

Addendum to CommonHealth Initiative Proposal

June 16, 2020







Major Assumptions for Higher Education Surveillance Testing

- 1. Testable population consists of student populations for all public, private, and community colleges in the Commonwealth; faculty, staff, and employees; and townspeople living and working in close physical proximity. These populations total 1.2MM people statewide.
- 2. Testing occurs for two periods of 20 weeks (mid-August through December 2020, and January through mid-May 2021), assuming continued vigilance and testing will be required for the duration of the academic year (i.e., no vaccine becomes available during the 2020-21 academic year).
- 3. Re-opening: Testing occurs most heavily during the three weeks around the beginning of classes, and assumes that 2.5% of the total population is tested daily (19,700 tests/day).
- 4. Run Rate: Testing occurs at a rate of 0.75% of the population daily beyond re-opening (8,700 tests/day).
- 5. Testing facilities operate on average at 80% of capacity, requiring testing infrastructure with maximum capacity of 24,600 tests/day.
- 6. Operating expenses for each 20 week period will approximate \$79.3MM, for a total cost of the academic year of \$158.6MM.





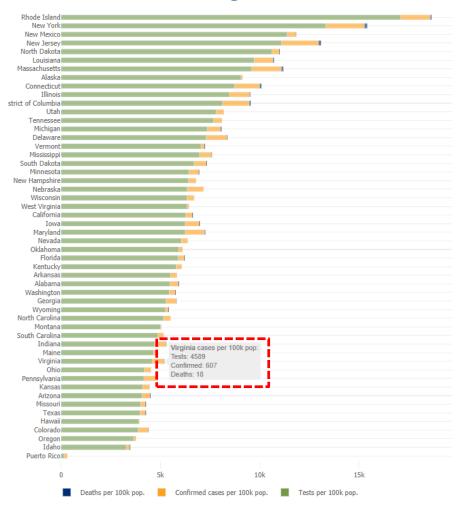
Pro Forma 20 Week Testing Period

Projected Testing Volumes: Virginia Higher	Ed Populations	Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Public Universities			Testing Vol																			
Students	213,000		37,275	37,275	37,275	11,183	11,183	11,183	11,183	11,183	11,183	11,183	11,183	11,183	11,183	11,183	11,183	11,183	11,183	11,183	11,183	11,18
Faculty, Staff, Employees	174,273		30,498	30,498	30,498	9,149	9,149	9,149	9,149	9,149	9,149	9,149	9,149	9,149	9,149	9,149	9,149	9,149	9,149	9,149	9,149	9,14
Community Business Staff	42,600		7,455	7,455	7,455	2,237	2,237	2,237	2,237	2,237	2,237	2,237	2,237	2,237	2,237	2,237	2,237	2,237	2,237	2,237	2,237	2,23
% Tested Daily	0.75%	_	2.5%	2.5%	2.5%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.89
Total Public University Tests			75,228	75,228	75,228	22,568	22,568	22,568	22,568	22,568	22,568	22,568	22,568	22,568	22,568	22,568	22,568	22,568	22,568	22,568	22,568	22,56
Private Universities																						
Students	100,000		17,500	17,500	17,500	5,250	5,250	5,250	5,250	5,250	5,250	5,250	5,250	5,250	5,250	5,250	5,250	5,250	5,250	5,250	5,250	5,25
Faculty, Staff, Employees	81,818		14,318	14,318	14,318	4,295	4,295	4,295	4,295	4,295	4,295	4,295	4,295	4,295	4,295	4,295	4,295	4,295	4,295	4,295	4,295	4,29
Community Business Staff	20,000		3,500	3,500	3,500	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,05
% Tested Daily	0.75%		2.5%	2.5%	2.5%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.89
Total Private University Tests			35,318	35,318	35,318	10,595	10,595	10,595	10,595	10,595	10,595	10,595	10,595	10,595	10,595	10,595	10,595	10,595	10,595	10,595	10,595	10,59
Community Colleges																						
Students	400,000		21.000	21.000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21.000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,00
Faculty, Staff, Employees	120,000		6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,30
Community Business Staff	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Tested Daily	0.75%		0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.89
Total Community Colleges		_	27,300	27,300	27,300	27,300	27,300	27,300	27,300	27,300	27,300	27,300	27,300	27,300	27,300	27,300	27,300	27,300	27,300	27,300	27,300	27,30
Total Higher Ed Population	1,151,691																					
Total Weekly Testing Volume			137,846	137,846	137,846	60,464	60,464	60,464	60,464	60,464	60,464	60,464	60,464	60,464	60,464	60,464	60,464	60,464	60,464	60,464	60,464	60,46
% of Population tested, Cumulative			12.0%	23.9%	35.9%	41.2%	46.4%	51.7%	56.9%	62.2%	67.4%	72.7%	77.9%	83.2%	88.4%	93.7%	98.9%	104.2%	109.4%	114.7%	119.9%	125.29
Max Total Daily Volume	19,692		19,692	19,692	19,692	8,638	8,638	8,638	8,638	8,638	8,638	8,638	8,638	8,638	8,638	8,638	8,638	8,638	8,638	8,638	8,638	8,63
Capacity Factor	0.8																					
Capacity Required (tests/day)	24,615																					
Cost per Test	\$50.00																					
Labor per Test	\$5.00																					
Weekly Testing Cost (\$ in MM)	******		\$7.58	\$7.58	\$7.58	\$3.33	\$3.33	\$3.33	\$3.33	\$3.33	\$3.33	\$3.33	\$3.33	\$3.33	\$3.33	\$3.33	\$3.33	\$3.33	\$3.33	\$3.33	\$3,33	\$3.3
Total Variable Cost of Testing (\$ in MM)	\$79.3			,					,			,										
Re-opening Testing Rate (Daily)	2.5%																					
Run Rate Testing Rate (Daily)	0.75%																					
Number of Re-opening Weeks	3																					





Virginia Statewide Testing Rates



- Virginia is now 40th in the league table for number of tests performed per 100,000 people
- Sustained 7-day moving average positivity rates (between 9% - 12%) suggests that testing remains focused on symptomatic patients without meaningfully engaging with the asymptomatic population





Commonwealth-controlled vs. contracted COVID19 molecular testing capacity: Major Providers

	Entity	Daily Capacity	State	Contracted
Protecting Y	VIRGINIA DEPARTMENT OF HEALTH You and Your Environment	600 tests/day ⁽¹⁾	VA	NO
⋒ U	VAHealth	600 tests/day ⁽²⁾	VA	NO
	CUHealth	1,000 tests/day	VA	NO
Viders C	ENETWORX	NA ⁽³⁾	VA	YES
Contracted Providers	ECULAR ANALYTICS	NA	VA	YES
Contrac	MAKO MEDICAL LABORATORIES	NA	NC	YES
	abCorp	75,000 tests/day ⁽⁴⁾	NC	NO

⁽¹⁾ VDH Tele-Press Conference on Testing in Virginia. May 6, 2020. https://www.vdh.virginia.gov/content/uploads/sites/182/2020/05/VDH-TelePress-Conference-on-Testing-Transcript.pdf

⁽²⁾ Internal data. Additional resources coming online will increase UVA's daily throughput to 1,700 by mid-summer.

⁽³⁾ VDH contracted with three private labs to expand testing by 3,000 tests/day. https://vpm.org/news/articles/13312/virginia-finalizing-private-lab-contracts-to-expand-covid-19-testing

^{(4) &}lt;a href="https://www.labcorp.com/coronavirus-disease-covid-19/labcorp-newsroom/labcorp-continues-increase-capacity-covid-19-molecular-and-serological-tests">https://www.labcorp.com/coronavirus-disease-covid-19/labcorp-newsroom/labcorp-continues-increase-capacity-covid-19-molecular-and-serological-tests

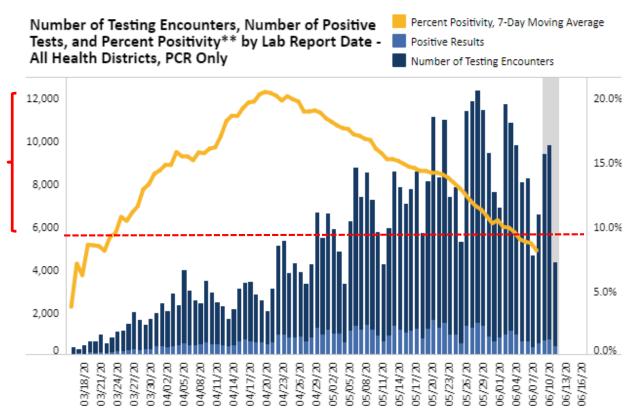




Existing Commonwealth Lab Capacity vs. Testing Volumes

Current estimated in-state testing capacity: ~5,800 viral tests/day⁽¹⁾

Daily testing volumes above 5,800 tests/day are being processed by private labs out-of-state, competing with national testing volumes and experiencing delayed turnaround times



• According to the phased reopening plan, Phase 3 calls for 7,500 viral tests/day, at which point inperson instruction of all schools (both public and private) will commence⁽²⁾

⁽¹⁾ Known capacity as of 5/31/20.

^{(2) &}lt;a href="https://www.whsv.com/content/news/Gov-Northam-expected-to-discuss-the-future-for-schools-in-COVID-19-briefing-571132831.html">https://www.whsv.com/content/news/Gov-Northam-expected-to-discuss-the-future-for-schools-in-COVID-19-briefing-571132831.html





Financial Impact to Virginia Colleges and Universities Resulting from Students Not returning to Campus Due to COVID19 Safety Concerns

	Total		In-State			Out-of-State	
School	Undergrad	Students	Tuition	10% Decline	Students	Tuition	10% Decline
Liberty University	45,935	11,484	\$33,100	\$38,011,213	34,451	\$33,100	\$114,033,638
Virginia Tech	27,646	19,076	\$13,691	\$26,116,700	8,570	\$32,835	\$28,140,561
George Mason University	24,372	19,741	\$12,462	\$24,601,633	4,631	\$35,922	\$16,634,329
Virginia Commonwealth University	23,172	19,928	\$14,710	\$29,313,970	3,244	\$36,048	\$11,694,260
James Madison University	19,883	15,111	\$23,918	\$36,142,681	4,772	\$40,818	\$19,478,023
University of Virginia	17,011	11,738	\$17,798	\$20,890,563	5,273	\$50,900	\$26,841,657
Radford University	7,926	7,133	\$11,350	\$8,096,409	793	\$23,573	\$1,868,396
William & Mary	6,377	3,954	\$23,400	\$9,251,752	2,423	\$45,272	\$10,970,583
Longwood University	5,124	4,817	\$25,188	\$12,131,951	307	\$41,148	\$1,265,054
Christopher Newport University	4,957	4,630	\$14,754	\$6,830,863	327	\$27,620	\$903,621
University of Mary Washington	4,400	3,916	\$12,714	\$4,978,802	484	\$28,648	\$1,386,563
Hampton University	3,714	1,061	\$27,774	\$2,946,039	2,653	\$27,774	\$7,369,224
University of Richmond	3,147		\$52,060		3,147	\$52,060	\$16,383,282
University of Lynchburg	2,100	1,407	\$52,018	\$7,318,933	693	\$52,018	\$3,604,847
Roanoke College	2,005	1,083	\$43,818	\$4,744,175	922	\$43,818	\$4,041,334
Washington & Lee University	1,843	330	\$52,455	\$1,731,015	1,513	\$52,455	\$7,936,442
Randolph Macon College	1,488	1,146	\$41,300	\$4,731,989	342	\$41,300	\$1,413,451
Virginia Military Institute	1,200	684	\$29,270	\$2,002,068	516	\$57,480	\$2,965,968
Hampden-Sydney College	1,072	751	\$46,890	\$3,523,652	321	\$46,890	\$1,502,956
Mary Baldwin University	749	650	\$31,110	\$2,022,150	99	\$31,110	\$307,989
Hollins University	645		\$39,035		645	\$39,035	\$2,517,758
Financial Impact by Student Type				\$245,386,557			\$281,259,935
Total Financial Impact							\$526,646,492





Sampling of National Peer Group of Universities and Colleges

Return Policies and Planning





School	Commentary	Source
THE UNIVERSITY OF ALABAMA	 All students returning to campus will be tested for COVID-19 "subject to availability of adequate testing." 	• https://www.al.com/coronavirus/202 0/06/document-details-university-of- alabama-system-plan-to-reopen-
	 If universal testing is not available, students arriving with symptoms or from an area identified as a COVID-19 hot spot should be tested "at a minimum." 	campuses-amid-pandemic.html
	 After arriving back on campus, sentinel testing would mean randomly selecting 2.5 percent of the students and staff to "find trends, identify outbreaks and monitor the prevalence of COVID-19 on each campus." 	
	 All ASU students and employees will be pre-screened for information related to prior COVID-19 testing and travel. ASU will follow <u>CDC</u> 	 https://eoss.asu.edu/health/announc ements/coronavirus/faqs
	guidance pertaining to isolation requirements for individuals traveling domestically or internationally.	• https://www.statepress.com/article/ 2020/04/spcommunity-asu-in-
Arizona State	 Testing will be available on all campuses — at the start of the semester and throughout the semester — for any student and employee who needs it. 	person-classes-fall-2020
University	 The university houses a fully CLIA-certified* and FDA Emergency Use Authorization approved testing lab at the Biodesign Institute to perform a diagnostic qPCR test for those individuals who may have an active coronavirus infection. 	
	 ASU will now provide a <u>saliva-based COVID-19 test</u> and will prioritize testing for any student or employee who is exhibiting symptoms or may have been exposed to someone with COVID-19. Turnaround time for test results is 24- 48 hours. ASU has staff available to support contact tracing as needed. 	
	 The COVID-19 testing plan (including contact tracing) for ASU is being finalized and will be announced soon. 	





School	Commentary	Source
ARIZONA	 The president of the University of Arizona argues that this widespread testing could be a model for other colleges and universities as they try and reopen their campuses. As part of that, the university is planning to roll out antibody tests for all 60,000 students, staff, and faculty. 	 https://www.businessinsider.com/university-of-arizona-president-on-testing-all-60000-students-staff-2020-5 https://www.arizona.edu/coronavirus-covid-19-information
Berkeley UNIVERSITY OF CALIFORNIA	 A team of researchers at UC Berkeley School of Public Health—in partnership with the Innovative Genomics Institute; the Division of Computing, Data Science and Society; and University Health Services—is launching a new initiative to offer universal testing to students, staff, and faculty as they return to the UC Berkeley campus and to develop rapid response protocols and effective infection control 	 https://publichealth.berkeley.edu/cor onavirus/berkeley-public-health- launches-new-covid-19-safe-campus- initiative/
	 Called the Berkeley COVID-19 Safe Campus Initiative, the program will establish a system to keep the UC Berkeley campus and surrounding communities safe to facilitate the potential reopening of the university this fall. 	
BOSTON UNIVERSITY	• In his letters, Brown (BU President) said his announcement hinged on two key elements that were necessary in order to bring BU's community back, both of which are now coming together: a testing center on campus that will allow the University to perform its own COVID-19 tests on students, faculty, and staff and get results quickly to determine if a person needs to be isolated or requires further treatment, and a strategy BU is calling Learn from Anywhere, or LfA, that will allow students flexibility in choosing whether to take classes in person or remotely.	https://www.bu.edu/articles/2020/b u-campuses-in-person-classes- resume-fall-2020/





School	Commentary	Source
BROWN	 Paxson (Brown President) says that regular testing for COVID-19 is a must, including testing when students return and ongoing testing throughout the academic year. 	 https://www.forbes.com/sites/zackfriedman/2020/04/28/collegeuniversity-open-fall/#49547ed51727
N★C	The interim president of the UNC System said that he expects schools to reopen for the fall 2020 semester.	 https://www.unc.edu/posts/2020/05/ /21/return-to-campus/
THE UNIVERSITY OF NORTH CAROLINA SYSTEM	 UNC Health, Campus Health, the health department and our infectious disease team have robust testing capabilities when indicated, reflecting state-of-the-art practices to limit virus spread. 	 https://www.wbtv.com/2020/04/29/ unc-system-interim-president- expects-universities-reopen-fall- semester/
University of Colorado	 Announced plans to welcome students back to CU Boulder for a COVID-19 ready fall semester with a flexible, in-person experience designed for safety, ensures access and quality for our students and moves the campus forward. 	• https://www.colorado.edu/chancello r/newsletter/chancellor/covid-19- update-cu-boulder-welcome- students-back-campus-covid-19-
Boulder	Among the many mitigation measures outlined by CU Boulder's plan are:	<u>ready-fall</u>
	 On-campus capability for COVID-19 testing of students, faculty and staff, both to continuously monitor for potential spread and to test individuals with symptoms; 	
	 Campus-based rapid response teams for tracking, notification and isolation of infected individuals; 	





School	Commentary	Source
REOPEN Connecticut	 We recommend that the Governor, with the help of public health experts, provide a set of "gating conditions," which, if satisfied, will allow colleges and universities to reopen their campuses. 	 https://portal.ct.gov/-/media/Office- of-the-Governor/News/20200506- Recommendations-to-Governor- Lamont-for-a-phased-reopening-of-
SAPER. STRONGER, TOGETHER.	 Gating Conditions: The prevalence of the disease must be low enough to safely resume campus operations. 	colleges-and-universities.pdf?la=en
	 The State must ensure that colleges and universities have adequate supplies of viral diagnostic tests and adequate financial support to obtain, administer, and process them. 	
	 The State should enable institutions to have adequate capacity for contact tracing. 	
Duke	 Robust and wide-ranging testing systems will be in place. All students living on campus will be tested for COVID-19 before they are permitted to begin classes. 	 https://coronavirus.duke.edu/2020/0 5/update-for-students-and-families- from-president-price-on-fall-2020/
	 All students will complete daily health checks through a monitoring app and report concerning symptoms to the Student Health and Wellness. 	
	 We expect that students planning to live in residence halls will be screened by testing for SARS-CoV-2, the virus that causes COVID-19, either upon their arrival or shortly before their arrival. 	 http://campuslife.emory.edu/reopen \(\sum_{\text{\tint{\text{\tin}\text{\texi\text{\texi}\text{\text{\text{\text{\text{\texi\texi{\texi\texi{\texi\texi{\texi{\texi\texi{\texi{\texi}\texi{\texi}\texi{\texi{\texi{\texi{\
EMORY		





School	Commentary	Source
UF FLORIDA	 UF is implementing a comprehensive screen-test-and-protect program to return faculty, staff and students to campus, at no cost to individuals. 	 https://coronavirus.ufl.edu/media/co ronavirusufledu/draft-plan.pdf
	 A 10-station drive-through testing site is operating on campus, under the direction of UF Health medical professionals. 	
	 A phased approach to bringing employees back determined by each college/department in coordination with UF Human Resources is being implemented. 	
	 All students will undergo a screening assessment for COVID-19 risk factors as they return to campus; at-risk students will receive medical triage and COVID-19 testing. 	
	 Updates on Johns Hopkins University's coronavirus website suggest that it is working on a plan for the fall semester. 	 https://hub.jhu.edu/novel- coronavirus-information/#recent-
JOHNS HOPKINS UNIVERSITY	 On June 4, the school published a <u>draft of guidelines</u> for resuming on- campus coursework, which includes procedures like social distancing and wearing a face covering. 	 updates https://www.chronicle.com/article/C olleges-Plans-to-Reopen/248935
	 Further, the University plans to test everyone twice per week. 	
MICHIGAN STATE	 Michigan State University will invite students to return to campus this fall despite COVID-19 concerns though the university will also offer remote learning options and will end the in-person portion of courses by Thanksgiving. 	 https://www.lansingstatejournal.com /story/news/2020/05/27/msu- students-return-campus-fall-despite- covid-19-pandemic/5268144002/
UNIVERSITY	 Officials are still working out how to manage residence halls, how to approach contact tracing and testing. 	





School	Commentary	Source
UNIVERSITY OF NOTRE DAME	 Notre Dame became one of the first major universities in the country to announce plans for bringing back students, saying it would put in effect a regimen of testing and contact tracing, put quarantine and isolation protocols in place and require students to maintain social distancing and wear masks in public. 	 https://www.nytimes.com/2020/05/ 19/us/college-fall-2020- coronavirus.html https://here.nd.edu/student-life/
	 Details about the staged return of students and welcome activities for new students will be shared as they are finalized, with an update provided no later than June 15, 2020. 	
	• In May, Provost Katherine Fleming told NYU students that the university plans to resume in-person coursework in the fall, but that students will likely have the option to study remotely. Steps to reopening, include:	 https://www.nyu.edu/life/safety- health-wellness/coronavirus- information.html
NYU	 conducting virus and antibody testing and contact tracing; making masks available for all members of the NYU community and requiring their use; reducing density in student housing 	
J PURDUE	 We intend to know as much as possible about the viral health status of our community. This could include pre-testing of students and staff before arrival in August, for both infection and post-infection immunity through antibodies. 	 https://www.purdue.edu/president/ messages/campus- community/2020/2004-fall- message.php
UNIVERSITY	 It will include a robust testing system during the school year, using Purdue's own BSL-2 level laboratory for fast results. Anyone showing symptoms will be tested promptly, and quarantined if positive, in space we will set aside 	
	for that purpose.	





School	Commentary	Source
RICE	 We will be adopting additional safety and social distancing measures across our campus community. These measures are in the process of being worked out, but they will include protocols for COVID-19 testing, contact tracing and precautionary isolation of individuals that may have been exposed to the virus. 	 https://coronavirus.rice.edu/news/m essage-graduate-students-regarding- research-activities-and-fall-plans
University of San Diego	 The plan, called <u>"Return to Learn,"</u> is a first-of-its kind attempt to ensure campus health standards at a time when colleges and universities across the country are wrestling with whether to restart in-person courses and fully reopen dormitories this fall. The plan could eventually test all 65,000 students, faculty and staff at UC San Diego. 	 https://edsource.org/2020/will- others-follow-uc-san-diegos-plan-to- widely-test-for-coronavirus/631027 https://coronavirus.ucsd.edu/return- to-learn/index.html#What-will-be- learned-from-this-
STANFORD UNIVERSITY	 In a departure from previous years, the school is planning for undergraduates to have a four-quarter academic year, which includes Summer 2021. Half of the students would be on campus per quarter, and would rotate each quarter. By rotating, most undergrads would be on campus for two quarters, learn remotely for one quarter, and would allow each student on campus to sleep in their own private space, officials said. 	 https://sanfrancisco.cbslocal.com/20 20/06/04/stanford-university- reopening-coronavirus-covid-19- academic-year-adjustments/
	 For students on campus, social distancing will be in place, along with limitations on gatherings. Students will likely be asked not to travel outside the local area or be asked to self-isolate upon returning. 	





School	Commentary	Source
TEXAS The University of Texas at Austin	 Testing for symptomatic patients, as well as surveillance testing for students, staff and faculty, will be available on campus when the UT campus opens in the fall. 	 https://president.utexas.edu/messag es-speeches-2020/fall-2020-planning- update-may-20
	 Based on our modeling strategy and best available evidence, more than 500 tests will be needed daily. 	
TEXAS TECH UNIVERSITY.	 Texas Tech received about \$25.5 million in federal aid. Students at the Lubbock campus will return to classes with a list of precautions including social distancing and testing 	 https://www.depts.ttu.edu/communi cations/emergency/coronavirus/upda te-4-29-20.php
Tulane University	 Our goal is to test individuals as they return to campus and to provide frequent testing during the school year. 	https://tulane.edu/fall-2020- reopening
	 Vanderbilt University is establishing its COVID-19 safety model by leveraging collaboration and partnership with the world-class Vanderbilt University Medical Center and Vanderbilt University School of Nursing to support and protect the Vanderbilt University community as much as possible. 	 https://www.vanderbilt.edu/coronavi rus/fall-2020/fall-2020- undergraduate-students/
VANDERBILT UNIVERSITY	 As a core component of our preventive measures, we will have requirements for COVID-19 testing, as well as rigorous contact tracing and symptom management that are in alignment with recommendations from the <u>CDC</u> and the <u>ACHA</u>. 	