Master's Program Subject and Completion Requirements 2025

Department of Computer Science

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(コンピュータサイエンス専攻)」")								2	
		2.Major Subjects・Advanced Global Literacy Educational subjects							(1)+(2)	28	
		(1)Core Subjects							(1,1)+(1,2)+(1,3)	22	
		(1,1)Core Subjects(Required)							Σ	4	
331321	M	Research on Computer Science Ia	All Staff	2	6						
331322	M	Research on Computer Science Ib	All Staff	2		6					
		(1,2)Core Subjects(Required Elective)							(1,2,1)or(1,2,2)	4	
		(1,2,1)Required Elective Subjects 1							Σ	0	
331312	M	Exercises on Computer science I	All Staff	2	4						
331313	M	Exercises on Computer science II	All Staff	2		4					
		(1,2,2)Required Elective Subjects 2							Σ	0	
331426	M	Introduction to Exercises on Information Engineering for Interactive Creation A	Taro Maeda / Susumu Date / Yuki Uranishi / Masahiro Furukawa	4	4	4					
		(1,3)Core Subjects(Elective)							Σ	0	
331003	M	Special Lectures on Information Science & Technology I	Ryuji Fukushima / Taishi Takahashi / Yoichi Chikahara / Masahiro Mizukami / Hiroki Higuchi / Hiroshi Ban / Yasushi Naruse / Nobuhiro Hagura	2	2						
331004	M	Special Lectures on Information Science & Technology II	(Toshiyuki Kano) / (Norihiko Taya)	2		2					
331303	M	Parallel Programming	Fumihiko Ino / Masao Okita	2	2						
331304	M	Theory of Parallel Algorithms		2							
331305	M	Theory of Software Development	Yoshiki Higo / Makoto Matsushita / Raula Gaikovina Kula	2		2					
331307	M	Algorithm Design		2							
331308	M	Theory of Distributed System Software	Taisuke Izumi	2		2					
331310	M	Seminar on Computer Science I	All Staff	2	2						
331311	M	Seminar on Computer Science II	All Staff	2		2					
331318	M	Introduction to Intelligent System	Yuta Nakashima / Hideaki Hayashi	2		2					
331319	M	Theory of Software Design	Shinji Kusumoto / Shinsuke Matsumoto	2	2						
331337	M	Image Recognition		2							
331338	M	Computational Phogography	Hajime Nagahara / Tomoya Nakamura	2		2					
331323	M	Research on Computer Science IIa	All Staff	2			6				
331324	M	Research on Computer Science IIb	All Staff	2				6			
331325	G・M	Fundamentals of Computer Science	All Staff	2	2						
331326	M	Internship on Computer Science	All Staff (Except Collaborative Division)	2	3	3					
		(2)Elective subject							(2,1)+(2,2)+(2,3)	0	
		(2,1)Inter-disciplinary Subjects							Σ	0	
331005	M	Informartion Technology and Ethics	Staffs of dept. of Information Systems Engineering / Staffs of dept. of Multimedia Engineering (Michio Nakanish)	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						
331135	M	Topics in Frontiers of Mathematics	Yuto Miyatake	2		2					
331222	M	Advenced Introduction to Information Pysicscal Science	All staff of dept. of Information and Physical Sciences	2	2						
331226	M	Introduction to Smart Contracts	Kenji Yamada / Kayo Yoshimoto / Hiroshi Noguchi / Kozou Ohtani	2	2						
331431	M	Machine Learning Systems Theory		2							
331432	M	Machine Learning for Dynamical Systems	Yoshinobu Kawahara / Masahiro Ikeda / Takuya Konishi / Masahiro Fujisawa	2	2						
331408	M	Concurrent Systems	Tsuchiya Tatsuhiro	2	2						

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331420	M	Dependable Systems		2							
331501	M	Information Network Design	Hideyuki Shimonishi Shin-ichi Arakawa	2	2						
331507	M	Mobile Computing		2							
331508	M	Mobile Communication Protocols	Hirozumi Yamaguchi Akira Uchiyama Viktor Erdelvi	2		2					
331511	M	Economics of Information Network	Hirozumi Yamaguchi Akira Uchiyama (Keita Arai)	2	2						
331525	M	Advanced Introduction to Information Networking	All staff of dept. of Information Networking	2		2					
331635	M	Big Data Engineering	Makoto Onizuka Chuan Xiao	2	2						
331636	M	Big Data Analytics		2							
331621	M	Information Security	Takanori Isobe Kyosuke Yamashita	2	2						
331622	M	Content Security		2							
331639	G・M	Studies on International Integrated Sciences	Leibnitz Kenji Ferdinand Peper	2	2						
331701	M	Bio-database Engineering	Shigeto Seno	2	4 (Spring)						
331702	M	Molecular Bio-information Analysis		2							
331720	M	Bio-network Engineering		2							
331721	M	Basic Theory of Bio-networks	Naoki Wakamiya Shun Kurokawa	2	2						
331724	M	Introduction to Bioinformatic Engineering	All staff of dept. of Bioinformatic Engineering	2	2						
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 Computer Science 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(コンピュータサイエンス専攻)」「高度国際性涵養教育科目リスト(コンピュータサイエンス専攻)」.