



AMERICAN COUNCIL OF ACADEMIC PHYSICAL THERAPY

Classroom and Lab Considerations and Resources **Version One – May 18, 2020**

The COVID-19 pandemic has significantly influenced our approach to physical therapist education. These considerations have been provided by the [American Council of Academic Physical Therapy, Inc.](https://acapt.org) (ACAPT), to help support physical therapist education programs as they consider returning to in-person educational practices. These are advisory in nature and intended to be broad and comprehensive so that each institution may adapt them to meet their respective needs. These are not to be considered standards or regulations.

As institutions consider adapting these strategies for a safe, equitable and inclusive COVID-19 learning environment, it is imperative that all stakeholders involved in the delivery of physical therapy education be considered, including administrators, faculty, clinicians, and students.

Before publishing guidelines, ACAPT recommends that each program ensure they are presenting strategies that are in accordance with the regulations outlined by their institution and state and local authorities. In addition, programs should consult with their institutional attorney and insurance provider to make certain that published guidelines recognize risks to minimize liabilities related to the re-opening and daily operations during a time of an infectious disease or pandemic. Institutions should develop forms that inform students of their options to participate, or not, in onsite activities and/or clinical education, and how their decision may impact their academic experience (e.g., delayed graduation). These forms should be signed by each student in advance.

Information about the virus and how best to manage safe learning environments continues to evolve. Institutions may need to adjust their operations, and possibly these strategies, based on the continuous review of local health data and revised legislation.

This document is separated into multiple sections focusing on different aspects of managing in-person educational programs. The goal was to gather information across a wide set of categories to offer ideas and assistance to as many stakeholders as possible.

*** This document is intended to be a living document and shall be updated often. This and any revisions will be posted on the ACAPT website under Resources (<https://acapt.org/resources>).*

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The Essential Nature of the Physical Therapist

Building a consistent supply of essential healthcare workers is vital to sustaining a workforce that can meet the incredible demands that are currently facing our healthcare systems. Academic institutions need to respond by creating avenues to safely and effectively provide curricular and pedagogical strategies that do not delay the healthcare students' education and entry into their profession.

Physical therapists currently have and will continue to have an essential healthcare role during the COVID-19 pandemic. Physical therapy can directly impact the adverse respiratory and mobility deficits attributed to this disease. Ongoing and routine physical therapy can provide services that decrease emergent care needs by supporting an individual's physical and mental health. The Department of Homeland Security ([Department of Homeland Security Memorandum on Identification of Essential Critical Infrastructure Workers During COVID-19 Response](#)) has included physical therapists as part of the "essential critical infrastructure workers" and, according to the official guidance, stipulated that physical therapists have a special responsibility to maintain their normal work schedule. This guidance further promotes "the ability of such workers to continue to work during periods of community restriction, access management, social distancing, or closure orders/directives," as their job functions are "crucial to community resilience and continuity of essential functions."

During this pandemic, physical therapists continue to work in all of the aforementioned settings and are currently treating people who are ill with COVID-19 in ICUs and [rehabilitation units](#) as they work to rehabilitate these patients back to their prior level of function.¹⁻³ Additionally, the World Health Organization released a [statement](#) on the critical importance of physical therapists as rehabilitation specialists needed to aid in the recovery of individuals surviving infection. Every U.S. state government has supported this guidance by expecting physical therapists to continue to provide physical therapy services across all settings.

Physical therapists play a vital and essential role in healthcare and are needed now more than ever in the face of this healthcare crisis. Academic institutions educating future physical therapists must consider solutions for creating a "new and better normal" for in-person education in classrooms, labs, and clinics to allow for the ongoing physical therapist workforce development.

Prevention of Infection and Spread of the Virus

As students and faculty return to campus to facilitate learning of hands-on psychomotor skills, it is necessary to implement procedures to prevent infection and spread of the COVID-19 I. It is appropriate to adopt principles of infection control for microorganisms that spread by respiratory droplet transmission. It is also important to remember that the virus may be spread by individuals who are asymptomatic. See the [CDC School Opening Decision Tree](#).

a. Attendance (Students, faculty, staff)

i. Prior to leaving home

1. Educate all members of the academic community on developing a routine health review. Individuals should assess for any signs or symptoms of illness such as fever, cough, etc.
2. Instruct individuals to wear, at minimum, an appropriate cloth face covering while outside their home at all times ([CDC slow the spread](#))
 - CDC indicates the combination of a face covering or mask, hand washing, and social distancing will help to stop community spread.
 - More protective face coverings (surgical or N95) may be warranted given an individual's pre-existing conditions. ([CDC Infection Prevention](#))
3. Provide educational materials on removal and cleaning of face coverings (CDC [Using PPE](#))
4. Determine the optimal number of masks for a given day based upon activities/actions - Consider that students may need to have more than one face covering or mask per day

ii. Policies to support containment

1. Review current attendance policies and consider adding or appending language to support containment as a priority.
2. Create specific guidelines for students per semester based upon the state and regional restrictions
3. Establish open lines of communication to decrease anxiety related to attendance for students, faculty, and staff
4. Consider developing ways for students to opt out of participating in labs and clinical education

iii. Emotional support

1. The ongoing uncertainty of disease spread coupled with insecurities fosters a lot of anxiety. Consider developing or accessing resources that support the emotional needs for faculty, students, and staff.
2. Determine process for allowing individuals to express anxiety or discomfort with attendance
3. Instill confidence by describing the process for establishing a safe learning environment
4. Create a trustworthy and transparent culture
5. Include all stakeholders in policy and procedure development

b. Screening Considerations

i. Containment

Containment is further supported by considering the implementation of screening procedures. Recommendations are for daily screening and assessment while the COVID-19 pandemic persists.

1. It is critical for individuals to stay at home if they have symptoms or if they have been exposed to someone who has the virus ([What to do if you are sick](#))
2. Primary symptoms include fever, cough, or shortness of breath
3. Additional symptoms include chills, repeated shaking, muscle pain, headache, sore throat, loss of taste and smell ([CDC Symptoms of Coronavirus](#))
4. Programs should align policies to adhere to campus and state guidelines with respect to sick individuals, including reporting requirements
5. Encourage self-quarantine at home for Individuals who have knowingly encountered an infected individual

ii. Daily Screening ([CDC Screening and Triage](#))

1. Actively screen everyone for fever and symptoms of COVID 19 before they enter the building/learning environment.
2. Direct individuals with symptoms to the appropriate health service.

iii. Building access control

1. Develop a building entry and exit movement strategy that supports social distancing and screening procedures
2. Develop clear signage to support building movement strategy
3. Educate all students, faculty, staff on need to adhere to building movement strategy
4. Display ID upon entrance to prevent unnecessary individuals from entering the building/learning environment.

iv. Daily screening process

1. Establish a routine schedule for building entrance times with a single-entry point.
2. Stagger entry times to support social distancing and markers designations to keep individuals 6-feet apart
3. Screening station considerations include
 - Temperature checks
 - Symptom screening
 - Known contact with an infected individual
 - Attestation statement regarding symptoms and social distancing
4. Provide a form of hand sanitizer or hand washing station immediately following screening or upon building entry
5. Check for face covering adherence

c. Containment Education

- i. Providing education on containment practices related to self-screening and building entrance and internal movement will help to foster effective health monitoring outcomes.
- ii. Consider developing multiple forms of communication to educate faculty, students, and staff.
- iii. Foster ownership in the fight against community spread of COVID-19 by engaging the academic community as key stakeholders and role models

d. Data Surveillance ([CDC Isolation Precautions – Surveillance](#))

Ongoing surveillance data analysis is a necessary component of a prevention program.

Components of a surveillance data analysis may include:

- i. Pre-participation testing of faculty/staff/students as a baseline.
- ii. An illness reporting protocol for faculty and students. This may involve a campus-based Student Health office, Occupational Health office, and others.
- iii. Clear symptom presentation threshold and procedures for obtaining viral testing and referral, as necessary.
- iv. Collection of epidemiologically important variables. Follow the COVID-19 reporting policy per the school, university, public health department. Communicate information about the learning spaces the faculty or staff member has occupied and the individuals with whom they have interacted in the course(s).
- v. Implement a policy to intervene and take action as appropriate when COVID-19 is identified in a student or faculty member.
 1. If infection is identified, analyze data to identify potential sources of infection from fomites in the learning environment (such as crossed-use of unwashed equipment), and implement improvements to reduce spread from the source. This may entail working with Environmental Safety personnel at the institution and potential closure of space.
 2. Develop back-up plans for continuity of education in the case of student or faculty member illness or quarantine. Implement training of all faculty and students in infection control procedures, and document, as necessary. Include faculty who teach infrequently in the training.

e. Contact Reduction ([CDC COVID-19 - Social Distancing](#))

Goals of preventing infection and facilitating contact tracing if it becomes necessary

- i. Do not gather in groups, work from home when possible.
- ii. Teach course content remotely if possible.
- iii. Seek guidance for course content to be taught on campus and follow protocols for entry to and exit from campus, including health monitoring and attestation as noted above.
- iv. Avoid using public transportation. Campus-based courses may need schedule adjustments to meet this goal.
- v. Reduce number of lab partners, limiting the size of cohorts, requiring adequate space between individuals and lab groups.
- vi. Keep lab partners the same across courses.

- vii. Enable students who live together or commute together to be included in the same learning cohort.
 - viii. Keep the same cohort or group in the same space for an extended period (single day) and stagger cohorts across days to avoid cross contamination and limit travel.
- f. **Personal Hygiene** ([CDC COVID-19 – How to Protect Yourself and Others](#))
- i. Stay home or seek medical attention if ill.
 - ii. Wear a face mask that covers the mouth and nose when in public and on campus.
 - iii. Implement procedures to carefully don and doff masks with minimal touching of face. Implement regular cleaning or disposal of face mask.
 - iv. Cough or sneeze into a tissue and discard the tissue into waste. Follow the hand washing protocol or the hand sanitizer protocol after a cough/sneeze.
 - v. Implement and follow a hand and wrist washing protocol that includes soap and water and washing for at least 20 seconds ([CDC When and How to Wash Your Hands](#)).
 - vi. Avoid touching eyes, nose or mouth.
 - vii. Use hand sanitizer if soap and water are not readily available. Follow a hand sanitizer protocol, using sanitizer that contains at least 60% alcohol and rubbing all surfaces of hands and wrists until dry, or about 20 seconds ([CDC When and How to Wash Your Hands](#)).
 - viii. Follow protocol for hand hygiene after doffing gloves, if using gloves.
 - ix. Follow protocols for personal hygiene between students, as one would between clinic clients ([CDC Standard Precautions for All Patient Care](#)), in situations in which physical distancing is not possible, as when teaching or learning hands-on physical therapy skills.
 - x. Employ requirements for more stringent safety measures such as surgical grade masks and shields.
- g. **Cleaning Protocols** ([CDC COVID-19 – Reopening Guidance for Cleaning and Disinfecting Public Spaces, Workplaces, Businesses, Schools, and Homes](#))
- i. Reduce items that may be exposed by bringing only necessary items to the learning environment.
 - ii. Reduce shared use of educational materials, and if shared ensure they have been cleaned.
 - iii. Determine what needs to be cleaned.
 - iv. Implement a protocol for cleaning and disinfection of frequently touched surfaces and teaching equipment.
 - v. Follow manufacturer's instructions for use of disinfectant, keeping surfaces such as treatment tables wet for instructed period of time.
 - vi. Use protective gloves and ventilation as appropriate.
 - vii. Ensure a supply of paper towels, hand sanitizer and waste bins adjacent to entry and exit doors.
 - viii. Post protocols for room and equipment cleaning, as well as role assignments and documentation of completion.

- ix. Schedule cohorts and courses to reduce the number of cohorts in a classroom on a single day.
 - x. Teach and expect personal responsibility for infection control in communal spaces, such as restrooms.
- h. **Social Distancing** ([CDC COVID-19 Social Distancing](#))
- i. Adhere to a six-foot separation from individuals in learning and communal spaces.
 - ii. Follow procedures used in general clinical care ([CDC Standard Precautions for All Patient Care](#)) in activities in which students are learning hands-on skills and therefore cannot maintain the six-foot separation.
 - 1. This includes hand hygiene, cough and sneeze etiquette, and cleaning of equipment, as well as a face covering during the current pandemic.
 - 2. Face shields and other personal protective equipment may be considered if there is expectation of exposure to infectious material.
 - iii. Determine and adhere to maximum occupancy of room that conforms to social distancing guidelines.
 - iv. Determine and adhere to occupancy and use of community spaces, such as restrooms.

Ill and/or recovering individuals

It is important during the return to hands-on lab experiences and clinical education, that programs consider developing a plan that addresses issues related to COVID-19 illness for the students, faculty, and staff. The following are some important considerations.

- a. **Separate the sick** ([CDC Interim Guidance for Businesses and Employers Responding to Coronavirus Disease 2019](#))
 - i. Faculty, staff, and students who appear to have symptoms (i.e., fever, cough, or shortness of breath) upon arrival to school or clinical site should immediately be separated from others and either sent home or to health services in accordance with campus guidelines.
 - ii. If a faculty, staff, or student is confirmed to have COVID-19 infection, the program director should inform all who might have been exposed but maintain confidentiality as required by the Americans with Disabilities Act. The program director should instruct fellow employees about how to proceed based on current guidelines (<https://www.cdc.gov/coronavirus/2019-ncov/php/public-health-recommendations.html>).
- b. **Sick leave policy for class, lab, and clinic** ([CDC Interim Guidance for Businesses and Employers Responding to Coronavirus Disease 2019](#))
 - i. Policies should be flexible, non-punitive, consistent, and understood by all.
 - ii. Policy should permit individuals to stay home to care for a sick family member or children.
 - iii. Policy should not require a positive COVID-19 test or healthcare provider's note.
- c. **Establish a return-to-school/clinic policy** for those who are symptomatic with suspected/confirmed COVID-19 and for those who are asymptomatic with lab-confirmed COVID -19
 - i. Symptomatic with suspected/confirmed COVID-19 ([CDC Criteria for Return to Work for Healthcare Personnel with Suspected or Confirmed COVID-19](#))
 1. **Symptom-based strategy** – Exclude from school until at least 3 days (72 hours) have passed since recovery defined as resolution of fever without the use of fever-reducing medications and improvement in respiratory symptoms (e.g., cough, shortness of breath); and, at least 10 days have passed since symptoms first appeared.
 2. **Test-based strategy** - Resolution of fever without the use of fever-reducing medications and, improvement in respiratory symptoms (e.g., cough, shortness of breath), and negative results of an FDA COVID-19 molecular assay from at least two consecutive respiratory specimens collected ≥ 24 hours apart.
 - ii. Asymptomatic with lab-confirmed COVID-19 ([CDC Criteria for Return to Work for Healthcare Personnel with Suspected or Confirmed COVID-19](#))

1. **Time-based strategy** – 10 days have passed since the date of their first positive COVID-19 diagnostic test assuming they have not subsequently developed symptoms since their positive test. If they develop symptoms, then the symptom-based or test-based strategy should be used.
2. **Test-based strategy** – same as the test-based strategy for symptomatic individuals above.

d. Quarantine policies

- i. Faculty and staff should be permitted to work remotely if able during period of quarantine.
- ii. Program directors should develop a backup plan for each faculty member or staff who are not able to continue performing their work duties while ill.
- iii. Programs should develop a plan that would allow quarantined students to continue learning remotely. This may include the following:
 1. Synchronous, live-streamed content
 2. Asynchronous, recorded content
 3. Remote testing and assessment
 - For low stakes testing: standard non-proctored, web-based software testing solutions are recommended
 - For high stakes testing: proctored, web-based software testing solutions are recommended. However, since there may be privacy issues with video-capture and also a cost associated with these platforms, this needs to be explicitly detailed in the course syllabi.
 - For psychomotor assessment: real-time or recorded demonstrations and practical exams are recommended. Since this method involves video-related privacy issues, this too needs to be explicitly detailed in the course syllabi.
 4. If a student is unable to participate in course content while quarantined, then the program should make an individualized plan to bring the student up-to-date (e.g., make-up labs). If a student is unable to catch up by the end of the semester/term, then the instructor and program should develop a detailed plan to address the incomplete. Accommodations for students who are ill should be explicit and flexible while balancing out the integrity of the program requirements. University disability resource centers and students should be involved in the process of developing an accommodation plan.

Curricular Designs and Assessment

DPT program faculty and administrator's initial response to the COVID-19 pandemic revolved around ensuring the health and safety of students, faculty and staff, while quickly transitioning typically high touch and highly interactive curriculums into online learning environments. As we move from a climate of urgency to one of planning for the new normal in DPT education for the distant future, faculty will need to consider several curriculum enhancements and teaching formats that are adaptable to accommodate a variety of potential scenarios. We suggest that all DPT faculty teams collectively step back to engage in dedicated student-centered curriculum planning efforts that integrates best practices in teaching/learning and ensures the program continues to achieve its mission and expected graduate outcomes. This is also a great time to re-evaluate assessment matrices to be sure that ongoing evaluation of curriculum decisions are clearly established for efficacy/efficiency and overall quality of educational delivery to guide future decision making.

a. Strategies to consider in curriculum design and assessment decisions:

- i. Identify who will be charged to lead collective faculty in curriculum re-design/assessment decisions to ensure effective integration and achievement of expected graduate outcomes, to secure faculty resources and to prepare CAPTE reporting requirements.
- ii. Evaluate how well the program prepares graduates to be confident essential primary care health care providers who function in health care teams across the continuum of care.
- iii. Prepare faculty to offer common messaging to students regarding the value/benefits and advantages of hybrid/online delivery to dispel students' questions/concerns/fears of not receiving adequate education through these mediums while program ensures the overall health and safety of all
- iv. Reassess how well the program prepares graduates to be confident essential primary care health care providers who function in health care teams across the continuum of care
- v. Offer resources within the program/University to prepare faculty to transition face to face educational delivery into the use of best practices in student centered hybrid and on-line education ([Quality Matters](#)) ([CAST](#)) ([UDL On Campus](#)) ([EE Online](#))
- vi. Identify what aspects of curriculum can be creatively delivered online with the same or better expected outcomes ([Curriculum Integration of Online Courses](#))([Opportunities and Pitfalls of Online Education](#))
- vii. Prioritize delivery method changes rather than new curriculum designs/course sequences that front load cognitive skill development and delays application labs and experiential learning that can compromise optimal learning and curriculum integrity. *(See these resources by Dr. Tim Miller: [Best Practices for Re-thinking Lab Activities](#) and [How to Facilitate Learning and Practice of Psychomotor Skills in an Online Environment](#) webinar)*
- v. Limit isolated faculty decisions on course delivery that leads to silos of learning, potential unrealistic student expectations and/or gaps in curriculum delivery

- vi. Reaffirm that each decision continues to support curriculum mission, values and graduate outcomes of the program and meets minimal standards set by CAPTE DPT educations
- vii. Assure learner confidence in delivery models selected through frequent communications.
- viii. Use evidence informed educational pedagogy/andragogy for online learning considering unique and different student learning needs ([Quality Matters](#)) ([CAST](#)) ([UDL On Campus](#)) ([EE Online](#))
- ix. Use multiple learning environments and activities to develop cognitive, affective and psychomotor skills to support student-centered learning ([Small Teaching](#))
- x. Seek instructional technology office support in course re-designs to meet learning outcomes

b. Strategies for considerations for class and laboratory sessions:

- i. Use learning platforms to greatest capabilities to foster student engagement in synchronous/streaming lectures
- ii. Secure/produce video demonstrations for therapeutic interventions/case studies etc.
- iii. Determine best course of modular content delivery that may rotate as sections within cohorts, for example: 2 wk. week intensives, to decrease face time and reduce number of students in spaces at any one time
- iv. Break student cohorts into sections (preferably 8-10 students, or based on size of space) for on-line and face to face interactive lab activities
- v. Maintain same partners for on-line labs from home, face to face labs and commuting to campus
- vi. Consider increased number of class sections for social distancing and consequences to faculty
- vii. Use principles of Flipped classroom models to preserve faculty efficiencies whenever possible ([Røe et al.](#)) ([Boucher et al.](#))
 - 1. Offer all or nearly all lectures in online formats
 - 2. Devote class contact hours to brief review/questions on lecture and majority of time on clinical reasoning, role identity and professional socialization (including practice of universal precautions, hand hygiene, donning/doffing PPE as appropriate), and application of advanced clinical skills (see universal infection control below for resources)
 - 3. Consider use of on-line teaching labs resources (*See these resources by Dr. Tim Miller: [Best Practices for Re-thinking Lab Activities](#) and [How to Facilitate Learning and Practice of Psychomotor Skills in an Online Environment webinar](#)*) to determine which clinical skills can be taught remotely with video demonstrations and students submitting video of their performance.
- viii. Use competency assessment models versus traditional course delivery education models to assist to limit in-class time for students given that many students can complete competency modules more quickly and support students submitting video of their competency performances

- ix. Use virtual resources to supplement learning such as gross anatomy 3-D technologies, prosected materials guided tours, clinical tests/measures/skill demonstrations etc. ([American Association for Anatomy, Anatomy Education Resources](#)). If cadaveric images or video are used for remote learning, ensure that permission has been secured from the body donation program. Faculty should ensure that students understand and agree to not share or post images or videos, and the program may wish to secure a written agreement from the students. Faculty should also ensure that the humanistic and ethical discussions about body donation or use of cadavers for learning remain in their curriculum.

c. Consider enhanced curriculum content:

COVID-19 has drawn attention to the need to not only enhance content delivery in infection control procedures, but also assure application and integration of these principles throughout the curriculum. Faculty should consider additional learning activities/case scenarios/experiential learning activities etc. that expect student performance of these skill sets in preparation for participation in clinical experiences. This will improve DPT student preparation, reduce voiced fear of exposure to Covid-19 and other viral health conditions and foster role identity as essential health care providers at all times (during and external to public health crises) ([WCPT](#))

- i. leadership skill development that contributes to role identity of DPT and how this translates to participation in leading efforts to manage community health crises
- ii. professional responsibility in public health initiatives
- iii. public Health/DPT and IPP roles in community health challenges
- iv. COVID-19
 - 1. pathophysiology of COVID-19 and other RNA viruses
 - 2. signs/symptoms and potential sequelae of COVID-19 across the lifespan
 - 3. evidence informed Medical/pharmacological management
 - 4. evidence informed rehabilitation management of COVID-19 like conditions
 - 5. evidence informed recognition and exercise prescriptions modifications for patients with comorbidity of COVID-19 incidence
- v. universal infection control cognitive and psychomotor skill development ([CDC](#)) ([CDC Sequence Document](#)) ([OSHA Standards - 29 CFR](#))
- vi. bloodborne pathogen education ([OSHA](#)) ([OSHA Standards 1910.1030](#))
- vii. simulated ICU/step down acute care clinical reasoning and lab participation
- viii. Telehealth as a component of clinical practice of the DPT (demonstrations and resources for PPS members)
- ix. National Health Education Standards - A framework for health education for pre-K- 12th grade that can/should be continued into healthcare provider education ([CDC](#))

Faculty Support

To deliver a comprehensive education experience to students, Faculty need to be supported and have resources available. Support may include:

a. Communication and guidance

([McKinsey & Co – Responding to Coronavirus. The Minimum Viable Nerve Center](#))

- i. Ensure that the lead(s) are informed of changes, policies, procedures as they happen at the level of the school or university.
- ii. Gather and share information as it becomes available and make timely decisions based on the best current information and predictions, understanding the fluidity of the pandemic and its impacts.
- iii. Be transparent, communicate regularly and provide rationale for decisions and expectations.

b. Health and safety

(Inside Higher Ed, May 2020, The [‘Right Not to Work’](#)).

- i. Ensure that faculty members are informed of policies that may impact their health and work, such as illness policies and plans for course continuity should they become ill, rules for travel, rules for entering the campus, rules for off-site and on-site teaching and research, and rules for providing face-to-face and remote clinical care.
- ii. Ensure that faculty members are informed of resources available to them, particularly for stress management, and confidential conversations, such as an Ombuds Office or a Faculty and Staff Assistance Program. Communication is key, and there should be efficient means to communicate new knowledge to the faculty, and means for faculty to voice concerns, make suggestions and receive follow-up.
- iii. Shelter-in-place and physical distancing necessitates that faculty members create and work in a **home-based work environment** ([Inside Higher Ed, March 2020, Faculty Home Work](#)). As in a campus-based environment, the faculty member in a home-based work environment should have at their disposal the resources needed to enable high performance of their faculty duties. This may include computer equipment, network access such as a virtual private network, secure communications, conferencing and other software necessary to perform their duties, as well as an ergonomic workstation.
- iv. Depending on the nature of their work, faculty members in a home-based work environment may need access to texts, equipment, data sources, and other resources that were readily accessible on campus.
- v. In the shared governance model, faculty should be empowered to participate in curriculum decisions and to identify and bring forward for discussion **critical issues that affect their ability to complete their faculty duties**, whether in a home-based work environment or in the altered environments of classroom-

based instruction, clinical practice, or research activities (American Association of University Professors – Principles and Standards [for the COVID-19 Crisis](#)).

- vi. Some faculty members are requesting a voice in when and how they return to the campus environment, and these discussions may allow solutions to present themselves and issues to be prioritized. Some examples include:
 - 1. A home-based work environment may present poor physical space and shared needs for computers for teaching, research collaboration, or a telehealth visit, a lack of privacy, and distractions of co-sheltered adults and children whose schools, camps and day-care facilities are closed, children who require assistance in home-schooling, and partners who are also working in the home environment.
 - 2. Faculty members whose research labs must function with physical distancing requirements and lab cleaning protocols may face staggered research lab schedules and shiftwork, which may present challenges for supervision and guidance, concerns for data integrity, and/or slowed productivity.
 - 3. Faculty members who are teaching may need to split their time and effort between remote learning and smaller cohorts, repeated, high-intensity hands-on skills training, with additional round-the-clock online question forums for both.
 - 4. Faculty may also need to shift their teaching time within the week and/or the academic year, with ripple effects for their other responsibilities.
- vii. These and other issues may present challenges for faculty, in such forms as loss of control, increases in workload, extension of the workday, mixing of work-life and home-life, altered sense of community, and impact on productivity necessary for advancement and professional goals.
- viii. Faculty may be empowered to argue for program activities that should be prioritized, and those that should be tabled for a later date.
- ix. If given the freedom and support to propose solutions, faculty may project less stress and demonstrate courage and psychological safety for peer faculty and students.

c. Sources of Stress

One of several potential sources of stress for faculty is the **ability of their students to learn** in the altered environment presented by the pandemic.

- i. Faculty members should have ready access to information to share with their students, such as student support services including counseling, student health, information technology and computer support services, library services, and food and housing information.
- ii. Faculty members should have access to best practices in teaching remotely, such as those shared in publications such as *Inside Higher Education* ([Inside Higher Ed, April 2020, Remotely Hands On](#)), social media, and community forums hosted by professional societies.
- iii. Clarity in expectations for student participation in remote and hands-on courses, policies regarding illness, and flexibility in student progression, particularly in

the face of altered clinical experiences, will help alleviate faculty stress as they support students.

iv. Other potential sources of stress for faculty include:

1. **Quickly converting to lessons** delivered both synchronously and asynchronously in a remote learning environment, repetitive teaching of labs or skills development for multiple smaller groups, extending their efforts across both formats simultaneously, and tracking student progress.
2. Faculty members may require the assistance of trained staff support, and support staff may need guidance in prioritizing and addressing faculty members' myriad needs.
3. Faculty concerns about the impact of the pandemic on **academic progression and their careers**. Consider the disruption of research activities and whether that should initiate conversations about time-off-the-clock for tenure decisions and flexibility in promotion reviews ([Inside Higher Ed, March 2020, Faculty Home Work](#)). Program directors may need to advocate for an extension of the tenure clock for tenure track faculty members who become ill or have caregiver responsibilities that negatively affect their ability to continue important scholarly activity.
4. Concerns about the time and effort spent in transitioning courses, clinical care and research activities, and some sources acknowledge that working in a home-based work environment is likely to **disproportionately affect women** ([Nature, April 2020, The Pandemic and the Female Academic](#)). It has been suggested that institutions consider support for childcare.
5. Leaders would be advised to review Equal Employment Opportunity Commission guidelines, the Family and Medical Leave Act, and the institution's personnel manuals.
6. Faculty should be reminded of policies regarding illness and disability and provided contact information for Human Resources.
7. It is paramount that leaders understand the institution's financial challenges and anticipated budgetary issues. When this information is shared with the faculty, focus may shift to building culture for communal support and addressing the challenges together; transparency and communication are key.

Leading through Crisis

There is no better time for the DPT academic community to lead efforts that can create new opportunities for positive changes in education. Now is the time to demonstrate resilience, build credibility and develop trust with students by planning for the future of DPT education. As we prepare DPT graduates to practice as essential point-of-service primary care movement system experts, we encourage all to role model leadership behaviors and skills to reshape DPT education for in the future. This is an opportunity to collaborate with health partners to lead a ‘transformation within society.’

a. Curricular considerations

- i. Consider evaluating leadership content within the curriculum to help shape our students into healthcare leaders
- ii. Leadership behaviors start from within and expand beyond self to influence others and interconnect to lead within systems and communities.
- iii. The profession has recently published evidence of essential leadership competencies needed by DPTs across these 3 levels of interactions all of which contributes to role identity of the DPT.¹
- iv. Skills range from self-initiative and self-confidence to assertive communication, feedback skills and conflict management to advocacy, influence, change leadership and system thinking skills.
- v. During times of crisis, demonstration of leadership skills by all faculty will be important to role model to support our DPT students in multiple ways.²⁻³

b. Leadership Considerations

- i. Effective and ongoing communication is essential
- ii. Positional leaders should plan strategies to engage faculty and students in decision making while offering needed support, direction and transparency
- iii. Multiple venues for frequent, timely and predictable communications with faculty and students via synchronous electronic to foster interconnectedness and give all opportunities to ask questions, offer suggestions etc.
 - Offer town halls for students to ask questions, share fears and concerns
- iv. Command center at the Departmental/Programmatic level to help streamline and coordinate communication messaging
- v. Develop a strong assertive communication style to effectively influence and advocate for program, faculty and student needs
- vi. Develop networks of resources within the institution to steer individuals with unique needs to appropriate resources
- vii. Develop networks of resources within the profession to foster diversity in solution identification
- viii. Design realistic fact-based plans that are proactive with clear contingencies to gain trust and credibility
- ix. Demonstrate empathy to others’ challenges and explore opportunities for flexibility and adaptability within systems being developed

c. Professional Advocacy

- i. Now more than ever physical therapists need to advocate for their professional identity within the healthcare team
- ii. DPTs as essential health care providers
- iii. Licensure testing of new graduates
- iv. Digital practice services to increase access and the introduction of digital practice content into curricula and clinical education
- v. Support to clinical partners for service provisions within highest licensure capacities
- vi. Securing federal grant funding to help defray DPT student additional educational expenses as is being offered to undergraduate college students across Universities

d. Leadership Development and Support

- i. The ACAPT Leadership Development Oversight Committee (LDOC) will soon be launching its Leadership Compass meant to guide learning outcomes for leadership development with an intended focus to strengthen academic faculty, clinical faculty and administrator leadership skillsets in the next few weeks. The compass will be posted on the website at <https://www.acapt.org>. It includes self-assessments and multiple resources links. These resources also can serve as learning guides and assessment matrices within DPT curriculums.
- ii. The Harvard Business Review is offering their HBR newsletter on leading through a pandemic for free and other helpful leadership articles can be found within this series for a subscription fee at <https://www.hbr.org>
- iii. The McKinsey and Company Global Consulting also offers free leadership tips within their weekly newsletters at <https://www.mckinsey.com>
- iv. Consider how your program can implement and integrate leadership development into professional socialization of your DPT program to foster strong role identity and prepare graduates to succeed within the expected new complexities of the health care environment. Demonstration of strong leadership behaviors will serve all well to guide behaviors, decisions, and actions as we move through phases of recovery from this COVID-19 global crisis.

Student Support

Consider engaging students for developing a successful and wholistic transition that promotes student wellbeing. To develop this section, and to model open and direct communication, focus groups with students from multiple institutions were held and transcribed. Here are a few of the most pressing concerns:

- a. **Implement a plan for psychological/ emotional support** for returning to campus during COVID-19 ([ECampus News](#)) ([ACHA](#))
- b. **Be mindful of student individual and family obligations**
- c. **Be aware of the following university/program financial components:**
 - i. **Tuition charges and changes**
 1. Examples include: One institution was charging more for online classes; however, student fees were decreased. Under a possible hybrid return to class in the fall, students were fearful that they would be paying both the increased tuition rate and the students fees resulting in a net increase to their bills.
 2. In situations where classes were cancelled due to COVID-19 and relocated to later points in the curriculum, students were concerned that they will be paying a higher rate for these classes due to annual tuition increases. Can tuition be held constant during this crisis?
 3. GI bill -- Have resources for students regarding the implication of transitioning to the online learning environment ([VA](#))Residency Requirements
 4. Have resources to refer students concerned about the impact of delaying classes on a student's ability to achieve this timeframe in-state.
 - ii. **CARES Act Funds**
 1. Ensure that students are receiving timely information about the accessibility of these funds ([USDE](#)) ([USNEWS](#)) ([Edsource](#))
 2. Empower students to apply for these funds ensure that students are receiving timely information about the accessibility of these funds ([USDE](#)) ([USNEWS](#)) ([Edsource](#))
- d. **Technology from a student perspective**
 - i. Ensure that faculty are able to maximize platform capabilities to enhance student engagement (for exam Breakout rooms, Polling, Recording, etc.)
 - ii. Post log-in information to one central area as opposed to plethora of emails from multiple faculty regarding multiple courses. Try to find a way to centralize communication.
 - iii. Be mindful regarding access to technology
 - iv. Be mindful of diversity, inclusion, and equity principles in an online learning environment

- e. Student's experience while learning from home**
 - i. Develop refined plans and contingency plans
 - ii. Develop a schedule for open and regular communications, including communications that there are no changes. ([ACHA](#))
- f. Housing (was a major point to consider)**
 - i. Faculty and administrators considering typical timelines for available student housing when making curricular modifications
 - ii. Faculty and administrators making decisions and communicating the decisions as soon as possible so that students can make financially responsible housing plans.
- g. Clinical Education Housing**
 - i. If a clinical experience may get cancelled, notification sooner rather than later so the student may get a refund on any deposit
 - ii. How will programs manage clinical experiences modification if despite best efforts students can't find housing due to COVID-19?
- h. Lecture Planning**
 - i. Consider the impact of Time Zone differences and whether or not curriculum can accommodate students that are staying at home if they are in a different time zone.
 - ii. Considerations for learning strategies from students focused on typical "hands-on" content and the shift to an online learning environment.
- i. Lab planning (Face to Face Activities)**
 - i. Students may choose to commute to campus rather than pay rent to live near campus. Limiting travel to only a day or two a week
 - ii. Students may have dependents that they are now caring for
 - iii. Despite being assured by their faculty that they have the content they need, students would prefer "bootcamps" or "intensive lab sections" to review lab content from spring 2020 semester and moving forward, as necessary.
 - iv. When dividing into small groups, commuter students should have a say for which group they are in order to follow through with minimizing contact with other students.
 - v. Students appreciated frequent feedback on practical skills in the form of skills checks
 - vi. Because coordinating CPR/AED training has been so difficult, coordinating a class for the entire cohort once returned to campus ([Red Cross](#))
- j. Research Projects**
 - i. Students were concerned about not being able to complete their research projects and consideration regarding IRB included:
 - 1. IRB approved data collection over secure (password-protected/ waiting room enabled) platform is permitted
 - 2. Will likely need to submit IRB modifications ([APA](#))

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Glossary of Terms

Provided by [Yale Medicine](#)

Coronavirus

A family of viruses, seven of which are known to infect people. They get their name from the crown-like spikes—coronas—that appear on the viruses under a microscope. [Coronaviruses](#) can cause the common cold (which can also be caused by other viruses, such as rhinoviruses), as well as dangerous illnesses such as severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS). SARS CoV-2, the coronavirus virus first discovered in December 2019, causes the disease now known as COVID-19.

SARS (Severe acute respiratory syndrome)

A coronavirus, which first infected humans in 2002, that reached epidemic proportions before it was contained—there have been no outbreaks since 2003. SARS causes fever, headache, body aches, a dry cough, hypoxia (oxygen deficiency), and usually [pneumonia](#). SARS and SARS CoV-2 are related genetically, but the diseases they cause are different.

SARS-CoV-2 (Severe acute respiratory syndrome coronavirus 2)

The new coronavirus that causes COVID-19, which is believed to have started in animals and spread to humans. Animal-to-person spread was suspected after the initial outbreak in December among people who had a link to a large seafood and live animal market in Wuhan, China. While no one knows for sure how SARS-CoV-2 spread from an animal (and what type of animal) to a human, SARS-CoV-2 is a betacoronavirus, which means it originated in bats.

COVID-19 (Coronavirus Disease 2019)

Just as the human immunodeficiency virus (HIV) causes acquired immunodeficiency syndrome (AIDS), the coronavirus SARS-CoV-2 causes [COVID-19](#). The symptoms of COVID-19 include cough, fever, and shortness of breath. While the disease appears to cause mild to moderate illness in most people, in others it has caused life-threatening pneumonia and death. Doctors and researchers continue to learn more about the disease, so information about symptoms, prevention, and treatment may change as more data becomes available.

Spread of disease

When a disease—and the virus that causes it—begins to spread, epidemiologists (who are considered the basic scientists of public health) take notice, looking for the frequency, patterns, and causes associated with it. Below are definitions of a few of those epidemiological terms that you may hear or see reported in the news, especially as they relate to COVID-19.

Endemic

The baseline, or expected, level of the disease in the community—meaning it always exists, like the common cold and flu, which are usually at low, predictable rates.

Epidemic

This refers to a sudden increase in the number of cases of a disease, above what is typically expected in a particular area. COVID-19 is thought to have reached epidemic proportions in China in mid-January. “There is not really a date because there is no background [endemic] activity of this novel coronavirus in humans,” says Dr. Meyer.

Outbreak

This shares the same definition as epidemic, with one exception—an outbreak usually refers to a more limited geographic area. COVID-19 started as an outbreak in Wuhan, the capital city of the Hubei province in China at the end of December 2019, when the Chinese government confirmed that it was treating dozens of cases of pneumonia of unknown cause.

Pandemic

An epidemic that has spread over several countries or continents, impacting many people. Pandemics typically happen when a new virus spreads easily among people who—because the virus is new to them—have little or no pre-existing immunity to it. COVID-19, which was declared a pandemic by the WHO in early March, is the first pandemic known to be caused by the emergence of a new coronavirus.

The CDC recognizes [six stages to a pandemic](#)—it starts with an investigation phase, followed by recognition, initiation, and acceleration phases, which is when it peaks. Then, comes a deceleration phase, when the rate of infection decreases. Finally, there is a preparation phase, where the pandemic has abated, and public health officials monitor virus activity and prepare for possible additional waves of infection. Different countries—and various sections of the same country—can be in different phases of the pandemic at the same time. The U.S. is currently in the acceleration phase.

Cluster

A collection of cases occurring in the same place at the same time. In the U.S. in February and March, early clusters of COVID-19 developed in California, New York, and Washington state.

Community spread

Circulation of a disease among people in a certain area with no clear explanation of how they were infected—they did not travel to an affected area and had no close link to another confirmed case. This is sometimes referred to as community transmission. In late February, a

woman in California became the first patient confirmed in the U.S. who could not confirm how she got COVID-19.

Transmission

Although scientists are still learning about COVID-19 as more data becomes available, the virus is thought to be spread mainly from person-to-person contact, as well as when a person touches a surface or object that has the virus on it and then touches the mouth, nose, or possibly eyes. What follows are some key words used in news outlets to discuss transmission of COVID-19.

Incubation period

The time between when a person is infected by a virus and when he or she notices symptoms of the disease. Estimates of the incubation period for COVID-19 range from 2-14 days, but doctors and researchers may adjust that as more data becomes available.

Droplet transmission

A form of direct transmission, this is a spray containing large, short-range aerosols (tiny particles suspended in air) produced by sneezing, coughing, or talking. Droplet transmission occurs—in general and for COVID-19—when a person is in close contact with someone who has respiratory symptoms. “Although now there is the understanding that we may all spray droplets when we talk or breathe,” says Dr. Meyer. “You don’t necessarily have to cough or sneeze, it’s just that the coughing and sneezing propel the droplets further.”

Asymptomatic

When a patient is a carrier of an illness but does not show symptoms. People are thought to be most contagious for COVID-19 when they are most symptomatic, according to the CDC, although researchers are still investigating how its spread might be possible at other times, including during the incubation period (called “pre-symptomatic transmission”) and even after symptoms have resolved.

Super-spreader

One person who, for unknown reasons, can infect an unusually large number of people. Infectious disease specialists say it is common for super-spreaders to play a large role in the transmission of viruses. In what's known as the 80/20 rule, 20% of infected patients may drive 80% of transmissions.

Preventing COVID-19

As COVID-19 spreads across the country and the globe, there has been an increasing urgency—from individuals, scientists, doctors, and lawmakers at local, state, and national

levels—for people to follow “best practice” prevention guidelines in an effort to stop or, at least, delay the spread of the disease. Below are commonly used terms to describe this effort.

Flattening the curve

Slowing the spread of the virus. If you map the number of COVID-19 cases over time, the expectation is that it will peak at some point—on a graph this peak would mirror a surge in hospital patients. “Flattening the curve,” which involves strategies to decrease transmission of the disease, would result in fewer patients during that peak period. This, in turn, would mean hospitals would be better able to manage the demands of patients who are sick with COVID-19 and other illnesses.

Hand hygiene

A key strategy for slowing the spread for COVID-19. [Washing hands](#) with soap and water for at least 20 seconds is one of the most important steps to take to protect against COVID-19 and many other diseases.

Social distancing

Putting physical distance between yourself and other people. This means avoiding groups of people (parties, crowds on sidewalks, lines in a store) and maintaining distance (approximately 6 feet) from others when possible. [This is a key strategy for avoiding COVID-19 infection](#) and to flatten the curve.

Shelter-in-place order

This is a decree, usually from a government official, for people to stay in their homes with exceptions that include going out for essential needs, such as groceries, as well as outdoor activities like walking and biking in public spaces. People who work in critical services, like health care or law enforcement, or essential businesses, are usually excluded from these mandates.

Self-isolation

Basically a voluntary agreement, this means you are to remain at home and not go to work or school. You’ll be expected to limit your movements outside (you can go for a walk and go shopping, though) and monitor your health for 14 days after returning from travel to a place known to have high numbers of COVID-19 infections.

Self-monitoring

This simply means checking yourself for COVID-19 symptoms, including fever, cough, or difficulty breathing. If you notice symptoms, you should self-isolate and seek advice by

telephone from a health care provider or local health department to determine whether you need a medical evaluation.

Isolation

On a larger scale, isolation involves keeping people with confirmed cases of a contagious disease separated from people who are not sick. If you have a confirmed case of COVID-19, for example, you may be put into isolation for public health purposes—it may be voluntary or compelled by federal, state, or local public health orders.

Quarantine

Unlike isolation, quarantine involves separating and restricting the movements of people who were exposed to a contagious disease to see if they become sick. The government may impose a quarantine on someone who was exposed to COVID-19 to avoid spread of the disease to others if they get sick.

The medical response

As the public does its part to help stop the spread of disease, health care workers on the front lines are caring for an increasing number of patients with COVID-19. The word “surge” is often used to describe the rapidly growing number of people in need of medical attention, a phenomenon that is already overwhelming hospitals around the country.

Drive-thru testing

Medical staff will take a “swab test” (usually done through the nose) to collect cells to test for COVID-19. These designated testing stations reduce the likelihood of further spreading the illness by allowing you to remain in your car, having the test taken through your open window. (The sample is then sent to a laboratory.) You will need an order from your primary care doctor before you can be tested for COVID-19, and tests are only available to people with symptoms. Testing for COVID-19 is free.

Anti-viral medicines

A class of drugs used to treat viral infections—not bacterial ones (which are treated with antibiotics). So far there are no FDA-approved drugs to treat COVID-19, but scientists are studying drugs approved for other diseases. There are also several investigational, or experimental, drugs being studied in several hundred clinical trials currently underway in countries around the world. For example, remdesivir is an investigational intravenous drug with broad antiviral activity that researchers have called “promising.” It is being tested in multiple sites in the U.S., including at Yale New Haven Hospital.

Personal protective equipment (PPE)

“Specialized clothing or equipment, worn by an employee for protection against infectious materials,” as defined by the Occupational Safety and Health Administration (OSHA). In health care settings, PPE may include gloves, gowns, aprons, masks, respirators, goggles, and face shields. The CDC provides recommendations for when and what PPE should be used to prevent exposure to infectious diseases.

Typically, and in a pre-COVID-19 world, health care workers use new PPE for each patient interaction, depending on the patient’s condition, which is why with the expected surge of COVID-19 patients, the supply of PPE in hospitals around the country is expected to run low—or out. These shortages may leave doctors, nurses, and other caregivers ill-equipped to protect themselves while caring for COVID-19 patients.

N95 respirator

Sometimes casually referred to as an “N95 mask,” this PPE is worn on providers’ faces, forming a tight seal around the nose and mouth. Though it looks like a surgical mask, an N95 is actually a respirator that filters out at least 95% of particles in the air. What’s more, it requires a 20-minute “fit test” to ensure proper fitting—and it does not provide adequate protection for people with facial hair. The CDC does not recommend N95 respirators for public use.

Ventilator

This is a machine to help patients breathe when their lungs are damaged, and they can’t get enough oxygen on their own. A ventilator takes over the work of breathing for a patient to allow the damaged lungs to heal; it is not itself a treatment. As there are no FDA-approved treatments yet for COVID-19, seriously ill patients are given supportive care, including supplementary oxygen and mechanical ventilatory support.

Vaccine

A vaccine triggers the immune system to help it build immunity to a disease. The immune system already has the capacity to react to diseases by producing substances called antibodies that remain in the body to fight them in the future. With a vaccine, you don’t have to get the disease to develop immunity—the vaccine triggers the same process by providing the body with a tiny amount of a germ that has been weakened or killed, but small enough that it won’t make you sick. Vaccines are introduced to the body via injection, mouth, or a nasal spray.

The National Institute of Allergy and Infectious Diseases (NIAID) is investigating a vaccine to protect people against COVID-19. An experimental vaccine, called mRNA-1273, has been developed by NIAID scientists and their collaborators at the biotechnology company Moderna, Inc. It could take at least a year before this or any other vaccine is available for the new disease.