

Division of Applied Life Sciences

No.	Title	Instructor	Credits	Semester	Notes
CA01	Applied Life Sciences I	Hideto MIYOSHI, Osamu SHIRAI	1	Apr-Sep (Intensive)	1
CA02	Applied Life Sciences II	Hisashi MIYAGAWA, Naoki MORI Shinjiro YAMAGUCHI	1	Apr-Sep (Intensive)	1
CA03	Applied Life Sciences III	Takashi WATANABE, Noriyuki KIOKA Kouichi KURODA, Yasuhisa KIMURA, Wataru AOKI	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, Tatsuo KURIHARA, Yoshiharu INOUE	1	Oct-Mar (Intensive)	1
CA07	Applied Life Sciences VI	Toshiaki UMEZAWA, Kentaro IFUKU	1	Oct-Mar (Intensive)	1 ◎
CA08	Bioanalytical and Biophysical Chemistry	Osamu SHIRAI, Yuki KITAZUMI, Keisei SOWA	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	Shinjiro YAMAGUCHI, Bunta WATANABE	1	Oct-Mar (Intensive)	2
CA11	Plant Nutrients -Function and Acquisition-	Kentaro IFUKU, Masaru KOBAYASHI, Kumiko OCHIAI	1	Apr-Sep (Intensive)	2 ◎
CA12	Fermentation Physiology and Applied Microbiology	Jun OGAWA, Shigenobu KISHINO, Akinori ANDO	1	Apr-Sep (Intensive)	2
CA13	Plant Metabolic Science	Toshiaki UMEZAWA, Yuki TOBIMATSU	1	Apr-Sep (Intensive)	2
CA14	Cellular Bioenergy Conversion	Yoshiharu INOUE	1	Apr-Sep (Intensive)	2
CA15	Applied Structural Biology	Kimihiko MIZUTANI	1	N/A	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	1	Apr-Sep (Intensive)	2
CA19	Chemistry of Biological Activity	Hideto MIYOSHI, Masatoshi MURAI, Takahiro MASUYA	1	Apr-Sep (Intensive)	2
CA20	Cellular Biochemistry	Noriyuki KIOKA Yasuhisa KIMURA	1	Apr-Sep (Intensive)	2
CA21	Biomacromolecular Chemistry	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, Yoshiharu INOUE	1	Oct-Mar (Intensive)	1, 2 △
CA29	Advanced Applied Biochemistry	Takashi WATANABE, Noriyuki KIOKA Kouichi KURODA, Wataru AOKI	1	Oct-Mar (Intensive)	1, 2 △
CA31	Pesticide Chemistry	Hisashi MIYAGAWA	1	Oct-Mar (Intensive)	1, 2
CA24	Life Sciences I (Advanced Course)	Fumio MATSUDA	1	Oct-Mar (Intensive)	1, 2
CA25	Life Sciences II (Advanced Course)		1	N/A	
CA26	Life Sciences III (Advanced Course)		1	N/A	
CA27	Life Sciences IV (Advanced Course)		1	N/A	
CA32	Life Sciences V (Advanced Course)		1	N/A	
CA33	Life Sciences VI (Advanced Course)	Hiroshi TAKAGI	1	Oct-Mar (Intensive)	1, 2

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	Kouichi KURODA, Wataru AOKI	3	Year-long	◎
CB20	Macromolecular Bioscience Seminar 2	Kouichi KURODA, Wataru AOKI	3	Year-long	◎
CB21	Bioregulation Chemistry Seminar 1	Hisashi MIYAGAWA, Masahiro MIYASHITA	3	Year-long	◎
CB22	Bioregulation Chemistry Seminar 2	Hisashi MIYAGAWA, 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	Kentaro IFUKU, Masaru KOBAYASHI, Kumiko OCHIAI	3	Year-long	◎
CB26	Plant Nutrition Seminar 2	Kentaro IFUKU, 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, Kosuke SHIRAI, Jun HOSEKI	3	Year-long	◎
CB32	Microbial Biotechnology Seminar 2	Yasuyoshi SAKAI, Hiroya YURIMOTO, Kosuke SHIRAI, Jun HOSEKI	3	Year-long	◎
CB33	Bioanalytical and Biophysical Chemistry Seminar 1	Osamu SHIRAI, Yuki KITAZUMI, Keisei SOWA	3	Year-long	◎
CB34	Bioanalytical and Biophysical Chemistry Seminar 2	Osamu SHIRAI, Yuki KITAZUMI, Keisei SOWA	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	Yoshiharu INOUE	3	Year-long	◎
CB28	Cellular Bioenergy Conversion Seminar 2	Yoshiharu INOUE	3	Year-long	◎
CB37	Applied Structural Biology Seminar 1	Kimihiko MIZUTANI	3	N/A	◎
CB38	Applied Structural Biology Seminar 2	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, Ryosuke MUNAKATA	3	Year-long	◎
CB44	Seminar on Plant Gene Expression 2	Kazufumi YAZAKI, Akifumi SUGIYAMA, Ryosuke MUNAKATA	3	Year-long	◎
CB45	Seminar on Plant Metabolic Science 1	Toshiaki UMEZAWA, Yuki TOBIMATSU	3	Year-long	◎
CB46	Seminar on Plant Metabolic Science 2	Toshiaki UMEZAWA, Yuki TOBIMATSU	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	Kouichi KURODA, Wataru AOKI	6	Year-long	◎
CC20	Experimental Course of Macromolecular Bioscience 2	Kouichi KURODA, Wataru AOKI	6	Year-long	◎
CC21	Experimental Course of Bioregulation Chemistry 1	Hisashi MIYAGAWA, Masahiro MIYASHITA	6	Year-long	◎
CC22	Experimental Course of Bioregulation Chemistry 2	Hisashi MIYAGAWA, 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	Kentaro IFUKU, Masaru KOBAYASHI, Kumiko OCHIAI	6	Year-long	◎
CC26	Experimental Course of Plant Nutrition 2	Kentaro IFUKU, 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, Kosuke SHIRAI, Jun HOSEKI	6	Year-long	◎
CC32	Experimental Course of Microbial Biotechnology 2	Yasuyoshi SAKAI, Hiroya YURIMOTO, Kosuke SHIRAI, Jun HOSEKI	6	Year-long	◎
CC33	Experimental Course of Bioanalytical and Biophysical Chemistry 1	Osamu SHIRAI, Yuki KITAZUMI, Keisei SOWA	6	Year-long	◎
CC34	Experimental Course of Bioanalytical and Biophysical Chemistry 2	Osamu SHIRAI, Yuki KITAZUMI, Keisei SOWA	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	Yoshiharu INOUE	6	Year-long	◎
CC28	Experimental Course of Bioenergy Conversion 2	Yoshiharu INOUE	6	Year-long	◎
CC37	Experimental Course of Applied Structural Biology 1	Kimihiko MIZUTANI	6	N/A	◎
CC38	Experimental Course of Applied Structural Biology 2	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	◎

No.	Title	Instructor	Credits	Semester	Notes
CC43	Experimental Course of Plant Gene Expression 1	Kazufumi YAZAKI, Akifumi SUGIYAMA, Ryosuke MUNAKATA	6	Year-long	◎
CC44	Experimental Course of Plant Gene Expression 2	Kazufumi YAZAKI, Akifumi SUGIYAMA, Ryosuke MUNAKATA	6	Year-long	◎
CC45	Experimental Course of Plant Metabolic Science 1	Toshiaki UMEZAWA, Yuki TOBIMATSU	6	Year-long	◎
CC46	Experimental Course of Plant Metabolic Science 2	Toshiaki UMEZAWA, Yuki TOBIMATSU	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 Sciences).

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.