TO: The Academic Senate
FROM: The Committee on Budget and Resource Allocation (COBRA)
SUBJECT: 15-16 COBRA 1: Year End Report on the Progress of the “Classroom Planning Study and Classroom Design Standards; California State University East Bay: 21st Century Classroom Plan” project.
PURPOSE: For Information to the Academic Senate

BACKGROUND:
President Morishita is committed to update our classrooms to 21st century standards to meet the current instructional and student needs. Some funding has been allocated to Facility Management for an initial study to set up the standards, and a plan for continued implementation of the plan to meet the standards in the years to come. AVP Jim Zavagno is the lead overseeing this project.

COBRA established a COBRA Subcommittee in 2014-15 on Classroom Upgrade Master Plan. Subcommittee Members include two members from COBRA (Jiansheng Guo and Glen Taylor), two faculty from CBE (Robert Lin and Asha Rao), two faculty from CLASS (Bridget Ford and Holly Vugia), two faculty from CEAS (Eric Engdahl and Elizabeth (Missy) Wright), two faculty from CSCI (Caron Inouye and Eric Seuss), one faculty from the Library (Tom Bickley), one staff from scheduling (Audrey Katzman), and one staff from IT (Eric Neumann). The Subcommittee met throughout 2014-15 to provide input on the survey on faculty classroom needs and to provide input on the design aspects of the classroom upgrade project. This is the Subcommittee’s 2014-15 final report on the classroom upgrade project and its recommendations to facilities management.

ACTION REQUESTED:
This report is an information item for the Academic Senate on the progress of the “Classroom Planning Study and Classroom Design Standards; California State University East Bay: 21st Century Classroom Plan” project, and the recommendations of the Classroom Upgrade Master Plan Special Subcommittee for 2015-2016 classroom renovation to be implemented by the University Facilities.

PROJECT REPORT:

1. Earlier report on all background and earlier meetings of the subcommittee
   Please refer to 14-15 COBRA 5 for the origin of the project, subcommittee, earlier meetings of the subcommittee.

2. Report on the final meetings of the Subcommittee
   The Subcommittee held 3 additional meetings on 5/21/2015, 5/29/2015, and 6/30/2015.
At the 5/21 meeting, the design company interacted intensively with the attending committee members about the function and needs for each type (small, medium, large, special) of classrooms.

At the 5/29 meeting, the design company brought all the proposed concepts and graphic models together for final comments, suggestions, and feedback, in order to finalize the designer recommendations. All the input will be incorporated into the design company’s final report to CSUEB Facilities.

Please see the following link for 2 demonstrations documents prepared by the design company as the semi-final proposal (which was the outcome of several subcommittee meeting discussion, faculty and student survey input, and several rounds of interactions between the design company and the subcommittee (faculty, students, IT, scheduler, facility administrators).

https://drive.google.com/a/csueastbay.edu/folderview?id=0B8qYjY1qCZzEfm9FbUdnYVljY0xzNVY3LVBXSW0ycWU2bHV0NUFacS1rc0JvUldPblVrRIU&usp=sharing

On 6/5, Facilities emailed a complete list of classrooms to the Subcommittee, for preparation of 2015-2016 renovation plans.

On 6/30, the Subcommittee met again at 10:00-11:30 am. Due to the summer time, only some committee members could attend (after several rounds of scheduling attempts). The committee discussed the basic selection principles, selected the candidate rooms for recommendation of first year renovation. Then the committee members made a field trip to visit the actual rooms of the recommendation. The field trip visit also resulted in the change of one original candidate room with a better suited room to start as a renovation model. The selection also tried to consider the representative location of the rooms in different buildings.

Please see attach meeting minutes for details about the last meeting on 6/30/2015. The final recommendation of the rooms to be renovated in 2015-2016 were the following (budget permitting):

- Small Classroom – AE 247
- Medium – SC N220; MI 3060 (if budget permits)
- Large – AE 285
- Specialty – MI 2002

Facilities provide the Subcommittee with the following rough plan for possible future timelines:

NEXT STEPS: DESIGN AND CONSTRUCTION

- Identify 4 model classrooms by July 1, 2015
- Prioritize remainder of the classrooms by TBD
- Furniture showroom visit, date TBD (we will also look at the possibility of asking the vendor to lend us samples)
- Start design of 4 model classrooms by August 2015
- Renovate classrooms during Summer Quarter 2016
  - Please note that the renovation is dependent on the budget so we cannot guarantee that all 4 model classrooms will get renovated in Summer 2016
  - Facilities needs to ensure that Academic Scheduling is notified of the model classrooms that will go off-line due to renovation

3. COBRA Recommendations
   a. During 2015-16, facilities should follow the COBRA Subcommittee recommendations and prepare cost estimates for both furnishings and construction for renovating the recommended classrooms as prototypes to test the new furniture and room designs.
   b. COBRA will ask to review cost estimates and construction plans and provide input on the prioritization of the implementation process.
c. To target and strive for keeping construction time limited to the Summer quarter (when room utilization is low as compared to the other 3 regular quarters), so as to keep the disruption to instructional activities to the minimum, if at all possible.
d. Furniture vendors should be asked to provide small quantities or samples of furniture that can be evaluated by faculty and students by test driving them in the classroom. This will help insure the choice of furniture that meets academic needs in an applied setting and can begin immediately.
e. The Subcommittee continues to work with Facilities to recommend the future years’ renovation plan and room list.

Attachments:
1. List of Classrooms as of 6/5/2015 (by Facilities), separate file
2. 21st Century Classroom Plan, CSUEB (draft, submitted to Facilities by WRNS Studio), separate file
3. Minutes for 6/30/2015 meeting, below

**MEETING NOTES:**

<table>
<thead>
<tr>
<th>Prepared by: Anne Leung</th>
<th>Why we are meeting:</th>
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<tbody>
<tr>
<td><strong>Meeting called by:</strong></td>
<td>1) To discuss how to prioritize classroom renovations</td>
</tr>
<tr>
<td>Anne Leung</td>
<td>2) To identify which classrooms by type (small, medium, large, specialty) will be renovated first (Anticipate Spring or Summer 2016 renovation)</td>
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<td></td>
<td>3) To visit select rooms to guide members in deciding what rooms should undergo renovation in 2016</td>
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**Attendees:**
Tom Bickley; Eric Engdahl; Jiansheng Guo; Missy Wright; Anne Leung

<table>
<thead>
<tr>
<th>Understandings</th>
<th>Action Items</th>
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<tbody>
<tr>
<td>1. The group deliberated on how and what classrooms by type will undergo the first round of classroom upgrades on campus. The intent is for these chosen spaces to serve as “model/test classrooms” to guide the campus on the succeeding classroom renovations.</td>
<td></td>
</tr>
<tr>
<td>2. Facilities anticipates to do the first set of renovation in Spring or Summer 2016; budget is set at $2M.</td>
<td>1. Update Dr. Nancy mangold</td>
</tr>
</tbody>
</table>
| 3. The following parameters were set to identify the classrooms:  
  - Building age was taken into consideration. The group agreed that VBT and Concord Campus classrooms are relatively newer facilities so these were not considered as first priority  
  - Classroom utilization were taken into consideration | |
<p>| 4. The classrooms below were identified to undergo renovation in 2016 | |</p>
<table>
<thead>
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<tbody>
<tr>
<td><strong>(if budget permits).</strong></td>
<td><strong>on the committee’s progress. Notify regarding the upcoming renovations</strong></td>
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<tr>
<td>• Small Classroom – AE 247</td>
<td></td>
</tr>
<tr>
<td>• Medium – SC N220; MI 3060 (if budget permits)</td>
<td></td>
</tr>
<tr>
<td>• Large – AE 285</td>
<td></td>
</tr>
<tr>
<td>• Specialty – MI 2002</td>
<td></td>
</tr>
</tbody>
</table>

5. The group believes that it would be best to seek faculty input for the remainder of the classroom upgrade prioritization. In order to do this, they suggested working with the Deans, Associate Deans, Department Chairs, and College Schedulers.

1. Process to be discussed with Maney Mangold
21st CENTURY CLASSROOM PLAN

California State University East Bay
STANDARDS AND GUIDELINES
JUNE 12, 2015
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SPECIALTY CLASSROOMS
INTRODUCTION
The California State University East Bay, 21st Century Classroom Plan was developed by the Committee on Budget Resource Allocation (COBRA) subcommittee, in collaboration with Stakeholders (Academic Affairs, Faculty, Library and IT) and Contributors (Students and Accessibility Services). The process was designed to gather both quantitative and qualitative data to inform a comprehensive set of design guidelines for four typical classroom sizes on THE campus (Small: up to 25 student stations, Medium: 26 to 50 student stations, Large: over 51 student stations, and Specialty: tiered, some with columns in middle of room, on average hold over 75 student stations).

The quantitative phase of the process was defined by data collection via surveys issued to Faculty and Students campus-wide. These surveys were designed to solicit information about the current state of the teaching and learning environments as well as desires from both the Stakeholder and Contributor groups for the future of these critical spaces within the campus. To capitalize on the extraordinary response rate obtained, the WRNS team organized and led interactive group discussions with Faculty and Students to identify those unique qualitative attributes that taken together embody the aspirations for Pedagogy and Culture of the East Bay campus.

The design guidelines included here encompass a synthesis of this foundational work authored by the visionary leadership of the Stakeholders and Contributors and detailed strategies for a variety of physical layouts, inventory of furnishings and selection of technology and equipment to ascertain that the teaching and learning environments on campus are full of choices, comfortable, and inspire life-long learning in a technology-enabled, peer-to-peer community. As these guidelines are not specific to the range of existing spaces on campus, the COBRA subcommittee and the design team have provided general, best-practice performance criteria rather than prescriptive details that are specific to a vendor or time and place.
SURVEY ANALYSIS
2.1 INTRODUCTION

2.1.1 Overview

This section provides a summary and analysis of responses from the Cal State East Bay 21st Century Classroom Plan Faculty and Student Surveys. These surveys were conducted after receiving feedback on an initial draft of questions at the Kick-Off Meeting on February 17th, 2015. The revised and simplified surveys consisted of five questions concerning preferred teaching and learning methods and environments. The survey period lasted approximately two weeks from February 23rd, 2015 to March 6th, 2015. The surveys were distributed to campus e-mail accounts and responses were collected online through SurveyMonkey*.

The purpose of the surveys was the identification of pedagogy and classroom trends that are specific to California State University, East Bay. As a prelude to group discussion sessions, the surveys helped to identify and set the priorities for the physical, experiential, and programmatic attributes of the 21st Century Classroom Plan.

2.1.2 Survey Questions

To ensure consistency, a similar set of questions were developed for both faculty and students. The survey included the following five questions:

1. For Faculty: What faculty position most accurately describes your current role? (For Students: What class do you belong to?)

2. Please score the following classroom facility attributes on a scale of 1 (not important) to 5 (extremely important) as it relates to your teaching (or learning).
   a. Flexibility of furniture
   b. Ease of movement within the room
   c. Availability of technology to enable interaction and real-time feedback
   d. Availability of writeable wall surfaces
   e. Having a clear line of sight throughout the room
   f. Availability to subdivide a space/create break-out spaces
   g. Having access to natural light
   h. Comfortable room temperature
   i. Ability to control light levels
   j. Having good acoustics

3. Please list three attributes of the classrooms you are currently using that enhance your teaching (or learning).

4. Please list three attributes of the classrooms you are currently using that disrupt your learning (or learning).

5. What additional considerations would you like the COBRA Subcommittee to keep in mind when developing the 21st Century Classroom Plan?

2.1.3 Survey Respondents

The Faculty Survey garnered 93 total respondents out of a total faculty head count of 789. This response rate represents over 11 percent of total faculty.

The Student Survey garnered 1,018 total respondents out of a total student enrollment head count of 14,134. This response rate represents over 7 percent of the total student body.

2.1.4 Analysis Methodology

Analyzing the survey required a focused organization. While the first two questions (1 and 2) provided responses that could be easily measured and sorted, the last three questions (3, 4, and 5) were open ended and allowed for more nuanced responses. While a weighted average helped to identify highly favorable attributes in question 2, the responses for questions 3, 4 and 5 were sorted into six broad categories in an effort to standardize the answers and gain key findings. The six categories were:

- **Environmental**: attributes that relate to human comfort like natural and artificial lighting, air quality, room temperature, acoustics and lighting/temperature control systems.
- **Equipment**: attributes that relate to non-technology enabled equipment such as writeable wall surfaces, furniture and wall clocks.
- **Instructional/Learning**: non-tangible attributes that relate to teaching methodology and learning outcomes such as faculty/student interaction.
- **Maintenance**: attributes that relate to satisfactory facility upkeep such as cleanliness.
- **Room Arrangement**: attributes that relate to spatial organization such as flexibility of furniture, line of sight, and movement within the room.
- **Technology**: attributes that relate to technology enabled equipment such as projectors and smart boards, microphones and sound systems, electrical outlets, wireless internet, computer software and East Bay Replay.

*SurveyMonkey is an online survey development, cloud-based company that provides free, customizable surveys.*
2.2 FACULTY RESULTS & ANALYSIS

Question 1: What faculty position most accurately describes your current role?

Answer Choices

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
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<tbody>
<tr>
<td>Full Time Faculty Member (tenured)</td>
<td>73.33%</td>
</tr>
<tr>
<td>Full Time Faculty Member (non-tenured)</td>
<td>17.78%</td>
</tr>
<tr>
<td>Part Time Faculty Member (tenured)</td>
<td>1.11%</td>
</tr>
<tr>
<td>Part Time Faculty Member (non-tenured)</td>
<td>2.22%</td>
</tr>
<tr>
<td>Lecturer</td>
<td>4.44%</td>
</tr>
<tr>
<td>Other, please describe</td>
<td>1.11%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
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</table>

Of the total faculty respondents approximately 91 percent were full time faculty members (tenured and non-tenured), 3 percent part time faculty members (tenured and non-tenured), and 6 percent lecturers or other faculty members.
Question 2: Please score the following classroom facility attributes on a scale of 1 (not important) to 5 (extremely important) as it relates to your teaching.

Most of the faculty respondents for this question found all attributes as being important or extremely important. The attributes that yielded slightly higher positive responses included: having a clear line of sight throughout the room, comfortable room temperature, having good acoustics, and the ability to control light levels.
Question 3: Please list three attributes of the classrooms you are currently using that enhance your teaching.

The majority of faculty responses for question 3 focused on four categories: Environmental, Equipment, Room Arrangement, and Technology. Since Technology stands out as the outlier, its positive effect on teaching can clearly be seen. Use of projectors, smart-screens and other digital media aid the dispersion of knowledge. The category of Equipment was ranked second by the faculty which shows that although technology is important in classrooms, writable surfaces and other demonstration equipment are not redundant tools for teaching. Room Arrangement and Environmental concerns averaged similar after Technology and Equipment, thus highlighting the significance of comfort and collaboration in the teaching environment.

Question 4: Please list three attributes of the classrooms you are currently using that disrupt your teaching.

The majority of faculty responses for question 4 focused on the same four categories as question 3: Environmental, Equipment, Room Arrangement, and Technology. However, unlike question 3, the outliers in this question were Environment and Room Arrangement, both ranked equally high emphasizing that the need for comfortable and collaborative teaching environment is greater than the need for Equipment and Technology. Creating enhanced environments for speech intelligibility and providing mechanical/lighting control systems can considerably improve the current classrooms. Although, Equipment and Technology were ranked lower, the lack of adequate tools and outdated technological systems do disrupt the faculty's teaching methodology and should be addressed.
Question 5: What additional considerations would you like the COBRA Subcommittee to keep in mind when developing the 21st Century Classroom Plan?

Some of the most elaborate and informative responses were given to question 5. Similar to the previous two questions, the responses for question 5 were classified into the six categories. However, due to the comprehensiveness of the responses, they often resulted in classification into more than one category. These occurrences were repeatedly counted in each category in an effort to maintain the richness of these responses. The following faculty response is a good example: “Access to a graphics oriented computer lab for the fine art students, there are times when it would be great for them to do work on computers while I instruct them on things like how to do post-production on documentation images, but as far as I was told they don’t have access to a lab that is geared towards Fine Art instruction.” This response identifies multiple influences and was categorized into both the Technology category for the discussion of “access to a graphics oriented computer” and Instructional/Learning for the discussion of the teaching method it could facilitate.

The faculty responses for this question were quite enriching as all of them hinted at the changing pedagogy in one way or another. Hence, it is without doubt that the intangible category of Instructional/Learning peaks highest for this question. Majority of the faculty stressed on how technology is changing the way in which they teach and how it can be used to improve faculty/student interaction through real-time feedback and group share technologies/activities. This explains why Technology is ranked second by this user group. Many faculty members also addressed the need for classrooms that respond to a variety of teaching methods, including extra-large teacher-directed lecturing, flexible medium and large sized classrooms for formal and informal knowledge sharing, and small group seminar rooms for a more intimate teaching/learning environment. Thus, Room Arrangement follows as the third focus category for this question with the Equipment category as a close fourth. All of these unique answers are crucial to the 21st Century Classroom Plan as they identify the ways in which faculty are responding to changes in the educational paradigm.
2.3 STUDENT RESULTS & ANALYSIS

Question 1: What class do you belong to?

Answered: 998  Skipped: 20

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
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<tbody>
<tr>
<td>Freshman</td>
<td>9.32%</td>
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<tr>
<td>Sophomore</td>
<td>6.71%</td>
</tr>
<tr>
<td>Junior</td>
<td>25.85%</td>
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<tr>
<td>Senior</td>
<td>34.97%</td>
</tr>
<tr>
<td>Graduate</td>
<td>16.53%</td>
</tr>
<tr>
<td>Post-Graduate</td>
<td>6.61%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>998</strong></td>
</tr>
</tbody>
</table>

Of the student respondents approximately 76 percent were undergraduate students, 17 percent graduate students, and 7 percent post-graduate students.
Question 2: Please score the following classroom facility attributes on a scale of 1 (not important) to 5 (extremely important) as it relates to your learning.

Answered: 1,013  Skipped: 5

Most of the student respondents for this question found all attributes as being important or extremely important. The attributes that yielded slightly higher positive responses included: having a clear line of sight throughout the room, comfortable room temperature, having good acoustics, the ability to control light levels and the availability of technology to enable interaction and real time feedback.
Question 3: Please list three attributes of the classrooms you are currently using that enhance your learning.

The majority of student responses for question 3 focused on four categories: Environmental, Equipment, Room Arrangement, and Technology. Since Technology stands out as the outlier, its positive effect on learning can clearly be seen. Use of projectors, smart-screens and other digital media aid knowledge sharing. Following this, the students’ ranked the Environmental category similar to the Equipment category underlining that comfort, both of the overall room and the specific furniture they occupy, is key to their learning. Room Arrangement was the last of the focus categories for the students’ highlighting that improved flexibility in their current classroom arrangements could augment their learning.

Question 4: Please list three attributes of the classrooms you are currently using that disrupt your learning.

The majority of student responses for question 4 focused on the same four categories as question 3: Environmental, Equipment, Room Arrangement, and Technology. Unlike question 3, the Environmental category was the most important for students’ signifying that comfort is primary for them to stay focused in the learning environment. Equipment ranked second highest by the students’ attributed to outdated and poorly functioning instructional toolkits found in the current classrooms. Room Arrangement followed third with the lack of clear sight lines as the key factor compromising their learning. Although, the students’ ranked Technology as the lowest disrupting cause, the desire for sufficient wireless internet connectivity and outlets for charging their devices among other technical upgrades was expressed.
Question 5: What additional considerations would you like the COBRA Subcommittee to keep in mind when developing the 21st Century Classroom Plan?

Some of the most elaborate and informative responses were given to question 5. Similar to the previous two questions, the responses for question 5 were classified into the six categories. However, due to the comprehensiveness of the responses, they often resulted in classification into more than one category. These occurrences were repeatedly counted in each category in an effort to maintain the richness of these responses. The following student response is a good example: “For psychology classes, there are a lot of chalkboards. Very few professors still use chalk boards every class time. That being said, when in the south science lab classrooms, some times there isn’t enough chalk board space. In some classrooms, the fan/heater system is too loud and gets in the way of recordings of lectures. During the summer, it’s freezing in the science building and super hot in the winter. I wish the temperature difference wasn’t so extreme. Some times, the older teachers have a hard time using the computers, or don’t use them at all.” This response identifies multiple influences of Equipment, Environmental Comfort, and Technology. Hence, it was categorized in all the three categories.

The student responses for this question mainly focused on tangible elements that the students envisioned important in the 21st century education. Their responses were very dispersed among the six categories. Technology and Equipment stood out to be the fundamental elements that every 21st century classroom should have according to the students. This implies updates not only to the audio-visual systems used in classrooms, but also a seamless web-class platform to provide them with an integrated on-demand learning experience accessible anytime, anywhere. The need for Smart Boards, East Bay Replay and other technical platforms for sharing knowledge along with better furniture was expressed. The Environmental category was ranked next by the students emphasizing the need for comfortable non-distracting surroundings that would help them concentrate. Students declared that their attention during instructional activities was enhanced by daylight, fresh air and comfortable room temperatures. Instructional/Learning methods ranked similar to Room Arrangement highlighting the concern for flexible classroom layouts to aid collaborative learning. The last category of Maintenance garnered a good number of responses from the student body which goes to show that cleanliness and durability of materials are important aspects to be considered when developing the future plan.
2.4 PATTERNS

The similar set of questions issued to both the faculty and the students generated congruent response patterns in some questions and some unique response patterns in others.

In question 2, both the faculty and the students identified similar attributes of importance for teaching and learning. In addition to attributes already highlighted by the faculty, the students also ranked the availability of technology to enable interaction and real time feedback as highly important.

In question 3, both the faculty and the students ranked Technology as the most important attribute and Room Arrangement as the least important. However, while the faculty ranked Equipment higher than Environmental attributes, the student population ranked them equally.

In question 4, both the faculty and the students ranked Environmental attributes causing discomfort to the teaching/learning environment as the highest. Although, the faculty ranked Room Arrangement as equally high, the students had a different response. They weighted Equipment more important than Room Arrangement. Technology, on the other hand, was the least important for both of the respondent groups for this question.

In question 5, both the faculty and the students had unique responses and no overlapping patterns were traced. While the faculty focused on Instructional/Learning, the students focused on Technology, Equipment and Environmental attributes.

2.5 CONCLUSIONS

The large pool of survey responses and their analysis above set a rich foundation upon which to build the 21st Century Classroom Plan for the California State University, East Bay. The extensive feedback from the faculty and students was helpful in identifying constraints and opportunities on the campus. The qualitative insights from the surveys are grouped into three categories listed below.

2.5.1 Space Planning

Space Planning will focus on developing an ideal space plan for different sized classrooms primarily addressing the needs for visibility and flexibility. The following attributes will be considered:

- Placement of boards/projector screens to minimize glare and provide clear lines of sight for all students.
- Specifying furniture that is flexible to arrange and can be modified to suit the needs of different instructional methods within the same space.
- Functional characteristics of Small, Medium, Large and Specialty Classrooms that augment a diverse learning experience including hands-on project work, social interaction and technical knowledge sharing.
- Location of physical elements (such as doors) that impact user circulation in the classrooms.
- Placement of furniture (tables and chairs) to meet accessibility requirements and provide adequate space for movement by users while classes are in session.
- Provision for secured storage.

2.5.2 User Comfort

User Comfort will focus on developing a comfortable classroom for all users primarily addressing the needs for a healthy environment and quality furniture. The following attributes will be considered:

- Achieving adequate acoustic levels using insulated building materials to improve speech intelligibility and mitigate noise reverberation.
- Providing adequate daylight in the classroom but positioning the windows such that they minimize glare on the boards/screens.
- Accommodating lighting control systems to provide flexibility of switching between task lighting, group work and lecture needs.
- Upgrading the temperature control mechanism in the classrooms to render more comfortable spaces.
- Providing ergonomic furniture for the users to aid their comfort as well as a diversity of seats to accommodate diversity within the student population.

2.5.3 Equipment

Equipment will focus on developing a minimum standard for technology and other equipment in the classroom primarily addressing the needs for audio-visual and other technical methods. The following attributes will be considered:

- Specifying furniture with adequate writeable surface as well as accommodate books and digital devices.
- Providing for adequate charging outlets for all users independent of furniture location.
- Furnishing a variety of instructional equipment in appropriate quantities to support all sizes of classrooms including digital display and sound systems.
- Considering security methods for protecting technical equipment from vandalism and/or theft.
- Establishing a backbone for campus-wide on-demand learning (access anytime, anywhere).
03
TRANSFORMING CSU EAST BAY
3.1 INTRODUCTION

This report provides a summary of the feedback received from various discussion group meetings held at the CSU East Bay campus on April 24th and April 30th, 2015. The group discussions delved deeper into the opportunities and challenges recognized in the survey and engaged the participants to think about ideal teaching and learning environments.

3.1.1 Participants and Contributors

**COBRA Subcommittee**
- Tom Bickley (Library)
- Eric Engdahl (Faculty)
- Bridget Ford (Faculty)
- Jiansheng Guo (Faculty)
- Caron Inouye (Faculty)
- Robert Lin (Faculty)
- Eric Neumann, Director, Academic Technology & Support Services (IT/AV)
- Asha Rao (Faculty)
- Eric Suess (Faculty)
- Glen Taylor (Faculty)
- Holly Vugia (Faculty)
- Elizabeth Wright (Faculty)

**Student Group**
- Stan Hebert, Associate Vice President, Student Affairs/Dean of Students
- Names of student participants not published.

**IT/AV**
- Thomas Dixon, Director, Network Infrastructure & Operations
- Jacob Cambra, Information Technology Consultant

**Accessibility Services**
- Dr. Katie Brown, Director, Accessibility Services
- Pamela Baird, Coordinator, Accessibility Services
- Kenia Montoya, Coordinator, Accessible Furniture and Accessible Testing
- Riddhi Bandiwadekar, Student Assistant
- Jaski Kohli, Accessibility Counselor

3.2 FACULTY DISCUSSION GROUP

3.2.1 Flexible and Adaptable

Faculty unanimously noted the distinguishing characteristic of their teaching pedagogy as the integration of group work to enable learning through collaboration. In order to effectively deliver instruction, learning environments need to accommodate various group sizes and scenarios (lecture, discussion, role playing), provide access to a variety of technology, and incorporate distributed access to power/data. And, speed of change/reconfiguration is critical—we have a 30 second rule! Faculty prefer writeable surfaces that are affixed on walls or full-height writeable surfaces (such as IdeaPaint), and furniture (chairs and tables) that are adjustable in height and on wheels, with option to fold into a compact size or store away whenever possible.

3.2.2 Look and Feel

Faculty expressed importance of considering specific ways to enhance the look and feel of classrooms, in particular access to daylight and use of color for accent. Beyond creating a vibrant space, faculty values mobility within a classroom as that provides better interaction with students, facilitates eye contact, and fosters engagement. To that end, all walls within a classroom as seen as important real estate and should be equipped with the maximum possible amount of writeable surfaces (sliding where possible) and/or multiple projection surfaces, for use by faculty and students, formally and informally, during and after class.

3.2.3 Future-Proofing

Faculty is planning for the imminent transition from quarter to semester schedule within the CSU system by anticipating larger class sizes, thinking about ways to imbue traditional lecture room settings with collaborative break-out opportunities, and seeking ways to integrate lecture capture via the East Bay Replay system. To alleviate the pressure resulting from limited time in between classes, faculty prefers flexible, adjustable and movable furnishings that students can manage on their own. Built-in storage units that incorporate supplies, computer controls and other valuable resources are also desired.

3.2.4 Group Work is a Differentiator

Typical activities during class time for each type of classroom size:

**Small Classroom**
- Interactive Check-In | Lecture / Skill Learning | Apply Skill | Group Time | Next Steps

**Medium Classroom**
- Lecture Demo | Group Work | Reflection

**Large Classroom**
- Large Gathering | Individual or Group Work | Class Presentation | Summarize

**Tiered Classroom**
- Lecture | Group Learning | Break | Lecture | Group Learning | Next Steps
3.3 STUDENT DISCUSSION GROUP

3.3.1 Peer to Peer Mentors

For students at CSU East Bay, the primary reason to come to campus is the social network. It was a resounding message that attendance to class is more a chore and a requirement than a joy or rewarding experience. Students want to know “Why?” and they want to transform data to knowledge, not just “Pass”. They hold the learning community dearly and their greatest source of pride and enthusiasm was heard when they described how often they help each other out during and after class, actively participate in student organizations, and want to “pay it forward”.

3.3.2 Multi-Modal Learning in Blended Environments

As diverse a student body as that which defines the campus is their desire to have a 360-degree, didactic atmosphere that is visual, auditory, engaging and kinesthetic. Many students represent various cultural backgrounds and generations, speak different languages, and require a variety of accommodations. As technology has been prevalent in their lives growing up and in the pipeline of K-12 schools, it is not surprising that the learning toolkit of most of the students includes using phones to record images and audio, accessing videos on-line, using laptops and taking notes on paper. As these are used simultaneously, the need for table space and multiple power outlets is at an all-time high. They also desire access to plenty of markers, erasers and interactive instruments for use on writeable surfaces.

3.3.3 Personalized Learning

More than anything else, today’s learners want choice and control. Students reported feeling frustration with regards to the pace of lectures and their challenges with comprehension due to language barriers, environmental conditions within rooms, and poor visibility of class content. Suggestions offered to address and improve content delivery included use of real-time feedback via polling software and I-clickers, and recording of on-line videos. To achieve greater comfort within classrooms, students desire more comfortable and movable chairs, and tables that are adjustable in height. Interestingly, students asked for simple requests which may be currently overlooked, such as sharpening contrast (trade out blackboards for whiteboards), increasing resolution (projection screens with large displays for text), capturing screenshots or including captions during class, and incorporating a thumbnail view of the professor’s face within a larger digital screen display.

3.4 ITS/AV DISCUSSION GROUP

3.4.1 Wireless: Anytime, Anywhere

The campus has invested in a robust and comprehensive infrastructure to integrate IT and AV into classrooms to foster a multidisciplinary learning environment on campus as well as a growing desire to support distance learning (acknowledging the Flipped Classroom model which relies on self-structured content acquisition) outside the classroom. The Academic Technology department exists to support the desires of the faculty to innovate through the use of technology. Several components of these systems have been standardized, including LED monitors, cameras for telecasting, microphones, wireless projection, and data cabling. An anticipated trend for the future is to augment the virtual library of resources available to students by increasing the quantity of lectures currently captured in audio and video.

3.5 LIBRARY DISCUSSION GROUP

3.5.1 Interdisciplinary Courses

The Library is exemplary of spaces that encourage collegial and dynamic learning among students and with the community at large. Here, you “build on your experiences” which contribute to the important transition to becoming a mature adult with a firm understanding of your personal point of view. As a collection of different types of environments, the Library provides access to media, audio and drop-in study lounge spaces. Active learning is defined as pairings with faculty, group discussions, and via use of multiple devices including I-pads, document cameras, projectors and dry-erase boards. Group sessions vary in sizes from 15 to 60, thereby necessitating flexible furnishings, multiple settings for instruction, and high performing features to provide variety of light levels and acoustical attenuation to improve speech intelligibility.

3.6 ACCESSIBILITY SERVICES DISCUSSION GROUP

3.6.1 Students with Disabilities

The campus provides support for the student demographic which have mobility issues (hands, arms, wheelchair, carpel tunnel, back injuries) and/or developmental/learning disabilities (autism, deafness and blindness). To serve the deaf population, interpreters require dedicated seating and cycle their assistance in 20 minute segments. Interpreters and note-takers support enhanced processing speed and comprehension of content. Given that they are seamlessly integrated within the physical space of the room, coordination is required with Scheduling to ensure that total occupancy loads include them. Each learning environment is planned to include furnishings and layouts that are ergonomically sound, provide a variety of lighting levels (preferred to be LED fixtures), remove barriers, and meet requirements for universal design. In addition, it is a desire to leverage technology to enhance learning by incorporating a captioning feature on slides projected during class.
TRANSFORMING
TEACHING & LEARNING
@ CSU EAST BAY

- COMBINED LAND-RESOURCE SETTING (PROGRAM
- CAN ACCOMMODATE VARIOUS GROUP SIZES
- QUICK SWITCHING- DURATION- BREAKS
- INTERACTIVE CHECK-IN / LEARNING-SKILL MODULE
  
  APPLY SKILL | GROUP TIME | NEXT STEPS

- DAY OR NIGHT

- LARGE GATHERING | GROUPS | INDIVIDUAL | GROUP

  SUMMARIZE/END UP FOR NIGHT

- VARIETY + ACCESS TO TECHNOLOGY

  LECTURE DEMO | STUDENT WORK | REFLECTION

  30

  - HANDS-ON
  - DANCE
  - OUTSIDE PROCESS
  - IN-CLASS
  - COMPUTER ACCESS

- 70-30 MIXED

  LECTURE / TEAM-BASED LEARNING / TEAM / NEXT STEPS

- SCIENCE VAM - MODULARITY

  INTRO / EXPERIMENT / TOGETHER

  MODEL | GROUP

  OR

  (DATA)

  - SOURCE - MULTI

  ACCESS - EXAM

ORNIA STATE UNIVERSITY
T. BAY

WRNS STUDIO
ROOMS = RESEARCH + INSTRUCTION CURRENT!

EDU PSYCH

STANDARD ACCREDITATION REGMTS.

EDU CREATION

DISTRIBUTED DATA ETATIOUS

RESEARCH AMPLIE
MY IDEAL ... EQUIPMENT TOOLKIT

WRITEABLE SURFACES

FIXED NON-ELECTRONIC CAPTURABLE WHITE BOARD

FIXED ELECTRONIC CAPTURABLE WHITE BOARD

MOVEABLE WHITE BOARD

INTEGRATED WRITEABLE WALLS

CHAIRS

CHAIRS ON WHEELS

CHAIR ON WHEELS WITH ADJUSTABLE HEIGHT & CUSHION

CHAIR ON WHEELS WITH WORKSPACE & STORAGE

CUSHIONED CHAIR ON WHEELS WITH WORKSPACE & STORAGE

TABLES

TABLE ON WHEELS WITH OUTLETS

TABLE WITH ADJUSTABLE HEIGHT

ROUND TABLE

FOLDABLE TABLE ON WHEELS
POSTERS FROM THE STUDENT GROUP DISCUSSION

TRANSFORMING
TEACHING & LEARNING
@ CSU EAST BAY

- MORE AFFORDABLE
- DIFF. MODES OF ACCESSING/LEARNING
- BULK/LESS WEIGHT/MORE CONVENIENCE
- BROADER REASONS TO COME TO CLASS
- COME TO CLASS FOR ATTENDANCE — NOT USING
  BLACKBOARD
- WRITE + LISTEN @ SAME TIME
- INTERRUPTIONS IN TECHNOLOGY
- MAKE IT PERSONAL!
- SPEED/CLARITY
- GET TO THE WHY
- VISUAL
- CLEANLINESS/HYGIENE
- DISTRACTIONS
- AUDITORY/MOVEMENT/ENGAGING
EXPAND PEER MENTOR TO HIGHER CLASS
GET MARKERS.
TAKE PICTURE OF WHITEBOARD
REPLACE BLACKBOARD W/WHITE BOARD
WRITE BIG ON BOARDS.
SHARE PPT. OR YOUTUBE VIDEOS
NETWORKING IN CLASS
SHORTAGE OF OUTLETS.
WiFi → Applebar (Mac-friendly).
SERVER CRASHES → mycloud.
IN CLASS IPADS.
MAKE IT INTERACTIVE.

- HOMWORK NOT HELPFUL @ TIMES

- REPROCESSING INFO.

- ONLINE VIDEOS / EXAMPLES HELP.

- CLICKERS => HELPFUL.

- RUSHING THRU COURSE.

- PEER MENTORS SPECIFIC TO DEPT

- 77 SECTIONS FOR FRESHMEN.

- TOP - EDU. OPPORTUNITY PROGRAM

- GS - GENERAL STUDY.

- VETERAN

- IN UB / CLASSROOM / OTHER.
Brian - Chairs on wheels + table hi.

Carmen - Online learning + lecture capture + group work.

John - Comfortable chairs.

JFE - Smartboard / one place of focus.

Eddie - Better room setting

J - Auditory learning / interactive

Stan - Provision for feedback integration
MY IDEAL ...
CLASSROOM LEARNING MODE

LECTURE

GROUP DISCUSSION

IN-CLASS GROUP WORK

PRESENT/REPORT OUT

PEER-PEER-LEARNING

MENTORS

HANDS-ON PROJECTS

OTHER

DYNAMIC
AUDIOWSAL
INTERACTIVE
NON-STATIC
MY IDEAL...
CLASSROOM LEARNING DEVICE

[Images of various devices and images and a circled box labeled 'OTHER']
MY IDEAL ... EQUIPMENT TOOLKIT
CLASSROOM LEARNING DEVICE

WRITEABLE SURFACES
- FIXED NON-ELECTRONIC CAPTURABLE WHITE BOARD
- FIXED ELECTRONIC CAPTURABLE WHITE BOARD
- MOVEABLE WHITE BOARD
- INTEGRATED WRITEABLE WALLS

CHAIRS
- CHAIRS ON WHEELS
- CHAIR ON WHEELS WITH ADJUSTABLE HEIGHT & CUSHION
- CHAIR ON WHEELS WITH WORKSPACE & STORAGE
- CUSHIONED CHAIR ON WHEELS WITH WORKSPACE & STORAGE

TABLES
- TABLE ON WHEELS WITH OUTLETS
- TABLE WITH ADJUSTABLE HEIGHT
- ROUND TABLE
- FOLDABLE TABLE ON WHEELS
04
SMALL
CLASSROOMS
4.1 SMALL CLASSROOMS

Classes with up to 25 student stations currently represent about 7% of the total inventory of classrooms on the East Bay campus. Otherwise known as “Seminar” or “Discussion” sessions, these gatherings typically consist of two primary activities experienced in roughly equal shares of the scheduled class time. The first half of the class is dedicated to an interactive check-in between Professor and Students, followed by instruction and lecture by the Professor. This activity is then followed by active and hands-on exercises performed by students in group settings. This section is critical for students as they learn by doing, and for faculty as they are able to assess student comprehension of key concepts. In addition to group work, the intimate size of the small classroom also lends itself to skill building in delivering speeches and/or role-play in front of an audience. Room is equipped to support a variety of activities and settings, which require a range of lighting levels, analog/digital displays and lecture capture. Chairs proposed swivel and have casters to enable movement, include self-contained storage beneath seats to eliminate clutter and improve sense of security, and are made of a durable, plastic molding which is available in a range of colors.

INSTRUCTIONAL ACTIVITY

ENVIRONMENTAL

EQUIPMENT

ROOM ARRANGEMENT

TECHNOLOGY

CLASSROOM INVENTORY

CHAIR

TABLE

WRITEABLE SURFACE

DISPLAY SYSTEM
4.2 CONCEPTUAL DESIGN

LECTURE SETTING 1

GROUPWORK SETTING 1

CLASSROOM ATTRIBUTES

1. FURNITURE
2. EASE OF MOVEMENT
3. TECHNOLOGY
4. WRITEABLE SURFACES
5. CLEAR SIGHT LINES
6. BREAK-OUT SPACE
7. NATURAL LIGHT
8. ROOM TEMPERATURE
9. LIGHTING CONTROL
10. GOOD ACOUSTICS
11. ACCESSIBILITY
12. WASTE RECEPTACLES
### 4.3 ROOM DATA SHEET (SMALL CLASSROOM)

<table>
<thead>
<tr>
<th>AREA</th>
<th>600 NASF.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MINIMUM DIMENSION</td>
<td>Length : Width = 1.5x : 1x</td>
</tr>
<tr>
<td>MINIMUM CEILING</td>
<td>9'-6&quot;</td>
</tr>
<tr>
<td>STUDENT STATIONS</td>
<td>Up to 25.</td>
</tr>
<tr>
<td>FUNCTION</td>
<td>Interactive Check-In</td>
</tr>
</tbody>
</table>

### SPECIAL REQUIREMENTS

**CEILINGS**
Suspended acoustical ceiling system with smooth texture, light reflective, impact/scratch resistant, 2’x2’ or 2’x4’, white tiles and tegular lay-in grid.

**WALLS**
Metal framing with drywall on both sides. At partitions facing corridors, use staggered double studs. Insulate interior of all wall cavities with non-cellulose sound blankets. *(Optional: Full-height glass walls at corridors.)*

Paint (Field): Full-height, high-performance dry erase coating, white. *(Optional: Paint (Accent): No VOC, interior paint, semi-gloss, accent paint.)*

Base: resilient, pre-molded corners, coved at tile flooring and straight at carpet flooring.

Acoustically treat at least one surface of each pair of parallel walls between seated and standing ear height with sound absorptive materials. Treatments should have a minimum NRC of 0.75.

**FLOORS**
Wall-to-wall, vinyl composition tile or carpet tile (equal or greater than 10 stiches per inch, yarn weight of 20 to 30 ounces, stain/moisture/wear resistant, impervious type backing material, anti-static, UL Class A.

**WINDOWS**
Energy-efficient, transparent glazing to provide access to daylight and minimize heat loss or gain. Provide automated black-out shading to control light and glare while projection equipment is in use.

**DOORS**
36’ wide minimum, solid core, wood doors with vertical and narrow vision panel, . Provide 12” high, stainless steel sill plate on both sides. No transfer grills allowed.

Provide continuous rubber gasket seal at door header and jambs, and door bottom with nylon bushings.

**HARDWARE**
Per campus standards. Card or keypad access code required.

**HVAC**
Low velocity air flow. Lockable thermostat zone control.

Ensure that mechanical systems adhere to the guidelines provided in the latest version of the Noise and Vibration Control chapter in the ASHRAE HVAC Applications Handbook.

Where HVAC return paths to classrooms are not ducted acoustical boots should be used to maintain the composite sound isolation performance of enclosing assemblies.

**PLUMBING**
None. Do not route plumbing through or near classroom areas.
<table>
<thead>
<tr>
<th>LIGHTING</th>
<th>Indirect fluorescent lighting, 50 fc. Design should maximize use of available natural lighting. Local switches and flexible control through portable instructor’s device.</th>
</tr>
</thead>
</table>
| ACOUSTICS                        | Reverberation time (RT60 at 500 Hz): 0.5-0.7 second  
Partition Sound Isolation Performance: ≥STC 50  
Ceiling Sound Isolation Performance: ≥STC 50  
Ceiling/Floor Impact Insulation Performance: ≥IIC 45  
MEP Noise Control: ≤NC 30  
Environmental Noise Control: ≤ 35 dBA LAeq-15m, ≤ 50 dBA LASmax-15m  
All wall or ceiling penetrations shall be sealed with sound batt insulation (or fireproofing where required by code).  
Avoid concave surfaces and place acoustical treatments to minimize flutter echoes and control late reflections.  
Do not locate mechanical equipment (terminal units, transfer fans, and so on) above classrooms. |
| AUDIO/VISUAL EQUIPMENT           | Projector(s): Panasonic PT-DZ780K or similar, Brightness: min 6,500 ANSI lumens, HDBaseT built-in  
(Optional: Projection Screen(s): Da-lite, Draper or Stewart Filmscreen or similar)  
Projection rotation mount: Display Services, MRCM  
Smartboards: Not required.  
Instructor Station: Per campus standards  
Loudspeakers: High-clarity voice quality ceiling loudspeaker, SoundTube CM400i or similar  
Instructor Microphone: Per campus standards  
Student Microphones: Not required.  
Cameras: Remote-controlled, Sony SRG-300SE, minimum 12:1 zoom lens  
Control system: Per campus standards  
Lecture Capture: Remotely managed, Winnov, Cbox; indicate a light when recording function is in use.  
Wi-Fi Acces Ports: Per campus standards  
Wireless Presentation System: Extron, ShareLink 200N  |
| VOICE/DATA                       | In progress |
| POWER                            | In progress |
| SECURITY                         | In progress |
| OTHER CONSIDERATIONS             | Do not locate classrooms near or below spaces with loud activities, high impacts and/or high sound pressure level sources, such as fitness areas or mechanical rooms.  
Do not locate classrooms near electrical transformers, stairwells, elevator shafts, or elevator equipment rooms.  
Do not locate mechanical equipment (terminal units, transfer fans, and so on) above classrooms.  
Maintain distance between projection screen and seating: 1x to 1.5x the screen width  
Minimize glare from overhead lighting.  
Minimize contrast ratio between classroom field and projection screen.  
Provide backing plate at partitions with wall-mounted equipment. |
| OWNER-PROVIDED SUPPLIES          | Multi-pack, dry-erase markers and erasers, cleaner spray |
21st CENTURY CLASSROOM PLAN
CALIFORNIA STATE UNIVERSITY EAST BAY

POSTERS FROM THE FACULTY GROUP DISCUSSION

SMALL CLASSROOM (EXISTING)

ENVIRONMENTAL
DAYLIGHT & GLARE

EQUIPMENT
DUSTY CHALK BOARDS

INSTRUCTIONAL / LEARNING
TECHNOLOGY ENABLED

MAINTENANCE
WASTE RECEPTACLES /
CLEANLINESS

ROOM ARRANGEMENT
DISCUSSION MODE /
MOVEABLE CHAIRS

TECHNOLOGY
PROJECTORS
SMALL CLASSROOM (FUTURE)

- ADEQUATE INDOOR AIR PROVISION
- TECHNOLOGY ENABLED CLASSROOM WITH MULTIPLE SCREENS AND OUTLETS
- COMFORTABLE LOUNGE-TYPE SEATING FOR A RANGE OF USERS
- TIERED SEATING FOR CLEAR SIGHT LINES
- COMFORTABLE & MOBILE COLLABORATIVE SEATING
- ACCESS TO DAYLIGHT AND PROVISION FOR PERSONAL BELONGINGS
05 MEDIUM CLASSROOMS
5.1 MEDIUM CLASSROOMS

Classes with up to 26-50 student stations currently represent about 60% of the total inventory of classrooms on the East Bay campus. As the most common size of instructional space, it requires the most robust infrastructure to anticipate both current and future potential, collaborative, experiential learning environments. Wall space is prime real estate and to provide the most flexibility, partitions have full-height, writeable paint and at least two datums of backing plates are provided to support installation of monitors and projection screens on all walls. To enable faculty-student engagement and uninterrupted sightlines in a flat classroom, furnishings are adjustable in height. As learning styles are as varied as the number of student stations, the room has the capability for at least 6 settings, all of which can be arranged with the help of students in 30-seconds or less. Room is equipped with surface-mounted, floor raceways which terminate in access points that can be located throughout the learning space to support a variety of activities and settings, which require a range of lighting levels, analog/digital displays and lecture capture. Chairs proposed swivel and have casters to enable movement, and are made of a durable, plastic molding which is available in a range of colors. Tables are adjustable, collapsible, and incorporate integrated power outlets. As room occupancy is over 50, two exits are required.

INSTRUCTIONAL ACTIVITY

ENVIRONMENTAL

CLASSROOM INVENTORY

EQUIPMENT

ROOM ARRANGEMENT

TECHNOLOGY
5.2 CONCEPTUAL DESIGN

LECTURE SETTING 1

CLASSROOM ATTRIBUTES

1. FURNITURE
2. EASE OF MOVEMENT
3. TECHNOLOGY
4. WRITEABLE SURFACES
5. CLEAR SIGHT LINES
6. BREAK-OUT SPACE
7. NATURAL LIGHT
8. ROOM TEMPERATURE
9. LIGHTING CONTROL
10. GOOD ACOUSTICS
11. ACCESSIBILITY
12. WASTE RECEPTACLES
LECTURE SETTING

GROUPWORK SETTING 1

ELEVATION C
LECTURE SETTING

GROUPWORK SETTING

GROUPWORK SETTING 2

ELEVATION D
REFLECTED CEILING PLAN
5.3 ROOM DATA SHEET (MEDIUM CLASSROOM)

AREA 1200 NASF.

MINIMUM DIMENSION Length : Width = 1.3x : 1x

MINIMUM CEILING 9'-6"

STUDENT STATIONS Up to 50.

FUNCTION Lecture Demo | Group Work | Reflection

SPECIAL REQUIREMENTS

CEILINGS Suspended acoustical ceiling system with smooth texture, light reflective, impact/scratch resistant, 2’x2’ or 2’x4’, white tiles and tegular lay-in grid.

WALLS Metal framing with drywall on both sides. At partitions facing corridors, use staggered double studs. Insulate interior of all wall cavities with non-cellulose sound blankets. *(Optional: Full-height glass walls at corridors.)*

Paint (Field): Full-height, high-performance dry erase coating, white. *(Optional: Paint (Accent): No VOC, interior paint, semi-gloss, accent paint.)*

Base: resilient, pre-molded corners, coved at tile flooring and straight at carpet flooring.

Acoustically treat at least one surface of each pair of parallel walls between seated and standing ear height with sound absorptive materials. Treatments should have a minimum NRC of 0.75.

FLOORS Wall-to-wall, vinyl composition tile or carpet tile (equal or greater than 10 stitches per inch, yarn weight of 20 to 30 ounces, stain/moisture/wear resistant, impervious type backing material, anti-static, UL Class A.

WINDOWS Energy-efficient, transparent glazing to provide access to daylight and minimize heat loss or gain. Provide automated black-out shading to control light and glare while projection equipment is in use.

DOORS 36” wide minimum, solid core, wood doors with vertical and narrow vision panel, . Provide 12” high, stainless steel sill plate on both sides. No transfer grills allowed.

Provide continuous rubber gasket seal at door header and jambs, and door bottom with nylon bushings.

HARDWARE Per campus standards. Card or keypad access code required.

HVAC Low velocity air flow. Lockable thermostat zone control.

Ensure that mechanical systems adhere to the guidelines provided in the latest version of the Noise and Vibration Control chapter in the ASHRAE HVAC Applications Handbook.

Where HVAC return paths to classrooms are not ducted acoustical boots should be used to maintain the composite sound isolation performance of enclosing assemblies.

PLUMBING None. Do not route plumbing through or near classroom areas.
LIGHTING
Indirect fluorescent lighting. 50 fc. Design should maximize use of available natural lighting. Local switches and flexible control through portable instructor’s device.

ACOUSTICS
Reverberation time (RT60 at 500 Hz): 0.6-0.8 second
Partition Sound Isolation Performance: ≥STC 50
Ceiling Sound Isolation Performance: ≥STC 50
Ceiling/Floor Impact Insulation Performance: ≥IIC 45
MEP Noise Control: ≤NC 30
Environmental Noise Control: ≤ 35 dBA LAeq-15m, ≤ 50 dBA LASmax-15m

All wall or ceiling penetrations shall be sealed with sound batt insulation (or fireproofing where required by code).

Avoid concave surfaces and place acoustical treatments to minimize flutter echoes and control late reflections.

Do not locate mechanical equipment (terminal units, transfer fans, and so on) above classrooms.

AUDIO/VISUAL
Projector(s): Panasonic PT-DZ780K or similar, Brightness: min 6,500 ANSI lumens, HDBaseT built-in
(Optional: Projection Screen(s): Da-lite, Draper or Stewart Filmscreen or similar)
Projection rotation mount: Display Services, MRCM
Smartboards: Not required.
Instructor Station: Per campus standards
Loudspeakers: High-clarity voice quality ceiling loudspeaker, SoundTube CM400i or similar
Student Microphones: Not required.
Cameras: Remote-controlled, Sony SRG-300SE, minimum 20:1 zoom lens
Control system: Per campus standards
Lecture Capture: Remotely managed, Winnov, Cbox; indicate a light when recording function is in use.
Wi-Fi Access Ports: Per campus standards
Wireless Presentation System: Extron, ShareLink 200N

VOICE/DATA
In progress

POWER
In progress

SECURITY
In progress

OTHER CONSIDERATIONS
Do not locate classrooms near or below spaces with loud activities, high impacts and/or high sound pressure level sources, such as fitness areas or mechanical rooms.
Do not locate classrooms near electrical transformers, stairwells, elevator shafts, or elevator equipment rooms.
Do not locate mechanical equipment (terminal units, transfer fans, and so on) above classrooms.
Maintain distance between projection screen and seating: 1x to 1.5x the screen width
Minimize glare from overhead lighting.
Minimize contrast ratio between classroom field and projection screen.
Provide backing plate at partitions with wall-mounted equipment.

OWNER-PROVIDED
Multi-pack, dry-erase markers and erasers, cleaner spray
POSTERS FROM THE FACULTY GROUP DISCUSSION

MEDIUM CLASSROOM (EXISTING)

ENVIRONMENTAL
HEATING/ COOLING EQUIPMENT

EQUIPMENT
INCONSISTENT FURNITURE

INSTRUCTIONAL / LEARNING TECHNOLOGY ENABLED

MAINTENANCE
WEAR & TEAR

ROOM ARRANGEMENT
SCATTERED FURNITURE; ROOM DIVIDERS

TECHNOLOGY
PROJECTORS, SCREENS, WIFI

FORNIA STATE UNIVERSITY
MEDIUM CLASSROOM (FUTURE)

MULTI-MODAL; MULTI-SCALE

FORMAL & INFORMAL INSTRUCTIONAL SETTING

ADJUSTABLE SEATING & TABLES IN FLAT FLOOR ROOMS

ADJUSTABLE SEATING AIDS CLEAR SIGHT LINES

TEAL

TECHNOLOGY ENABLED CLASSROOM WITH MULTIPLE SCREENS FOR COLLABORATIVE WORK

VARIETY OF FLEXIBLE WRITEABLE SURFACES AND FURNITURE FOR COLLABORATIVE WORK
MEDIUM CLASSROOM (LAYOUTS)

“STORAGE BOX” BUILT IN

LECTURE SETTING

GROUP WORK SETTING 1

GROUP WORK SETTING 2

GROUP WORK SETTING 3

FLEXIBLE FURNITURE ACCOMMODATING VARIETY OF GROUP SIZES/ACTIVITIES

ANY OTHER SETTING?

CALIFORNIA STATE UNIVERSITY
POSTERS FROM THE STUDENT GROUP DISCUSSION

MEDIUM CLASSROOM (FUTURE)

- MULTI-MODAL; MULTI-SCALE
- FORMAL & INFORMAL INSTRUCTIONAL SETTING
- ADJUSTABLE SEATING & TABLES IN FLAT FLOOR ROOMS
- ADJUSTABLE SEATING AIDS CLEAR SIGHT LINES
- TECHNOLOGY ENABLED CLASSROOM WITH MULTIPLE SCREENS FOR COLLABORATIVE WORK
- VARIETY OF FLEXIBLE WRITEABLE SURFACES AND FURNITURE FOR COLLABORATIVE WORK
MEDIUM CLASSROOM (LAYOUTS)

LECTURE SETTING

GROUP WORK SETTING 1

GROUP WORK SETTING 2

GROUP WORK SETTING 3

FLEXIBLE FURNITURE ACCOMMODATING VARIETY OF GROUP SIZES/ACTIVITIES

ANY OTHER SETTING?
LARGE CLASSROOMS
6.1 LARGE CLASSROOMS

Classes with up to 51-75 student stations currently represent about 17% of the total inventory of classrooms on the East Bay campus. Large Classrooms are structured in the same manner as Medium Classrooms with one exception: incorporation of acoustically-rated room divider. This additional flexibility addresses the anticipated larger group sizes resulting from the shift from Quarter to Semester schedules, and the prolific use of electronic devices continually in use by faculty and students. The ideal geometry of these classrooms is square in proportion to optimize the learning environment. To that end, there is no “front” of the classroom and the space is generally omni-directional, mixed with range of furniture options, and multi-modal with respect to technology in use to support teaching and active learning. Based on student input, the active learning environment is enhanced by planning for 6-person collaborative group settings which have options for use of local display systems as well as sharing with entire class. Room is
6.2 CONCEPTUAL DESIGN

LECTURE SETTING 1

ELEVATION A
6.3 ROOM DATA SHEET (LARGE CLASSROOM)

AREA 1800 NASF.

MINIMUM DIMENSION Length : Width = 1.125x : 1x

MINIMUM CEILING 11’-0”

STUDENT STATIONS Up to 75.

FUNCTION Large Gathering | Individual or Group Work | Class Presentation | Summarize

SPECIAL REQUIREMENTS

CEILINGS Suspended acoustical ceiling system with smooth texture, light reflective, impact/scratch resistant, 2’x2’ or 2’x4’, white tiles and tegular lay-in grid.

WALLS Metal framing with drywall on both sides. At partitions facing corridors, use staggered double studs. Insulate interior of all wall cavities with non-cellulose sound blankets. (Optional: Full-height glass walls at corridors.)

Paint (Field): Full-height, high-performance dry erase coating, white. (Optional: Paint (Accent): No VOC, interior paint, semi-gloss, accent paint.)

Base: resilient, pre-molded corners, coved at tile flooring and straight at carpet flooring.

Acoustically treat at least one surface of each pair of parallel walls between seated and standing ear height with sound absorptive materials. Treatments should have a minimum NRC of 0.75.

FLOORS Wall-to-wall, vinyl composition tile or carpet tile (equal or greater than 10 stitches per inch, yarn weight of 20 to 30 ounces, stain/moisture/wear resistant, impervious type backing material, anti-static, UL Class A.

WINDOWS Energy-efficient, transparent glazing to provide access to daylight and minimize heat loss or gain. Provide automated black-out shading to control light and glare while projection equipment is in use.

DOORS 36” wide minimum, solid core, wood doors with vertical and narrow vision panel. Provide 12” high, stainless steel sill plate on both sides. No transfer grills allowed.

Provide continuous rubber gasket seal at door header and jambs, and door bottom with nylon bushings.

HARDWARE Per campus standards. Card or keypad access code required.

HVAC Low velocity air flow. Lockable thermostat zone control.

Ensure that mechanical systems adhere to the guidelines provided in the latest version of the Noise and Vibration Control chapter in the ASHRAE HVAC Applications Handbook.

Where HVAC return paths to classrooms are not ducted acoustical boots should be used to maintain the composite sound isolation performance of enclosing assemblies.

PLUMBING None. Do not route plumbing through or near classroom areas.

LIGHTING Indirect fluorescent lighting. 50 fc. Design should maximize use of available natural lighting. Local
switches and at portable instructor’s station.

ACOUSTICS

- Reverberation time (RT60 at 500 Hz): 0.7-0.9 second
- Partition Sound Isolation Performance: ≥ STC 50
- Ceiling Sound Isolation Performance: ≥ STC 50
- Ceiling/Floor Impact Insulation Performance: ≥ IIC 45
- MEP Noise Control: ≤ NC 30
- Environmental Noise Control: ≤ 35 dBA LAeq-15m, ≤ 50 dBA LASmax-15m

All wall or ceiling penetrations shall be sealed with sound batt insulation (or fireproofing where required by code).

Avoid concave surfaces and place acoustical treatments to minimize flutter echoes and control late reflections.

Do not locate mechanical equipment (terminal units, transfer fans, and so on) above classrooms.

AUDIO/VISUAL

- Projector(s): Panasonic PT-DZ780K or similar, Brightness: min 6,500 ANSI lumens, HDBaseT built-in
  (Optional: Projection Screen(s): Da-lite, Draper or Stewart Filmscreen or similar)
- Projection rotation mount: Display Services, MRCM
- Smartboards: Not required.
- Instructor Station: Per campus standards
- Loudspeakers: High-clarity voice quality ceiling loudspeaker, SoundTube CM400i or similar
- Instructor Microphone: Per campus standards
- Student Microphones: Not required.
- Cameras: Remote-controlled, Sony SRG-300SE, minimum 30:1 zoom lens
- Control system: Per campus standards
- Lecture Capture: Remotely managed, Winnov, Cbox; indicate a light when recording function is in use.
- Wi-Fi Access Ports: Per campus standards
- Wireless Presentation System: Extron, ShareLink 200N

VOICE/DATA

- In progress

POWER

- In progress

SECURITY

- In progress

OTHER CONSIDERATIONS

- Do not locate classrooms near or below spaces with loud activities, high impacts and/or high sound pressure level sources, such as fitness areas or mechanical rooms.
- Do not locate classrooms near electrical transformers, stairwells, elevator shafts, or elevator equipment rooms.
- Do not locate mechanical equipment (terminal units, transfer fans, and so on) above classrooms.
- Maintain distance between projection screen and seating: 1x to 1.5x the screen width
- Minimize glare from overhead lighting.
- Minimize contrast ratio between classroom field and projection screen.
- Provide backing plate at partitions with wall-mounted equipment.

OWNER-PROVIDED

- Multi-pack, dry-erase markers and erasers, cleaner spray
POSTERS FROM THE FACULTY GROUP DISCUSSION

LARGE CLASSROOM (EXISTING)

ENVIRONMENTAL
NOISY, UNINSULATED
HVAC UNITS

EQUIPMENT
CRAMMED WHITE BOARDS / PROJECTOR SCREENS

INSTRUCTIONAL / LEARNING
ASYMMETRICAL MOUNTING
LOCATION FOR PROJECTION

MAINTENANCE
PATCHWORK / WEAR & TEAR

ROOM ARRANGEMENT
DIRECTIONAL & INFLEXIBLE
FOR COLLABORATION

TECHNOLOGY
CEILING MOUNTED SPEAKERS
DISTANT FROM OCCUPANTS
LARGE CLASSROOM (FUTURE)

- SMALLER INTERACTIVE GROUPS IN LARGE CLASSROOM
- SMART BOARDS WITH CAPABILITY TO PROJECT ON MULTIPLE SCREENS
- SUFFICIENT POWER OUTLETS FOR ALL STUDENTS
- MULTIPLE PROJECTION SCREENS TO PROVIDE UNINTERRUPTED SIGHT LINES
- ACTIVE LEARNING ENVIRONMENT
- FLEXIBLE FURNITURE & PROXIMITY TO DAYLIGHT
LARGE CLASSROOM (LAYOUTS)

LECTURE SETTING

GROUP WORK SETTING 1

GROUP WORK SETTING 2

ANY OTHER SETTING?
POSTERS FROM THE STUDENT GROUP DISCUSSION

LARGE CLASSROOM (FUTURE)

SMALLER INTERACTIVE GROUPS IN LARGE CLASSROOM

SMART BOARDS WITH CAPABILITY TO PROJECT ON MULTIPLE SCREENS

SUFFICIENT POWER OUTLETS FOR ALL STUDENTS

MULTIPLE PROJECTION SCREENS TO PROVIDE UNINTERRUPTED SIGHT LINES

ACTIVE LEARNING ENVIRONMENT

FLEXIBLE FURNITURE & PROXIMITY TO DAYLIGHT
LARGE CLASSROOM (LAYOUTS)

LECTURE SETTING

GROUP WORK SETTING 1

GROUP WORK SETTING 2

ANY OTHER SETTING?
07
SPECIALTY CLASSROOMS
7.1 SPECIALTY CLASSROOMS

Classes with large volumes of student stations and which are taught in spaces with unique geometry currently represent about 16% of the total inventory of classrooms on the East Bay campus. Specialty Classrooms shall be organized with the same principles that inform others, which rely on a hybrid between lecture/large group and peer-to-peer/small group learning model. To address the longer duration of class period, sectional geometry of tiered rooms, and to promote mobility and access to/from professor and students, the traditional single aisle is expanded to create a wider platform that incorporates power/data drops, dedicated monitors for group work, and the potential for energy-efficient, low velocity displacement air. Special attention is given to acoustical treatment at flooring, walls and ceilings to improve speech intelligibility. Room is equipped to support a variety of lighting levels, analog/digital displays and lecture capture. As room occupancy is over 50, two exits are required.

INSTRUCTIONAL ACTIVITY

ENVIRONMENTAL

EQUIPMENT

ROOM ARRANGEMENT

TECHNOLOGY
7.2 CONCEPTUAL DESIGN

COLLABORATIVE LECTURE & GROUPWORK SETTING

SECTION
REFLECTED CEILING PLAN
7.3 ROOM DATA SHEET (SPECIALTY, TIERED)

AREA
Varies

MINIMUM DIMENSION
Length : Width = Varies

MINIMUM CEILING
15'-0" minimum, Varies

STUDENT STATIONS
Varies (160 at Mickeljohn)

FUNCTION
Lecture Demo | Group Learning | Break | Lecture | Group Learning | Next Steps

SPECIAL REQUIREMENTS

CEILINGS
Suspended acoustical ceiling system with smooth texture, light reflective, impact/scratch resistant, 2'x2' or 2'x4', white tiles and tegular lay-in grid.

WALLS
Metal framing with drywall on both sides. At partitions facing corridors, use staggered double stud. Insulate interior of all wall cavities with non-cellulose sound blankets. (Optional: Full-height glass walls at corridors.)

Paint (Field): Full-height, high-performance dry erase coating, white.
(Optional: Paint (Accent): No VOC, interior paint, semi-gloss, accent paint.)

Base: resilient, pre-molded corners, coved at tile flooring and straight at carpet flooring.

Acoustically treat at least one surface of each pair of parallel walls between seated and standing ear height with sound absorptive materials. Treatments should have a minimum NRC of 0.75.

FLOORS
Wall-to-wall, vinyl composition tile or carpet tile (equal or greater than 10 stiches per inch, yarn weight of 20 to 30 ounces, stain/moisture/wear resistant, impervious type backing material, anti-static, UL Class A.

WINDOWS
Energy-efficient, transparent glazing to provide access to daylight and minimize heat loss or gain. Provide automated black-out shading to control light and glare while projection equipment is in use.

DOORS
36" wide minimum, solid core, wood doors with vertical and narrow vision panel. Provide 12" high, stainless steel sill plate on both sides. No transfer grills allowed.

Provide continuous rubber gasket seal at door header and jambs, and door bottom with nylon bushings.

HARDWARE
Per campus standards. Card or keypad access code required.

HVAC
Low velocity air flow. Lockable thermostat zone control.

Ensure that mechanical systems adhere to the guidelines provided in the latest version of the Noise and Vibration Control chapter in the ASHRAE HVAC Applications Handbook.

Where HVAC return paths to classrooms are not ducted acoustical boots should be used to maintain the composite sound isolation performance of enclosing assemblies.

PLUMBING
None. Do not route plumbing through or near classroom areas.

LIGHTING
Indirect fluorescent lighting. 50 fc. Design should maximize use of available natural lighting. Local switches and at portable instructor’s station.
ACOUSTICS

Reverberation time (RT60 at 500 Hz): 0.8-1.0 second
Partition Sound Isolation Performance: ≥STC 50
Ceiling Sound Isolation Performance: ≥STC 50
Ceiling/Floor Impact Insulation Performance: ≥IIC 45
MEP Noise Control: ≤NC 30
Environmental Noise Control: ≤ 40 dBA LAeq-15m, ≤ 50 dBA LASmax-15m

All wall or ceiling penetrations shall be sealed with sound batt insulation (or fireproofing where required by code).

Avoid concave surfaces and place acoustical treatments to minimize flutter echoes and control late reflections.

Do not locate mechanical equipment (terminal units, transfer fans, and so on) above classrooms.

AUDIO/VISUAL EQUIPMENT

Projector(s): Panasonic PT-DZ780K or similar, Brightness: min 6,500 ANSI lumens, HDBaseT built-in
(Optional: Projection Screen(s): Da-lite, Draper or Stewart Filmscreen or similar)
Smartboards: Not required.
Instructor Station: Per campus standards
Loudspeakers: Passive line array, Innovox or similar, HLA Series
Instructor Microphone: Per campus standards
Annotation Device: Extron, Annotator Series
Student Microphones: Not required.
Cameras: Remote-controlled, Sony SRG-300SE, minimum 30:1 zoom lens
Control system: Per campus standards
Lecture Capture: Remotely managed, Winnov, Cbox; indicate a light when recording function is in use.
Wi-Fi Access Points: Per campus standards
Wireless Presentation System: Extron, ShareLink 200N

VOICE/DATA

In progress

POWER

In progress

SECURITY

In progress

OTHER CONSIDERATIONS

Do not locate classrooms near or below spaces with loud activities, high impacts and/or high sound pressure level sources, such as fitness areas or mechanical rooms.
Do not locate classrooms near electrical transformers, stairwells, elevator shafts, or elevator equipment rooms.
Do not locate mechanical equipment (terminal units, transfer fans, and so on) above classrooms.
Maintain distance between projection screen and seating: 1x to 1.5x the screen width
Minimize glare from overhead lighting.
Minimize contrast ratio between classroom field and projection screen.
Provide backing plate at partitions with wall-mounted equipment.

OWNER-PROVIDED

Multi-pack, dry-erase markers and erasers, cleaner spray
POSTERS FROM THE FACULTY GROUP DISCUSSION

TIERED CLASSROOM (EXISTING)

ENIRONMENTAL
ACOUSTIC WALL PANELS

EQUIPMENT
CHALK BOARDS ILLEGIBLE FROM REAR SEATS

INSTRUCTIONAL / LEARNING
INTEGRATED VOTING BUTTONS FOR TWO-WAY INTERACTION

MAINTENANCE
LACK OF SENSE OF PRIDE

ROOM ARRANGEMENT
TRADITIONAL LECTURE-TYPE SEATING, INFLEXIBLE FOR COLLABORATION

TECHNOLOGY
INTEGRATED SMART PROJECTION SYSTEM FOR LARGE AUDIENCE
TIERED CLASSROOM (FUTURE)

TIERED COLLABORATIVE ROOM ARRANGEMENT

WHITE BOARDS AT ALL TIERS TO FACILITATE GROUP WORK

AVAILABILITY OF POWER / WIFI / SPEAKERS FOR ALL STUDENTS

SMALLER INTERACTIVE GROUPS IN LARGE CLASSROOM

SLIDING SCREEN

LARGE PROJECTION SYSTEM FOR PROVIDING SIGHT LINES TO ALL STUDENTS

COMPLEMENTARY PROJECTION & WRITEABLE SURFACES
POSTERS FROM THE STUDENT GROUP DISCUSSION

TIERED CLASSROOM (FUTURE)

- TIERED COLLABORATIVE ROOM ARRANGEMENT
- WHITE BOARDS AT ALL TIERS TO FACILITATE GROUP WORK
- AVAILABILITY OF POWER / WIFI / SPEAKERS FOR ALL STUDENTS
- SMALLER INTERACTIVE GROUPS IN LARGE CLASSROOM
- LARGE PROJECTION SYSTEM FOR PROVIDING SIGHT LINES TO ALL STUDENTS
- COMPLEMENTARY PROJECTION & WRITEABLE SURFACES
TIERED CLASSROOM (LAYOUTS)

TEACHING & LEARNING @ CSU EAST BAY

TIERED LECTURE SEATING

TIERED COLLABORATIVE SETTING 1

TIERED COLLABORATIVE SETTING 2

ANY OTHER SETTING?
List of Classrooms
As reported to the Chancellor's Office

<table>
<thead>
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<th>BUILDING</th>
<th>ROOM NO.</th>
<th>CLASSROOM TYPE</th>
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<tr>
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</tr>
<tr>
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</tr>
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</tr>
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</tr>
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<td>Specialty (Tiered)</td>
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</tr>
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</tr>
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<td>Specialty (Computer Stns)</td>
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</tr>
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