

Division of Applied Life Sciences

No.	Title	Instructor	Credits	Semester	Notes
CA01	Applied Life Sciences I	Hideto MIYOSHI, Kenji KANO	1	Apr-Sep (Intensive)	1
CA02	Applied Life Sciences II	Hisashi MIYAGAWA, Naoki MORI	1	Apr-Sep (Intensive)	1
CA03	Applied Life Sciences III	Shinjiro YAMAGUCHI	1	Apr-Sep (Intensive)	1
CA04	Applied Life Sciences IV	Mitsuyoshi UEDA, Takashi WATANABE	1	Apr-Sep (Intensive)	1
CA05	Industrial Microbiology	Noriyuki KIOKA, Yasuhisa KIMURA	1	Apr-Sep (Intensive)	1
CA06	Applied Life Sciences V	Yasuyoshi SAKAI, Kazufumi YAZAKI	1	Apr-Sep (Intensive)	1
CA07	Applied Life Sciences VI	Makoto UEDA, Ryotaro HARA, Michiki TAKEUCHI	1	Apr-Sep (Intensive)	1
CA08	Bioanalytical and Biophysical Chemistry	Jun OGAWA, Keiko KITA, Tatsuo KURIHARA	1	Oct-Mar (Intensive)	1
CA09	Chemistry of Bioregulation	Toshiaki UMEZAWA, Masaru KOBAYASHI	1	Oct-Mar (Intensive)	1 ◎
CA10	Introduction to Chemistry of Molecular Biocatalysts	Kenji KANO, Osamu SHIRAI, Yuki KITAZUMI	1	Oct-Mar (Intensive)	2
CA11	Plant Nutrients -Function and Acquisition-	Hisashi MIYAGAWA, Yoshiaki NAKAGAWA	1	Oct-Mar (Intensive)	2
CA12	Fermentation Physiology and Applied Microbiology	Masahiro MIYASHITA	1	Oct-Mar (Intensive)	2
CA13	Plant Metabolic Science	Shinjiro YAMAGUCHI, Bunta WATANABE	1	Oct-Mar (Intensive)	2
CA14	Cellular Bioenergy Conversion	Masaru KOBAYASHI	1	Apr-Sep (Intensive)	2 ◎
CA15	Applied Structural Biology	Jun OGAWA, Shigenobu KISHINO, Akinori ANDO	1	Oct-Mar (Intensive)	2
CA16	Chemical Ecology	Toshiaki UMEZAWA, Yuki TOBIMATSU, Shiro SUZUKI	1	Apr-Sep (Intensive)	2
CA17	Molecular Microbial Science	Keiko KITA, Yoshiharu INOUE	1	Apr-Sep (Intensive)	2
CA18	Biotechnology of Molecular and Cellular Regulation	Nobuyuki TAKAHASHI	1	N/A	2
CA19	Chemistry of Biological Activity	Kimihiko MIZUTANI	1	Apr-Sep (Intensive)	2
CA20	Cellular Biochemistry	Naoki MORI, Hajime ONO, Naoko YOSHINAGA	1	Apr-Sep (Intensive)	2
CA21	Biomacromolecular Chemistry	Tatsuo KURIHARA, Jun KAWAMOTO, Takuya OGAWA	1	Apr-Sep (Intensive)	2
CA22	Plant Gene Expression	Yasuyoshi SAKAI, Hiroya YURIMOTO	1	Apr-Sep (Intensive)	2
CA23	Chemistry of Wood Biomass Conversion	Masahide OKU	1	Apr-Sep (Intensive)	2
CA28	Applied Microbiology for Human Life	Hideto MIYOSHI, Masatoshi MURAI, Takahiro MASUYA	1	Apr-Sep (Intensive)	2
CA29	Advanced Applied Biochemistry	Noriyuki KIOKA	1	Apr-Sep (Intensive)	2
CA31	Pesticide Chemistry	Yasuhisa KIMURA	1	Apr-Sep (Intensive)	2
CA24	Life Sciences I (Advanced Course)	Mitsuyoshi UEDA, Kouichi KURODA, Wataru AOKI	1	Apr-Sep (Intensive)	2
CA25	Life Sciences II (Advanced Course)	Kazufumi YAZAKI, Akifumi SUGIYAMA	1	Apr-Sep (Intensive)	2
CA26	Life Sciences III (Advanced Course)	Takashi WATANABE, Takahito WATANABE	1	Apr-Sep (Intensive)	2
CA27	Life Sciences IV (Advanced Course)	Hiroshi NISHIMURA	1	Oct-Mar (Intensive)	1, 2 △
CA32	Life Sciences V (Advanced Course)	Jun OGAWA, Yasuyoshi SAKAI	1	Oct-Mar (Intensive)	1, 2 △
CA33	Life Sciences VI (Advanced Course)	Keiko KITA	1	Oct-Mar (Intensive)	1, 2 △
		Mitsuyoshi UEDA	1	Oct-Mar (Intensive)	1, 2 △
		Takashi WATANABE	1	Oct-Mar (Intensive)	1, 2 △
		Hisashi MIYAGAWA, Yoshiaki NAKAGAWA	1	Oct-Mar (Intensive)	1, 2 △
			1	N/A	
			1	N/A	
		Katsuya GOMI	1	Apr-Sep (Intensive)	1, 2
			1	N/A	
		Atsushi ISHIHARA	1	Oct-Mar (Intensive)	1, 2
			1	N/A	

No.	Title	Instructor	Credits	Semester	Notes
CB17	Cellular Biochemistry Seminar 1	Noriyuki KIOKA, Yasuhisa KIMURA, Koh NAGATA, Atsushi KODAN	3	Year-long	◎
CB18	Cellular Biochemistry Seminar 2	Noriyuki KIOKA, Yasuhisa KIMURA, Koh NAGATA, Atsushi KODAN	3	Year-long	◎
CB19	Macromolecular Bioscience Seminar 1	Mitsuyoshi UEDA, Kouichi KURODA, Wataru AOKI	3	Year-long	◎
CB20	Macromolecular Bioscience Seminar 2	Mitsuyoshi UEDA, Kouichi KURODA, Wataru AOKI	3	Year-long	◎
CB21	Bioregulation Chemistry Seminar 1	Hisashi MIYAGAWA, Yoshiaki NAKAGAWA, Masahiro MIYASHITA	3	Year-long	◎
CB22	Bioregulation Chemistry Seminar 2	Hisashi MIYAGAWA, Yoshiaki NAKAGAWA, Masahiro MIYASHITA	3	Year-long	◎
CB23	Chemical Ecology Seminar 1	Naoki MORI, Hajime ONO, Naoko YOSHINAGA	3	Year-long	◎
CB24	Chemical Ecology Seminar 2	Naoki MORI, Hajime ONO, Naoko YOSHINAGA	3	Year-long	◎
CB25	Plant Nutrition Seminar 1	Masaru KOBAYASHI, Kumiko OCHIAI	3	Year-long	◎
CB26	Plant Nutrition Seminar 2	Masaru KOBAYASHI, Kumiko OCHIAI	3	Year-long	◎
CB29	Fermentation Physiology and Applied Microbiology Seminar 1	Jun OGAWA, Shigenobu KISHINO,Akinori ANDO, Makoto UEDA, Ryotaro HARA, Michiki TAKEUCHI	3	Year-long	◎
CB30	Fermentation Physiology and Applied Microbiology Seminar 2	Jun OGAWA, Shigenobu KISHINO,Akinori ANDO, Makoto UEDA, Ryotaro HARA, Michiki TAKEUCHI	3	Year-long	◎
CB31	Microbial Biotechnology Seminar 1	Yasuyoshi SAKAI, Hiroya YURIMOTO, Masahide OKU, Jun HOSEKI	3	Year-long	◎
CB32	Microbial Biotechnology Seminar 2	Yasuyoshi SAKAI, Hiroya YURIMOTO, Masahide OKU, Jun HOSEKI	3	Year-long	◎
CB33	Bioanalytical and Biophysical Chemistry Seminar 1	Kenji KANO, Osamu SHIRAI, Yuki KITAZUMI	3	Year-long	◎
CB34	Bioanalytical and Biophysical Chemistry Seminar 2	Kenji KANO, Osamu SHIRAI, Yuki KITAZUMI	3	Year-long	◎
CB35	Biofunction Chemistry Seminar 1	Hideto MIYOSHI, Masatoshi MURAI,Takahiro MASUYA	3	Year-long	◎
CB36	Biofunction Chemistry Seminar 2	Hideto MIYOSHI, Masatoshi MURAI,Takahiro MASUYA	3	Year-long	◎
CB27	Cellular Bioenergy Conversion Seminar 1	Keiko KITA, Yoshiharu INOUE	3	Year-long	◎
CB28	Cellular Bioenergy Conversion Seminar 2	Keiko KITA, Yoshiharu INOUE	3	Year-long	◎
CB37	Applied Structural Biology Seminar 1	Nobuyuki TAKAHASHI, Kimihiko MIZUTANI	3	N/A	◎
CB38	Applied Structural Biology Seminar 2	Nobuyuki TAKAHASHI, Kimihiko MIZUTANI	3	N/A	◎
CB39	Chemistry of Molecular Biocatalysts Seminar 1	Shinjiro YAMAGUCHI, Bunta WATANABE, Kiyoshi MASHIGUCHI	3	Year-long	◎
CB40	Chemistry of Molecular Biocatalysts Seminar 2	Shinjiro YAMAGUCHI, Bunta WATANABE, Kiyoshi MASHIGUCHI	3	Year-long	◎
CB41	Molecular Microbial Science Seminar 1	Tatsuo KURIHARA, Jun KAWAMOTO, Takuya OGAWA	3	Year-long	◎
CB42	Molecular Microbial Science Seminar 2	Tatsuo KURIHARA, Jun KAWAMOTO, Takuya OGAWA	3	Year-long	◎
CB43	Seminar on Plant Gene Expression 1	Kazufumi YAZAKI, Akifumi SUGIYAMA	3	Year-long	◎
CB44	Seminar on Plant Gene Expression 2	Kazufumi YAZAKI, Akifumi SUGIYAMA	3	Year-long	◎
CB45	Seminar on Plant Metabolic Science 1	Toshiaki UMEZAWA, Yuki TOBIMATSU, Shiro SUZUKI	3	Year-long	◎
CB46	Seminar on Plant Metabolic Science 2	Toshiaki UMEZAWA, Yuki TOBIMATSU, Shiro SUZUKI	3	Year-long	◎
CB47	Seminar on Chemistry of Wood Biomass Conversion 1	Takashi WATANABE, Takahito WATANABE, Hiroshi NISHIMURA	3	Year-long	◎
CB48	Seminar on Chemistry of Wood Biomass Conversion 2	Takashi WATANABE, Takahito WATANABE, Hiroshi NISHIMURA	3	Year-long	◎
CC17	Experimental Course of Cellular Biochemistry 1	Noriyuki KIOKA, Yasuhisa KIMURA, Koh NAGATA, Atsushi KODAN	6	Year-long	◎
CC18	Experimental Course of Cellular Biochemistry 2	Noriyuki KIOKA, Yasuhisa KIMURA, Koh NAGATA, Atsushi KODAN	6	Year-long	◎
CC19	Experimental Course of Macromolecular Bioscience 1	Mitsuyoshi UEDA, Kouichi KURODA, Wataru AOKI	6	Year-long	◎
CC20	Experimental Course of Macromolecular Bioscience 2	Mitsuyoshi UEDA, Kouichi KURODA, Wataru AOKI	6	Year-long	◎
CC21	Experimental Course of Bioregulation Chemistry 1	Hisashi MIYAGAWA, Yoshiaki NAKAGAWA, Masahiro MIYASHITA	6	Year-long	◎
CC22	Experimental Course of Bioregulation Chemistry 2	Hisashi MIYAGAWA, Yoshiaki NAKAGAWA, Masahiro MIYASHITA	6	Year-long	◎
CC23	Experimental Course of Chemical Ecology 1	Naoki MORI, Hajime ONO, Naoko YOSHINAGA	6	Year-long	◎
CC24	Experimental Course of Chemical Ecology 2	Naoki MORI, Hajime ONO, Naoko YOSHINAGA	6	Year-long	◎
CC25	Experimental Course of Plant Nutrition 1	Masaru KOBAYASHI, Kumiko OCHIAI	6	Year-long	◎
CC26	Experimental Course of Plant Nutrition 2	Masaru KOBAYASHI, Kumiko OCHIAI	6	Year-long	◎
CC29	Experimental Course of Fermentation Physiology and Applied Microbiology 1	Jun OGAWA, Shigenobu KISHINO,Akinori ANDO, Makoto UEDA, Ryotaro HARA, Michiki TAKEUCHI	6	Year-long	◎
CC30	Experimental Course of Fermentation Physiology and Applied Microbiology 2	Jun OGAWA, Shigenobu KISHINO,Akinori ANDO, Makoto UEDA, Ryotaro HARA, Michiki TAKEUCHI	6	Year-long	◎
CC31	Experimental Course of Microbial Biotechnology 1	Yasuyoshi SAKAI, Hiroya YURIMOTO, Masahide OKU, Jun HOSEKI	6	Year-long	◎
CC32	Experimental Course of Microbial Biotechnology 2	Yasuyoshi SAKAI, Hiroya YURIMOTO, Masahide OKU, Jun HOSEKI	6	Year-long	◎
CC33	Experimental Course of Bioanalytical and Biophysical Chemistry 1	Kenji KANO, Osamu SHIRAI, Yuki KITAZUMI	6	Year-long	◎
CC34	Experimental Course of Bioanalytical and Biophysical Chemistry 2	Kenji KANO, Osamu SHIRAI, Yuki KITAZUMI	6	Year-long	◎
CC35	Experimental Course of Biofunction Chemistry 1	Hideto MIYOSHI, Masatoshi MURAI,Takahiro MASUYA	6	Year-long	◎
CC36	Experimental Course of Biofunction Chemistry 2	Hideto MIYOSHI, Masatoshi MURAI,Takahiro MASUYA	6	Year-long	◎
CC27	Experimental Course of Bioenergy Conversion 1	Keiko KITA, Yoshiharu INOUE	6	Year-long	◎
CC28	Experimental Course of Bioenergy Conversion 2	Keiko KITA, Yoshiharu INOUE	6	Year-long	◎
CC37	Experimental Course of Applied Structural Biology 1	Nobuyuki TAKAHASHI, Kimihiko MIZUTANI	6	N/A	◎
CC38	Experimental Course of Applied Structural Biology 2	Nobuyuki TAKAHASHI, Kimihiko MIZUTANI	6	N/A	◎
CC39	Experimental Course of Chemistry of Molecular Biocatalysts 1	Shinjiro YAMAGUCHI, Bunta WATANABE, Kiyoshi MASHIGUCHI	6	Year-long	◎
CC40	Experimental Course of Chemistry of Molecular Biocatalysts 2	Shinjiro YAMAGUCHI, Bunta WATANABE, Kiyoshi MASHIGUCHI	6	Year-long	◎
CC41	Experimental Course of Molecular Microbial Science 1	Tatsuo KURIHARA, Jun KAWAMOTO, Takuya OGAWA	6	Year-long	◎
CC42	Experimental Course of Molecular Microbial Science 2	Tatsuo KURIHARA, Jun KAWAMOTO, Takuya OGAWA	6	Year-long	◎
CC43	Experimental Course of Plant Gene Expression 1	Kazufumi YAZAKI, Akifumi SUGIYAMA	6	Year-long	◎
CC44	Experimental Course of Plant Gene Expression 2	Kazufumi YAZAKI, Akifumi SUGIYAMA	6	Year-long	◎

No.	Title	Instructor	Credits	Semester	Notes
CC45	Experimental Course of Plant Metabolic Science 1	Toshiaki UMEZAWA, Yuki TOBIMATSU, Shiro SUZUKI	6	Year-long	◎
CC46	Experimental Course of Plant Metabolic Science 2	Toshiaki UMEZAWA, Yuki TOBIMATSU, Shiro SUZUKI	6	Year-long	◎
CC47	Experimental Course of Chemistry of Wood Biomass Conversion 1	Takashi WATANABE, Takahito WATANABE, Hiroshi NISHIMURA	6	Year-long	◎
CC48	Experimental Course of Chemistry of Wood Biomass Conversion 2	Takashi WATANABE, Takahito WATANABE, Hiroshi NISHIMURA	6	Year-long	◎
CZ00	Master's Thesis				

- Requirements by Division of Applied Life Sciences
- 1) Earn more than 30 credits including 6 credits by seminar and 12 credits by experimental course given by your laboratory.  
\* Including more than 4 credits for second year students. (This is not applied to the students for Special Course in Agricultural
- 2) Subjects with "△ marks" target international students.
- 3) In order to take other divisions' courses and earn them as credits, get permission from your division's office at the time of registration.
- 4) Although some intensive courses have different instructors every year, a course can be registered once only and not allowed to take same course two times.
- 5) Course title and subjects with "1" are for first year students and "2" are for second year students.
- 6) Subjects with "◎ marks" may be given in English when any of international students wish to attend.