCC Common Assessment Initiative (CAI)
    - CCC Library Services Project (LSP), Integrated Library System (ILS)
  - Develop policies, regulations, standards, and processes for evaluating, prioritizing, implementing and centralizing educational technology initiatives & resources.
  - Provide focused faculty, staff, and student support services for emerging technologies.
- *Adopt a more systematic and rigorous approach to examine, implement, promote, scale, and support Online Education and participation in statewide initiatives:*
- Support the development of online pathways in alignment with statewide Guided Pathways efforts [EM]
  - Support the increase of online and hybrid course and program offerings [EM] [INT]
  - 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]
  - Develop policies, regulations, standards, and processes for evaluating, prioritizing, implementing, and supporting faculty and student online learning needs.
  - Support and enhance awareness/training on various modes of instruction (face-to-face, blended, flipped classrooms, hybrid, fully-online). [INT]
- *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***

- *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*
  - Implement the Nelnet payment system.
  - Integrate student payments within HighPoint portal.
  - Secure approval and implement payment plans for student enrollment fees
  - Implement electronic bills.
  - Re-engineer the drop-for-non-payment process including clear consistent communication.

- Review registration processes required to move up registration dates to October for spring registration and April for fall registration. [EM]
- Streamline the graduation application process. [EM]
- *Support the college's efforts as we move towards a Guided Pathway strategy*
  - Reviewing the Degree Audit system and make improvements as required. [EM] [INT]
  - Reverse engineer degree audit and inform students when they successfully complete certificates or degrees. [EM] [INT]
  - Assist student service departments with communication to “nudge” students to stay on their path. [EM] [INT]
  - Provide transcript evaluation for incoming students who have prior college credit.
  - Update website and related web applications to allow students to intuitively explore career pathways, integrated with our roadmaps.
  - Support efforts to select and implement course and program approval.
- *Review and determine projects necessary to increase Adult Education (in progress).*
  - Reengineer our PeopleSoft student system to allow for alternate degree types.
  - Develop reporting system to satisfy compliance requirements.
- *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.*
  - Upgrade PeopleSoft to the 9.2 platform
  - Maintain regular bundle update schedule

[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>

# C. SERVICE INTEGRATION

## A NURTURING system of support

### **Strategic Plan Objectives**

- 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**

- *Provide faculty, staff and student support services on emerging technologies and online education initiatives to enhance teaching & learning.*
  - Student readiness: Provide remediation and support as needed for students new to online classes and technology use.
  - Support departments in providing the same access to online students as on-campus students and equitable technology access. [INT]
- *Expand Professional Development Opportunities and develop technology training programs & resources for faculty, staff, and students:*
  - for Online Education. [EM]
  - for Open Educational Resources. (OER) [EM]
  - on the utilization of Canvas as a tool for web enhancement of courses to engage students, as well as provide regular and effective student contact. [EM] [INT]
  - IITS technology services & resources Web conferencing (Zoom), Office 365, Skype for Business (S4B), Classroom Technologies, PeopleSoft, & more). [INT]
  - Develop training materials and tutorials/guides.
- *Develop policies, regulations, standards, and processes for evaluating, prioritizing, implementing and centralizing IITS Help Desk services to assure consistency and excellence of provided services.*
- *Student Help Desk Program: (STHD)*

- 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.
  - Provide equitable support to all students and student-centered support for emerging access to LBCC technology.
  - Expand STHD program to provide support services to student's enrolled in online courses.
  - Utilize strategies and techniques for increasing student success, with the goal of eliminating student equity gaps. [INT]
- *Develop & maintain an Online Resource Center/Portal of technology resources for faculty, staff, & students.* [INT]
  - *Implement 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

<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>

## D. DATA SECURITY

### Being RESPECTFUL of our information

*Insert: Compliance language*

#### **Strategies**

- *Develop and document systems and practices to protect our data including Governance, Risk Management, Cyber Security, Identity and Access.*
- *Implement standards as adopted and developed by the CCC Security Center:*
  - IITS has adopted the CCC's Information Security Standard.
  - Information security policies, regulations, and business processes will be adopted, derived and aligned with the CCC's Information Security Standard.
- *Utilize the tools and services offered by the CCC Security Center:*
  - Splunk - correlates real-time data for threat analysis.
  - Tenable Security Center - provides real-time vulnerability scanning.
  - Spirion - provides data loss prevention (scans for SSN, credit card numbers, etc.).
  - Vulnerability Assessments.
  - Security Awareness Training.
  - Phishing Assessments.
  - CIS 20 CSC Assessments.
- *Request funds, purchase and implement various industry recognized tools and services designed to support the policies and standards adopted above:*
  - Microsoft SCCM – expands the use of applicable security-related features.
  - Microsoft Outlook – currently provides data loss prevention for email.
  - Jamf – automates patches, upgrades, audits security events, etc. for Apple computers.
  - PortalGuard – allows 2-factor authentication, single sign-on, and self-service password resets.
  - Research and implement a next generation antivirus solution
  - Research the value of a network monitoring service to detect high level attacks
  - Research the value of endpoint snapshot tools for instant recovery
  - 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**

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