INTRODUCTION

The University

The University’s mission statement charges California State University East Bay (CSUEB) with a bold and challenging undertaking. As a premier institution of higher learning in the Bay Area, the University is set apart from its peers with an inclusive campus, a diversified faculty and student body, and a highly social and involved campus community. This recognition has pressed the University to increase enrollment while simultaneously defining rigorous academic and strategic goals. To accommodate new enrollment and achieve its goals, the University has recognized the call from its community to stay abreast of the changes in learning pedagogy and the 21st learning environment. The 21st Century Classroom Plan – Standards and Guidelines provides the professionals tasked with the development or renovation of academic facilities with a guidebook for creating spaces that foster student success and support the University’s mission and core values.

The Opportunity

The built environment plays a critical role in the ability of students and faculty to learn, create, collaborate and be inspired. While a great educator can inspire students in almost any environment, the ease by which quality education can be delivered increases greatly in well-designed learning spaces. Recent changes in the educational paradigm have rendered many of the traditional classroom typologies outmoded or inadequate. Today’s students are immersed in a network culture. Connected and mobile, they are in a constant state of real time discovery. They expect information to be instantaneous, crowd-sourced, open and accessible on the platform (or multiple platforms) of their choice. Responding to this reality, the 21st Century classroom needs to be flexible, technologically enabled, and supportive of innovation and collaboration.

In addition to these changing needs, the increase in E-learning has changed the spatial requirements for a number of courses. E-learning courses require office space for the instructor during regular instruction and small collaboration classrooms for group projects during irregular meeting times. An awareness of these realities in combination with older classroom stock that has reached the end of its useful lifecycle has lead CSUEB to recognize an opportunity for the creation of new classroom typologies. This plan contains design standards and guidelines to aid in the development of four new classroom typologies that will meet the demands of 21st century education, including tiered lecture halls, large (51-73 seats) classrooms, medium (26-50 seats) classrooms, and small (up to 25 seats) classrooms.

"Cal State East Bay welcomes and supports a diverse student body with academically rich, culturally relevant learning experiences which prepare students to apply their education to meaningful lifework, and to be socially responsible contributors to society. Through its educational programs and activities the University strives to meet "the educational needs and to contribute to the vitality of the East Bay, the state, the nation, and global communities."

- California State University, East Bay Mission Statement
Attributes of 21st Century Classrooms

- Flexible spaces that allow for students to work in various group sizes on a myriad of project types to accommodate project-based learning;
- Technologically enabled classrooms that leverage and enhance interaction, networking, real-time research and feedback;
- Enhanced flexibility between spaces (operable walls, internal glass and physical/visual inter-connectivity between adjacent spaces);
- Large spaces that can be subdivided into smaller spaces through mobile displays, flipcharts, or partitions to facilitate group work;
- “Break out” spaces in hallways, lobbies, and between classrooms for informal socialization, collaboration, and instruction;
- Extensive daylighting, good acoustics, and airflow to promote well being, advance sustainability, and realize operational cost-savings;
- Room for instructors to circulate and work with students as teams and/or individuals;
- Integration of e-learning.

21st Century Classroom Plan Goals

- Understand attributes and shortcomings of existing classrooms;
- Consult the campus community to understand the University’s unique learning objectives and desired outcomes;
- Create standards and guidelines for the transformation of outdated or underutilized classrooms into 21st Century learning spaces;
- Define the technology infrastructure required to support modern classrooms.

We have gathered a few images for conversation. We invite you to add your favorites as well!

References

i) Society for College and University Planning (SCUP): A community of higher education planning professionals that provides its members with the knowledge and resources to establish and achieve institutional planning goals within the context of best practices and emerging trends. SCUP publishes a quarterly journal titled Planning for Higher Education to help transmit the most recent knowledge, ideas, research, and experience in the field.

A 2013 article from the journal titled: University Classroom Design Principles to Facilitate Learning can be found at: http://www.scup.org/page/phe

ii) Learning Spaces Collaboratory and the National Science Foundation: With a grant from the National Science Foundation, the Learning Spaces Collaboratory produced a report in November of 2013 titled “A Guide Planning for Assessing 21st Century Spaces for 21st Century Learners.” The report developed a template for planning and assessing as a guide for evaluating the quality and character of learning environments.

Over a dozen contributors from different universities and colleges collaborated in the production of the report, providing case studies of 21st century learning from their respective institutions. This report can be found at: http://www.pkallsc.org/assets/files/LSCGuide-PlanningforAssessing.pdf

iii) Journal of Learning Spaces: The Journal of Learning Spaces is a peer-reviewed, open-access journal published biannually to provide a forum for articles related to all aspects of learning space design, operation, pedagogy, and assessment in higher education.

A 2013 article titled “Classroom Seating Considerations for 21st Century Students and Faculty” can be found at: http://www.educause.edu/annual-conference/2012/classroom-seating-considerations-21st-century-students-and-faculty

A. General Information

What is your position?
- Full Time Professor
- Part Time/Adjunct Professor
- Instructor
- Lecturer
- Visiting Faculty

What department are you a member of?

What building(s) do you primarily teach in?

Are there specific rooms you frequently teach in? Please identify.

How would you rate the overall quality of the classrooms in the building(s) you teach in?
1. Very Good
2. Good
3. Satisfactory
4. Poor

B. Quality Assessment of Existing Classroom Attributes

Please rank the following classroom attributes in order of need to improve on a scale of 1-5, with 1 being the most important feature that needs to be improved.

- lighting quality
- technology and connectivity (Audio/Visual, Wifi, etc.)
- comfortable environment (temperature)
- sound attenuation/acoustics (freedom from sound outside the classroom)
- Furnishings (tables/chairs, whiteboards, etc.)
- other (identify)

Are lighting levels adequate?
- Yes
- No

If not, please identify the room number and specific problem

Are lighting controls easily accessible to control during class?
- Yes
- No

If no, please describe the problem and identify the building and room number

Are you able to control the lighting levels adequately?
- Yes
- No

If no, please describe the problem and identify the building and room number

We have developed the following prototype of Survey for Faculty. A similar version will be issued for Students.
Are there sufficient numbers of electrical outlets in the room? Yes No
Are the outlets easily accessible? Yes No
Have you ever had any problems with the electrical capacity of the room? Yes No
If yes, please describe the problem and identify the building and room number.

How would you rate the acoustics (ability to understand peers’ and students’ speech)?
1. Good 2. Fair 3. Poor
If poor, please describe the problem and identify the building and room number.

Have you ever had a problem with a projection screen? Yes No
If yes, please describe the problem and identify the building and room number.

Have you had problems using the equipment/media in the classrooms? Yes No
If yes, describe the problem and identify the building and room number.

Are there enough seats for the students in the rooms you teach in? Yes No
If no, please identify the building and room number
Is the computer projection system easy to use? Yes No

What constraints/issues do you face using the current classrooms?
- Room is too small
- Room is too large
- Room does not have the technology/media needed
- Room is too far from office
- Other
- None, I don’t feel there are any constraints or issues
- Please identify the building and room number

Are there any physical improvements needed with the current classrooms that prevent you from using new teaching and learning methods?
- Furnishings
- Technology
- Room Configuration
- Environmental Conditions (lighting, acoustics, ventilation)
- Other, please describe

Is there adequate disposal for trash and recycling in the rooms you utilize? Yes No
If no, please identify the building and room number

Is the sufficient room for secured storage? Yes No
If no, please identify the building and room number

C. Instructional Methodology

What future changes in the teaching and learning environment do you think will have an impact on classroom design? (Please rank from most to least.)

Collaborative group learning: takes place on campus, team-based problem-solving, usually during a class period with access to faculty.

Distance learning: takes place off campus, independently scheduled and completed by student, recorded by faculty, and accessed via the Internet.

Web-based classes (e-learning): can take place on or off campus, usually recommended by faculty as a supplement to on campus lectures, content is multi-media, and accessed via the Internet.

Project based learning: can take place on or off campus, usually recommended by faculty as a supplement to class, content is hands on with real world problems

How often do you use a laptop computer in the classroom?

How often do you use a desktop computer in the classroom? (Please rank from most to least.)

- Movable, Tablet Arm Chairs
- Movable Tables and Chairs
- Fixed Tables and Movable Chairs
- Conference Table and Chairs
- Fixed, Tablet Arm Chairs
- Case Study Type Seating
- Other (please specify)

How do you prefer a classroom with natural light? Yes No
If no, please describe

What type of seating do you prefer for students in the class you teach? (Please rank from most to least.)

- Overhead projector
- DVD player
- Computer
- TV
- Overhead projector
- Data projector
- Elmo (document camera)
- Scanner
- Speakers
- Whiteboards
- Moveable easel boards
- Other

What is the desired number of display systems (projection screens, LCD’s, LED’s)?
1. One 2. Two 3. No preference

Where do you prefer the location of the Instructor Station?
- Middle Front
- To the side
- Movable
- No Preference

What is the desired number of display systems (projection screens, LCD’s, LED’s)?
1. One 2. Two 3. No preference

What type of writing surface do you prefer?
- Chalk Boards
- White Boards
- Smart Board
- No Preference

Do you want students to use laptops in your class? Yes No
What equipment do you expect to have available in the classrooms?
- CD player
- Internet Connection
- DVD player
- Computer
- TV
- Overhead projector
- Data projector
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