Application Guide for the National Taiwan University Multi-Purpose Classroom
Building Future Classroom

Approved by the Office of Academic Affairs Meeting on March 13th, 2020

I. The Digital Learning Center (hereinafter referred to as “DLC”) of the Office of Academic Affairs, National Taiwan University (NTU) has established this Application Guide for the management of the NTU Future Classroom (hereinafter referred to as “the Classroom”) in the Multi-Purpose Classroom Building.

II. NTU faculty members may submit an application to use the Classroom for teaching activities. Priority is given to the Ministry of Education (MOE) Teaching Practice Research Program and other academic research projects or trials for innovative teaching methods.

III. The Classroom is available for reservation during the NTU daytime class periods: 8:10AM to 18:20PM Monday to Friday

IV. Applicants must fill out and submit the application to DLC (Download the Application Form from the DLC website). Applicants who are executing MOE Teaching Practice Research Program or other research projects must provide related documents for the review process.

V. The Applicant must use the Classroom for two thirds (2/3) or more of the course weeks during the semester.

VI. The number of students of the course in the Classroom (including students from other schools, auditors, and other students) must not exceed 42.

VII. The Applicants must submit the application prior to the application deadline announced by DLC at the end of each semester. DLC will review the applications and announce the results. An Applicant approved for the first time must attend classroom equipment training.

VIII. Users of the Classroom must adhere to the following:
(I) Properly maintain the classroom equipment. The user is liable for compensation for any damage from improper usage.
(II) The management staff must be immediately informed of any existing equipment defect or damage prior to usage. The user is liable for the compensation of any equipment damage or exacerbated damage from usage after failing to inform the management staff of existing defects and damages.
(III) The user must take inventory of the classroom equipment and accessories after each lesson and is liable for any damage compensation.
(IV) The user must properly maintain the classroom environment and facilities. It is prohibited to modify the existing equipment and connect or change the power circuits. It is also prohibited to use non-teaching equipment or high-power electronic devices. The user is liable for compensation and repairs for any damage caused by overloading electronic equipment.

IX. If the course to apply for usage of the Classroom involves any of the following conditions, then the application shall be rejected; if an application already approved involves any of the following conditions, then the DLC may terminate access to the Classroom at any time and the user has no right to raise an objection:
(I) Violating the law or NTU regulations.
(II) Violating public order or good morals.
(III) Posing security concerns.
(IV) Deliberately damaging public property.
(V) The NTU Guidelines for the Control and Management of Noise Pollution shall be imposed for any noise created when using the Classroom if the user fails to heed warnings and correct any noise violations;
(VI) Other illegal behaviors.

An Applicant is prohibited from applying to the DLC for the use of the Classroom for a period of one year after a violation of the regulations stipulated above.

X. The Guidelines are effective upon approval by the Office of Academic Affairs Meeting and shall be implemented from the date of promulgation.
Introduction of the NTU Future Classroom and Related Important Information

I. About the Future Classroom

The NTU Future Classroom (originally classroom 401) is located on the 4th floor of the Multi-Purpose Classroom Building at the Main Campus. The construction was completed in February 2020, and the classroom was officially opened in March. It is currently under the management of the Digital Learning Center, Office of Academic Affairs. The design concepts of the Future Classroom include:

1. The introduction of advanced teaching equipment
   The classroom offers 9 wall-mounted interactive touch displays, one high-end touchscreen computer at the lectern, and other teaching equipment.

2. The implementation of IoT technology
   The interactive touch display comes with the built-in digital whiteboards, internet connectivity, USB file access, and other functions that support the display of diverse teaching materials.

3. In line with the BYOD trend
   The classroom supports wireless projection from various laptops and mobile phones, improving the source-switching efficiency and reducing layout issues or incompatibilities.

4. Creating a technology-embedded-active learning environment
   The classroom has features such as one-touch screen broadcasting, movable desk and chair, adjustable lighting, and ample space for flexible movement. Bringing students, teachers, and groups closer together.
## II. List of Equipment in the Future Classroom

<table>
<thead>
<tr>
<th>Type</th>
<th>Item</th>
<th>Quantity</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microphone</td>
<td>Wireless Handheld Microphone</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wired Handheld Microphone</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clip-on Microphone</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Display</td>
<td>75&quot; Interactive Touch Display</td>
<td>3</td>
<td>Located at the front of the classroom (side-by-side but the screen images are not continuous)</td>
</tr>
<tr>
<td></td>
<td>65&quot; Interactive Touch Display</td>
<td>6</td>
<td>3 on each side of the classroom</td>
</tr>
<tr>
<td>Lectern Computer</td>
<td>Microsoft surface studio 2</td>
<td>1</td>
<td>Win10 operating system, touchscreen</td>
</tr>
<tr>
<td>Desks and Chairs</td>
<td>Long Discussion Tables</td>
<td>12</td>
<td>Movable tables and the table surface can be written on (with whiteboard markers)</td>
</tr>
<tr>
<td></td>
<td>Student Seats</td>
<td>42</td>
<td>Movable chairs with writing boards</td>
</tr>
<tr>
<td>Central Control System</td>
<td>iPad (embedded central control software)</td>
<td>1</td>
<td>Controlling all the screen displays and the classroom lighting</td>
</tr>
<tr>
<td>Wireless Projection</td>
<td>Projection Dongle</td>
<td>20</td>
<td>3 * 6 sets + 2</td>
</tr>
<tr>
<td>Magnet</td>
<td>Round Neodymium Magnet</td>
<td>40</td>
<td>Used on wall-mounted glass whiteboards</td>
</tr>
<tr>
<td>Stationery, Consumables</td>
<td>Whiteboard Markers, Whiteboard Erasers,</td>
<td></td>
<td>Supplied by the Digital Learning Center based on the amount required by the lesson.</td>
</tr>
</tbody>
</table>
III. Interior Layout Plan of the Future Classroom

1. 6-group discussion mode

2. Lecture mode (all tables are placed against the walls)
IV. Photos of the Future Classroom

Exterior

Classroom view from the front door - 1

Classroom view from the front door - 2

Classroom view from the back

Lectern at the front of the classroom

3 screens at the front of the classroom
V. Overview of the Functions of the Future Classroom (The Introduction Video)

(I) What new features does the Future Classroom have compared to traditional classrooms?

1. Multi-Screen Display
   The 9 interactive touch displays can individually show different teaching materials, without the need for constant screen switching.

2. Image Transmission between Displays
   The central control system can transmit images across the 9 displays. Anywhere in the classroom can be the center stage.

3. Digital Whiteboard - Multi-Touch
   The digital whiteboard supports a maximum of 20-point simultaneous multi-touch. All group members can participate in the discussion at the same time, without the need for a whiteboard marker, which is clean and convenient.

4. Digital Whiteboard - Borderless Extension
   The digital whiteboard supports borderless extension writing space and can create unlimited pages, eliminating the need for clearing the whiteboards.

5. Digital Whiteboard - Content Storage and Sharing
   The digital whiteboard supports QR code scans download and USB file saving, making it easy to take away the essential information from the lecture.

6. Note-Taking on Any Screen Image
   Any screen image on the displays, whether it is a presentation slide, web page or picture, can directly be marked or made notes.

(II) What are the Future Classroom’s more convenient functions compared to traditional classrooms?

1. 4-Screen Split
   Each display can support simultaneous projections from 4 devices, which is very convenient for group discussions.

2. Massive Writing Space
   The walls of the classroom and the surfaces of the tables can be written on with whiteboard markers, allowing every idea to be easily recorded and never lost.

3. Flexible Seating Arrangements and Lighting Adjustments
   All the tables and chairs can be moved freely. There are several lighting options that can be chosen and adjusted. The classroom supports various teaching scenarios.

4. Remote Teaching
   The classroom offers external webcams and wireless microphones for direct audio reception so that the teacher may walk around freely without being tied to the lectern.
VI. **Important Information about Using the Future Classroom**

1. There is a large number of electronic equipment and tools in the classroom. In order to prevent damage and facilitate maintenance, **eating and drinking are not allowed in the classroom except for drinking water.** For classes starting at 8AM or classes during lunchtime, please consider instructing the students to comply with this requirement.

2. The classroom has adapters, stylus pens, and other small-sized equipment. Please verify that the used equipment is placed in its original storage location and that the quantities of the equipment are correct prior to the end of the class.

3. The classroom is equipped with access control and access is limited to the ID cards of Teachers and Teaching Assistants (TA) of the courses in the current semester.

4. Following above, initial use of the classroom requires more effort to become familiar with and to maintain the classroom environment. Teachers are recommended to arrange TAs or class leader to assist with opening and closing of the classroom, distributing equipment, equipment retrieval and inventory, and other tasks.

※ **Guided tours of the NTU Future Classroom are available to the faculty through reservations.**

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