Fall 2020

Guidelines for Reopening

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ECU School of Music
COVID Pirate Preamble
The following operational guidelines have been developed by ECU’s School of Music COVID Action Team in an effort to create a safe environment that allows for the most authentic learning experience possible. The following guidelines have been established by considering the latest research and best practices from professional organizations and in keeping with standards set forth for the entire university community at ECU. Though these guidelines may take adjustment of actions and attitude, it is important for all students, staff, and faculty to understand the importance of such guidelines and to adhere to them on a daily basis.

Our hope is that by following these guidelines strictly and to the best of our ability, faculty, staff and students will be able to engage in a safe learning environment and to have the best learning experience possible.

As university members we have critical role in adhering to these guidelines in order to protect one another. As a school body, we encourage you to honor this pledge throughout the coming school year to keep our university and surrounding community safe.

School of Music Pirate Pledge
I pledge to do my part to keep our school and community safe as I return to Greenville, NC and East Carolina University Campus.

I understand that I am pivotal in the fight against COVID-19 and commit to taking the actions outlined here for the safety of myself and others. I understand that I must be an accountable member of the School of Music Pirate community, and I pledge to do this for others.

I pledge to support the School of Music by:
  • Following all public health guidelines and guidelines set forth by ECU.
  • Taking responsibility by avoiding high traffic situations on and off campus.
  • Following rigorous hand washing and sanitation while on campus and at home.
  • Strictly following guidelines specific to music related activities outlined in this guide.
  • Modifying my actions and being an encouragement to others to adhere to health guidelines and recommendations over time.

By taking this pledge, I promise to do all I can to be aware, responsible, and accountable as a member of the ECU School of Music Community. I pledge to do this for myself, but most importantly for others in preventing the spread of COVID-19.

*adapted from University of South Carolina’s COVID-19 pledge*
General Facility guidelines

Building hours
Fletcher Music Center will be open as follows:

- ECU students, faculty and staff: 7:00am – 5:00pm, Monday-Friday
  - All visitors must adhere to the regulations at the website below
  - [https://returnofpiratenation.ecu.edu/visitors/](https://returnofpiratenation.ecu.edu/visitors/)
- Music students and faculty via OneCard:
  - 5:00pm – 11:00pm, Monday-Friday
  - 7:00am – 11:00pm, Saturday and Sunday
- The building will be locked every day from 11:00pm – 7:00am and only accessible by authorized personnel (i.e. campus police, facilities services, and custodial staff).

Face Coverings
In accordance with ECU’s regulation ([https://www.ecu.edu/prr/05/20/11](https://www.ecu.edu/prr/05/20/11)) face coverings MUST be worn by all students, staff, faculty and visitors while inside a University building. This includes all in-person classroom/practice room settings, public or communal work areas, libraries, dining settings and residence hall common areas.

A special exception has been granted for wind players and singers (students and faculty) while they are practicing in a closed room, taking lessons, actively participating in ensemble rehearsals or otherwise directed by a faculty member.

Entrances and Exits
All students, faculty, and staff are asked to use appropriate entrance and exit doors which will be labeled appropriately on the exterior doors, classrooms and Recital Hall.

AJ Fletcher Lobby Areas
Lobby areas at the front of AJ Fletcher near the Recital Hall and near the main office will be cleared of all furniture and students will not be allowed to congregate in those spaces. Students are encouraged to gather in outdoor spaces while observing proper distancing (weather permitting, of course).

Elevator use
The use of the elevator will be limited to those who REQUIRE its use. If you must use the elevator it must be limited to ONE person at a time.

Hallways and Stairs
All students, faculty and staff are asked to obey the directional arrows as posted.
In general:
- Maintain 6 foot spacing at all times.
- The main stairway will be UP only.
- The stairways on the east and west ends of the building will be DOWN only.

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• Hallways on the second and third floor will operate in a CLOCKWISE fashion.
• Hallways on the B and C wings will be two-way but we ask that you stay to the RIGHT and distance appropriately to oncoming traffic.

Classrooms/Studios
In general, to allow maximum time for the dispersion of aerosolized particles, we ask that students and faculty:
• Vacate classrooms/studios as soon as possible at the conclusion of rehearsals, classes, or lessons using appropriately labeled doors (B105 and B110 especially) weather permitting.
• When possible, allow time for rooms to be completely empty for an extended period between events. HEPA filtration devices will be made available for faculty teaching studios.

All classrooms will operate at 50% capacity. Maximum occupancies will be posted and are listed below to allow for approximate 6 foot spacing of students and instructors. Rooms A305 and A306 have been reserved for applied voice teaching and will not be used as classrooms or rehearsal spaces.

<table>
<thead>
<tr>
<th>Room</th>
<th>Capacity</th>
</tr>
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<tbody>
<tr>
<td>Recital Hall</td>
<td>50</td>
</tr>
<tr>
<td>B105</td>
<td>20</td>
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<tr>
<td>B110</td>
<td>40</td>
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<tr>
<td>B126</td>
<td>10</td>
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<tr>
<td>B136</td>
<td>35</td>
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<tr>
<td>A200</td>
<td>18</td>
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<td>A215</td>
<td>14</td>
</tr>
<tr>
<td>A216</td>
<td>15</td>
</tr>
<tr>
<td>B265</td>
<td>13</td>
</tr>
</tbody>
</table>

Music stands and other equipment
To minimize transmission of virus particles through shared touchable surfaces (fomites), faculty and students should avoid any and all sharing of materials, including pencils, pens, markers, notebooks, textbooks, computers, pianos, etc.

Music stands traditionally accessible for student use in rehearsal and practice rooms will NOT be available for use. Students are encouraged to have a portable music stand on hand to use for ALL situations where a music stand might be necessary. Music stands in faculty studios will remain at their purview and discretion.

Music Library
The Music Library is maintaining its commitment to remain open with limited hours, limited capacity, increased social distancing, increased sanitization, and other measures in place. Staff will be available in-person and remotely for assistance. Specific guidelines will be posted.
Meetings
All meetings of faculty and student organizations are expected to be virtual. Rooms in the School of Music will not be reserved for such purposes.

Practice rooms
Practice rooms maintain the possibility of containing the highest density of aerosolized virus in the building. To help to regulate usage of these rooms to the best of our ability, the following guidelines will be instituted.

- If at all possible, do not practice in the building. Seek out larger and safer places.
- There can only be one person in a room at a time.
- Grand Piano practice rooms will be regulated by the Keyboard department. See section of this document regarding piano usage.
- Percussion practice rooms will be regulated by Dr. Wacker.
- Upon entering and leaving any practice/rehearsal room, all surfaces must be wiped down. (chairs, bench, piano etc.) Please see “Piano” section of this document for instructions on properly cleaning a piano.
- Upon leaving, wipe down knobs and leave the door open.
- All practice space must be reserved with Thomas in the main office. Procedures are as follows.
  o Email sissont18@ecu.edu your preferred practice time(s). These times should remain consistent throughout the semester.
  o Room reservations will be posted on each door every Monday.
  o Individual practice time will be limited to 4 hours per day.
  o Practice rooms may be reserved between 8:00am and 11:00pm.
  o Assume an empty practice room has been reserved.

Concerts
Solo/chamber music
- A limited number of live student and faculty recitals will be allowed to take place with proper social distancing in place. Audiences will be limited to 10 persons only. These live concerts will be available to be attended virtually through the School of Music LiveStream.

Ensembles
- With few exceptions, there will be NO live, in-person performances of large ensembles that are open to the public until further notice. As such, any performances for ALL ensembles will be presented digitally (by produced YouTube content or livestream).
Guidelines for Lecture style classes

- Face masks must be worn at all times.
- Classroom seating/standing must utilize distancing of at least 6 feet at all times (6 feet recommended and should be followed whenever possible).
- To allow for more efficient/effective contact tracing (if/when needed):
  - All seating will be assigned, and must be strictly enforced by faculty, who must also create a seating chart to be submitted to office staff.
  - Instructors will keep consistent/accurate attendance records for the entire semester.
- Course attendance policies should acknowledge and support students who may become ill, without creating barriers or requiring unnecessary visits to health facilities for documentation of illness.
- Classroom access should be limited to those who are required to be present.
- All 7.5-week courses will have a hybrid/online element.
- 15-week courses that remain Face-to-Face (F2F), may include hybrid/online elements as well. However, F2F instruction must still make up at least 50% of weekly class time.
- All courses should provide alternative delivery of instruction for students in quarantine or isolation.
- All office hours/student meetings should be held virtually (WebEx or similar).
- All tutoring sessions (outside of class) should be held online, when at all possible. If in-person meetings must be held:
  - they must be in a large room adhering to posted classroom occupancy guidelines
  - everyone must be wearing masks
  - distancing of 6 feet must be maintained at all times.
  - sessions must be limited to 30 minutes or less.
- As much as possible, assignments should be given and submitted online, to avoid the need to hand out or pass back papers in class.
- Faculty/staff/students should wipe any and all spaces, using disinfectant wipes, before and after their own use of those spaces (desks, chairs, tables, keyboards, pianos). Please see “Piano” section of this document for instructions on properly cleaning a piano.
- To reduce/eliminate “queues” in hallways between classes, instructors must be sure to end at or before the designated time (this will also allow time to wipe down all classroom surfaces).
- Instructors and students should be prepared to switch to fully-online instruction at any time, should we be directed to do so.
Guidelines for ALL courses that involve SINGING

It has been determined that the increased risk of exposure related to the projection of aerosols while singing is highly probable. Therefore, ALL students and faculty must act with an abundance of caution when involved in instructional situations that involve singing.

Applied Vocal Instruction:

**MUSC 1061, 1062, 3062, 6061, 6062**

It is suggested that applied voice study for the Fall 2020 semester be a combination of online and in-person instruction at the discretion of both the student and professor involved. Choices should be made on an individual basis in an effort to meet the safety and instructional needs/concerns of both parties.

Any in-person vocal instruction should take place in a large space, with a barrier and at least 8-10 feet between student and teacher. Face coverings should be worn by both teacher and student whenever possible, understanding that some elements of instruction will require removal when singing. Rooms 305 and 306 have been cleared and outfitted with transparent dividers, specifically for in person applied voice instruction. These 15 x 22 foot rooms allow for a distance of up to 20 feet between student and teacher, combined with a physical barrier.

Applied teachers may opt to shorten the length of any in-person instruction to allow for adequate dissipation of aerosol particles between singing events.

**Vocal/Choral Ensembles:**

**Chamber Singers:** MUSC 1675/6675

**Concert Choir:** MUSC 1625/6625

**University Chorale:** MUSC 1635/6635

**Collegiate Choir:** MUSC 1895

It is suggested that choral ensembles for the Fall 2020 semester incorporate a combination of online and in-person instruction. Any virtual instruction and/or small group work that limits the amount and number of singers involved in in-person instruction is encouraged.

In person rehearsal times may be shortened in length and take place in a large facility (with adequate ventilation and at least 6-8 feet of space between singers) or outdoors when weather permits. The School of Music has secured both indoor and outdoor rehearsal facilities that provide adequate space and ventilation, etc. Singers should wear face coverings at all times.

**Sight-singing (MUSC 1176, 2176, all sections),**

**Group Voice (MUSC 1205, all sections)**

**Conducting (MUSC 3156, all sections)**

A combination of online and in-person instruction is encouraged. In-person meetings will take place in a space that allows for at least 6-8 feet of distance between students. Students and professor should wear face coverings at all times.

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Guidelines for Piano and Keyboard use in classrooms and studios

Group piano
*MUSC 1105, 1115, 2105, 2115*
Class piano will operate at 30% capacity (1/3 of class will attend daily). The in-person weekly class will be for presentation of material and assignments. The other 2/3 time will consist of students submitting video assignments and teachers grading and giving feedback via email or zoom to individuals or small zoom groups. Students will be placed 6 feet apart and will be given a seat assignment which will remain consistent throughout the semester. After each class keyboards and all other surfaces in the classroom will be thoroughly cleaned and disinfected, including doorknobs. Students will wait to enter and exit all at the same time as to not cross contaminate. Face coverings must be worn at all times and will be outlined in the syllabus. Students will be required to have access to a keyboard so they can practice and submit assignments. Instructors and students should be prepared to switch to an online format if it becomes necessary. Headphones as in the past will NOT be provided by ECU but as in the past students MUST provide their own headphones.

Applied Lessons
*MUSC X01X, X02X and X03X (piano, organ or harpsichord)*
Lessons will be in keyboard offices, but the student and teacher will always remain at least six feet apart. Transparent partitions will be used and face coverings must be worn at all times. Lessons will be no more than 50 minutes with at least 10 minutes between each student. After each lesson the teacher will clean and disinfect all surfaces and doorknobs. Classes larger than 2 persons will be moved to a larger space. Instructors and students should be prepared to switch to an online format if it becomes necessary. Studio classes will be held in the recital hall, maintaining social distancing at all times. Please make sure to wash your hands before and after each lesson.

Practice Rooms
Two pianists will be assigned one practice room. Please leave at least 1 hour between each student for the air to clear. Upon arriving and leaving students are required to clean and disinfect all surfaces, including doorknobs, paying close attention to the keyboard. Read section below about safe keyboard cleaning practices. No more than one person allowed in each practice room. If more than one person is needed for a rehearsal a larger space that allows social distancing will be required as well as face coverings at all times.

Collaborative piano
Each collaborative pianist will have the use of the professors’ collaborative studio in off hours as well as use of larger offices. If one or more individuals are present in the studio, face coverings must be worn unless it becomes necessary for the performance of the instruments. Social distancing is required at all times. Upon leaving the office the students will clean and disinfect all surfaces and keys. Read the section below about safe keyboard cleaning practices. Studio classes will be held online until further notice.
The small piano practice rooms will only be used for individual practice sessions, not rehearsals with other students. Use of a larger space will be required for all rehearsals with more than one person. For lessons with the partners, larger spaces with partitions will be used, including spaces with transparent partitions. This is also in conjunction with the applied professors’ discretion. Face coverings will be required to be worn at all times during rehearsals and lessons unless it is necessary to remove for the performance of an instrument. Social distancing is required at all times. Instructors and students should be prepared to switch to an online format if it becomes necessary. Please make sure to wash your hands before and after each lesson.

Organ
As many organ classes and lessons as possible will be held at St. Paul’s Church. For lessons the teacher and student will maintain at least 6 feet apart at all times. Please make sure to wash your hands before and after each lesson. Face coverings must be worn at all times and social distancing will be required. Instructors and students should be prepared to switch to an online format if directed. Students will be requested to select one practice organ at the School of Music, and to limit their practice to that one instrument until further notice. This will be worked out at the first meeting of the year.

Proper Keyboard Cleaning
As directed by the Piano Technicians Guild, https://www.ptg.org/covid-19, when cleaning any piano:

- Always use alcohol-based disinfectants, DO NOT use bleach-based disinfectants or any product containing citrus.
- If using a spray or liquid bottle, put the disinfectant on a disposable towel and not the piano. After use, immediately put the towel or disinfectant hand wipe in the trash and wash your hands as the CDC recommends.
- Do not use reusable towels or cloths which could spread germs to other students.
- Immediately follow up with a dry disposable towel and never leave any liquids on the piano or keys. Generally speaking, most disinfecting wipes or sprays should be safe to use on the keys.
- For the casing of the piano, test the disinfectant in a discrete area before moving forward to ensure there is no adverse reaction (i.e. discoloration, sheen changes etc). If the finish is not impacted, proceed in cleaning the case of the piano.
- Cleaning pianos is a gentle process not a scrubbing process. Pressing hard or vigorous scrubbing may lead to scratching or removing the finish. Always proceed with caution and use common sense. Remember to wash your hands after you have thrown away the towels or wipes.
Guidelines for Instrumental Applied Teaching

General considerations
- Begin with the assumption that *any* individual is infected and capable of transmission.
- Wear a mask whenever you are not playing.
- Wash/sanitize your hands often, and never touch your face unless you have just washed and dried your hands.
- Do not share anything (books, mouthpieces, bows, etc.), and don’t touch anything anyone else has touched.
- Use nylon bell covers for brass and wind instruments.
- If your instrument collects water, empty water into an absorbent material that can be cleaned or thrown away.

Space considerations
- Teach outdoors if possible. It is by far the most effective way to prevent transmission. If teaching indoors, use the biggest space (cubic volume) available.
- Designate personal space: divide the area into space you use and space students use.
- Even within personal spaces, stay as far as possible from each other. 6 feet of distance is a recommended *minimum* guideline designed for people in masks breathing silently. Any distance greater than 10 ft is recommended.
- Everyone should sanitize the space in the room they inhabited both on the way out and on the way in.

Time considerations
- Limit the amount of time each lesson lasts and allow time (30 minutes +) between lessons. Consider more, shorter lessons, and consider changing the times to afford yourself a larger space.
Guidelines for Instrumental Ensembles (small/large)

It has been determined that the increased risk of exposure related to the projection of aerosols while playing wind instruments is highly probable. Therefore, ALL students and faculty must act with an abundance of caution when involved in instructional situations that involve playing wind instruments.

Instrumental Ensembles including:
Wind Ensemble (MUSC 1735/6735), Symphonic Band (MUSC 1765/6785), Concert Band (cancelled for Fall 2020)
Symphony Orchestra (MUSC 1745/6745)
Jazz A and B Band (MUSC 1775/6775)
Jazz Combos (MUSC 1865/6855)
Percussion Ensemble (MUSC 1825/6825)
All Instrumental Chamber Music

Guidelines for rehearsals and performances of instrumental ensembles have been informed by studies dealing with best practices for social distancing measurements, timings of rehearsals, etc. How many players of differing instruments will be dictated by studies showing exact distances coupled with the sizes of the individual rehearsal rooms available.

Mask and shield use
- Masks should be worn by all faculty, students and staff prior to entering the rehearsal room. Masks should continue to be worn until all students are seated and ready for instruction (example, long rests, sectional work, moving around the room, etc.)
- In instrument groups where a mask cannot physically be worn, the mask should be worn over the chin and replaced during periods where the student is not playing.
- No talking should occur in the room without a mask being properly worn.
- When possible a mask with a small slit or flap for mouthpiece access should be worn while playing.
- Any instrument specific protection needed should be used in rehearsal (i.e. flute guards, nylon bell covers etc).
- Conductors should have access to face shields in order to communicate with ensembles and still be protected. Plastic partitions should be provided if available.

Personnel
- As few sharing of ensemble members by different ensembles (particularly at the same time) as possible in order to avoid cross-contamination amongst student (and instructor) populations.
Distancing protocols

- Social distancing should occur as suggested by the CDC. Currently that distance is a 6 x 6 foot space around each student with the student sitting in the center. Straight lines should be used as curved setups can affect the aerosol movement in a room.
- Trombones should have an additional three feet of distancing making their space 9 x 6. The player should be seated three feet in front of the back line, leaving an additional six feet in front of them due to the extended nature of the instrument and slide that can be in extended position.
- Students should sit all facing the same direction, back to front to minimize potential exposure.

Hygiene and Sanitation

- Spit valves should not be emptied on the floor. Recommend using an absorbent “puppy pad” (or similar) or “Windsorb” to catch the contents of the spit valve and discard.
- Anyone who enters the rehearsal room should bring a 70% alcohol wipe to wipe all surfaces before and after touching. The wipe should be discarded properly upon leaving the rehearsal room.

Faculty Considerations

- Faculty teaching large ensembles should consider using a portable amplifier to keep their voices at a low conversational volume. Students should also ask questions in a low conversational volume with a mask.
- Faculty are assumed to talk the most and as a result should wear the most efficient mask possible that is readily available, which are surgical masks. (N95s are not recommended at this time due to supply chain issues.)
- Accurate ensemble seating charts (with player names) for each piece will be required to be documented.
Guidelines for Music Education/ Music Therapy Department

All guidelines for lecture courses (above) should be referred to for all music therapy & music education classroom procedures.

Music Therapy:  
https://www.musictherapy.org/about/covid19_resources/

Any students taking part in experiential learning through clinical experiences should closely monitor his/her health and report any symptoms as soon as possible. As we continue to monitor courses of action and regulations set forth by AMTA, changes may be implemented.

- Students must wear face masks at all times when interacting with clinical populations.
- Students must wear face shields over mask when interacting with clinical populations. If a face shield is inappropriate or hinders the delivery of services, it will be determined by clinical supervising staff of a particular facility/agency.
- Students must engage in temperature checks before taking part in any direct clinical engagement.
- Students are to adhere to all infection control and prevention protocols set forth by specific agencies/facilities.
- Students must wash hands with soap and water upon arrival and departure from a facility.
  - Students should use sanitation gel in between all interventions/activities in a session.
- All instruments and materials must be sanitized promptly after clinical use by hospital grade sanitation wipes or equivalent and cannot be used for at least 12 hours following sanitiation.
  - Instruments cannot be shared between clients during clinical interaction (i.e. no passing/trading etc.)
- During telehealth/telepractice sessions, students should wear a mask and maintain social distancing from supervisor until it is his/her turn to interact.
  - For telehealth/telepractice sessions only HIPPA compliant virtual platforms should be used or platforms used by facility/ agency.

Music Education:

For experiential learning the music education department is required to follow all protocols indicated by ECU College of Education. Additionally, any protocols and procedures implemented by specific schools should be followed by any student teachers. Currently, no practicum experiences will occur during Fall 2020 semester and experiences for Spring 2021 are TBD.

- edTPA may include virtual instruction examples. Music education faculty will provide comprehensive information.
For Methods courses (MUSC 1415, 1435, 1445, 1455, 2315)

- Students will be assigned an instrument for the entirety of the semester. No other individual is allowed to use that instrument for any reason.
- At the end of the semester, all assigned instruments will be collected and returned for sanitized by the commercial music store used for rentals.

**Distancing protocols**

- Social distancing should occur as suggested by the CDC. Currently that distance is a 6 x 6 foot space around each student with the student sitting in the center. Straight lines should be used as curved setups can affect the aerosol movement in a room.
- Trombones should have an additional three feet of distancing making their space 9 x 6. The player should be seated three feet in front of the back line, leaving an additional six feet in front of them due to the extended nature of the instrument and slide that can be in extended position.
- Students should sit all facing the same direction, back to front to minimize potential exposure.

**Mask and shield use**

- Masks should be worn by all faculty, students and staff prior to entering the rehearsal room. Masks should continue to be worn until all students are seated and ready for instruction (example, long rests, sectional work, moving around the room, etc.)
- No talking should occur in the room without a mask being properly worn.
- When possible a mask with a small slit or flap for mouthpiece access should be worn while playing.
- Any instrument specific protection needed should be used in rehearsal (i.e. flute guards, nylon bell covers etc).
- In instrument groups where a mask cannot physically be worn, the mask should be worn over the chin and replaced during periods where the student is not playing.

**Hygiene and Sanitation**

- Spit valves should not be emptied on the floor. Recommend using an absorbent “puppy pad” (or similar) or “Windsorb” to catch the contents of the spit valve and discard.
- Anyone who enters the rehearsal room should bring a 70% alcohol wipe to wipe all surfaces before and after touching. The wipe should be discarded properly upon leaving the rehearsal room.
- Student must sanitize their instrument properly throughout the semester, using the NFHS & NAFME COVID Instrument Guidelines found here: [https://www.nfhs.org/articles/covid-19-instrument-cleaning-guidelines/](https://www.nfhs.org/articles/covid-19-instrument-cleaning-guidelines/)
COVID-19 (SARS-CoV-2) Resource Annotated Bibliography

ECU’s Guidelines for Campus Safety
https://returnofpiratenation.ecu.edu/
- This site contains official plans and guidelines for the reopening of ECU.

Performing Arts Aerosol Study
- An ongoing study of wind instrument and vocal aerosol production with recommendations.

“The Risks: Know them, Avoid Them”
https://www.erinbromage.com/post/the-risks-know-them-avoid-them?fbclid=IwAR20G1Au3kTKTajihe7T6M9fqh6da-xfjnoMQYbUBpECssiCehJQiqSvijY
- A blog-style article by a comparative immunologist summarizing several scientific articles regarding the transmission of SARS-CoV-2, specifically aerosolized transmission potential.

“Talking Can Generate Coronavirus Droplets That Linger Up to 14 Minutes”
https://www.nytimes.com/2020/05/14/health/coronavirus-infections.html
- A NYT article that summarizes a study on aerosolized droplets from speaking.

“Efficacy of face shields against cough aerosol droplets from a cough simulator”
https://pubmed.ncbi.nlm.nih.gov/24467190/?fbclid=IwAR3s0bwHKZA7hZSLh4Smv3zyFH_Pp6AJ5oXHBL-4jNdzRyaNIOwtBUvPnM
- A medical, published article on the efficacy of face-shields.

“When Will It Be Safe To Sing Together?”
https://www.theatlantic.com/health/archive/2020/06/choir-practice-during-pandemic/612868/?utm_source=newsletter&utm_medium=email&utm_campaign=atlantic-weekly-newsletter&utm_content=20200614&silverid=MzczMDQzMjg2MzY1S0&fbclid=IwAR1CzY6gAec2sZ8loXwcPBi6ATDPxHm4gWCXoei5qrj4ebjnkJ4RBmuuvuk4
- A casual opinion piece about singing specifically.

“Airborne SARS-CoV-2 Is Rapidly Inactivated by Simulated Sunlight”
- This article is a published study determining that sunlight is extremely effective in deactivating virus in small droplets.

EUA Authorized Serology Test Performance
- Information on the accuracy of different test kits in detecting live virus, false positives and false negatives.
Notes on Linsey Marr Presentation
https://docs.google.com/document/d/1pECHQUOY6gBLHl8wT3aAWZ9dJG6WRQXDSC6g8Nqn1A/edit?usp=sharing
- Notes taken from attending the talk with Linsey Marr on aerosols and transmission, hosted by the New York Times 6.15.20 at 1pm.

“Simulating An Epidemic”
https://www.youtube.com/watch?v=gxAaO2rsdIs
- A video that explains how important strict measures are for social distancing, contact tracing, and quarantine by using simulations.

“Why Outbreaks Spread Exponentially, and How To Flatten the Curve”
https://www.washingtonpost.com/graphics/2020/world/corona-simulator/
- An important article simulating in real-time the transmission of “simulitis” in different distancing scenarios.

3-D Simulation of a Cough
- An illustration of a cough and the particles that result within six-feet.

“The Hammer and the Dance”
- An older article that describes the process of reopening, resurging, closing down again, etc. over potentially years.

“A Full Assessment of the COVID Risk of Playing Wind Instruments”
- A pre-print op-ed discussing what we don’t yet know and what to do about it.

Mark Spede Repository
https://drive.google.com/drive/folders/1PZ8RF3EytzUWGwfJNpu4fsyXc4E_u2Yi?usp=sharing
- An externally-curated list of ongoing research papers, pre-prints, and updated published articles that are specifically about instrumental hygiene and aerosolized transmission for vocalists and instrumentalists.

“How can Airborne Transmission of COVID-19 Be Minimized?”
https://www.youtube.com/watch?v=sjK6Cef5A8FQ&feature=youtu.be
A video that summarizes several well-accepted studies.
“An Analysis of SARS-CoV-2 Viral Load By Patient Age”
-A study that characterizes viral load according to age and according to grade-in-school.

“COVID-19 Superspreader Events in 28 Countries: Critical Patterns and Lessons”
-An article that collects “superspreader” events and attempts to describe their character and causality. The author also supplies this spreadsheet that lists all the superspreader events he could find in news articles across the world.

“Let COVID-19 Expand Awareness of Disability Tech”
https://www.nature.com/articles/d41586-020-01312-w
-A short article about disabled persons and the ableist nature of the world we live in. It makes a fair case for adopting multi-modal formats for teaching that can work for people of differing physical ability.

“Why Do Some COVID-19 Patiens Infect Many Others Whereas Most Don’t Spread The Virus At All?”
-An article describing how a small number of infected persons are responsible for a majority of the spread. The statistical side of how superspreader events happen.

COVID-19 Dashboard by Johns Hopkins
https://www.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6
-An interactive map that serves as the main resource for tracking COVID-19 statistics in real-time across the globe. The archival numbers are stored here.

NYT tracker for NC

Pitt County Spreadsheet of Cases with Graphs
https://docs.google.com/spreadsheets/d/1QOpIsYmHXZUJBczF1f9ltupCsbyq051k0YG7IQffhA/edit?usp=sharing
“Solo for Flute, Airport Terminal, and One Listener”  

-Just a small project for solo instruments and solo audience members.

Tempe Sewer Research  

-This is a project that has determined how to predict virus transmission surges based on viral particles found in the wastewater the previous week.

NC State Health Website  

-This is the most up-to-date info in the state.

Airborne Transmission Estimator  
[https://docs.google.com/spreadsheets/d/16K1OQkLD4BjgBdO8ePj6ytf-RpMIJ6aXFg3PrIQBbQ/edit?usp=sharing](https://docs.google.com/spreadsheets/d/16K1OQkLD4BjgBdO8ePj6ytf-RpMIJ6aXFg3PrIQBbQ/edit?usp=sharing)

-A spreadsheet calculator for the likelihood that someone will get sick in a classroom setting given different variables.

“When Should You Close Your Office?”  
[https://docs.google.com/spreadsheets/d/1v1acQaupUq0TbYPKMfnxB4sWM7L9rT6cRqoK3GidD2c/edit#gid=0](https://docs.google.com/spreadsheets/d/1v1acQaupUq0TbYPKMfnxB4sWM7L9rT6cRqoK3GidD2c/edit#gid=0)

-A spreadsheet calculator that advises when one should close the office based on employee populations.

“Can HEPA Air Purifiers Capture Coronavirus?”  

-A wirecutter/NYT article about HEPA filters

“What is a HEPA Filter?”  
[https://www.epa.gov/indoor-air-quality-iaq/what-hepa-filter-1](https://www.epa.gov/indoor-air-quality-iaq/what-hepa-filter-1)

-Why HEPA works for SARS-CoV-2

“Setting Up A Realtime Physically Distant Rehearsal”  

-A test-case for rehearsing choir inside cars with wireless microphones and an FM transmitter.

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“Army Band COVID-19 Risk Mitigation for Large Groups”
https://www.westpointband.com/westpointmusicresearchcenter/army-band-covid-19-risk-mitigation-for-large-groups.html?fbclid=IwAR0RLHc-sFqFhWUgNVtlm_6XPJvS-cvV5g85GyRfsm9ffY3RT08SrppQz9g
-What West Point Band is doing to mitigate spread during band rehearsals.

“Guide to Air Cleaners in the Home”
A guide to portable air filters.

“What You Need to Know About Air Purifiers and Coronavirus”
Consumer reports about Coronavirus and HEPA, making some recommendations.

“College is Worth It, But Campus Isn't”
-An Economic Op-Ed about the dangers of returning to campus.

UC-Boulder Resource List
-A very large collection of resources

“Aerosol Emission and Superemission During Human Speech Increase With Voice Loudness”
https://www.nature.com/articles/s41598-019-38808-z
-A published article detailing aerosol emissions in speech at different volumes in different languages.

“Air Pollution Disasters”
https://www.cambridge.org/core/services/aop-cambridge-core/content/view/3F38DE5457C61803D8FBD3F220E6AEB/S1935789320000373a.pdf
-An article about the liability of employers to notify and protect employees regarding air quality.

“Recognizing and Controlling Airborne Transmission of SARS-CoV-2 In Indoor Environments”
-Considerations on limiting exposure indoors re: ventilation

Linsey Marr Bibliography
https://docs.google.com/document/d/13s6QyHyF6Pqfr2_R_4ilmzmjYHRmrWE0EzwHvxvyRL4/edit
A bibliography of most of the scientific papers and preprints collected by Dr. Linsey Marr.

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Mathematical Packing Solutions

https://en.wikipedia.org/wiki/Packing_problems

-Wikipedia article showing how hexagonal spacing is more efficient than square-grid spacing.
Consider when designating space for multiple people in a room.