Course List and Graduation Requirements for International Programs, Biological Science Program – School of Agricultural Sciences (for Undergraduates Enrolled in October 2023)

Course Category			Course	Term	Credits				
					No of Credits	Compulsory	Compulsory Elective	Elective	Minimum Requirement
Liberal Arts and Sciences Courses	Common Basic Courses	Introduction to skills for academic success	Introduction to skills for academic success	Ⅰ	1	1			1
		First Year Seminar	First Year Seminar	Ⅰ	2	2			2
		Language and Culture	Japanese	Fall,Spring	8	8			8
			Japanese/Second Foreign Languages/English	Fall,Spring	6	6			6
		Health and Sports Science	Health and Sports Science: Lecture	Ⅰ	2	2			2
			Exercise and Sports A	Ⅰ	1	1			2
			Exercise and Sports B	Ⅱ	1	1			
		Data Science	Introduction to Data Science (Lecture)	Ⅱ	1	1			1
			Data Science Exercise A	Ⅱ	1	1			1
			Data Science Exercise B	Ⅱ	1				
		Partial Sum				**23**			**23**
	Liberal Arts Course	Contemporary Liberal Arts: Humanities and Social sciences	Introduction to Cultural Studies ★	Spring	2			2	4 consisting of 2 credits from CLA.
			Introduction to Political Studies ★	Ⅲ	2			2	
			Introduction to Economics ★	Spring	2			2	
		Contemporary Liberal Arts: Interdisciplinary/Integration of arts and sciences	Introduction to Career Development Theory	Fall	2			2	
			Art and Culture ★	Spring	2			2	
			Gender Studies	Ⅲ	2			2	
			Disaster Prevention and Mitigation	Ⅲ	2			2	
			Biotechnology	Ⅲ	2			2	
		Global Liberal Arts	International Society in the Age of Globalization★	Fall	2			2	
			Exploration of Japan: From the Outside looking Inside	Spring	2			2	
			Go in Japanese Culture	Fall	2			2	
			Studium Generale A	Fall	2			2	
			Studium Generale B	Spring	2			2	
			Introduction to Intercultural Competence	Fall	2			2	
			Immigration in Japan	Ⅳ	2			2	
			Content courses taught in Japanese	–	–			–	
		Problem/Project Based Learning Seminar	Summer Camp for General Academic Skills	Ⅵ	2			2	
	Basic Courses in Natural Sciences		Calculus I	Ⅰ	2			2	20 including a total of at least 2 credits in Laboratory courses
			Calculus II	Ⅱ	2			2	
			Linear Algebra I	Ⅰ	2			2	
			Linear Algebra II	Ⅱ	2			2	
			Complex Analysis	Ⅲ	2			2	
			Fundamentals of Physics I	Ⅰ	2			2	
			Fundamentals of Physics II	Ⅱ	2			2	
			Fundamentals of Physics III	Ⅱ	2			2	
			Fundamentals of Chemistry I	Ⅰ	2			2	
			Fundamentals of Chemistry II	Ⅱ	2			2	
			Fundamentals of Biology I	Ⅰ	2			2	
			Fundamentals of Biology II	Ⅱ	2			2	
			Fundamentals of Earth Science I	Ⅰ	2			2	
			Fundamentals of Earth Science II	Ⅱ	2			2	
			Laboratory in Physics	Ⅲ	2			2	
			Laboratory in Chemistry	Ⅱ	2			2	
			Laboratory in Biology	Ⅱ	2			2	
	Sum for Liberal Arts and Sciences Courses					**23**	**0**	**24**	**47**
Courses in Specialized Fields	Basic Specialized Courses	Compulsory Courses ①	Biochemistry I	Ⅲ	2	2			8
			Cell Biology I	Ⅲ	2	2			
			Cell Biology II	Ⅲ	2	2			
			Biochemistry II	Ⅳ	2	2			
		Compulsory Elective Courses ②	Mathematics Tutorial Ia	Ⅰ	1		1		8
			Mathematics Tutorial Ib	Ⅰ	1		1		
			Fundamental Physics Tutorial Ia	Ⅰ	1		1		
			Fundamental Physics Tutorial Ib	Ⅱ	1		1		
			Mathematics Tutorial IIa	Ⅱ	1		1		
			Mathematics Tutorial IIb	Ⅱ	1		1		
			Fundamental Physics Tutorial II	Ⅱ	1		1		
			Analytical Chemistry	Ⅲ	2		2		
			Organic Chemistry I	Ⅲ	2		2		
			Analytical Mechanics I	Ⅲ	2		2		
			Physical Chemistry I	Ⅲ	2		2		
			Mathematical Physics I	Ⅲ	2		2		
			Mathematical Physics Tutorial I	Ⅲ	2		2		
			Statistical Physics I	Ⅲ	2		2		
			Quantum Mechanics I	Ⅳ	2		2		
			Inorganic Chemistry I	Ⅳ	2		2		
			Electricity and Magnetism	Ⅳ	2		2		
			Earth and Planetary Sciences	Ⅴ	2		2		
			Environmental Earth Sciences	Ⅵ	2		2		
	Specialized Courses	Compulsory Courses ③	Genetics I	Ⅲ	2	2			42
			Physiology and Developmental Biology	Ⅳ	2	2			
			Genetics II	Ⅳ	2	2			
			Biochemistry III	Ⅴ	2	2			
			Cell Biology III	Ⅴ	2	2			
			Bioagricultural Science Laboratory I	Ⅳ	5	5			
			Bioagricultural Science Laboratory II	Ⅴ	5	5			
			Introductory Seminar on the Major	Ⅶ	2	2			
			Graduation Research in Bioscience	Ⅶ・Ⅷ	20	20			
		Compulsory Elective Courses ④	Agricultural Science	Ⅲ	2		2		30
			Physiology and Anatomy I	Ⅲ	2		2		
			Organic Chemistry II	Ⅳ	2		2		
			Biophysics	Ⅳ	2		2		
			Genetics III	Ⅴ	2		2		
			Chemical Physics	Ⅴ	2		2		
			Computational Chemistry	Ⅴ	2		2		
			Physiology and Anatomy II	Ⅴ	2		2		
			Plant Physiology	Ⅵ	2		2		
			Bioorganic Chemistry	Ⅵ	2		2		
			Advanced Bioagricultural Science Laboratory	Ⅵ	10		10		
			Microbiology	Ⅵ	2		2		
			Biochemistry IV	Ⅵ	2		2		
			Cell Biology IV	Ⅵ	2		2		
			Current Organic and Polymer Chemistry	Ⅵ	2		2		
	Sum for Courses in Specialized Fields					**50**	**38**	**0**	**88**
Total Sum						**73**	**38**	**24**	**135**

・Confirm the prerequisite for each subject with the syllabus.
・Refer to the detail of the Term on the page 3 of "AY2023 Liberal Arts and Sciences Course Registration Guide for International Programs Sutdents"
★Some of the courses on this column are offered in every other year. Confirm the offering term with the "Liberal Arts and Sciences Class Timetable" of the said year.

Graduation Requirements for International Programs, Biological Science Program – School of Agricultural Sciences (for Undergraduate)

1. Liberal Arts and Sciences Courses: A combined total of at least 47credits must be acquired.

(1) Common Basic Courses:
A total of at least 23 credits must be acquired, consisting of 1 credit of Introduction to skills for academic success, 2 credits of First year seminar, 14 credits from Language and Culture *, at least 2 credits each of Lecture and Exercise for Health and Sports Science, and 1 credit each of Lecture and Exercise for Data Science.

(2) Liberal arts Contemporary:
A total of at least 4 elective course credits must be acquired, consisting of at least 2 credits from Humanities and Social sciences or Interdisciplinary/Integration of arts and sciences.

(3) Basic Courses in Natural Sciences: A total of at least 20 credits must be acquired from these courses, including at least 2 course credits from the three Laboratory Courses.

2. Courses in Specialized Fields: A combined total of at least 88 course credits must be acquired from these course categories.

(1) Compulsory Courses:
A total of 42 course credits must be acquired from Compulsory Specialized Courses ③, and a total of 8 course credits must be acquired from Compulsory Basic Specialized Courses ①.

(2) Compulsory Elective Courses:
A total of at least 8 course credits must be acquired from Compulsory Elective Basic Specialized Courses ②,
and a total of at least 30 course credits must be acquired from Compulsory Elective Specialized Courses ④.

Requirements for Advancement for International Programs, Biological Science Program - School of Agricultural Sciences (for Undergraduate)

Time the Judgment is made	Course Categories and Number of Credits Required	What the students who fail to advance have to obey
At the End of the Second Grade	A total of a minimum of 70 credits must be acquired by the end of the second year. However, 41 or more Liberal Arts and Sciences course credits are included among the 70 credits.	(1) Students must remain in the second year. (2) The maximum duration of enrollment up to the second year is 6 years. (Equals to the maximum duration of enrollment (8 years) minus the enrollment duration for the third and fourth years (two years)) However, the total duration of leaves of absence will not be counted for calculating the enrollment period. (3) Students who fail to advance to the third year after years of study mentioned above (2) will be expelled from school.
At the End of the Third Grade	A total of a minimum of 110 credits must be acquired by the end of the third year. Further, the courses of 110 credits must include a total of a minimum of 14 credits of Courses of Language and Culture as well as 16 credits of Basic Specialized Courses and 10 credits of Bioagricultural Science Laboratory.	(1) Students who fail to advance will remain in the third year. (2) The maximum duration of enrollment up to the third year is 7 years. (Equals to the maximum duration of enrollment (8 years) minus the enrollment duration for the fourth years (one year)) However, the total duration of leaves of absence will not be counted for calculating the enrollment period. (3) Students who fail to advance to the fourth year after 7 years of study will be expelled from school.

Note: The 110 credits outlined here were totaled, from credits earned for advancement to the next year, with the maximum number of required credits by course category for the graduation credit requirements. Credits exceeding this amount will not be counted towards the required 110 credits.