Classroom Menu: Large Lecture Hall

Purpose

The large lecture represents our largest seating capacity classrooms. These spaces will incorporate the broadest range of installed technologies (e.g., installed computer hardwired to the network, digital projector, optical media player, document camera, web cam and microphone) to reach the maximum number of students across a variety of disciplines. Large display(s) and tiered seating will provide good sightlines and viewing angles of presentations to the students. Student seating areas should allow for interactions between nearby students, adequate space for student-provided technology (such as laptops or tablets), and access to power. The learning space will be enhanced with environmental upgrades such as aesthetically appealing décor, zoned lighting, acoustic enhancements, and maximized Wi-Fi coverage.

Goals

- Instructors will have easy access to presentation systems that will allow them to easily present, annotate, and record presentations.
- Simplified access to an ecosystem of instructional tools such as Polylearn, Student Response Systems (SRS), lecture capture and ample storage of files including rich media.
- Ability to leverage web based conferencing tools for expanding the classroom to guest speakers and remote participants.
- Basic whiteboard lectures will be able to be captured and viewed on displays via whiteboard capture system.
- Remote support of instructors and technology.
- Accessible instructor stations, seating and assistive listening systems sill seek to address ADA needs.
Classroom Menu: *Large Lecture Hall*

Classroom Components

**Services**
- On call technical support and maintenance
- Remote management and support tools
- University scheduled classes and events

**Technology**
- Large display(s) and confidence monitor for good viewing sightlines.
- Integrated classroom technology system with easy to use control system, switcher, computer, DVD, Document Camera, audio system, auxiliary device inputs (e.g., Laptop), and wireless device presentation connectivity.
- Enhanced presentation capture systems with, interactive touchscreen monitor, white board camera, and lecture capture.
- Maximum Wi-Fi density.

**Furniture & Environment**
- Comfortable tiered seating with power for student devices.
- Instructor workstation/podium with plenty of instructional space for various pedagogies.
- Lighting controls, window shades, carpet, acoustic treatment, colored accent wall.

**ADA:** Assistive listening system and accessible seating.

**Size:** 100 + seats

**Notes:** currently constrained to existing lecture spaces
Classroom Menu: Multimedia Classroom

Purpose

The Multimedia classroom offers an enhanced set of installed technology for instructional use. Flexible furniture allows for multiple seating arrangements, depending on lecture, presentations, and/or collaborative group work. This will allow faculty to deploy a variety of instructional pedagogies, ranging from traditional lectures to the “flipped classroom” model. The classroom environment will feature controlled lighting zones, carpet, acoustic panels, window treatments, refreshed paint and comfortable seats. Creating a learning space that is functional, comfortable and supportive of “learn by doing” for students and instructors alike.

Goals

• Instructors will have easy access to presentation systems that will allow them to easily present course topics utilizing a variety or media.
• Simplified access to an ecosystem of instructional tools such as Polylearn, Student Response Systems (SRS), and ample storage of files including rich media.
• Ability to leverage web based conferencing tools for expanding the classroom to guest speakers and remote participants.
• Leverage wireless display connectivity to allow instructors and students to display content.
• Flexible furniture will allow for various room configurations while enhancing faculty-student collaboration and interaction.
• Upgraded décor.
• Remote support of instructors and technology.
• Accessible instructor stations, seating and assistive listening systems will seek to address ADA needs.
Classroom Menu: **Multimedia Classroom**

### Classroom Components

| **Services** | • On call technical support and maintenance  
• Remote management and support tools  
• University scheduled classes and events |
| **Technology** | • Large display(s) and confidence monitor for good viewing sightlines.  
• Integrated classroom technology system with easy to use control system, switcher, computer, DVD, Document Camera, audio system, auxiliary device inputs (eg. Laptop), and wireless device presentation connectivity.  
• Maximum Wi-Fi density. |
| **Furniture & Environment** | • Comfortable, flexible seating and tables. Power for student devices.  
• Instructor workstation/ podium with plenty of instructional space for various pedagogies.  
• Lighting controls, window shades, carpet, acoustic treatment, colored accent wall. |
| **ADA** | Assistive listening system and accessible seating. |
| **Size** | 40-99 seats |
| **Notes** | currently constrained to existing lecture spaces |
Classroom Menu: Collaboration Classroom

Purpose

The Collaborative Classroom offers an enhanced set of installed technology for instructional and student use. This learning space is geared towards enhancing the classroom interaction through flexible seating arrangements and technologies that promote activity-based learning. These classrooms will allow students to interact and collaborate while being able to see presentation materials regardless of seat location. The space should allow for easy access to displays, whiteboards, power and network needs in a variety of configurations for its users. The environment should be comfortable with good acoustics, controllable lighting, and appealing aesthetics. Instructors will be able to present the class concepts on multiple displays as well as allowing for students to work in teams around shared displays.

Goals

• Instructors will have easy access to presentation systems that will allow them to easily present course topics utilizing a variety or media.
• Students seated in teams around tables with access to large displays allows for team based collaboration.
• Simplified access to an ecosystem of instructional tools such as Polylearn, Student Response Systems (SRS), and ample storage of files including rich media.
• Ability to leverage web based conferencing tools for expanding the classroom to guest speakers and remote participants.
• Leverage wireless display connectivity to allow instructors and students to display content.
• Remote support of instructors and technology.
• Accessible instructor stations, seating and assistive listening systems sill seek to address ADA needs.
Classroom Menu: Collaboration Classroom

Classroom Components

Services
• On call technical support and maintenance
• Remote management and support tools
• University scheduled classes and events

Technology
• Large display(s) and confidence monitor for good viewing sightlines.
• Integrated classroom technology system with easy to use control system, switcher, computer, DVD, Document Camera, audio system, auxiliary device inputs (eg. Laptop), and wireless device presentation connectivity.
• Student collaboration systems & displays
• Maximum Wi-Fi density.

Furniture & Environment
• Comfortable, flexible seating and tables. Power for student devices.
• Instructor workstation/podium with plenty of instructional space for various pedagogies.
• Lighting controls, window shades, carpet, acoustic treatment, colored accent wall.

ADA: Assistive listening system and accessible seating.

Size: 35-45 seats

Notes: currently constrained to existing lecture spaces
Classroom Menu: *Studio Lab*

**Purpose**

The studio lab brings “learn by doing” to a lab environment. These spaces seek to bring a fusion of the traditional computer lab and collaborative learning space. Students will be seated around tables with computers and desk space to work on in-class problems. Students will be able to view presented content on displays around the lab or on their computer screens. Instructors will be able to present new material or “flip” the class and focus on problem-based learning.

**Goals**

- Instructors will have easy access to presentation systems that will allow them to easily present course topics utilizing a variety or media.
- Students seated in teams around tables with computers allows for team based collaboration and “flipped” instructional pedagogies that require installed computers.
- Simplified access to an ecosystem of instructional tools such as Polylearn, Student Response Systems (SRS), and ample storage of files including rich media.
- Ability to leverage web based conferencing tools for expanding the classroom to guest speakers and remote participants.
- Leverage wireless display connectivity to allow instructors and students to display content.
- Remote support of instructors and technology.
- Accessible instructor stations, seating and assistive listening systems will seek to address ADA needs.
### Classroom Menu: Studio Lab

<table>
<thead>
<tr>
<th>Services</th>
<th>Technology</th>
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<th>ADA</th>
<th>Size</th>
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</tr>
</thead>
</table>
| • On call technical support and maintenance  
• Remote management and support tools  
• University scheduled classes and events | • Large display(s) and confidence monitor for good viewing sightlines.  
• Integrated classroom technology system with easy to use control system, switcher, computer, DVD, Document Camera, audio system, auxiliary device inputs (eg. Laptop), and wireless device presentation connectivity.  
• Student computers.  
• Maximum Wi-Fi density. | • Comfortable movable seating. Power for student devices.  
• Instructor workstation/podium with plenty of instructional space for various pedagogies.  
• Lighting controls, window shades, carpet, acoustic treatment, colored accent wall. | Assistive listening system and accessible seating. | 32-48 seats | currently constrained to existing lecture spaces |

*Classroom Components*
Classroom Menu: *Distance Learning Classroom*

**Purpose**

The distance learning classroom creates a special environment for classes that are designed to capture and broadcast out class sessions. These learning spaces are designed around enhancing the production values such as lighting and acoustics to increase the quality of captured lectures. A very specific set of installed instructional technologies such as high quality cameras and audio processing will allow for the instructor, students and course materials to be seen and heard wherever the end user may be. The classroom will allow users to communicate over a variety of distance learning, web or video conferencing systems.

**Goals**

- Instructors will have easy access to presentation systems that will allow them to easily present course topics utilizing a variety or media.
- Leverage high quality production equipment and environment to record and broadcast class sessions to distant students.
- Simplified access to an ecosystem of instructional tools such as Polylearn, Student Response Systems (SRS), and ample storage of files including rich media.
- Ability to leverage video and web based conferencing tools for expanding the classroom to receive guest speakers and remote participants.
- Remote support of instructors and technology.
- Accessible instructor stations, seating and assistive listening systems will seek to address ADA needs.
Classroom Components

### Services
- On call technical support and maintenance
- Remote management and support tools
- University scheduled classes and events

### Technology
- Large display(s) and confidence monitor for good viewing sightlines.
- Integrated classroom technology system with computer, DVD, Document Camera, audio system, and wireless device presentation connectivity.
- Enhanced presentation capture systems with, interactive touchscreen monitor, white board camera, video conferencing, and lecture capture.
- Video production system.
- Maximum Wi-Fi density.

### Furniture & Environment
- Comfortable, fixed seating. Power for student devices.
- Instructor workstation/podium with plenty of instructional space for various pedagogies.
- Studio lighting, carpet, acoustic treatment, colored accent wall.
- Video productions control room

### ADA:
Assistive listening system and accessible seating.

### Size:
30-50 seats

### Notes:
currently constrained to existing lecture spaces
Classroom Menu: *Smart Classroom*

**Purpose**

The Smart classroom offers the basic instructional needs for campus learning environments. Movable furniture will allow reorganization of the space for various activities and group interactions. Laptop connections and an easy to use control system, digital projector, optical media player, and digital AV inputs allow for a variety of instructional pedagogies.

**Goals**

- Instructors will have easy access to a basic presentation systems that will allow them to bring in their own laptop, tablet, or other device and easily connect to the display.
- Flexible furniture will allow for various room configurations while enhancing faculty-student collaboration and interaction.
- Leverage wireless display connectivity to allow instructors and students to display content.
- Upgraded classroom décor.
- Remote support of instructors and technology.
- Accessible instructor stations, seating and assistive listening systems will seek to address ADA needs.
Classroom Menu: **Smart Classroom**

### Classroom Components

**Services**
- On call technical support and maintenance
- Remote management and support tools
- University scheduled classes and events

**Technology**
- Projector
- Integrated classroom technology system with DVD, Laptop connections, and audio system.
- Maximum Wi-Fi density.

**Furniture & Environment**
- Comfortable movable seating with power for student devices.
- Instructor workstation/podium with plenty of instructional space for various pedagogies.
- Lighting controls, window shades, carpet, acoustic treatment, colored accent wall.

**ADA:** Assistive listening system and accessible seating.

**Size:** 18-30 seats

**Notes:** currently constrained to existing lecture spaces
Classroom Menu: **Learning Environment Principles**

**Learning Centered**
Learning outcomes, and thus the intended learning activities and instructional practices designed to achieve those outcomes, should be the central focus of all learning environment designs and elements within those learning environments.

**Technology for Instruction and Learning**
Learning environments should provide, and provide for, hardware and software technologies that enhance both teaching and learning. Instructional technologies and related software should be provided to instructors to allow options for methods and materials fitting a wide range of pedagogical approaches. Learning technologies (e.g., mobile digital technologies such as laptops, tablets, smart phones used by students) and related software should be provided for through robust wireless networking access and furnishings that accommodate their use.

**Inclusiveness**
A core principle of teaching and learning at Cal Poly is the embrace of diversity (broadly defined) and maximizing engagement and success of all students. Learning space designs need to recognize the diversity among students: physical capabilities, existing skills and abilities, and areas needing development. The goal is to maximize inclusiveness in campus learning environments.

**Consistency**
The array of instructional technologies available in university classrooms should be consistent in function and operation to minimize time diverted from teaching and learning activities. Design and deployment should be replicated to provide a consistent user interfaces for same room types across campus that look and function in familiar ways for faculty and students. Consistency maximizes time on task for faculty and students while also allowing for efficiencies in purchasing, maintenance, and refresh.

**Reliability**
Learning environments represent mission critical spaces that require maximum reliability to minimize down time. Greater reliability is achieved through selection of equipment and systems and design of support services and remote monitoring tools so that support staff can be responsive to issues. Reliability maximizes time on task for faculty and students to focus on learning activities.
Classroom Menu: Learning Environment Principles

Flexible Functionality
Designs should strive to accommodate the wide range of (newer and older) teaching methods that are in use in university classrooms. Furnishings should be easily movable and technologies should allow quick, low-effort reconfiguration between classes and within a class session so that arrangements can facilitate intended learning experiences.

Aesthetics and Comfort
To maximize outcomes, learning environments should be healthy, aesthetically attractive, and comfortable for instructors and students.

Low Complexity
Low complexity instructional technologies are preferred so that they can be understood and operated with minimal user preparation and minimal need for ongoing, in-class tech support.

Coordinated Physical and Digital Elements
Designs should encompass factors affecting student learning along with factors affecting faculty teaching, including technologies for teaching and learning as well as physical components such as furnishings, décor, and basic environmental factors (e.g., light, air, temperature) in ways that complement each other to maximize the effectiveness of each.

Supportability
Learning environments need to supported by trained technical staff ready to assist in a timely manner. Remote monitoring and control systems should be installed to allow for quick support response.

Phased Obsolescence
When older classroom technologies become obsolete to the point where support is no longer sustainable financially or operationally, they will be phased out on a schedule that is shared widely with stakeholders. Faculty should be provided support for format migration of instructional materials and evolution of instructional methods.

Life Cycle Expense Analyses
Design decisions should encompass long-term analyses of costs for hardware and software maintenance, refresh, and updating to ensure that associated expenses are manageable over time.