TTF Credit 1: Room Control

**Intent**
To enable participants in presenter roles to utilize the capabilities of the room using a single interface.

**Requirements**
Provide a control panel or similar mechanism at the presentation station that enables the user to access and control the room's functions. The user interface must enable the quick, straightforward interaction to configure and re-configure the room's settings. The control panel must offer both pre-set configurations as well as the custom resetting of individual room functions.

**Room Controls in Seminar Room**
- Each individual interactive whiteboard has an associated control panel that operates the board at the lower right corner of the board.
- Lights are controlled using switch plates. One switch plate is to the left of the entrance door and controls the indirect florescent lights. Another switch plate is on the wall to the left of the left side interactive whiteboard; this switch plate controls the direct, re-positionable incandescent and florescent lights.

TTF Credit 2: Adequate network access student locations

**Intent**
To ensure adequate network connectivity for participant work

**Requirements**
- **Option 1**: adequate wireless service to all points in the room
- **Option 2**: Ethernet jack at each seat

Both options: Sufficient connectivity to the campus network to support all course activities that participants need to perform.

Adequacy means sufficient bandwidth capacity to handle peak loads. What constitutes adequacy is relative to the requirements of the curriculum and activities that will be conducted in the space.

**Network Adequacy for Students in Seminar Room**
- Students have access to high-bandwidth wireless network access throughout the room that is sufficient for class activities which include streaming video and uploading video files.
- Wired ethernet ports are available in each of the eight floor boxes and on all four walls.
Seminar Rating Activity
Using Section 6: Tools, Technology, and Furniture (TTF)

TTF Credit 3: Adequate network connectivity for presenter location(s)

**Intent**
To ensure adequate network connectivity to support and enable presenter activities in support of active pedagogies.

**Requirements**
Option 1: wired access for each presenter location
Option 2: wireless access for each presenter(s)
Both options: Sufficient connectivity to the main campus network to support all course activities that presenters need to perform.

<table>
<thead>
<tr>
<th>Network Adequacy for Presenters in Seminar Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Presenters have access to high-bandwidth wireless network access throughout the room that is sufficient for class activities and presentations which include streaming video and uploading video files.</td>
</tr>
<tr>
<td>• Wired ethernet ports are available in each of the eight floor boxes and on all four walls; wall-based ethernet ports are in close proximity to typical presenter locations.</td>
</tr>
</tbody>
</table>

TTF Credit 4: Clear, high resolution visual displays supporting presentation and collaboration

**Intent**
To enable sharing of visual data, text, still and motion images by students and that are visible and easily accessible to all students.

**Requirements**
*Case:* Presentation/display for general best practice viewing of digital learning material
*Option:* Presentation: digital projection systems adhering to local AV best practice recommendations (XGA minimum), including native support for 16:9 or 16:10 aspect ratio images, that is easily accessible to anyone in the class seeking to share content with fellow learners, regardless of brand or type of digital data source (i.e., brand or type of computer, dedicated video output – DVD, CDROM, etc.).

All projection modes must support audio output from a presenter’s device (e.g. a dedicated instructor’s station computer or a presenter’s laptop) of sufficient volume and clarity.

<table>
<thead>
<tr>
<th>Visual Displays in Seminar Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>The room has two wall-mounted interactive whiteboards; each is equipped with the following:</td>
</tr>
<tr>
<td>• An XGA-capable projector</td>
</tr>
<tr>
<td>• Stereo speakers</td>
</tr>
<tr>
<td>• A dedicated instructor's station computer</td>
</tr>
<tr>
<td>• Video and audio cables for connecting a laptop or other device</td>
</tr>
</tbody>
</table>
Seminar Rating Activity  
Using Section 6: Tools, Technology, and Furniture (TTF)

TTF Credit 5: Session capture and playback

**Intent**
To generate recordings of the presenter's activities and interactions with students that are available for student review.

**Requirements**
Provide the components necessary to capture the presentation and materials used and generated in the presentation.

Basic presentation capture includes presenter's audio and presentation screens and automated with back-end processing and multiple output formats. The inclusion of shared writing surfaces, audience input, and remote presentations is desired.

**Session Capture in Seminar Room**
This room has no provision for session capture. However, the room is equipped with a mobile presentation-capture cart that is intended for the recording and subsequent upload of student presentations for the purpose of review by the instructor and other students.

TTF Credit 6: Support for Mobile Devices

[No content for Credit 6 was present in the alpha draft.]

**Support for Mobile Devices in Seminar Room**
- Wireless access may be used by any wireless-capable device registered on the network.
- Video adapters are available for a variety of common mobile devices at a nearby service point.

TTF Credit 7: Feedback Systems

[No content for Credit 7 was present in the alpha draft.]

**Feedback Systems in Seminar Room**
The room has no provision for feedback systems because such systems are not part of the pedagogies used.
Seminar Rating Activity  
Using Section 6: Tools, Technology, and Furniture (TTF)

TTF Credit 8: Includes appropriate furniture s

**Intent**
To ensure that furniture enables active learning options consonant with the space's overall purpose.

**Requirements**
Students must be able to position themselves to facilitate interaction with two or more peers; must also be able to change peers and teams more than once per class meeting.

*Case*: flat floor

*Option*: Seminar style with surrounding space that supports group or individual technology-enabled interaction, “team on-demand” teaching

<table>
<thead>
<tr>
<th>Appropriate Furniture in Seminar Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Chairs (16), mobile, stackable for storage</td>
</tr>
<tr>
<td>• Tables (8), mobile, tilting for storage</td>
</tr>
<tr>
<td>• Instructor station carts (2), mobile, height adjustable</td>
</tr>
</tbody>
</table>

TTF Credit 9: Physical Storage

**Intent**
To enable a variety of activities and better overall utilization by having needed equipment close at hand.

**Requirements**

*Case 1*: Gear to support general technology enabled learning e.g., a large or specialized display that can be wheeled in and out, used by all disciplines, or computational devices (e.g., laptops) retrieved from powered storage locations that support 1:1 computing activities in the space.

*Case 2*: Artifacts and other resources specific to a discipline and a course (e.g., artifacts for an Anthropology class on the ancient civilizations of Mesoamerica)

The key characteristic is storage is sufficiently proximate to the learning space so as to guarantee quick, easy access for setup and clearance of the space.

<table>
<thead>
<tr>
<th>Physical Storage in Seminar Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>The room has no storage closet or cabinets but does have a ‘nook’ in which either a presentation-capture cart or a container for small-group whiteboards may be stored.</td>
</tr>
</tbody>
</table>
Seminar Rating Activity  
Using Section 6: Tools, Technology, and Furniture (TTF)

TTF Credit 10: Adequate Access to Electrical Power

**Intent**
To ensure that all activities intended for the space have sufficient access to electrical power to enable active learning engagements

**Requirements**
Provide sufficient access to electrical power outlets for fixed equipment (such as dedicated projectors, installed computers) and for portable equipment that participants use during class sessions.

<table>
<thead>
<tr>
<th>Access to Electrical Power in Seminar Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Floor boxes (8) have two outlets each</td>
</tr>
<tr>
<td>• Each of the four walls have a minimum of two outlets</td>
</tr>
</tbody>
</table>

Beyond Utilization [http://www.educause.edu/E2011/Program/SESS103](http://www.educause.edu/E2011/Program/SESS103)
Adapted from LS LEED Credit Specifications alpha draft dated August 24, 2011