

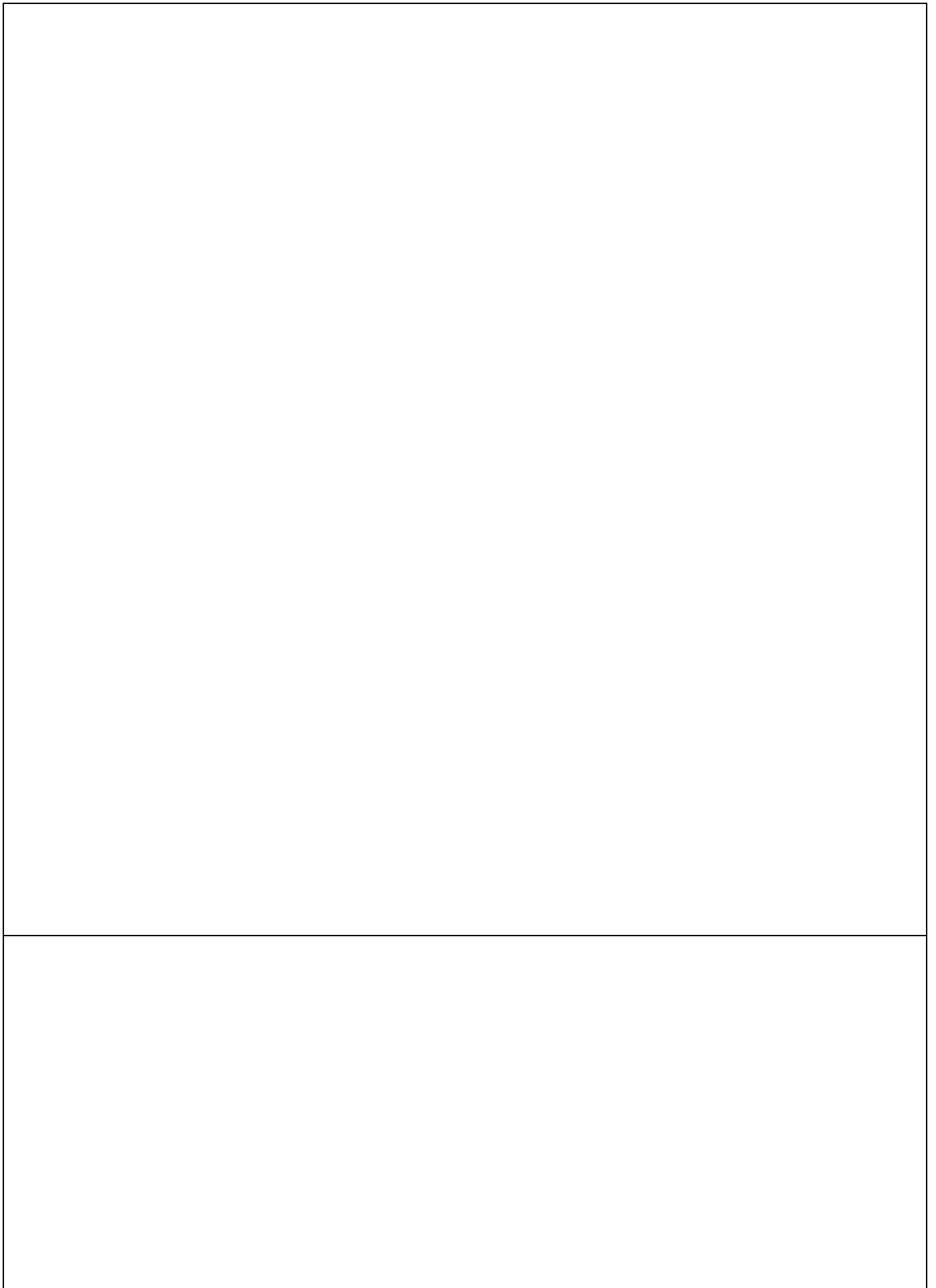
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# Table of Registration Standards for Biology Program Entrants of 2023

Refer to Study Guidance for the Biology Program for requirements for attending the course.

Students are allowed to take class subjects provided in other programs and schools, and in other universities, in addition to the class subjects listed in this table, and the credit for those subjects that the faculty committee of the Biology Program certifies is accepted as the required credit for graduation.

\* Students who have earned the required credits (refer to the Students Handbook for the details) can acquire the type 1 license for junior high school teacher (science), the type 1 license for senior high school teacher (science), and the curator license.

## Liberal Arts Education

Basic Courses in University Education		Common Subjects		Foundation Courses		Total	
Peace Science Courses		2	From "Peace Science Courses"	Each 2	Elective/required		
Introduction to University Education		2	Introduction to University Education	2	Required		
Introductory Seminar for First-Year Students		2	Introductory Seminar for First-Year Students Note 2	2	Required		
Advanced Seminar Note 3		(0)		1	Free elective		
Area Courses		12	From "Area Courses" Note 4	1 or 2	Elective/required		
Foreign Languages English (Note 5) (Note 6)	Basic English Usage	2	Basic English Usage I	1	Required		
			Basic English Usage II	1			
	Communication	2	Communication I	1	Required		
			Communication I	1			
	Communication	2	Communication II	1	Required		
			Communication II	1			
	Non-English Foreign Languages German, French, Spanish, Russian, Chinese, Korean, and Arabic Note 6 Note 7	(0)	Foreign Languages: Basic Studies	1	Free elective		
			Foreign Languages: Basic Studies	1			
			Foreign Languages: Basic Studies	1			
			Foreign Languages: Basic Studies	1			
Information and Data Science Courses	4	2	Introduction to Information and Data Sciences	2	Required		
		2	Starting Programming from Scratch	2	Elective/required		
			Fundamental Date Science	2			
Social Cooperation Courses Note 8	(0)	From "Social Cooperation Courses"	1 or 2	Free elective			
Foundation Courses	2	Experimental Methods and Laboratory Work in Biology	1	Required			
		Experimental Methods and Laboratory Work in Biology	1				
	2	General Chemistry	2	Elective/required			
		Fundamental Physical Chemistry	2				
			1 subjects (2 credits) from the two subjects above				
	2	Experimental Methods and Laboratory Work in Physics	1	Elective/required			
		Experimental Methods and Laboratory Work in Physics	1				
		Experimental Methods and Laboratory Work in Chemistry	1				
Experimental Methods and Laboratory Work in Chemistry		1					
Experimental Methods and Laboratory Work in Earth Sciences		1					
2	Experimental Methods and Laboratory Work in Earth Sciences	1					
		I and II of the same subject (2 credits) from the 6 subjects above					
Total (Liberal Arts Education Subjects)		34					

Note 1 The indicated semester represents that in which students typically take the subject. It is permitted to take the subject in the same (first or second) semester in the following year, however, it is required to confirm the details in syllabus for that academic year, because the subject might be provided in a different semester or term

Note 2 Choose one of the courses: "Field of Animal & Life & Science" or "Field of Plants." In the case of taking the two courses, only two credits per course shall be conferred.

Note 3 The credit for "Advanced Seminar" is accepted as credit for the category of "Any subject".

Note 4 It is required to earn 12 credits in "Area Courses", and they must consist of at least 6 credits in "Human & Social Science Subjects" and at least 4 credits in "Natural Science Subjects". Students who want to acquire an educational personnel certification must take the subject "Japanese Constitution" in the "Human & Social Science Subjects." Credits earned through the subject "Advanced English for Communication", "Foreign Languages: Intensive Studies", and "Overseas Language Seminar (German, French, Spanish, Russian, Chinese, and Korean)" in "Foreign Languages" are accepted as the credits required for "Human & Social Science Subjects".

Note 5 You can transfer the credits acquired by completing courses of "Field Research in the English-speaking World" of short-term overseas language programs and self-learning "Online English Seminar I, II, III" are accepted as the credit for the subject "Communication I and II". Excessive number of credits earned in the "Area Courses" and "Social Cooperation Courses" in which the language of instruction is in English is accepted as credits for the graduation requirement for English language courses.

Note 6 Credit Approval for Foreign Language Proficiency Tests, etc.: For details, please refer to the sections relating to the English of Liberal Arts Education and "Handling of Credit Approval for Foreign Language Proficiency Tests, etc." in the Student Handbook.

Note 7 The credit for "Foreign Languages: Basic Studies", "Foreign Languages: Intensive Studies", and "Overseas Language Seminar" is accepted as credits for the category of "Any subject". Arabic course is limited to 2 credits.

Note 8 The credit for "Social Cooperation Courses" is accepted as credit for the category of "Any subject".

\* Note for the "Specialized Education Subjects" listed in the next page and after

Note 9 To achieve the 71 credits required for the "Specialized Subjects", it is required to earn 10 or more credits for elective required subjects and free elective subjects, as well as 26 credits for required subjects and 35 credits for elective required subjects.

Note 10 The credits that exceed 1 subject (2credits) are accepted as credits for the category of "Any subject".

Note 11 "Summer Course for Marine Biology A", "Practice for Phytogeography", and "Practice for Ecology" shall be offered intensively in a certain period, and each can accept only a limited number of students.

"Practice for Phytogeography" and "Practice for Ecology" shall be offered alternately for second-year and third-year students every other year.

Note 12 "Marine Biological Course" shall be offered intensively in a certain period, and can only accept a limited number of students.

Note 13 "Marine course for marine biological education" shall be offered intensively, three times a year, and can only accept a limited number of students.

Note 14 "Special Lectures in Biological Science" shall be offered intensively in a certain period (in or after the fifth semester).

Note 15 Because 128 credits are required for graduation, it is required to earn 10 or more credits regardless of the categorization of Liberal Arts Education Subjects and Specialized Education Subjects, in addition to the required credits for each subject category (118 credits in total that consist of 34 credits for Liberal Arts Education Subjects and 71 credits for Specialized Education Subjects).

However, the credit for the subjects described below is not accepted as the required credit for graduation. For the details of subjects related to educational personnel certification, refer to the list of required credits in "Acquisition of Educational Personnel Certification" in the Student Handbook.

Any credit that exceeds 12 credits for "Area Courses"

"Health and Sports Courses"

Any credit for subjects only related to educational personnel certification

Credits for "Experiments in General Physics A", "Experiments in Chemistry A", "Laboratory Work in Biology A" and "Experiments in General Geology A"

"Basic Specialized Subjects" and "Specialized Subjects" provided in another program in another school (except those that are admitted by the faculty committee of Biology Program)



# Academic achievements of Biology Program

## Relationships between the evaluation items and evaluation criteria

	Excellent	Very Good	Good
(1) Studying to understand liberal arts, peace, foreign languages, culture and society.	Superbly being able to understand.	Being able to understand well.	Being able to understand.
(2) Understanding and learning basic knowledge in scientific fields.	Superbly being able to understand and learn.	Being able to understand and acquire.	Being able to understand and acquire.
(3) To understand and acquire advanced knowledge on specialties in biology.	Superbly being able to understand and learn.	Being able to understand and acquire.	Being able to understand and acquire.
(1) To acquire abilities to understand information security compliance, to collect and evaluate data.	Superbly being able to understand the information security compliance, collect data, and assess them.	Being able to understand well about information security compliance and collect data and evaluate it.	To be able to collect and evaluate data by understanding Information Security Compliance.
(2) Acquiring ability to apply basic knowledge to biological issues and reading comprehension of English theses.	Superbly being able to solve several biological issues and read English theses.	Being able to sufficiently solve various biology issues, read english avademic articles.	To be able to solve physiological problems and to understand English academic papers.
(3) Based on basic knowledge which is already acquired, to obtain the following experimental skills in order to practice research: 1) Basic observation skills and skills to manage experiments. 2) Ability to record observed natural phenomena. 3) Ability to collect and assess data.	Superbly being able to acquire the ability of experiment.		









Subject Classification	Subject Name	Credits	Type of course registration	Grade	Evaluation items																Total weighted values of evaluation items in the subject
					Knowledge and Understanding						Abilities and Skills						Comprehensive Abilities				
					(1)		(2)		(3)		(1)		(2)		(3)		(1)		(2)		
					Weighted values of evaluation items in the subject	Weighted values of evaluation items	Weighted values of evaluation items in the subject	Weighted values of evaluation items	Weighted values of evaluation items in the subject	Weighted values of evaluation items	Weighted values of evaluation items in the subject	Weighted values of evaluation items	Weighted values of evaluation items in the subject	Weighted values of evaluation items	Weighted values of evaluation items in the subject	Weighted values of evaluation items	Weighted values of evaluation items in the subject	Weighted values of evaluation items	Weighted values of evaluation items in the subject	Weighted values of evaluation items	
Specialized Education	Plant Physiology B	2	Elective/required	4-4T					100	2											100
Specialized Education	Plant Ecology B	2	Elective/required	4-3T					100	2											100
Specialized Education	Endocrinology Immunology	2	Elective/required	5-1T					100	2											100
Specialized Education	Genome Biology	2	Elective/required	5-2T					100	2											100
Specialized Education	Systems Biology	2	Elective/required	5-1T					100	2											100
Specialized Education	Regeneration Biology	2	Elective/required	5-1T					100	2											100
Specialized Education	Seminar for Developmental Biology	2	Elective/required	8									100	2							100
Specialized Education	Seminar for Cell Biology	2	Elective/required	8									100	2							100
Specialized Education	Seminar for Molecular Physiology	2	Elective/required	8									100	2							100
Specialized Education	Seminar for Plant Taxonomy and Ecology	2	Elective/required	8									100	2							100
Specialized Education	Seminar for Plant Physiological Chemistry	2	Elective/required	8									100	2							100
Specialized Education	Seminar for Plant and Microbial Molecular Genetics	2	Elective/required	8									100	2							100
Specialized Education	Seminar for Molecular Genetics	2	Elective/required	8									100	2							100
Specialized Education	Seminar for Molecular Plant Biology	2	Elective/required	8									100	2							100
Specialized Education	Seminar for Gene Chemistry	2	Elective/required	8									100	2							100
Specialized Education	Seminar for Evolution and Development	2	Elective/required	8									100	2							100
Specialized Education	Seminar for Island Biology	2	Elective/required	8									100	2							100
Specialized Education	Seminar for Plant Genetic Resources	2	Elective/required	8									100	2							100
Specialized Education	Seminar for Amphibian Biology	2	Elective/required	8									100	2							100
Specialized Education	Summer Course for Marine Biology A	1	Elective/required	3										100	2						100
Specialized Education	Practice for Phytogeography	1	Elective/required	3										100	2						100
Specialized Education	Practice for Ecology	1	Elective/required	4										100	2						100
Specialized Education	Summer Course for Marine Biology B	1	Free elective	5										100	2						100
Specialized Education	Marine Biological Course	2	Free elective	3										100	2						100
Specialized Education	Marine course for marine biological education	1	Free elective	1-2										100	2						100





Academic achievements Evaluation items		1st grade		2nd grade		3rd grade		4th grade	
		Spring semester	Fall semester	Spring semester	Fall semester	Spring semester	Fall semester	Spring semester	Fall semester
Abilities and Skills	To acquire abilities to understand information security compliance, to collect and evaluate data.	Introduction to Information and	Starting Programming from						
	Acquiring ability to apply basic knowledge to biological issues and reading comprehension of English theses.		English Seminar on Biological						Seminar for Developmental B
									Seminar for Cell B
									Seminar for Molecular Physiology
									Seminar for Plant Taxonomy and E
									Seminar for Plant Physiological C
									Seminar for Plant and Microbial Molecular G
									Seminar for Molecular Genetics
									Seminar for Molecular Plant B
									Seminar for Gene C
									Seminar for Evolution and D
								Seminar for Island B	
							Seminar for Plant Genetic		
							Seminar for Amphibian Biology		
Based on basic knowledge which is already acquired, to obtain the following experimental skills in order to practice research: 1) Basic observation skills and skills to manage experiments. 2) Ability to record observed natural phenomena. 3) Ability to collect and assess data.		Experimental Methods and Laboratory Work	Experimental Methods and Laboratory Work						
		Experimental Methods and Laboratory Work	Experimental Methods and Laboratory Work						
		Experimental Methods and Laboratory Work	Practice for Fundamental Biology	Practice for Fundamental Biology	Practice for Fundamental Biology	Practice for Fundamental Biology			
		Experimental Methods and Laboratory Work	Summer Course for Marine		Summer Course for Marine				
		Experimental Methods and Laboratory Work							
		Experimental Methods and Laboratory Work							
Comprehensive Abilities	Understanding rudimentary matters for biological ways of experiments and writing reports through observation of research objects, collection, consideration, discussion and presentation.	Introductory Seminar for First-							
	To absorb cutting-edge knowledge, acquire high-level skills, learn how to conduct research, improve presentation ability through discussion, summarize research results as a graduation thesis, and deliver presentations.								

Liberal Arts Education Subjects    Basic Specialized Subjects    Specialized Education Subjects    Graduation Thesis