Seminar of Infection preventions measures in face-to-face classes



本日の話 Today's Topic

1. 通勤時の感染防止対策

How to protect yourself when using public transportations

2. 対面授業に際しての感染防止対策

How to protect you and your students from infection in classroom

新型コロナウイルスの感染経路と対策

Infection routes and countermeasures against new coronaviruses

接触

Contact

手洗い

hand washing 手指消毒

Hand disinfection



Splash

マスク

Masks フィジカルディスタンシング

Physical Distancing

マイクロ飛沫

microdroplet

3密回避

Avoid the Three Cs

予防の基本ルール

Basic Rules for Prevention



2.Wear a mask





1.手洗い・手指消毒

1.hand washing/Hand disinfection







4.3 密の回避

4. Avoid the Three Cs

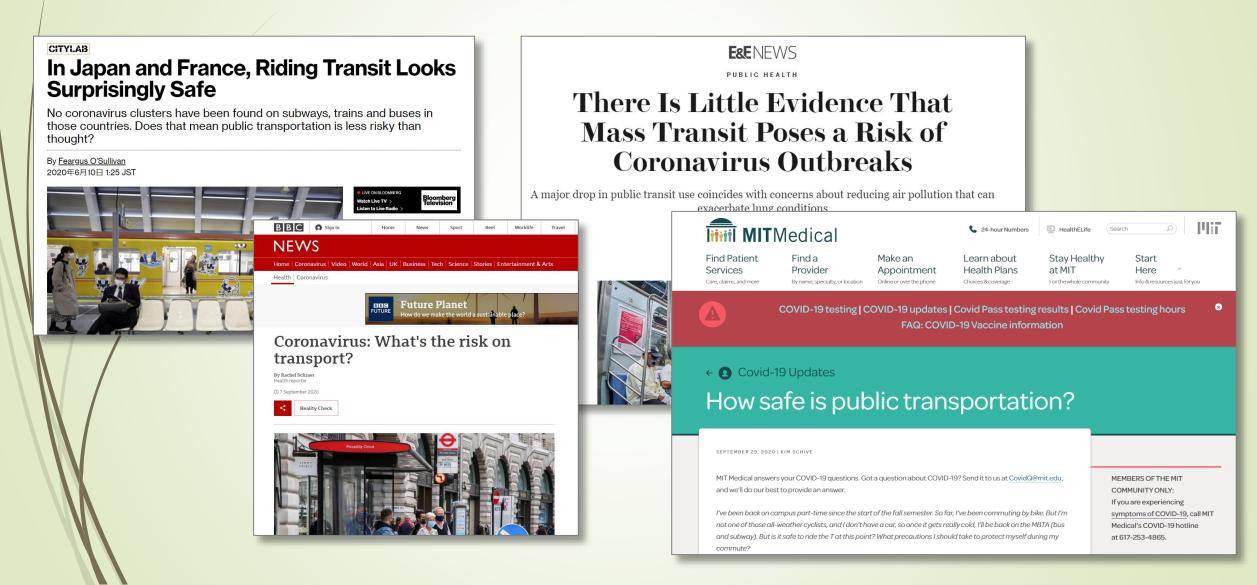


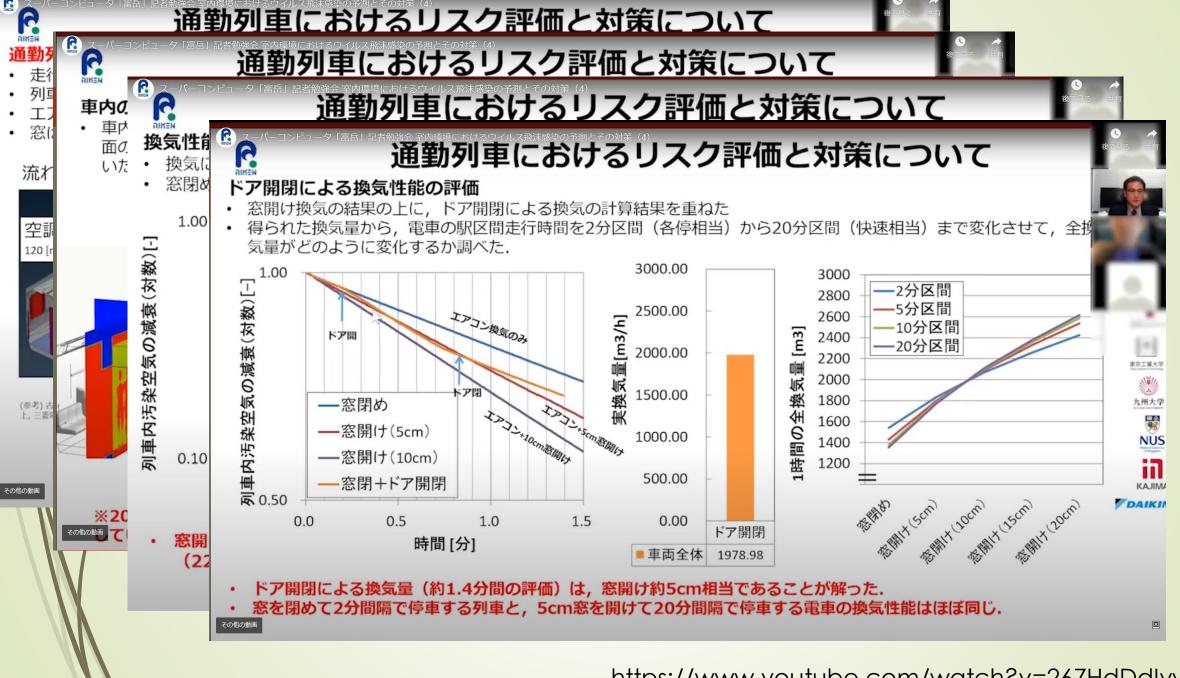
3.フィジカル ディスタンシング

3. Physical Distancing

そもそも公共交通機関は本当に危険なのか?

Is it really dangerous to use public transportation anyway?





電車やバスを利用時の注意事項

Cautions when using public transit

- マスクを着用し、喋らない
 - Wear a face mask, and don't talk.
- ▶ つり革や手摺りに触れた手は下車後に手洗い・消毒する。
 - ► When you touch strap and / or handrail, wash your hands or rub your hands with alcohol sanitizer after arrival.
- 手で目、鼻、口を触れない
 - Avoid touching your eyes, nose, and mouth with unwashed hands.
- ▶ 身体的距離を確保する
 - Physical distancing.
- ▶ ラッシュ時間帯を避ける、すいている車両を選ぶ
 - Avoid rush hour, and select less crowded car.
- ▶ 窓を開けて換気する
 - Open the window for better ventilation.



濃厚接触者とは? What is a (close-) contact?

新型コロナウイルス感染症の患者と感染可能期間に接触した者のうち、Among those who has exposed with a confirmed case during the 2 days before and the 10 days after the onset of symptoms of a confirmed case:

- ■患者と同居している者や、患者の体液等に直接触れた者 Direct physical contact with a confirmed case;
- ●手で触れることの出来る距離(約 1m以内)で、マスクなどの必要な感染予防策なしで、患者と 15分以上の接触があった者

Face-to-face contact with a confirmed case within 1 meter and for more than 15 minutes without required protection;

講義室では基本的にマスク着用で十分です

It's enough for everyone to ware a face mask in a lecture room.

- 診察室での感染対策は「手指衛生」と「マスク」着用のみ。

 Hand hygiene and face mask is a necessary and sufficient condition to avoid close contact in outpatient setting.
- ■対面授業では「全員がマスクを着用すること」が濃厚接触者を発生 させないための必要十分条件になります。
 - A necessary and sufficient condition to avoid close contact in in-person classroom is that everyone wares a face mask.
- ▼フェィスシールドは直接飛沫が自分の目に入るのを防ぐために用います。Face shield is expected to keep your eyes safe from the direct droplets.
- ■マウスシールド越しに口の動きを見せるときは、学生には近付かず、 モニター越しに映した方が安全です。
 - When showing your mouth to the students putting on a mouth shield, don't get closer to the students and just show your mouth on the monitor screen instead.

マスクやフェイスシールドの効果(スーパーコンピュータ「富岳」によるシミュレーション結果)

| No protection | | マスク | ace mask | フェイスシールド | フウフシー 川 ピー |
|---------------|------------------|--|------------------|--|--|
| No protection | | | ace mask | フェイスノールト | マウスシールド |
| No profection | Non-woven 不磁布 | Fabric first 7 | Urethane ウレタン | Face shield | Mouth shield |
| 吐き出し飛沫量 | Exhaled Drop | olets | | | |
| 100% | 20% | 18~34% | 50%**2 | 80% | 90%*2 |
| 吸い込み飛沫量 | Inhaled Dropl | lets | | | |
| 100% | 30% | 55~65%*2 | 60~70%*2 | 小さな飛沫に対しては効果なし (エアロゾルは防げない) | |
| | 100% 吸い込み飛沫量 | 世き出し飛沫量 Exhaled Drop 100% 20% 吸い込み飛沫量 Inhaled Drop | T機布 布マスク | TA T | 世き出し飛沫量 Exhaled Droplets 100% 20% 18~34% 50%**2 80% Wい込み飛沫量 Inhaled Droplets 100% 30% 55~65%**2 60~70%**2 小さな飛沫に対 |

Experiments

※2 豊橋技術科学大学による実験値

実験(マスクは厚生労働省が示す正しい着用方法にもとづいています。)

さまざまな素材のマスクを着用した人頭モデルにミスト生成装置を接続し、飛沫の飛散状況をレーザー光を用いて可視化、カウントしました。 吸い込み時の計測は実際に人がマスクを着用。飛沫の直径は、0.3μm(小さな飛沫)から200μm(大きな飛沫)まで計算しています。

●結果 Result

Non-woven and fabric face mask captured 80% of exhaled droplets Non-woven mask reduced inhaled droplets to 1/3.

吐き出し:飛沫量は不織布、布ともに8割が捕集されます。 Face shield may capture big droplets but pass through micro droplets.

吸い込み:不織布マスク着用時、マスクと顔に隙間がある場合でも上気道(鼻から鼻腔、鼻咽腔、咽頭、喉頭)への吸引飛沫量を1/3にすることができます。

フェイスシールドにおいては、大きな飛沫(50µm以上の水滴)の捕集効果は見込めますが、エアロゾルはほぼ漏れてしまいます。

NEWS

Covid 19: Essex University 'cluster' of cases link UNIVERSITY

© 26 September 2020

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2 more COVID-University of T





A "cluster" of coronavirus cases har junior sports programmes.

A small number of students at The U

The University of Essex said a "smal positive and are self-isolating.

All necessary steps to contain the o underway, the university said.

Public Health England said it was or

Overcoming COVID-19



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COVID-19

January 13, 2021

NC State has identified a clust

A "cluster" is defined by the <u>N</u> deemed close proximity or loc

All individuals who test positiv tracing has been initiated with who has tested positive for CC infected person for more than as a close contact will be notif

NC State works closely with locampus for students, faculty a State community, and what Nowebsite.

NC State asks that all in our co

COVID-19 cluster identified on Ithaca campus

February 5, 2021

President Martha E. Pollack and Provost Michael Kotlikoff <u>sent the following</u> <u>message</u> Feb. 5:

As noted in the CornellALERT sent moments ago, the university has identified a cluster of at least 12 positive COVID-19 cases within our student body. The cases are related to a party in Collegetown, which many members of Greek life organizations attended and where face covering and physical distancing requirements were not followed. As contacts from this event continue to be quarantined and tested, it is likely that the number of positive cases will continue to grow over the coming days. Even beyond this one cluster, the great majority of students who have tested positive since Monday in surveillance (non-arrival) testing are fraternity or sorority members.









Multiple COVID-19 Clusters on a University Campus — North Carolina, August 2020

Weekly / October 2, 2020 / 69(39);1416-1418

On September 29, 2020, this report was posted online as an MMWR Early Release.

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View suggested citation

Summary

What is already known about this topic?

Before August 2020, minimal data were available about outbreaks and disease transmission in institutes of higher education within the United States.

What is added by this report?

A North Carolina university experienced a rapid increase in COVID-19 cases and clusters within 2 weeks of opening the campus to students. Student gatherings and congregate living settings, both on and off campus, likely contributed to the rapid spread of COVID-19 in this setting.

What are the implications for public health practice?

Enhanced measures are needed to reduce transmission at institutes of higher education and could include reducing oncampus housing density, ensuring adherence to masking and other mitigation strategies, increasing testing for SARS-CoV-2, and discouraging student gatherings.

Preventing transmission of SARS-CoV-2, the virus that causes coronavirus disease 2019 (COVID-19), in institutes of higher education presents a unique set of challenges because of the presence of congregate living settings and difficulty limiting socialization and group gatherings. Before August 2020, minimal data were available regarding COVID-19 outbreaks in these settings. On August 3, 2020, university A in North Carolina broadly opened campus for the first time since transitioning to

Article Metrics

Altmetric:

News (41)
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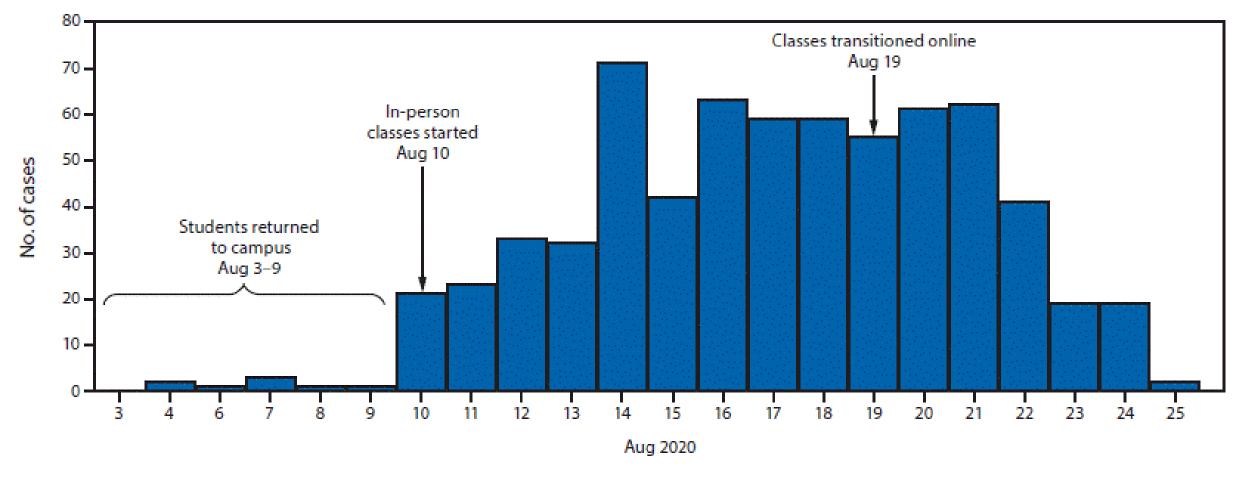
Citations: 7

Views: 19,270
Views equals page views plus PDF downloads

Metric Details

References

https://www.cdc.gov/mmwr/volumes/69/wr/mm6939e3.htm



Earliest date of illness identification

Among 670 confirmed cases with specimen collection dates during August 3–25 for SARS-CoV-2 testing, median patient age was 19 years (range = 17–50 years), and 293 (47%) cases occurred in males (information on gender was missing for 47 [7%] patients). Information on school affiliation (e.g., undergraduate versus graduate/professional student, faculty, or staff member) was not consistently recorded; however, considering patient age <22 years as an indicator of undergraduate status, 643 (96%) cases were estimated to have occurred in undergraduate students; among these students, 230 (36%) resided on campus, and at least 51 (8%) were members of a fraternity or sorority and 51 (8%) were student athletes. For the remainder, place of residence, including if living at home or in shared apartments, was not readily available. As of August 25, no

Robust measures are needed to reduce transmission at institutes of higher education, including efforts to increase consistent use of masks, reduce the density of on-campus housing, increase testing for SARS-CoV-2, and discourage student gatherings.

Clusters were defined as the occurrence of five or more epidemiologically linked cases (e.g., common residence, sports team, or fraternal organization membership) within 14 days of one another (by earliest date of illness identification). During August 3–25, 18 clusters at university A were identified, 8 in residence halls, 5 among students with membership in a fraternity or sorority, 1 in off-campus apartments, and 4 among athletic teams. Overall, 201 (30%) cases were linked to a cluster. Clusters ranged in size from 5 to 106 patients (median = five), with the largest cluster associated with a university-affiliated apartment complex.

kept for

n other

学生寮 フラット ソロリティ アパート 運動クラブ

現在の日本の状況

Current epidemic situation in JAPAN





スーパーコンピュータ富岳によるシミュレーション(理研)



Computer Simulation of droplet infection by Super Computer "FUGAKU"

Notes on face-to-face classes

- 1. Preparation for class (before class)
- 2. Upon arrival at the classroom (just before class)
- 3. During class
- 4. After class
- 5. Supplementary information
- 6. Campus-specific notes

1. Preparation for class (before class)

-Please check your own health condition by taking your temperature* before going to work.

*Fever should be 37.5 degrees Celsius or higher, or at least 1 degree above normal.

-Masks are required to be worn in the school.

-Infection control equipment will be available for loan. Please pick up what you need.

Place of distribution: Teacher's lounge or office of each faculty

Supplies: masks, face shields, mouth shields, disposable gloves**, antiseptic wet wipes, hand sanitizers, covers for microphone (plastic bag, saran wrap, etc.),

thermometers (Non-contact type)***

**If you need a large amount of each item, please contact us at least one week before the start of class.

***The OIC campus does not provide this service, but please contact us if you need it.

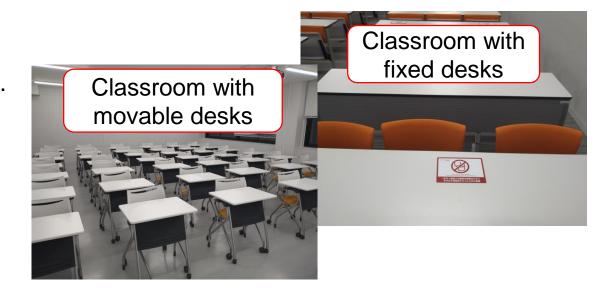
2. Upon arrival at the classroom (just before class)



- Please wear a mask to conduct the class. Please wear a mouth shield if you need to show your mouth movement in language classes.
- For students who do not wear masks (or have forgotten to do so), masks are available at the MANABI Station and the Faculty/Graduate School Office.
- In order to ensure that the seats are spaced at least 1 meter apart, a no-seating mark "X" is attached to fixed desks, and movable desks are spaced in advance. Please pay attention to students who are not seated in their designated positions.

*In classrooms with movable desks, if you move your desk, please be sure to return it to its original position. As a result, some classrooms will have a reduced classroom capacity (number of seats).

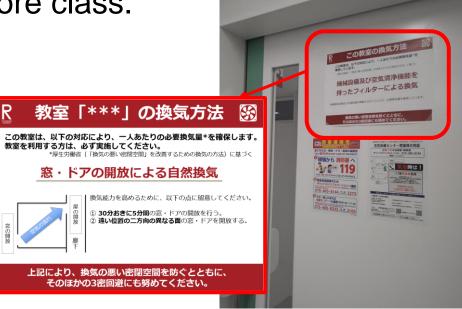
IT Support HP>List of Classroom Equipment>[Next Semester] Campus



2. Upon arrival at the classroom (just before class)

- I. The microphone should be used with a microphone cover (plastic bag, saran wrap, etc.) over it. This will not affect the sound. Be sure to dispose of them after class.
- II. Before and after class, please use disinfecting wipes to disinfect classroom equipment (microphones, etc.).
- III. Appropriate ventilation varies by campus and building. Please check the classroom bulletin board before class.

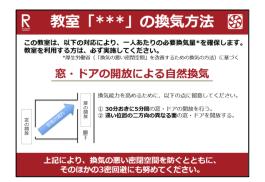


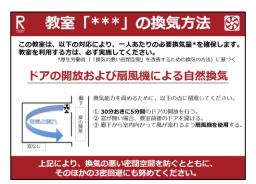


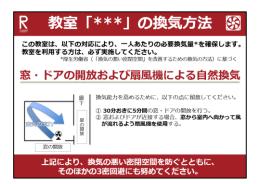
3. During class

- It is recommended that you keep track of your face-to-face attendees*.
- *You can use manaba+R "Attendance Card" to manage your face-to-face and web students separately.

 →Click here for the manuals.
- In classes that involve student vocalization and discussion, please maintain a
 physical distance and wear a mask. If it is not possible to maintain a sufficient
 physical distance, please take sufficient measures such as having students wear face
 shields in addition to masks.
- *If you need to share a microphone, please disinfect it each time.
- Appropriate ventilation methods vary depending on the campus and building. For more information, please follow the instructions on the bulletin board in each classroom.





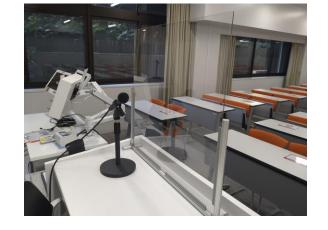




3. During class

• Transparent shielding boards are installed in all classrooms (teaching tables).

Please use them to prevent splashes during Q&A sessions.



- If any student complains of fever, respiratory symptoms, or other health problems during class, please call the Health Center and tell them to go to the Health Center.
 - [Kinugasa] 075-465-8232 [BKC] 077-561-2635 [OIC] 072-665-2110
- During closing hours, please tell Japanese speakers to call a nearby medical facility for consultation. Foreign language speakers should refer to the "International Student Handbook" for information on hospitals and clinics where foreign languages are spoken. Please tell them to call that medical institution for consultation.

4. After class

- Please disinfect your classroom equipment (microphones, etc.) with disinfectant wipes after class as well.
- Please remove microphone covers (plastic bags, saran wrap, etc.) from microphones and dispose of them in the trash.
- If you have moved movable desks, cameras, etc., please return them to their original locations.
- Please return any infection control supplies.
- Please make the following student announcements as appropriate.
 - Do not neglect daily infection control measures such as washing your hands, disinfecting your hands, wearing a mask, and refraining from eating at social gatherings.
 - II. When moving around the campus or studying on your own, please keep a safe physical distance and avoid crowding. If there are markers or other instructions on the direction of passage or where you can be seated, please follow them.
 - III. When you have finished attending classes on campus, please do not stay on campus, and return home as soon as possible, avoiding unnecessary stops.
 - IV. Do not eat or drink face-to-face with your friends, either on or off campus. In particular, please refrain from using places where clusters are likely to occur (karaoke, theaters/live music venues, snack bars/pubs, taverns, etc.).

5. Supplementary information

- Disinfectant is available at the entrance of each building and on each floor.
- Within each building, corridors and stairways will be one-way, and classroom entrances and exits will also be designated.







• We will introduce a unique system in which QR codes will be attached to classroom seats (or classroom entrances in the case of movable desks), and students will be able to read and register the codes to track their status of contact. Details will be announced separately on the Academic Affairs Support website (scheduled for late March).



5. Supplementary information

 Classroom renovations (improved ventilation, additional Wi-fi, power supply, etc.) are underway. For details, please see the Academic Affairs Support Website.
 Click here.

 We clean and disinfect common areas (doorknobs, handrails, switches, etc.) every night.

 An "Outpatient Fever Clinic" will be opened near the Health Center on each campus, and COVID-19 PCR testing will also be conducted.

5. Supplementary information

 Some classrooms, libraries, and other facilities are open to students for web-based classes and self-study on campus (maintained even if BCP level 3 or higher is reached).

Ref. Study Support Site Click here.

• There are students who find it difficult to commute to school due to various reasons, such as their own health problems or the presence of family members who require special care. At Ritsumeikan University, we take into consideration the diverse environments in which students find themselves, and try to provide as many opportunities as possible for these students to participate in classes. We ask for the cooperation and consideration of the teachers in charge of the classes as much as possible.

Click here.

 The class schedule has been changed to facilitate the smooth implementation of Web-based classes.

Click here.

6. Campus-specific notes

Note for BKC campus

- In the experimental buildings and laboratories, please make sure that the corridors are one-way and that the exits and entrances to the laboratories are clearly marked.
- When entering the laboratory, please instruct the staff to disinfect their hands and take their temperature as appropriate.
- If the wearing of masks, face shields, rubber gloves, etc. poses a hazard during the experiment, instruct the participants to put them on and take them off in a timely manner.
- If it is difficult to maintain a physical distance, such as in an experiment, please instruct your students to wear both a face shield (or goggles) and a mask. (This does not mean that only a face shield is OK.)

6. Campus-specific notes

Note for SUZAKU campus

Since there is no MANABI Station at Suzaku Campus, the Graduate School Office can help you.

Seminar of Infection preventions measures in face-to-face classes [Q&A]

| | Question | Answer |
|---|--|---|
| 1 | What should I do for students who cannot wear mask for various reasons? | For student who has difficulty wearing mask due to sensory sensitivities, tell them to go to the student office. The student may be given an intention card that indicates who has difficulty wearing a mask. If student is able to wear a mouth shield or face shield, it may be used as an alternative to wearing a mask. |
| 2 | What is the risk of infection by touching things in the classroom? | Regardless of the classroom, there is a risk of infection through items in daily lives. Simply touching the virus does not cause infection, but touching the face (specially, eyes, nose, mouth) with the hand increases the risk of infection. Thoroughly disinfect your hands and be conscious of not letting the virus into your body. |
| 3 | As an infection prevention measure, is there any problem to cut the face shield bottom half to prevent fogging? | Face shields are originally used to prevent splashes from directly entering the eyes. The larger the area, the more effective it is, so cutting it is not recommended. However, at the university, everyone wears a mask, so it is not necessary to use a face shield. |
| 4 | Do students disinfect desks and chairs used by students themselves? | Students will not be required to disinfect their own classrooms after use. All classrooms, including fixtures, will be treated with antibacterial treatment before the start of the spring semester. And the classrooms will be disinfected every evening during the semester. |
| 5 | Is there a cover for the pin microphone? | No, there is not. Use the vinyl cover as same as normal microphone. |
| 6 | Is it effective to continue to take the same infection prevention measures against a new variant of the coronavirus? | The measures are basically the same. |
| 7 | What should I keep in mind when doing group work in a face-to-face class and what infection prevention measures should I take? | Follow the basic rules and be care of student's seating position, such as sitting diagonally across from each other instead of in front. Online is the safest way to do group work. |
| 8 | I will be using the PC with students in a computer room for an information processing exercise class. Is it effective to use personal hand sanitizer when entering the room? | Disinfect hands when entering and leaving the room. Rubber gloves are also available. |
| 9 | Are disinfectants available in each classroom? | No, they are not. You can bring them from Teacher's Lounge, Administrative Offices. |