

Division of Applied Life Sciences

No.	Title	Instructor	Credits	Semester	Notes
V001	Research Ethics for Agricultural Scientists	Kazuyuki MORIYA, Hisashi MIYAGAWA, Shinichi KUME, Eiji NAWATA, Motoki AKITSU	1	Apr-Sep (intensive)	
CA01	Applied Life Sciences I	Hideto MIYOSHI, Kenji KANO Bunzo MIKAMI	1	Apr-Sep (Intensive)	1
CA02	Applied Life Sciences II	Hisashi MIYAGAWA, Naoki MORI Yoshiaki NAKAGAWA	1	Apr-Sep (Intensive)	1
CA03	Applied Life Sciences III	Kazumitsu UEDA, Mitsuyoshi UEDA Takashi WATANABE, Noriyuki KIOKA Yasuhisa KIMURA	1	Apr-Sep (Intensive)	1
CA04	Applied Life Sciences IV	Yasuyoshi SAKAI, Kazufumi YAZAKI	1	Apr-Sep (Intensive)	1
CA05	Industrial Microbiology	Makoto UEDA, Ryotaro HARA, Michiki TAKEUCHI	1	Apr-Sep (Intensive)	1
CA06	Applied Life Sciences V	Jun OGAWA, Keiko KITA, Tatsuo KURIHARA	1	Oct-Mar (Intensive)	1
CA07	Applied Life Sciences VI	Toru MATOH, Toshiaki UMEZAWA	1	Oct-Mar (Intensive)	1 ◎
CA08	Bioanalytical and Biophysical Chemistry	Kenji KANO, Osamu SHIRAI, Yuki KITAZUMI	1	Oct-Mar (Intensive)	2
CA09	Chemistry of Bioregulation	Hisashi MIYAGAWA, Yoshiaki NAKAGAWA Masahiro MIYASHITA	1	Oct-Mar (Intensive)	2
CA10	Introduction to Chemistry of Molecular Biocatalysts	TBD, Bunta WATANABE	1	Oct-Mar (Intensive)	2
CA11	Plant Nutrients -Function and Acquisition-	Toru MATOH, Masaru KOBAYASHI	1	Apr-Sep (Intensive)	2 ◎
CA12	Fermentation Physiology and Applied Microbiology	Jun OGAWA, Shigenobu KISHINO, Akinori ANDO	1	Oct-Mar (Intensive)	2
CA13	Plant Metabolic Science	Toshiaki UMEZAWA, Yuki TOBIMATSU, Shiro SUZUKI	1	Apr-Sep (Intensive)	2
CA14	Cellular Bioenergy Conversion	Keiko KITA, Yoshiharu INOUE	1	Apr-Sep (Intensive)	2
CA15	Applied Structural Biology	Bunzo MIKAMI, Nobuyuki TAKAHASHI Kimihiro MIZUTANI	1	Apr-Sep (Intensive)	2
CA16	Chemical Ecology	Naoki MORI, Hajime ONO, Naoko YOSHINAGA	1	Apr-Sep (Intensive)	2
CA17	Molecular Microbial Science	Tatsuo KURIHARA, Jun KAWAMOTO, Takuya OGAWA	1	Apr-Sep (Intensive)	2
CA18	Biotechnology of Molecular and Cellular Regulation	Yasuyoshi SAKAI, Hiroya YURIMOTO Masahide OKU	1	Apr-Sep (Intensive)	2
CA19	Chemistry of Biological Activity	Hideto MIYOSHI, Masatoshi MURAI	1	Apr-Sep (Intensive)	2
CA20	Cellular Biochemistry	Kazumitsu UEDA, Noriyuki KIOKA Yasuhisa KIMURA	1	Apr-Sep (Intensive)	2
CA21	Biomacromolecular Chemistry	Mitsuyoshi UEDA, Kouichi KURODA, Wataru AOKI	1	Apr-Sep (Intensive)	2
CA22	Plant Gene Expression	Kazufumi YAZAKI, Akifumi SUGIYAMA	1	Apr-Sep (Intensive)	2
CA23	Chemistry of Wood Biomass Conversion	Takashi WATANABE, Takahito WATANABE Hiroshi NISHIMURA	1	Apr-Sep (Intensive)	2
CA28	Applied Microbiology for Human Life	Jun OGAWA, Yasuyoshi SAKAI Keiko KITA	1	Oct-Mar (Intensive)	☆ △
CA29	Advanced Applied Biochemistry	Kazumitsu UEDA, Mitsuyoshi UEDA Takashi WATANABE	1	Oct-Mar (Intensive)	☆ △
CA31	Pesticide Chemistry	Hisashi MIYAGAWA, Yoshiaki NAKAGAWA	1	Oct-Mar (Intensive)	1, 2 △
CA24	Life Sciences I (Advanced Course)	Keiko SAKAKIBARA	1	Apr-Sep (Intensive)	N/A
CA25	Life Sciences II (Advanced Course)	Kazuya HASEGAWA	1		N/A
CA27	Life Sciences IV (Advanced Course)	Takeshi BAMBA	1	Apr-Sep (Intensive)	

No.	Title	Instructor	Credits	Semester	Notes
CB17	Cellular Biochemistry Seminar 1	Kazumitsu UEDA, Noriyuki KIOKA, Yasuhisa KIMURA, Koh NAGATA, Atsushi KODAN	3	Year-long	◎
CB18	Cellular Biochemistry Seminar 2	Kazumitsu UEDA, 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	Toru MATOH, Masaru KOBAYASHI, Kumiko OCHIAI	3	Year-long	◎
CB26	Plant Nutrition Seminar 2	Toru MATOH, 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	3	Year-long	◎
CB36	Biofunction Chemistry Seminar 2	Hideto MIYOSHI, Masatoshi MURAI	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	Bunzo MIKAMI, Nobuyuki TAKAHASHI, Kimihiko MIZUTANI	3	Year-long	◎
CB38	Applied Structural Biology Seminar 2	Bunzo MIKAMI, Nobuyuki TAKAHASHI, Kimihiko MIZUTANI	3	Year-long	◎
CB39	Chemistry of Molecular Biocatalysts Seminar 1	TBD, Bunta WATANABE	3	Year-long	◎
CB40	Chemistry of Molecular Biocatalysts Seminar 2	TBD, Bunta WATANABE	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	Kazumitsu UEDA, Noriyuki KIOKA, Yasuhisa KIMURA, Koh NAGATA, Atsushi KODAN	6	Year-long	◎
CC18	Experimental Course of Cellular Biochemistry 2	Kazumitsu UEDA, 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	Toru MATOH, Masaru KOBAYASHI, Kumiko OCHIAI	6	Year-long	◎
CC26	Experimental Course of Plant Nutrition 2	Toru MATOH, 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	6	Year-long	◎
CC36	Experimental Course of Biofunction Chemistry 2	Hideto MIYOSHI, Masatoshi MURAI	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	Bunzo MIKAMI, Nobuyuki TAKAHASHI, Kimihiko MIZUTANI	6	Year-long	◎
CC38	Experimental Course of Applied Structural Biology 2	Bunzo MIKAMI, Nobuyuki TAKAHASHI, Kimihiko MIZUTANI	6	Year-long	◎
CC39	Experimental Course of Chemistry of Molecular Biocatalysts 1	TBD, Bunta WATANABE	6	Year-long	◎
CC40	Experimental Course of Chemistry of Molecular Biocatalysts 2	TBD, Bunta WATANABE	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.
- 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" are held every 2 years alternately.
Subjects with "☆ marks" are held in this academic year and those with "★ marks" in next academic year.
- 7) Subjects with "◎ marks" may be given in English when any of international students wish to attend.