Course List and Graduation Requirements for International Programs, Biological Science Program – School of Agricultural Sciences (for Undergraduates Enrolled in October 2020)

Course Category			Course	Term	Credits				
					No of Credits	Compulsory	Compulsory Elective	Elective	Minimum Requirement
Liberal Arts and Sciences Courses	Basic General Education Courses	First Year Seminar	First Year Seminar A	I	2	2			2
		Language and Culture	Japanese/Languages except English	I, II	12	12			12
			Academic English Advanced I	I	2	2			2
		Health and Sports Science	Health and Sports Science: Lecture	I	2	2			2
			Health and Sports Science: Practicum I	II	1	1			2
			Health and Sports Science: Practicum II	III	1	1			
		Partial Sum				20			20
	Basic Courses in Humanities and Social Sciences ★		History	2022-II	2			2	10
			Literature	I	2			2	
			Comparative Studies of Cultures	I	2			2	
	Liberal Education Courses in Humanities and Social Sciences ★		Introduction to Cultural Studies	2022-II	2			2	
			Culture and Representation	2022-II	2			2	
			Past and Present of Democracy	I	2			2	
			International Society of Globalization Age	2021- I	2			2	
	Liberal Education Courses in Natural Sciences		Biotechnology	I	2			2	
			Modern Biology	II	2			2	
			Science of Materials	III	2			2	
	Liberal Education Courses in Interdisciplinary Fields ★		Exploration of Japan: From the Outside Looking Inside	II	2			2	
			Introduction to Career Development Theory	I	2			2	
			Preparedness for Imminent Natural Disasters	III	2			2	
			Thinking about Japanese Society in the 21st Century from Gender Perspectives	III	2			2	
			Special Lecture (Studium Generale I)	I	2			2	
			Special Lecture (Studium Generale II)	II	2			2	
			Special Lecture (Go in Japanese Culture)	III	1			2	
			Special Lecture (Summer Camp for General Academic Skills)	IV	2			2	
	Basic Courses in Natural Sciences		Calculus I	I	2			2	18 including a total of at least 1.5 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	I	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	1.5			1.5	
			Laboratory in Chemistry	II	1.5			1.5	
			Laboratory in Biology	II	1.5			1.5	
	Sum for Liberal Arts and Sciences Courses					18	0	30	**48**
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 ②④	Mathematics Tutorial Ia	I	1		1		8
			Mathematics Tutorial Ib	I	1		1		
			Fundamental Physics Tutorial Ia	I	1		1		
			Fundamental Physics Tutorial Ib	I	1		1		
			Mathematics Tutorial IIa	II	1		1		
			Mathematics Tutorial IIb	II	1		1		
			Fundamental Physics Tutorial IIa	II	1		1		
			Fundamental Physics Tutorial IIb	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	IV・V	10	10			
			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						**68**	**38**	**30**	**136**

・Confirm the prerequisite for each subject with the syllabus.
・Refer to the detail of the Term on the page 3 of "AY2020 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 48credits must be acquired.

(1) Basic General Education Courses: A total of at least 20 credits must be acquired, consisting of 2 credits from first year seminar A, 12 credits from Japanese/ Languages except English, 2 credits from Academic English Advanced I, 2 credits of Health and Sports Science: Lecture, and at least 2 credits from Health and Sports Science: Practicum courses.

(2) Basic Courses in Humanities and Social Sciences, Liberal Education Courses in Natural Sciences, Liberal Education Courses in Humanities and Social Sciences, and Liberal Education Courses in Interdisciplinary Fields: A total of at least 10 course credits must be acquired from these four Course Categories.

(3) Basic Courses in Natural Sciences: A total of at least 18 credits must be acquired from these courses, including at least 1.5 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 Courses③, 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, 42 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.