

Mathcamp 2022 Covid-19 Plan

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Principles

Our goal in planning for summer 2022 is to keep Mathcamp's operations as normal as possible while avoiding outbreaks of Covid-19. We chose *not* to run camp in person in 2020 and in 2021 because we couldn't ensure access to vaccines for all participants, and we didn't believe that we were in a position to operate camp safely in a way that would feel like a typical Mathcamp summer: namely, students having full access to freely choosing their classes and socializing with all members of the Mathcamp community (rather than have access only to a small pod at camp). In 2022, we believe that we can run a dynamic, inclusive, and safe version of Mathcamp in a residential format because we now have:

- Widely-available vaccines that provide significant protection against severe disease, bringing the risks associated with Covid-19 at camp into the same order of magnitude as other risks routinely experienced at camp (such as driving from the airport).
- Widely-available rapid tests that provide a way to identify infectious individuals and keep them from transmitting the disease.
- A clear understanding of airborne Covid-19 transmission and sound strategies to prevent it. A combination of outdoor spaces, ventilation, high-quality masks, physical distancing, and vaccines have been successfully used to significantly limit transmission in workplaces and classrooms around the world.

For more information on the supporting research, consult the [scientific appendix](#).

In the document below, we describe our operating procedures for Summer 2022. (The details that depend on up-to-date information on the interaction of prevailing variants with population immunity levels, such as the isolation timelines, will be set based on public health best practices at the time of camp.) Important features of our framework are:

- reducing the risk of introductions of Covid-19 into camp,
- a tiered system of baseline universal precautions sensitive to conditions at camp and in the community, and
- flexible options for individuals to increase individual safety.

These operating procedures have been developed via in-depth consultations with public health and medical professionals about Mathcamp's specific activities and circumstances. They will be updated throughout spring 2022 in coordination with Colby's Covid-19 Compliance Program for summer programs, as well as state and federal guidelines.

Prevention Policies: the Color-coded system

We have established a three-tiered, color-coded system to inform Mathcamp decision-making and operations this summer. The color level at any given time is determined by a holistic review of a combination of factors, including close monitoring of local, regional, and national Covid-19 trends, as well as the number of cases on campus and within Mathcamp.

There are separate systems for **internal** interactions within camp (including within dormitories, classes, and social events) and **boundary** interactions between camp and the outside world (including campus dining halls, off-campus field trips, and visitors coming to camp).

Our goal is to make the educational and social experience of camp as normal as possible. To that end, we expect to operate at Yellow in week 1 for both internal and boundary interactions, and to consider a transition to Green for internal interactions after week 1 if we are reasonably confident that there is no Covid-19 among Mathcamp participants. We expect to keep boundary interactions at Yellow throughout camp unless circumstances indicate a switch to Green or Red.

The levels correspond to estimates of the risk of Covid-19 exposure inside and outside of camp.

Internal Levels

- **Green:** We are reasonably confident that no non-isolated person at camp has Covid-19, due to a lack of symptoms, a period of negative screening tests, and a lack of high-risk exposures. This enables free interactions between all people at camp.
- **Yellow:** There is a nontrivial chance that a non-isolated person at camp has Covid-19 (e.g., during the first week before serial testing is complete; or after known exposure). Enhanced precautions may be enforced during mandatory activities (e.g. dining, classes, assembly), such as holding events outdoors, physical distancing, and masking. Individuals are empowered to reduce their own potential exposure within the camp.
- **Red:** There is a high likelihood of Covid-19 transmission within camp. Enhanced precautions will be used in all indoor settings.

Boundary Levels

- **Green:** There is a low probability that a camper would contract Covid-19 from a person outside of camp due to a low level of cases on campus and in the surrounding area. This enables free interactions between people at camp and people outside of camp.
- **Yellow:** There is a moderate chance that an interaction with a person outside of camp may result in a camper contracting Covid-19. Enhanced precautions may be required, such as preferring outdoor interactions and masking when indoors.
- **Red:** There is a high likelihood of Covid-19 exposure in interactions with people outside of camp. Some activities will be prohibited.

The operating procedures for each of the color codes are detailed later in this document.

Crossing the Boundary: Minimizing Introductions of Covid-19

The following precautions are intended to minimize the chance that a person arrives at camp with a Covid-19 infection and transmits it to other people at camp.

Location of Camp

We have selected Colby College in Waterville, Maine as the setting for Mathcamp 2022. The [rural setting](#) of the campus is ideal for our purposes: the campus is 714 acres, with a beautiful Arboretum, running trails, and a pond; there is ample space for outdoor activities, both on campus and for nearby field trips in the region. In the surrounding area, the Covid-19 case rates per 100,000 in Kennebec County and in Maine have been among the lowest in the US, and vaccination rates are among the highest. Throughout the pandemic, Colby has had an outstanding Covid-19 response (see [PBS NewsHour](#), [USA Today](#) coverage), and the college is committed to collaborating with summer guests to continue this excellent track record.

Vaccine Mandate

All participants (students, staff, and overnight visitors) will be required to complete a full course of COVID-19 (SARS-CoV-2) vaccine using a [WHO-approved vaccine](#), including a booster if eligible, before arriving at camp.

We will honor documented medical and religious exemptions. We will publish forms for requesting exemptions when registration for accepted students opens in the spring. Requests for medical exemptions must include a letter from a medical provider specifying the condition that prevents the administration of the vaccine; these requests will be reviewed by our consulting physician. Requests for religious exemptions will include a detailed form to address why receipt of the vaccine would conflict with sincerely-held religious beliefs; these requests will be evaluated on an individual basis by the camp administrators. In the event of an outbreak of Covid-19 at camp, unvaccinated students will be asked to leave campus (for their own safety as well as the safety of others) at their own expense.

We are unable to offer geopolitical vaccine exemptions for students coming from countries where WHO-approved vaccines are not accessible, or where vaccinations for individuals under 18 have not yet been approved. We will be happy to discuss individual circumstances with admitted students and returning alums whose access to healthcare is limited, and will do our best to provide support to make it possible for every admitted student to attend camp safely.

Precautions Before Camp

All participants will sign pre-camp agreements to take the following precautions before camp:

- Complete a full course of vaccination for Covid-19 using a [WHO-approved vaccine](#), including a booster if eligible, unless an exemption is approved in advance.
- Limit exposures in the weeks leading up to camp

- Travel to camp well-rested, well-fed, and hydrated
- Take a rapid test immediately before departing for their travel to camp
- Wear a high-quality mask (N95, KF94, or similar) while in transit to camp
- Delay arrival to camp if sick (presenting Covid-19 symptoms or testing positive)

Mathcamp will work with all participants in advance to make sure they have access to appropriate resources (e.g. to coordinate access to rapid tests if needed). In accordance with best practices at the time of camp, we may also require PCR tests in advance of camp.

The Mathcamp Code of Conduct will be updated to include language on mutual respect regarding Covid-19 concern; supporting each other's safety; and following the Covid-19 policies. All participants will agree to notify the appropriate staff member in case of symptoms.

Arrivals to Camp

Upon arrival at camp: Registration will take place outside, in front of the dormitory. Before entering the dorms, all participants will take a rapid test and do a symptom screening, including a temperature check with a rapid thermometer. This also applies to any travel companions.

During the first seven days: All participants will continue to get tested regularly throughout their first week. Camp operations will begin at Yellow for both internal and boundary interactions.

In the event that a participant cannot travel to camp on their planned arrival date for Covid-19 related reasons (e.g. if they test positive just before camp), they may arrive at camp late and will follow the same arrival and seven-day procedures starting from their delayed arrival date.

Visitors

All overnight visitors to Mathcamp (e.g. guest speakers) will use the same precautions before coming to camp and upon arrival as described above.

At the Red level for boundary interactions, visitors may be prohibited.

International students

We hope that international students will be able to participate in camp as usual. In case of new restrictions and travel bans being introduced, we will refund tuition for any students who are not able to come to the United States.

Just as for domestic students, all international students must be fully vaccinated in advance of camp; any vaccine on the [WHO approved list](#) qualifies.

Maintaining the Boundary: Minimizing External Exposures

The following precautions are intended to minimize the chance that a person at camp contracts Covid-19 from a person outside of camp.

Mathcamp's facilities on the Colby campus (dorm, classrooms, social spaces) will be primarily dedicated spaces for Mathcamp-only use. Nonetheless, there will be some interfacing with people outside of camp: e.g., other campus groups sharing access to the dining hall, and interactions with campus staff (custodial, security, administrative). There is also the possibility of off-campus interactions (such as on field trips) and visitors (such as parents) coming to camp.

At a Green level for boundary interactions, there are no restrictions on interactions with people outside of camp in small groups. At Yellow and Red levels for boundary interactions, wearing masks will be mandatory when interacting indoors with people outside of camp (e.g. while in the serving area in the dining hall, or when having conversations with campus staff).

Day visitors to camp may choose to take a rapid test on arrival; testing negative will allow them to be a 'person at camp' for the day (or until they have any outside-of-camp interactions). This will facilitate families visiting students and interacting unmasked indoors (e.g. in private cars).

If a person at camp has an interaction that is indoors, unmasked, and with a person outside of camp who has not taken a rapid test, then this is considered "departing from camp." We will then initiate the full arrival procedure (including the seven-day period of increased caution) upon that participant's return.

Dining

At Green and Yellow levels for boundary interactions, Mathcamp will have shared access to the campus dining hall, and will implement measures (such as a designated seating area) to limit contact with people outside of camp. Participants will also have the option of taking their meals outdoors, or getting a to-go box and eating their meals in Mathcamp-only spaces.

At the Red level for boundary interactions, we will increase the level of caution by restricting Mathcamp's overlap with other campus groups in the dining hall (for example, by scheduling a designated time for Mathcamp participants to have exclusive access to the dining hall, or by arranging boxed meals to be delivered to the dorm).

Gym and swimming pool

At Green and Yellow levels for boundary interactions, Mathcamp participants will be permitted to use the gym at their discretion, unmasked, as long as an appropriate perimeter can be maintained from people outside of camp. At the Red level for boundary interactions, it will be prohibited to be unmasked in a space shared with people outside of camp. Mathcamp will make an effort to secure designated times for our exclusive use of the gym and swimming pool.

Going off campus

At all levels of safety, campers will be allowed to check out to go off campus as in a usual year. At a Green level for boundary interactions, there are no restrictions on off-campus interactions in small groups. At the Yellow level for boundary interactions, Mathcamp participants can be in off-campus indoor spaces only while wearing N95 (or equivalent) masks for the entire time indoors, including in taxi or ride-share transportation. At the Red level for boundary interactions, participants may not have any indoor interactions off campus with the exception of staff doing tasks required for camp operations, in which case they will wear N95 (or equivalent) masks for the entire time indoors. For grocery shopping, campers may order online for pickup, and Mathcamp staff will facilitate transportation as needed. (No indoor interactions off-campus means no taxi/ride-share.) For eating out, see below.

Religious services

Participation in religious services will be permitted at all levels of safety. At Yellow and Red levels for boundary interactions, wearing masks inside will be mandatory; at the Red level for boundary interactions, outdoor services will be strongly preferred. Mathcamp staff will facilitate transportation to/from religious services at all color levels.

Eating out

At the Green boundary level, indoor dining off-campus is permitted in uncrowded spaces. At the Yellow levels for boundary interactions, eating *outdoors* off-campus will be permitted (but not indoor dining). We encourage picnics! We advise caution at restaurants: if non-Mathcamp people are also eating outdoors, maintain an appropriate space perimeter. At the Red level for boundary interactions, only takeout or delivery from restaurants will be permitted. Both indoor and outdoor eating at off-campus restaurants will be prohibited. (You can always take your take-out to a park and have a picnic! Or bring your food back to campus.)

Field trips

Field trips are a significant part of the social life at Mathcamp! They will operate at all color levels, with appropriate precautions.

At the Green level for boundary interactions, field trips will be run similarly to a normal year, but with mild extra caution, e.g. an emphasis on limiting interactions with non-Mathcamp people.

At Yellow and Red levels for boundary interactions, we will choose field trips which limit potential exposures to Covid-19. We will focus on outdoor activities (e.g. hiking, berry picking, etc.) for off-campus trips, with indoor on-campus alternatives. Bus drivers will be tested with a rapid antigen test before each trip. Interactions with other non-Mathcamp people during the trips will be limited.

Daily Life: Internal Interactions during Camp

In the first week of camp, we expect to operate at Yellow level for internal interactions. After the first week, if we are reasonably confident that there is no Covid-19 at camp (based on negative tests, absence of symptoms, and a lack of high-risk exposures), we will operate at the Green level for internal interactions. Conversely, in case of transmission at camp creating the potential for an outbreak, we will switch to Red.

At Green, interactions between members of the Mathcamp community will not be limited, and campers and staff will be able to interact with everyone without any restrictions, e.g. on the size of gatherings (unless Colby or Maine protocols state otherwise). Masks will only be required at large mandatory activities (such as all-camp assembly) taking place indoors, and in any other contexts in which they are required by campus or state policies.

At Yellow, there is a nontrivial chance that a non-isolated person at camp may have Covid-19 and we want everyone to be able to participate in all official activities without worrying about their potential exposure to Covid-19. Therefore, every official Mathcamp activity will either take place outside or enforce a mask mandate. In particular, wearing masks will be mandatory in classrooms, lounges, and the Mathcamp offices (namely, in shared indoor spaces). We will encourage socialization outdoors. In private indoor spaces (e.g. dorm rooms or hall bathrooms), wearing masks will not be required. Large gatherings (e.g. assemblies) will take place with extra precautions, such as holding them outside or with a combination of masks and social distancing.

At Red, masks will be required in all public indoor spaces. Surveillance testing may be initiated. As many events as possible will be moved outdoors. Physical distancing requirements may be instituted in the dining hall.

At all color levels, we ask each participant to respect the Covid-19-related concerns of others whose risk tolerance and perception may be different than one's own.

Additional Precautions for Individuals

We acknowledge that there will be differences in risk assessment and risk tolerance among our campers and staff. We seek to ensure that all essential activities will be accessible to everyone, regardless of their level of concern about Covid-19. To that end, the following options are available for all individuals at camp regardless of the color level:

- **Classes:** Campers will have an option to mask themselves in classrooms and choose a socially-distanced seat.
- **Dining:** There will be to-go boxes available in the servery for those who prefer to eat outdoors or in a Mathcamp-only space.
- **Dorms:** We will do our best to honor requests for single rooms for participants who prefer not to have a roommate, and will reserve extra single rooms in case a participant

who previously was assigned to a double room determines during the program that they would feel safer living alone.

- **Social activities:** All individuals can choose which activities they want to participate in, and there will be activities held outdoors throughout the summer. All participants are encouraged to organize and post their own social events on the schedule board, for which they may select an outdoor setting and/or ask participants to wear masks. We will ensure that the perimeter of the main lounge (which contains the schedule board, field trip boards, etc) is uncrowded, so that students may mask themselves and remain distanced from others while interacting with these systems.
- **Mandatory activities at camp:** When there are all-camp activities (e.g. orientation day, weekly assembly, closing ceremonies), individuals may choose a socially-distanced seat. (Note that all-camp gatherings will either take place outdoors or will require masks.) For other mandatory interactions (e.g. daily sign-in, weekly advisor meetings), campers will have the option to schedule their interactions outdoors or to mask themselves.

Rapid tests and masks will be available for all participants at the Mathcamp office.

In advance of camp, participants can indicate accessibility needs and requests at the time of registration, and we will work with students and families in advance of camp to coordinate with Mathcamp staff and our host campus to put appropriate accommodations in place.

Testing

Mandatory testing: During the first week of camp daily testing with a rapid antigen test will be mandatory for everyone. In later weeks, everyone who has symptoms will be tested. In case of Covid-19 cases at camp, close contacts of an infected individual (e.g. roommate, friends spending significant time together) will also be tested.

Optional testing: Rapid tests will be available on campus for anyone who wants to get tested.

Rapid antigen testing offers two advantages over PCR: timeliness and better correlation with infectiousness. Most testing at camp will use rapid antigen tests. PCR will be used: to confirm rapid test positives; before travel (if required by airline or entering country); and in case of discordance between symptoms and rapid test results.

Mathcamp will coordinate with Colby's COVID-19 Compliance Program, which may include participation in a Colby-approved testing program and use of a testing management software. The implementation details will be set up in Spring 2022. Positive test results will be reported to local/state public health departments by the Camp Nurse.

Masks

Mathcamp requires the use of highly effective masks (N95, KN95, KF94, etc) during travel and when mask mandates are in place at camp, and will provide such masks to people at camp.

Response Plan

This section discusses what happens when one or more people test positive for Covid-19.

Isolation and Recovery

Individuals who test positive for Covid-19 will be isolated in a private room, and their possessions will be brought to them by staff. Food will be provided by Mathcamp staff for the duration of isolation. Mathcamp will also develop activities and materials to enable isolated individuals to stay engaged academically and socially at camp during their isolation period. Isolation precautions will be discontinued in accordance with current best practices, including resolution of fever and a negative test.¹

Breaking the chain of transmission

The first strategy for breaking the chain of transmission is isolation of known cases. The second strategy is enhanced precautions and monitoring for close contacts who may have been exposed to the virus. The third strategy is enhanced precautions for the entire camp, as encoded in the color level, which may be raised in response to a number of cases or suspected transmission events at camp.

Internal communication: Keeping campers, staff, and visitors informed

Efficient, centralized, consistent communication within our community will be key to staying safe. Mathcamp students and staff will have a central source for up-to-date information, and clear reporting procedures for participants experiencing symptoms as well as systems for contact tracing and notification.

External communication: Keeping families informed

Mathcamp will keep the families of our students informed with regular updates throughout the summer about the current color level and the number of cases at camp (should any occur). Mathcamp will promptly notify parents or guardians of students who test positive or show symptoms of Covid-19, and update them frequently on their students' status.

¹ The [current CDC guidance](#) is to end isolation after 10 days after symptom onset and after resolution of fever for at least 24 hours for symptomatic individuals, and for asymptomatic individuals, on the receipt of a negative rapid test at least 5 days after the first positive test. The isolation period and termination conditions will be updated according to changes in the guidance.

At the end of the summer: Departures from Camp

For participants who need or want to test for Covid-19 before going home, we will have rapid tests available at camp. For those who need a PCR test, we will arrange for an off-campus test.

In the event that a participant tests positive and cannot travel home, they will be able to stay on campus in an isolation dorm room for up to two weeks. Designated staff members will also stay on campus to check on students and deliver meals and medications as needed. A camp nurse will also continue to be on call to consult. We will facilitate participants' transportation to a rescheduled flight home.

Departure procedures for international students will be the same as for domestic students. In the event of border closures and flight cancellations, we will help students rearrange their travel plans, extend their stay on campus for up to two weeks, and/or facilitate transportation to a rescheduled flight.