Teaching in Carroll 111 – Instructor Best Practices

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Carroll 111 is one of two active learning halls on UNC's central campus. It seats 210 and is designed to support rich student interaction, instructor mobility and a variety of teaching methods. Instructors appreciate the level of student engagement it promotes, being able to interact directly with *all* students in the room, and experimenting with new teaching methods. Students value the ability to learn from one another, proximity to instructors and learning assistants, and the additional digital displays. Still, both instructors and students must make some adjustments in order to fully leverage the design of the room.

These guidelines draw on the experiences of instructors who have taught in Carroll 111 since its renovation during the summer and fall of 2021. It will continue to be updated to reflect the experiences of the faculty members and students using the classroom. Learn more about the use and pilot evaluation of Carroll 111.

General Layout

Carroll 111 is laid out in six learning zones, two on each of three different level tiers. One center and two side aisles afford movement between different tiers and zones. Each of the zones is labeled (A, B, C, D, E, F). The labels may be useful for dividing up roles and assignments across the classroom.

Both the main podium and the central podium with the Wacom digital pen display are fixed.

The student tables, while not fixed, are heavy and are not designed to be moved. Maintaining a standard amount of space between each table is important to the design goal of having instructors and learning assistants be able to access all students. Each table is equipped with standard and USB charging outlets.

There are eight aluminum stools and several height-adjustable chairs that can be used by learning assistants when they are not assisting students during class activities.

Orienting Students to the Classroom

For many of your students it will be their first time in Carroll 111, and for some it may be one of their first large courses at Carolina. Because it uses a different design than most of the University's lecture halls, it may take you and your students some time to adjust. According to the pilot semester evaluation results for this classroom, both students and instructors reported that they grew increasingly comfortable in the classroom as the semester progressed.

On the first day of class, introduce students to the classroom and how it will support your learning goals for the course. Here are several recommended strategies for helping students acclimate to Carroll 111:

- Express your own enthusiasm for being in the classroom and how it supports your preferred teaching methods.
- Ask your students to be patient as learners and with you as you learn how to use the technology and other room features.
- On day one, try to begin using the classroom as you intend to throughout the semester.
- Share some of the research literature that supports the importance of active learning and collaboration on student learning, as well as post-graduation career opportunities (consult your copy of *A Guide to Teaching in the Active Learning Classroom* or grab one of the slides from the orientation deck in our shared Sakai site under Resources/Orientations).
- During the first week or two, encourage your students to try sitting at different seats and tables.
- Talk to them explicitly about sightlines in the classroom and which monitors they prefer.
- Seek their input on the classroom at various points throughout the semester.
- Develop a classroom "etiquette" guide and discuss with students.
- If appropriate, encourage student buy-in by letting them help you craft the policies that will govern use of the classroom.

Some students may struggle to adapt to the classroom for reasons that include an over-stimulating environment or a strong preference to work alone. According to the results of the pilot semester evaluation, roughly 3% of students appeared to fall into these categories. Invite students who are not comfortable in the classroom to talk to you. There may be some strategies (e.g., finding a seat with a limited range of view) that can help. We can also consult with UNC Accessibility Resources and Service if necessary.

How to be Successful in an Active Learning Classroom

These are a few general suggestions for effective instruction in Carroll 111, based on research on active learning classrooms and feedback from instructors who have taught in the classroom. For more detailed consideration, your copy of *A Guide to Teaching in the Active Learning Classroom* is a good place to begin.

Strive for a balance of lecture, discussion, small group work, report-outs.

Students benefit from a balanced mix of instructional methods, but group work is especially important in a classroom designed for interaction. Students sitting at the tables of four will expect to interact; building regular collaborative learning strategies into your lessons is critical.

Move regularly throughout the room.

This classroom is designed to facilitate instructor access to all students, regardless of where they are sitting. Moving throughout the classroom allows you to establish a presence in all parts

of the classroom, interact directly with students, promote participation, and monitor student progress verbally and visually (e.g., small whiteboard content). Giving students multiple options to see you is also important since they will not all be facing the same direction.

Manage student expectations about eye contact with instructor.

Many students have been encouraged throughout their school experiences to always watch the instructor. With students facing different directions and using different monitors, this is not feasible in Carroll 111. You will need to give your students explicit permission *not* to watch you at all times. Talk to them about why and compensate for the lack of sustained eye contact with students by moving throughout the room.

There may be times when you do need the full attention of your students. Establish a common visual focal point in the room (e.g., front middle aisle) where most students will be able to see you by turning in their chairs slightly. You may want to use a common phrase or signal to help norm student compliance.

Do not feel obligated to take advantage of all the class features.

Focus first on getting comfortable with the basics (e.g., displaying course content, using collaborative learning activities, walking the room). As your comfort level increases, consider experimenting with room features that you have not yet used. Among the biggest adjustments to teaching in Carroll 111 that instructors have reported:

- Becoming familiar with all the technology options
- Developing and adapting learning activities for the four-student table format
- Getting in the habit of walking the room while lecturing
- Getting used to students not all looking the same direction
- Shortening lectures to accommodate more time for interaction

When Carroll 111 instructors were asked what advice they would give colleagues teaching in the room for the first time, these are some of the suggestions they offered:

"Give students clear instructions and set ground rules early."

"Don't feel like you have to use all the technology. The room is super valuable just based on the seating and group work and instructor access to students that it provides...".

"Move around the space as much as possible-- don't think about it as a lecture hall."

"Gradually implement whatever technology feels accessible to you."

"Keep in communication with other instructors who use the room. I wish I had observed other instructors use the room."

"Experiment and try new things but be flexible when activities or tech fail."

"Stand in the middle of the room; embrace group work -- the students get so much out of it; allow students to seat themselves and form their own primary groups."

"Use the whiteboards! Use the CatchBox mics!"

"Experiment with one new thing at a time. The table arrangements make collaboration easy - start there and build on that throughout the semester!"

Group Work

Carroll 111 is designed to support multiple instructional methods, including lecture and full class discussion. The design of this classroom, however, especially lends itself to small group work. Additional resources on active learning and effective group work activities include your copy of *A Guide to Teaching in the Active Learning Classroom* and the Resources folder on the CA 111 Instructors Sakai site. Center for Faculty Excellence (CFE) staff members are also available to consult at any time.

Here are a few of the issues instructors will need to consider:

Seat Assignment

Instructors who have taught in Carroll 111 take different approaches (or combine approaches) to student seating assignments, including:

- Not assigning seats/tables at all
- Not assigning seats/tables, but asking students to change tables at least once during the semester
  NOTE: Students may push back against leaving their groups, so let them know early in the semester that this is something you plan to do or will consider doing.
- Assigning students to a particular zone, but allowing them to sit anywhere within it
- Assigning students to specific tables
  NOTE: Each table is labeled with a Zone/Table number. A seating chart designed to facilitate the table assignment process can be downloaded from the CA 111 Instructors Sakai site under Resources/Groupwork:General.

Effective Group Interaction

Establishing healthy, effective group dynamics at each table will help ensure that your students are comfortable as learners and will help them make the most of small group interactions. A few strategies to consider:

- Use icebreakers to help students build community and establish trust. This may be especially important at the beginning of the semester or any time students are asked to sit with a new cohort of peers, but consider doing it on semi-regular basis.
- Establish a shared set of ground rules based on inclusivity and mutual respect that will help govern interactions at each table. Some instructors have students develop their own "contract" to guide interaction.
- Consider the use of *roles* at each table to help ensure that everyone is heard and included. For example, you could assign the roles of facilitator, recorder, reporter, and devil's advocate and have students rotate those or other roles on a regular basis.

Building and Managing Community

Consider options for expanding your culture of community beyond each table. For example, there may be days that some students find themselves sitting at a table alone. Encourage students at other tables to invite them to join or encourage students sitting alone to approach another table. Creating these expectations will make it more likely to happen.

Several instructors who have taught in Carroll 111 report that their students are so eager to talk to one another that getting them to stop or put off conversing can be a challenge. Strategies adopted to address these issues include:

- Using a standard phrase, sound, timer, or other signal to let students know you need their attention.
- Using consistent, explicit directions (both verbal and visual) about when students should work on their own, discuss with their tablemates or other tables, use the whiteboards, or listen. For example, consider including visual cues (icons, images) on your slides that make it clear what they should be doing at any given time.

Research on active learning classrooms suggests that when students become too socially comfortable with other students in a group, they may spend more time off-task or be at higher risk of groupthink. You may want to consider changing student groups at least once during the semester if this becomes an issue. Again, let them know early in the semester that this is something you plan to do or may consider doing.

Other Active Learning Strategies

Not all active learning methods have to be group-based. Even the popular think-pair-share activity begins with individual thought and reflection (the think part!). Class polls and minute papers are among many popular activities that do not involve collaboration. Using individual methods in tandem with collaborative activities can be especially effective.

Personal Whiteboards

Each table in Carroll 111 is equipped with four personal whiteboards, along with markers and erasing cloths. The whiteboards can be placed in metal brackets on the ends and middle of each table for display. The whiteboards are an easy way for instructors and learning assistants to visually assess how students are thinking about the course content. For many activities, you may find that having each table use one whiteboard is enough. Personal whiteboards are commonly used to:

- Help instructors learn student names
- Help students explain course concepts to one other
- Display group responses to activity prompts that instructors can browse
- Support inter-table work (e.g., having each table pass their whiteboard results to another table for review or further additions)
- Act as exam integrity partitions between students during exam administration

If you're asking students to display their work, send the message that it's valued by circulating and browsing as many as time permits, perhaps stopping to ask questions or sharing whiteboard contents with the rest of the class. You might take a photo of a whiteboard(s) and share it wirelessly via Solstice or consider having students share their whiteboard results under the ceiling camera in the back. Build in a little time at the end for students to erase their whiteboards and return them to hooks on the end of each table.

Mobility

A key design goal for this classroom is to make it easier for instructors and learning assistants to interact directly with *all* students, regardless of where they are sitting in the classroom.

Many instructors spend the bulk of their time in large classrooms at the front of the room. Getting in the habit of moving throughout the room may take some getting used to. Consider establishing some regular routes, and do not forget about the students sitting near the walls! It's easy to find yourself spending all your time walking up and down the middle aisle.

Keeping aisles and floor space within the learning zones as unobstructed as possible will help you navigate. Consider asking your students to store book bags and personal belongings in the storage bays beneath each seat. The best way to norm student behavior regarding space is for you to make use of that space on a regular basis.

The adjustable mobile cart in the classroom can be used to allow greater mobility throughout the classroom. Instructors can place their personal laptops or tablets on the cart and use the wireless option to display content. Some instructors use the cart to establish a presence in the center or back of the room, rather than the front. You might try setting up in different parts of the room. The cart can also be parked underneath the ceiling camera in the back to accommodate student sharing.

A simple slide advancer is another easy way to free yourself from the podium. If you need one, contact Vaughn Booker at ITS Classroom Hotline.

If you are using the Wacom digital ink display on the center podium at the front to annotate slides, remember to try to move about the room during activities and other times you are not lecturing.

You can control the classroom environment and display from either the front podium or the iPad located on the back wall. You will learn more about both options during the technology orientation for Carroll 111 that is offered before each semester.

Alternatives to Front Whiteboards

Instructors accustomed to large whiteboards used in traditional lecture halls must consider other options, as there are no wall-mounted writing surfaces down front. Given the large size of this space, notes and annotations projected on the room's displays will be easier for most students to see anyway.

In Carroll 111, instructors can either 1) use the digital Wacom display (includes digital pen) located at the front center of the room, 2) interact with a digital surface through your personal laptop or tablet

using Solstice or Splashtop, or 3) write on paper or a small whiteboard surface underneath one of the document cameras (front podium or ceiling document cam in the back). For instructors interested in using one of the wireless display options with a laptop or tablet, Solstice is easier to use and appears to have less lag time than the Splashtop software.

Digital Displays

Carroll 111 has two large displays down front, and each of the six zones has two smaller LCD monitors. Depending on where they are sitting, some students may be looking at displays and monitors across the room. Instructors can do a few things to ensure that students can clearly see content on the displays from a distance:

- The front ceiling lights over the main podium cast a glare on the front screens when they're on, making it harder for students to see. By default, these lights have been disabled. Instructors can turn them on and adjust them through the Environment button on the podium controls if desired.
- Instructors should try to use as large a font size as possible on slides that include text-based content. Also, make sure you maintain a good contrast between background and content colors on your slides.

Managing projectors and displays in Carroll 111 is very similar to other ITS-supported classrooms, but there are a few additional options for displaying your instructional content and student work:

- Display the same image on all monitors
- Display different images on different monitors
- Display images in specific learning zones only
- Display instructional content wirelessly from your phone, tablet, or other mobile device
- Display student content wirelessly from their handheld devices or laptops via Solstice
- Display digital notes/annotations via the Wacom touch screen at the front of the room
- Display instructor/student content via document cameras on either end of classroom

Instructors will learn more about these options during classroom technology orientation for Carroll 111, which is offered before the beginning of each semester. Keep in mind that if you ask all your students to download the Solstice app at the same time over the wireless network, it will likely take longer the first time.

Voice Amplification and Class Recordings

Instructors must use a clip-on wireless microphone when teaching in this classroom. It is a large space, and you will find that there are very few times when you are facing all of your students.

In a room as large as Carroll 111, students will NOT be able to hear one another across the room without voice amplification or a verbal intermediation strategy. Students can become frustrated when they cannot hear their peers during Q&A or full class discussion. You may decide to use different strategies depending on the situation.

- If you are not using microphones to capture student voices, you will need to consider repeating and/or paraphrasing student questions and comments.
- For voice amplification, you can use the handheld or CatchBox microphones. If you have student learning assistants, consider asking them to help you hand off the microphones to participating students.
- In order to minimize the time it takes to walk (or throw!) microphones to students, consider focusing questions and comments in one zone at a time and rotating.

A few notes about each of the wireless microphone types supported in Carroll 111:

Lavalier (clip-on) microphones:

- If the volume level is set properly, you should be able to use your regular speaking voice and all its natural richness and inflection. Speaking loudly into the mic does not represent your normal voice and may also invite feedback.
- You will likely want to turn off your microphone when you are interacting with students during group activities.

CatchBox microphones:

- The six CatchBox mics are stored in a locked cage at the front of the room. They should be returned to their charging stations in the cage at the end of each class period.
- Depending on their use throughout the day, some of the CatchBox mics may not be charged and viable at any given time. Consider planning your lessons around the use of fewer CatchBox mics. For example, some instructors will assign one CatchBox mic to each of the three tiers and have learning assistants walk them around; some instructors pick up one CatchBox mic and walk it around themselves through one or multiple zones.
- According to the results of a Spring 2022 semester student survey, nearly 40% said they were more comfortable speaking into a CatchBox mic than one of the black handheld mics (most were neutral). That said, 40% also said they worried at times about being able to catch a CatchBox mic if it was thrown to them. The CatchBox mics are designed to be throwable, but do not have to be in order to be effective.

Handheld microphones:

- There are three black handheld microphones stored in the podium drawer.
- All three can be turned on at the same time but using them in close proximity to one another can result in feedback.

During the pandemic, Carroll 111 was one of many classrooms outfitted with point-tilt-zoom cameras to facilitate classroom recordings. However, due to the ceiling height this classroom is not equipped with ceiling mics to facilitate interaction between in-person and remote participants. As such, this is not a HyFlex classroom. Learn more about your options for recording a class session.

Classroom Reset

At the end of each class, we ask that:

- Chairs be returned to their places at each table;
- Personal whiteboards be wiped clean and re-hung;
- CatchBox mics be returned to the storage cage and placed on the chargers;
- Trash and other personal belongings be removed.

As a courtesy to your fellow instructors, please also remember to log out of your personal account on the classroom computer at the end of each class period.

Technical Support

If you have any problems or questions regarding the classroom technology, please pick up the red phone that connects you immediately with someone at ITS Classroom Hotline. You can also request an individual consultation at any time by submitting a request at hotline.unc.edu.

Other Questions?

CFE staff members are happy to talk to you about strategies for teaching effectively in Carroll 111. Do you have a small group activity or classroom management idea that you would like to get some input on? Let us hear from you!

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