## **KUAS Bio - List of Specialized Courses (Department of Applied Biological Sciences)**

			Cre	dits	Designated academic year			
Course Category		Course Name	Mandatory	Elective	1st- year	2nd- year	3rd- year	4th- year
		Biology	2		0	0	0	0
Courses Specialized by Department		Experimental Course in Biology	0	1	0	0	0	0
	Basic Courses	Chemistry  Experimental Course in Chemistry	2	1	0	0	0	0
		Earth Science*		2	0	0	0	0
		Experimental Course in Earth Science*		1	0	0	0	0
		Physics*		2	0	0	0	0
		Experimental Course in Physics*		1	0	0	0	0
		Introduction to Bioenvironmental Sciences	2		0	0	0	0
		Environmental Problems and Society		2	0	0	0	0
		The Frontiers of Biotechnology Industry*		2		0	0	0
		Bioenvironmental Science in a Society*		2		0	0	0
		Scientific Reading		2		0	0	0
		Practical Course in Crop Cultivation	2	0	0	0	0	0
		Field Practicum in Environmental Education*		2	0	0	0	0
	Basic Specialized Courses	Introduction to Applied Biological Sciences*  Organic Chemistry		2	0	0	0	0
		Food Chemistry		2		0	0	0
		Biochemistry		2	0	0	0	0
		Plant Physiology*		2	0	0	0	0
		Introduction to Biomass Studies		2	0	0	0	0
		Introduction to Environmental and Bioresource Sciences*		2	0	0	0	0
		Biological Resources Science*		2	0	0	0	0
		Basic Ecology		2		0	0	0
		Chemical Ecology		2		0	0	0
		Microbiology		2		0	0	0
		Crop Biology		2		0	0	0
		Introduction to Nutrition*		2		0	0	0
		Soil Environmental Science*		2		0	0	0
		Practical Training in Food Processing*	1	2			0	0
		Trips for Learning Bioenvironmental Sciences  Experimental Course in Applied Biological Sciences	1	2		0	0	0
		Experimental Course in Environmental and Bioresource Sciences		2		0	0	0
		Instrumental Analysis		2			0	0
		Cell Biology		2			0	0
		Molecular Biology*		2		0	0	0
		Physiology*		2		0	0	0
		Plant Biochemistry		2			0	0
		Applied Microbiology		2			0	0
		Food Analytical Chemistry*		2		0	0	0
		Food Processing		2			0	0
		Experimental Course in Organic Chemistry	3				0	0
		Experimental Course in Plant Science	3			_	0	0
		Genetic Engineering		2		0	0	0
		Environmental Studies Scientific Reading in English*		2		0	0	0
		Scientific Reading in English*  Problem-Solving Skills A		1		0	0	0
		Problem-Solving Skills B		1		0	0	0
		Bioorganic Chemistry*		2			0	0
		Nutritional Science		2			0	0
	Specialized			2			0	0
	Courses	Fermentation and Brewing Science*		2			0	0
		Food Pharmacology*		2			0	0
		Food Safety*		2			0	0
		Breeding and Genetics*		2			0	0
		SATOYAMA Studies		2			0	0
		Horticultural Science		2			0	0
		Environmental Modeling		2			0	0
		Water Environmental Sciences		2			0	0
		Conservation Ecology  Theory of Regional Food and Agriculture		2			0	0
		Experimental Course in Molecular Biology	3	2			0	0
		Experimental Course in Applied Microbiology	3				0	0
		Experimental Course in Food Science	3				0	0
		Practical Course in Cultivation and Processing of Traditional						_
		Vegetables of Kyoto		2			0	0
		Pre-Graduation Research	_	2			0	0
		Seminar on Specialized Scientific Topics	4					0
		Graduation Research	8					0