

Guidelines on Online Instruction

July 30, 2021 (ver. 1.0)

February 21, 2022 (ver. 2.0)

June 27, 2022 (ver. 3.0)

Office of Education Committee Meeting

Differences between versions 2 and 3 are shown in red.

The Guidelines provide the definitions of various forms of online instruction and summarize the decisions made on the following points based on the “New Options for Education after COVID-19: Implementation of Online Teaching and Learning” (approved by the Education and Research Council on July 2, 2021).

- Requirements for quality assurance of online instruction
- Copyright of the contents provided in online instruction
- Notification concerning graduation requirements
- Online classes taken by students registered as “studying on campus” and “studying abroad”

Concerning the first point, on quality assurance matters, methods for said assurance are specified according to two different types of online education. In order to distinguish the two, applicability of direct instruction based on the criteria for face-to-face class format is given (Table 2). The first type is the “Direct Instruction” method in which half or more of total class hours consist of direct instruction, and the second is the “Recording-based Instruction” method in which less than half of total class hours consist of direct instruction (Table 3).

1. Definition of methods of online instruction

“Online instruction” is defined as “a mode of instruction where mandatory face-to-face classroom hours prescribed by the course are replaced by online learning activities both during and outside the regularly scheduled class times.”

The two main types are “Livestream” via Zoom and other media, and “On-demand” using video and audio recordings (“Recordings”). The eclectic form comprised of both types is called “Livestream plus On-demand.”

There are two types of instruction that use both face-to-face (“Face-to-Face”) and online instruction methods.

- i. The “HyFlex” format uses both the Face-to-Face and Livestream methods simultaneously by livestreaming the Face-to-Face class.
- ii. The “Blended” type, which, while based on the Face-to-Face method, utilizes the following types of online instruction: Livestream, On-demand, and HyFlex.

At Tokyo Tech,

- (a) those that use the Face-to-Face and On-demand methods alternately are called “Online Alternating” type, while
- (b) those that use both methods in a single class are called “Half-and-Half.”

Those courses that use On-demand teaching material for preparation and review purposes outside the regularly scheduled class times, such as the “flipped classroom” method, do not fall under the scope of the Guidelines.

Appropriate use of online instruction methods is encouraged. Classes include lectures, exercises, experiments, practical training, technical drawing, and skills practice, and their contents are rich in variety. Methods of online instruction should be designed with such considerations in mind as well as the constraints engendered by having the lectures given in venues on different campuses. For example, even experiments can be made more efficient by having instruction given online.

Table 1. Class formats available during the regularly scheduled class times

Class format		Attendance of students	Delivery of instruction
Face-to-Face		In-person (Students and instructors are present in the same room.)	In-person
Online	Livestream (synchronous)	Online	Online
	On-demand (asynchronous)		
	Livestream + On-demand		
HyFlex (Face-to-Face and livestreamed instruction occurring simultaneously)	Face-to-Face + Livestream	In-person or online (Students can choose either option.)	In-person
Blended (Face-to-Face and online instruction occurring alternately/supplementarily)	Face-to-Face + Livestream	In-person and online	In-person and online
	Face-to-Face + On-demand • Alternately (e.g., Face-to-Face class sessions and On-demand class sessions take place by turns.) • Half-and-Half (e.g., The first half of a class session is online, and the second half is Face-to-Face.)		
	Other combinations possible		

Note: HyFlex format includes simultaneous transmission of remote classes using Polycom and other remote lecture systems.

2. Requirements for quality assurance of online instruction

The following conditions must be met when implementing online instruction:

2.1. Basic policy

Face-to-Face instruction on campus is the basis of education at Tokyo Tech. Audio and video recordings (“Recordings”) mentioned below signify “Recordings of lectures” and are distinct from recordings used as teaching materials. As this section is dedicated to quality assurance of education, Recordings of teaching materials will not be discussed.

(a) Livestream instruction that does not use Recordings of lectures shall be considered as direct instruction.

“Direct Instruction” hereinafter denotes instruction that involves interactive real-time communication between instructors and students. Direct Instruction may be Face-to-Face or Livestream instruction that does not use Recordings of lectures.

- (b) Livestream instruction using Recordings of lectures does not imply it is Direct Instruction, as both the instructor and the student may be in circumstances where this is not possible. Face-to-Face instruction using Recordings of lectures will not be considered as online instruction, as Direct Instruction is deemed to be in play.
- (c) Livestream instruction that does not use Recordings of lectures may not achieve educational output equal to that of Face-to-Face instruction, as some coursework requirements may not be satisfied by this mode. Hence, quality assurance of education by monitoring student progress and achievement, etc. is necessary.
- (d) Quality assurance of HyFlex instruction will be equivalent to that of Livestream.

Table 2. Direct Instruction and class formats

	Class format	Direct Instruction
A-1	Face-to-Face, regardless of the use of Recordings	Applicable
A-2	Livestream that does not use Recordings of lectures	
B-1	Livestream that uses Recordings of lectures	Not applicable
B-2	On-demand	

- “Recordings of lectures” refers to audio and video recordings of lectures.
- HyFlex format is deemed as Livestream format.

Courses that include online instruction (i.e., courses fully conducted Face-to-Face are excluded) must undergo quality assurance of education by entities in charge of the relevant course in two ways, according to the proportion Direct Instruction occupies within the total class hours. (The total hours of a single credit course are 15, comprising 14 class periods.)

Specifically, when the proportion of Face-to-Face instruction (where the course uses the Face-to-Face method for certain class sessions while other sessions are delivered online only) or Livestream instruction that does not use Recordings of lectures occupies half or more of the total class hours, it falls into the Direct Instruction method. Whereas, when the proportion is less than half, it falls into the Recording-based Instruction method. Quality assurance of education will be administered, respectively.

In such a case where a course mainly taught face-to-face has a class session conducted via Livestream without using Recordings of lectures, it is deemed as Direct Instruction. **The syllabus, etc. thereof is to be confirmed by the smallest education entity (course implementation committees, Departments, committees in charge of graduate majors, etc.) in charge of the course, and must be reviewed for quality assurance. (An additional review may not be necessary.)**

2-1-1. Direct Instruction method: classes where Direct Instruction comprises half or more of total class hours

Although this is the recommended type of instruction, quality assurance review by the smallest education entity in charge of the course (course implementation committees, Departments, committees in charge of graduate majors, etc.) is mandatory for items that fall within the ambit of 2-2 to 2-5 below.

2-1-2. Recording-based Instruction method: classes where Direct Instruction comprises less than half of total class hours

Although not the recommended type of instruction, this type of instruction will be

permitted if the content of the course would allow for achievement of equal quality to that of Direct Instruction. Permission for this type of instruction shall undergo a stringent review process. In addition to the requirements for Direct Instruction, the syllabus as well as the instruction plan must be reviewed as specified separately (which may be subject to further requirements) by higher-level entities (such as the Committee on Liberal Arts and Basic Science Courses, Schools, and Institute-Wide Education Centers), which must also determine whether to allow instruction in this format. Upon approval, said entity must report its decision to the Office of Education with the syllabus and instruction plan attached. **The Office of Education shall review the syllabus and instruction plan to determine whether quality of education is equal or superior to that of Direct Instruction, and upon consideration of all other matters of concern, decide whether implementation will be authorized.**

In both cases, a further review is required in case there are any major changes in the method of implementation that require the submission of a revised instruction plan and other documents.

Table 3. Quality assurance of courses using online instruction methods

Proportion of Direct Instruction	Documentation required	Points to be checked	Authorizing education entity
<p>① <u>Direct Instruction method</u></p> <p>Half or more of total class hours</p>	Syllabus	<ul style="list-style-type: none"> • 2-2-1 Editing of Recordings (if relevant) • 2-2-2 Interactivity • 2-2-3 Confirmation of achievement • 2-2-4 Method of evaluation 	The smallest education entity in charge of the course (e.g., a course implementation committee, Department, committee in charge of a graduate major)
<p>② <u>Recording-based Instruction method</u></p> <p>Less than half of total class hours</p>	<p>Syllabus</p> <p>Instruction plan</p>	<ul style="list-style-type: none"> • Educational effectiveness equivalent to Face-to-Face instruction • 2-2-1 Editing of Recordings • 2-2-2 Interactivity • 2-2-3 Confirmation of achievement • 2-2-4 Method of evaluation • 2-5 Quality assurance and improvement (e.g., by means of “Course Survey of Study Effectiveness”) 	The smallest education entity in charge of the course and a higher-level entity such as Committee on Liberal Arts and Basic Science Courses, School, Institute-Wide Education Center (Upon authorization, review at the Office of Education Committee Meeting)

Important:

- Direct Instruction may be Face-to-Face (Table 2. A-1) or “Livestream instruction that does not use Recordings of lectures” (Table 2. A-2)
- Classes where half or more of total class hours are “Livestream instruction that does not use Recordings of lectures” must submit the syllabus to the education entity in charge of the course and be reviewed for methods of confirmation of student progress and achievement (an additional review may not be necessary).
- Quality assurance of HyFlex instruction will basically be the same as that of Livestream instruction.

Examples for demarcation of ① Direct Instruction method and ② Recording-based Instruction method

- Fully Livestream without the use of Recordings of lectures: ①
- Fully Livestream with the use of Recordings of lectures: ① or ② depending on proportion of Recordings of lectures used within class hours
- Face-to-Face (6 sessions) and Livestream without Recordings of lectures (1 session): ①
- Livestream without Recordings of lectures (7 sessions) and On-demand (7 sessions): ①
- Face-to-Face (5 sessions) and On-demand (9 sessions): ②
- Fully On-demand: ②

2-2. Checklist for use of Recordings during class

In addition to On-demand classes, those that make use of Recordings of lectures and of teaching materials in online classes should take note of the following.

2-2-1. Appropriate editing of Recordings

Recordings should be edited to appropriate length for use in class. (A 15-minute maximum is advised. However, if a teaching unit is more than 15 minutes, the full length of the unit is advised.) This includes Recordings of lectures, which should be edited to appropriate lengths.

2-2-2. Securing of interactive communication methods

During Livestream classes, periods between Recordings must be provided in which the instructor (both full-time and part-time staff) explains the content and answers questions.

In the event the instructor is not hired for the class in which they are shown in the Recording, a substitute instructor may take up the duties upon consent by the original instructor.

During On-demand classes, speedy methods of communication between the instructor and the student are to be secured using T2SCHOLA bulletin boards, etc.

2-2-3. Confirmation of achievement of enrolled students

For Recording-based Instruction classes and other forms where the achievement of enrollees is not easily determined, achievement levels should be determined through mini-tests and assignments after each class, and/or immediate responses to questions asked by the students, model responses to assignments and commentary thereto, and editing of papers by the students.

2-2-4. Grading for Recording-based classes

Quarter-end examinations are, in principle, to be administered in person collectively. **However, if the content or method of a particular course requires other forms of evaluation to assure quality of education, the appropriate method is to be documented in the instruction plan and reviewed by the appropriate education entity and the Office of Education and evaluated accordingly.**

2-3. Matters requiring attention on class days & time periods, overlap of classes

For classes that are solely Livestream or HyFlex, the class days and time periods should be

specified for each class. For classes that are solely On-demand, no specification is necessary. For Blended classes, class days & time periods should be specified for Face-to-Face, Livestream, and HyFlex type classes, even for those that are held only once. No specification is required for On-demand classes.

All specified class days and time periods shall have a classroom allocated.

Registering for courses where there is overlap of class times is not allowed, in principle.

2-4. Matters requiring attention concerning the syllabus

Syllabi of courses using online instruction must specify the type thereof.

Livestream and HyFlex classes should include information on points 2-2-2 and 2-2-3 as necessary. Further, the syllabus should make clear whether Recordings will be used in class.

On-demand classes should include in the syllabus information on points 2-2-2 to 2-2-4, as well as the expected hours necessary to complete the course.

2-5. Confirmation of efficacy and future improvement of quality assurance by means of the Course Survey of Study Effectiveness

In principle, online instruction classes must conduct a survey using the “Course Survey of Study Effectiveness” provided by the Center for Innovative Teaching and Learning. Completion of the Comments column is to be recommended.

Recording-based classes should submit the results to the entity in charge of the course, in addition to the course instructor, for confirmation of quality assurance achievement and suggestions for future improvement of teaching as necessary.

3. Copyright of the contents provided in online instruction

Instructors must avoid unauthorized use of copyrighted materials. Please refer to the information given in the following documents:

- Tokyo Tech Response to the Compensation System for Public Transmission for Educational Purposes (from AY 2021), material for the 11th Office of Education and International Cooperation Committee meeting on March 24, 2021
- Use of Copyrighted Material for Online Classes v2.0, material for the 11th Office of Education and International Cooperation Committee meeting on March 24, 2021

4. Notification concerning graduation requirements (maximum number of credits for undergraduate programs)

When online instruction should exceed 50% of the mandatory class hours for undergraduate programs (calculated based on “class period”), credits acquired from those courses may count toward graduation requirements, provided that the total does not exceed 60 credits. Online instruction in this case does not include Blended or HyFlex instruction if it is explained in the syllabus and all course enrollees are informed in advance that 50% or more of the class time periods will be taught in Blended or HyFlex format (which will be deemed as Face-to-Face instruction).

While keeping the maximum number of course credits earned from online instruction at 60 credits as stipulated by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), Tokyo Tech has set out the requirements for quality assurance as described in section 2 of the Guidelines.

At Tokyo Tech, Livestream instruction that does not use audio and video recordings may be deemed equivalent to Face-to-Face and shall be classified as Direct Instruction. However, course credits earned thereby will be counted as those from online instruction and are therefore included in the maximum 60 credits in accordance with MEXT's Standards. Each Department is responsible for designing curricula so that the total number of credits the student earns from courses (including 100-level courses) that use online options does not exceed 60. Details, should the need arise, will be provided separately.

N.B.: MEXT issued a notification dated April 2, 2021 regarding online classes at higher education institutions (「大学等における遠隔授業の取扱いについて(令和3年4月2日文科省通知(3文科高第9号))」), announcing that it would permit flexible measures as exceptions under which instruction can be delivered partially or fully online instead of the initially planned face-to-face instruction when it is inevitable due to emergencies such as infectious diseases (e.g., COVID-19) and disasters. Therefore, the credit cap of 60 shall not be applied to online instruction when it replaces face-to-face in an emergency situation.

Reference:

- Frequently asked questions pertaining to academic calendar and remote lectures, as of May 14, 2021 (学事日程等の取扱い及び遠隔授業の活用に係るQ&A 等の送付について) (in Japanese only)
- Article 32, paragraph 5 of the Standards for Establishment of Universities (Ordinance of the Ministry of Education, Science and Culture No. 28 of 1956) (大学設置基準(昭和31年文部省令第28号)第32条第5項)
- Article 30, paragraph 3 of the Tokyo Institute of Technology Undergraduate School Regulations (学則第30条第3項) (in Japanese only)

5. Online classes taken by students registered as “studying on campus” and “studying abroad”

5.1. For students registered as “studying on campus” (在学)

Regardless of where they are currently staying, students who are registered as “studying on campus” may apply for courses (including those delivered online) offered by Tokyo Tech. However, acceptance of the courses or credits permissible will be determined by instructors based on the course contents and the student's progress in coursework.

Departments, committees in charge of graduate majors, and committees in charge of courses may establish courses that require students to participate in online classes or programs provided by third parties, in a similar manner to internship courses involving activities to be taken at other universities and institutions, both domestic and international. Offering such courses is permitted provided that student performance is evaluated based on class attendance, preparation and review of the online classes/programs, reports and/or presentations on achievements, etc.

According to Tokyo Tech's Undergraduate School Regulations (学則) and Graduate School Regulations (大学院学則), it is possible to recognize credits for courses (inclusive of those held online) taken at other universities or institutions through the use of mutual credit transfer agreements. However, online instruction courses provided by overseas universities or institutions are not recognized.

5.2. For students registered as “studying abroad” (留学(現地滞在)) or “taking leave of absence and staying abroad” (休学(海外渡航))

Present regulations allow transfer of credits taken while studying abroad after returning from study abroad programs or from a leave of absence for an overseas stay, provided that prior approval from Department chairs or heads of graduate studies, and chairs of course implementation committees is given upon review of the study abroad plan and syllabi of host universities/institutions, inclusive of consultation on the classes to be taken, identification of the particular subjects of the classes, and the total number of credits to be recognized.

Students registered as studying abroad (留学) are permitted to take courses provided by Tokyo Tech in the following ways:

- (a) Students may take courses, Required Courses in particular, specified for online format, as long as it will not interfere with the achievement of the objectives of their study abroad. Along with Request to Study Abroad documents, the student must prepare an Application for Courses Taken while Studying Abroad in consultation with academic advisor(s) or academic supervisor(s), and obtain approval from Department chairs or heads of graduate studies.
- (b) Students may take Research Seminars when online format is available
- (c) Students whose study abroad is halted due to the COVID-19 pandemic or whose travel is postponed because their destination countries/regions impose entry restrictions may be registered as studying abroad even if they are in Japan. In these cases, students may take Tokyo Tech courses that offer international experience opportunities in Japan. However, they are not permitted to take courses involving study abroad programs.

Table 4. Available courses by enrollment status

Enrollment status	Courses for which students can apply	Courses requiring credit transfer process
Studying on campus (在学) Including the following: <ul style="list-style-type: none"> • less than 31 day-long stay abroad for education and research activities • receiving academic supervision from external institutions • participating in internship programs 	<ul style="list-style-type: none"> • Courses provided by Tokyo Tech (including online classes) 	<ul style="list-style-type: none"> • Courses (including online classes) provided by other Japanese universities under credit transfer agreements
Studying abroad (留学)	<ul style="list-style-type: none"> • Courses provided by Tokyo Tech that entail study abroad programs • Online courses provided by Tokyo Tech, which should not interfere with activities conducted abroad. Also, prior approval from the Department chair or head of graduate studies is required to take the course. 	<ul style="list-style-type: none"> • Courses (including online classes) provided by overseas universities as detailed in a study abroad plan

	<ul style="list-style-type: none"> • Research Seminars conducted online 	
Taking leave of absence and staying abroad (休学 (海外渡航))		

Note: If online teaching or research supervision should be considered for collaborative education programs, including double-degree programs, based on international exchange agreements, each program office and its partner university are required to discuss and set certain rules as necessary. Cases that do not fit the aforementioned items must be reviewed and approved by double degree/joint degree program committees and the Office of Education.

6. Online education at each education entity

When planning online methods at laboratories or for activities outside regular coursework, the individual education entity is responsible for checking their adequacy based on the Guidelines.

In particular, it must be noted that there may be cases, depending on the field of research, where student-to-student interaction will not be possible if laboratory seminars are delivered in Livestream format. **Occasions for learning and research experience at the laboratory must be provided before the degree completion/graduation of the student. Complacency in judging that research instruction provided solely online is sufficient just because online education provides an educational effect equal to that of Direct Instruction must not be allowed. In-person experience remains essential.**

Departments, committees in charge of graduate majors, etc. should bear this in mind when implementing their education programs.