

Master's Program Subject and Completion Requirements 2018

Department of Bioinformatic Engineering

Code	A completion requirements item name and subject name	Instructor	Unit	School hour a week				Unit multiplication method	Necessary lower limit units	Necessary lower limit units			
				1st.Grade		2nd.Grade							
				Spring and Summer Terms	Fall and Winter Terms	Spring and Summer Terms	Fall and Winter Terms						
	Total							(1)+(2)	30				
	(1)Core Subjects							(1,1)+(1,2)	22				
	(1,1)Core Subjects(Required)							Σ	4				
331725	Research on Bioinformatic Engineering Ia	All Staff	2	6									
331726	Research on Bioinformatic Engineering Ib	All Staff	2		6								
	(1,2)Core Subjects(Elective)										Σ	0	
331003	Special Lectures on Information Science & Technology I	(Nobuyuki Shibano) (Masaaki Nishino) (Tomoharu Iwata) (Yasue Kishino) (Takaaki Tanaka) (Masaya Hirashima) (Hiroshi Ban) (Yasushi Naruse)	2	2									
331004	Special Lectures on Information Science & Technology II	(Kozo Kimura) (Hideaki Fukushima) (Kazuo Kajimoto) (Toshiyuki Kano) (Norihiko Taya) (Kousuke Nishihara) (Jyun Igarashi)	2		2								
331701	Bio-database Engineering		2										
331702	Molecular Bio-information Analysis	Hideo Matsuda Shigeto Senoo	2	2									
331703	Metabolic Information Engineering		2										
331707	Advanced Biosystems		2										
331709	Human Information Processing	Taro Maeda Hideyuki Ando	2		2								
331711	Seminar on Bioinformatic Engineering I	All Staff	2	2									
331712	Seminar on Bioinformatic Engineering II	All Staff	2		2								
331713	Exercises on Bioinformatic Engineering I	All Staff	2	4									
331714	Exercises on Bioinformatic Engineering II	All Staff	2		4								
331426	Introduction to Exercises on Information Engineering for Interactive Creation A	Taro Maeda Haruo Takemura Toru Fujiwara Hideyuki Ando Susumu Date Yuichi Ito	4	4	4								
331719	Bioprocess Engineering	Hiroshi Shimizu	2	2									
331720	Bio-network Engineering	Naoki Wakamiya Jun-nosuke Teramae	2	2									
331721	Basic Theory of Bio-networks		2										
331722	Advanced Evolutional Systems	Fumio Matsuda Norikazu Ichihashi Sunami Takeshi	2	2									
331723	Human Information Engineering		2										
331724	Introduction to Bioinformatic Engineering	All Staff	2	2									
331732	Introduction to Integrated Biological and Information Engineering	Hiroshi Shimizu Yoshihiro Toya	2	2									
331727	Research on Bioinformatic Engineering IIa	All Staff	2			6							
331728	Research on Bioinformatic Engineering IIb	All Staff	2				6						
331729	Internship on Bioinformatic Engineering	All Staff	2	3	3								
	(2)Elective subject							(2,1)+(2,2)+(2,3)	0				
	(2,1)Inter-disciplinary Subjects							Σ	0				
331005	Informartion Technology and Ethics	Staffs of dept. of Information Systems Engineering Staffs of dept. of Multimedia Engineering (Michio Nakanishi)	2	2									
331006	English Presentation Skills	Eum Suyong	2	*2	*2								
331014	The Foundation of Intellectual Property (Focusing on Computer Science)	Hidefumi Aoe & Other	2		2								
331030	Innovation Management	Minoru Eto Yuko Sasahara	2	2									
331135	Topics in Frontiers of Mathematics	Susumu Arika	2		2								
331203	Computational Informatics	Takayuki Wada	2		2								
331204	Mathematical Programming	Shunji Umetani	2	2									
331225	Topics on Nonlinear Phenomena	Hideyuki Suzuki	2		2								
331208	Advanced Statistical Analysis	Hiroshi Morita	2		2								
331222	Advenced Introduction to Information Pysicscal Science	All staff of dept. of Information and Physical Sciences	2	2									
331303	Parallel Programming		2										
331308	Theory of Distributed System Software		2										
331325	Fundamentals of Computer Science	All staff of dept. of Computer Science	2	2									

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331332	Fundamentals of Software Development on Cloud Environment	Katsuro Inoue Shinji Kusumoto Shusuke Haruna & Other	2	2						
331333	Exercise for Software Development on Cloud Environment	Katsuro Inoue Shinji Kusumoto Shusuke Haruna & Other	2	2	2					
331336	Advanced PBL for Software Development on Cloud Environment	Katsuro Inoue Shinji Kusumoto & Other	2		2					
331404	Computer-Aided System-on-a-Chip Design		2							
331409	System Interface Design	Haruo Takemura Tomohiro Mashita	2	2						
331502	Multimedia Network	Morito Matsuda Shinichi Arakawa	2		2					
331511	Economics of Information Network	Teruo Higashino Hirozumi Yamaguchi (Keita Arai)	2	2						
331525	Advanced Introduction to Information Networking	All staff of dept. of Information Networking	2		2					
331635	Big Data Engineering		2							
331636	Big Data Analytics	Makoto Onizuka Yuya Sasaki	2	2						
331621	Information Security		2							
331639	Studies on International Integrated Sciences	Leibnitz Kenji Ferdinand Peper Siriteanu Constantin	2	2						
331730	Seminar on Biomedical Engineering	All staff of dept. of Bioinformatic Engineering	2	2						
331731	Exercises on Biomedical Informatics	All staff of dept. of Bioinformatic Engineering	1	2						
	(2,2)Others								0	
	(2,3)Academic Internship Abroad							MAX{(2,3,1),(2,3,2)}	0	
	(2,3,1)S								0	
331025	Academic Internship Abroad M(S)	All Staff(Except Collaborative Division)	4	6	6	(※6)				
	(2,3,2)L								0	
331027	Academic Internship Abroad M(L)	All Staff(Except Collaborative Division)	8	12	12	(※12)				

- Note1) 1. Σ= Integrate the total number of credits for subjects with a slant line directly below.
2. MAX= Integrate only one subject with the maximum number of credits.
3. The class with * is held twice a year. However, registration is limited according to the department.
4. The class is not offered this year when the instructor's name field is blank.
5. Requirements for Completion; Students must receive 30 credits or more from this table, and pass a final evaluation of their master's thesis.
6. M1 students can register Academic Internship AbroadM(S),M(L) from "fall and winter terms" through "spring and summer terms".

- Note2) 1. The requirements to complete "Cloud Spiral" course shall be prescribed separately.
2. 331332, 331333 and 331336 are offered only for "Cloud Spiral" course students. (held at Nakanoshima center)