Master's Program Subject and Completion Requirements 2025

Department of Information and Physical Sciences

Code	Classification	A completion requirements item name and subject name	Instructor	Unit	1st.Grade Spring and Summer Terms	1st.Grade Fall and Winter Terms	2nd.Grade Spring and Summer Terms	2nd.Grade Fall and Winter Terms	Unit multiplication method	Necessary lower limit units	Upper limit units
		Total							1+2	30	
		1.Advanced Liberal Arts Educational subjects (select from the attached list "「高度教養教育科目リスト（情報数理学専攻）」)								2	
		2.Major Subjects・Advanced Global Literacy Educational subjects							(1)+(2)	28	
		(1)Core Subjects							(1,1)+(1,2)	22	
		(1,1)Core Subjects(Required)							Σ	7	
331212	M	Exercises on Information and Physical Sciences I	All Staff	2	2	2					
331213	M	Exercises on Information and Physical Sciences II	All Staff	2	2	2					
331214	M	Research on Information and Physical Sciences I	All Staff	3	4.5	4.5					
		(1,2)Core Subjects(Elective)							Σ	0	
331203	M	Computational Informatics	(Undecided)	2							
331204	M	Mathematical Programming	Yutaro Yamaguchi	2	2						
331225	M	Topics on Nonlinear Phenomena	Hideyuki Suzuki	2		2					
331206	M	Nonlinear Analysis	Sho Shirasaka	2	2						
331207	M	Applied Information Analysis	Yasumasa Fujisaki	2	2						
331208	M	Advanced Statistical Analysis	Hiroshi Morita	2		2					
331210	G・M	Seminar on Information and Physical Sciences I	All Staff	2	1	1					
331211	G・M	Seminar on Information and Physical Sciences II	All Staff	2	1	1					
331215	M	Research on Information and Physical Sciences II	All Staff	3			4.5	4.5			
331216	M	Special Lectures on Information and Physical Sciences I	Kai Morino	2	2						
331217	M	Special Lectures on Information and Physical Sciences II	Morita・Iwatani・Ichihashi・Konishi	2		2					
331218	M	Information Physics I		2							
331219	M	Information Physics II	Yusuke Ogura	2		2					
331220	M	Intelligence and Learning		2							
331224	M	Knowledge Informatics	(Undecided)	2							
331222	M	Advanced Introduction to Information Physical Science	All Staff	2	2						
331223	M	Internship on Information and Physical Sciences	Yasumasa Fujisaki Hiroshi Morita Hideyuki Suzuki	2	3	3					
		(2)Elective subject							(2,1)+(2,2)+(2,3)	0	
		(2,1)Inter-disciplinary Subjects							Σ	0	
331226	M	Introduction to Smart Contracts	Kenji Yamada Kayo Yoshimoto Hiroshi Noguchi Kozou Ohtani	2	2						
331005	M	Information Technology and Ethics	Staffs of dept. of Information Systems Engineering Staffs of dept. of Multimedia Engineering (Michio Nakanishi)	2	2						
331006	G・M	English Presentation Skills	Bettina Wutzl	2	*2	*2					
331014	M	The Foundation of Intellectual Property (Focusing on Computer Science)	(Shuichi Mukai) (Tsuyoshi Masuda) & Other	2		2					
331030	M	Innovation Management	Minoru Eto Yuko Sasahara Takaaki Kitajima	2	2						
331130	M	Computational Mathematics I	Daisuke Furihata	2	2						
331131	M	Computational Mathematics II	Tsuyoshi Chawanya	2		2					
331132	M	Applied Mathematics	Yoshie Sugiyama	2		2					
331135	M	Topics in Frontiers of Mathematics	Yuto Miyatake	2		2					
331325	M	Fundamentals of Computer Science	All staff of dept. of Computer Science	2	2						
331338	M	Computational Phogography	Hajime Nagahara Tomoya Nakamura	2		2					
331428	M	Advanced Computing Systems	Noriyuki Miura Jun Shiomi	2	2						
331429	M	Advanced Information Systems		2							
331432	M	Machine Learning for Dynamical Systems	Yoshinobu Kawahara Masahiro Ikeda Takuya Konishi Masahiro Fujisawa	2	2						
331525	M	Advanced Introduction to Information Networking	All staff of dept. of Information Networking	2		2					
331621	M	Informartion Security	Takanori Isobe Kyosuke Yamashita	2	2						
331639	G・M	Studies on International Integrated Sciences	Leibnitz Kenji Ferdinand Peper	2	2						
331426	M	Introduction to Exercises on Information Engineering for Interactive Creation A	Taro Maeda Susumu Date Yuki Uranishi Masahiro Furukawa	4	4	4					
331702	M	Molecular Bio-information Analysis		2							
331720	M	Bio-network engineering		2							
331724	M	Introduction to Bioinformatic Engineering	All staff of dept. of Bioinformatic Engineering	2	2						

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331732	M	Introduction to Integrated Biological and Information Engineering	Hiroshi Shimizu Fumio Matsuda Yoshihiro Toya Nobuyuki Okahashi Teppei Niide	2	2						
		(2,2)Others								0	
		(2,3)Academic Internship Abroad							MAX{(2,3,1),(2,3,2)}	0	
		(2,3,1)								0	
331025	G・M	Academic Internship Abroad M(S)	All Staff	4	6	6	(6)				
		(2,3,2)								0	
331027	G・M	Academic Internship Abroad M(L)	All Staff	8	12	12	(12)				

Note)

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. In the 30 credits, students must include 22 credits of Major subjects, 1 credit of Advanced Global Literacy Educational subjects, and 2 credits of Advanced Liberal Arts Educational subjects.

6. M1 students can register Academic Internship AbroadM(S),M(L) from "fall and winter terms" through "spring and summer terms".

7. "M" in the classification column represents Major subjects, "G" represents Advanced Global Literacy Educational subjects, and "G・M" represents subjects with both Advanced Global Literacy Educational and Major subjects' characteristics.

8. If you have acquired subjects with both Advanced Global Literacy Educational and Major subjects' characteristics, the credits will be included preferentially for Advanced Global Literacy Educational subjects.   If 1 credit of Advanced Global Literacy Educational subjects is already fulfilled, the credits will be included for Major subjects

9. With regard to Advanced Liberal Arts Educational subjects and Advanced Global Literacy Educational subjects offered by other graduates schools (or other institutions) in Osaka university, the subjects approved by Department of Information and Physical Sciences can be included for Requirements for Completion up to 2 credits for Advanced Liberal Arts and up to 1 credit for Advanced Global Literacy Educational subjects.
   For details, please refer the attached "「高度教養教育科目リスト(情報数理学専攻)」「高度国際性涵養教育科目リスト(情報数理学専攻)」.