Master's Program Subject and Completion Requirements 2023

Departn	nent of I	nformation Networking	<u> </u>		1	School ho	our a week			1	1
	Classific	A completion requirements item name and			1st.Grade		2nd.Grade		Unit	Necessary	Upper
Code	ation	subject name	Instructor	Unit	Spring and Summer Terms	Fall and Winter Terms	Spring and Summer Terms	Fall and Winter Terms	multiplication method	lower limit units	limit units
		Total							1+2	30	
		1.Advanced Liberal Arts Educational subjects (sel	ect from the attached list '	「高度耄	效養教育科目	リスト(情報	ネットワーク学	牟専攻)」)		2	
		2.Major Subjects · Advanced Global Literacy Educa	ational subjects						(1)+(2)	28	
		(1)Core Subjects							(1,1)+(1,2)+(1,3)	22	
		(1,1)Core Subjects(Required)							Σ	4	
331521	M	Research on Information Netwoking Ia	All Staff	2	6					1	1
331522	M	Research on Information Netwoking Ib	All Staff	2		6			1		
		(1,2)Core Subjects(Required Elective)							(1,2,1)+(1,2,2)	4	
		(1,2,1)Required Elective Subjects 1							Σ	2	2
331514	M	Exercises on Information Networking I	All Staff	2	4						
331527	М	Exercises on Information Security I	Hirozumi Yamaguchi Akira Uchiyama Naoto Yanai (Shingo Okamura)	2	2	2					_
		(1,2,2)Required Elective Subjects 2							Σ	2	2
331515	M	Exercises on Information Networking II	All Staff	2		4				•	!
331528	М	Exercises on Information Security II	Hirozumi Yamaguchi Akira Uchiyama Naoto Yanai (Shingo Okamura)	2	2	2					
		(1,3)Core Subjects(Elective)							Σ	0	
331003	М	Special Lectures on Information Science & Technology I	(Nobuyuki Shibano) (Hideharu Nakajima) (Hiroaki Sugiyama) (Masakazu Ishihata) (Takashi Hattori) (Masaya Hirashima) (Hiroshi Ban) (Yasushi Naruse)	2	2						
331004	М	Special Lectures on Information Science & Technology II	(Toshiyuki Kano) (Norihiko Taya)	2		2					
331501	М	Information Network Design	Hideyuki Shimonishi Shin-ichi Arakawa	2	2						
331502	M	Multimedia Network		2					1 \		
331503	M	Information Network Architecture		2					1 \		
331504	М	Network Software	Takashi Watanabe Shunsuke Saruwatari	2		2			1 \		
331506	M	Information Sharing Platform		2					1 \		
331507	M	Mobile Computing		2					1 \		
331508	M	Mobile Communication Protocols	Hirozumi Yamaguchi	2		2			 \		
			Akira Uchiyama						 \		
331509	М	Gigabit Network		2					<u> </u>	\	
331510	М	High-Speed Network Architecture	Masayuki Murata Tomoki Yoshihisa	2	2					\	
331511	M	Economics of Information Network	Hirozumi Yamaguchi Akira Uchiyama (Keita Arai)	2	2						
331512	G·M	Seminar on Information Networking I	All Staff	2	2					\	
331513	M	Seminar on Information Networking II	All Staff	2		2				\	
331520	М	Information Sharing Network Design	Toru Hasegawa Yuki Koizumi Koichi Takasugi Yasue Kishino Norihito Yasuda	2	2						
331523	М	Research on Information Netwoking IIa	All Staff	2			6		_	/	١
331524	М	Research on Information Netwoking IIb	All Staff	2				6	1		\
331525	M	Advanced Introduction to Information Networking	All Staff	2		2]		\

Department of Information Networking

Departi	nent of 1	nformation Networking			1	G 1 11				1	
G. I.	G1 : C	A 1			1st C	School he	School hour a week rade 2nd.Grade		Unit	Necessary	
Code	Classific ation	A completion requirements item name and subject name	Instructor	Unit		Fall and	Spring and	Fall and	multiplication	lower	Upper limit units
<u> </u>	ation	subject name			Summer Terms	Winter Terms	Summer Terms	Winter Terms	method	limit units	ilmit units
331526	М	Internship on Information Networking	Masayuki Murata Takashi Watanabe Toru Hasegawa Hirozumi Yamaguchi Hideyuki Shimonishi Shim-ichi Arakawa Shunsuke Saruwatari Yuki Koizumi Akira Uchiyama Daichi Kominami Takuya Fujihashi Junji Takemasa Tatsuya Amano	2	3	3					
		(2)Elective subject							(2,1)+(2,2)+(2,3)	0	
		(2,1)Inter-disciplinary Subjects							Σ	0	
331005	М	Informartion Technology and Ethics	Staffs of dept. of Information Systems Engineering Staffs of dept. of Multimedia Engineering (Michio Nakanishi)	2	2						
331006	$G \cdot M$	English Presentation Skills	Bettina Wutzl	2	*2	*2					
331014	М	The Foundation of Intellectual Property (Focusing on Computer Science)	(Shuichi Mukai) (Tsuyoshi Masuda) Others	2		2					
331030	M	Innovation Management	Minoru Eto Yuko Sasahara	2	2						
331135	M	Topics in Frontiers of Mathematics	Kouichi Yasui	2		2			1 \		
331208	M	Advanced Statistical Analysis	Hiroshi Morita	2		2			1 \		
331222	M	Advanced Introduction to Information Pysical Science	All staff of dept. of Information and Physical Sciences	2	2				\		
331307	M	Algorithm Design	I nysicai perences	2					1 \		
			m. l.''u. M.						 		
331308	M	Theory of Distributed System Software	Toshimitsu Masuzawa Taisuke Izumi	2		2] \		
331319	M	Theory of Software Design	Shinji Kusumoto	2	2				-		
331325	М	Fundamentals of Computer Science	All staff of dept. of Computer Science	2	2				\		
331431	M	Machine Learning Systems Theory	Yoshinobu Kawahara Takuya Konishi	2	2						
331408	M	Concurrent Systems	Tatsuhiro Tsuchiya Hiroyuki Nakagawa	2	2				\		
331420	M	Dependable Systems		2					Ī \		
331635	М	Big Data Engineering	Makoto Onizuka Chuan Xiao	2	2] \		
331636	M	Big Data Analytics		2					1 \		
331621	М	Information Security	Atsuo Inomata Naoto Yanai	2	2				1	1	
331622	M	Content Security		2]	\	
331637	M	Robot Vision		2					1		
331639	G·M	Studies on International Integrated Sciences	Leibnitz Kenji Ferdinand Peper	2	2				-		
331709	M	Human Information Processing		2							
331720	M	Bio-network Engineering		2					1	1	
331721	М	Basic Theory of Bio-networks	Naoki Wakamiya Masaki Ogura	2	2						
331724	М	Introduction to Bioinformatic Engineering	All staff of dept. of Bioinformatic Engineering	2	2						
331732	М	Introduction to Integrated Biological and Information Engineering	Hiroshi Shimizu Fumio Matsuda Yoshihiro Toya Nobuyuki Okahashi Teppei Niide Taisuke Seike	2	2						

Master's Program Subject and Completion Requirements 2023

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_ op	hent of 1	mormation Networking		Т	School hour a week					T	П
Code	Classific ation	A completion requirements item name and subject name	Instructor	Unit	1st.Grade 2nd.Grade				Unit	Necessary	Upper
					Spring and Summer Terms	Fall and Winter Terms	Spring and Summer Terms	Fall and Winter Terms	multiplication method	lower limit units	limit units
331031	М	Humanware Fundamentals I M	MAHZOON HAMED Satoru Iwasaki Shin'ichi Arakawa Hiroshi Shimizu	2	2						
331032	М	Humanware Fundamentals II M	Satoru Iwasaki Taisuke Izumi	2		2					
331033	М	Humanware Innovation Creation M	Toshimitsu Masuzawa Shigeru Kondo Hideyuki Takahashi	2		2					
331034	М	Humanware Seminar M	Ittetsu Taniguchi Nobuyuki Okahashi Yoshiki Higo MAHZOON HAMED Hiroshi Shimizu	2	1	1					
331035	M	Humanware Innovation Introduction M	Tatsuhiro Tsuchiya Naoki Wakamiya	2	1	1					\
331036	М	Humanware Communication M	Shin-ichi Arakawa Suguru Shimomura	2			1	1			
331037	М	Humanware Laboratory Rotation M	Yoshiki Higo	2	1	1					\
331038	М	Humanware Internship (Short Term) M	Takuya Maekawa Naoki Wakamiya Satoru Iwasaki	2	3	3					\
331039	М	Humanware Internship (Long Term) M	Takuya Maekawa Naoki Wakamiya Satoru Iwasaki	4	6	6					
		(2,2)Others								0	
		(2,3)Academic Internship Abroad							MAX{(2,3,1),(2,3,2),(2,3,3)}	0	
		(2,3,1)								0	
331040	G · M	Humanware Overseas Internship (Short Term) M	Yasuyuki Matsushita Satoru Iwasaki	2	3	3					
		(2,3,2)								0	
331025	$G \cdot M$	Academic Internship Abroad M(S)	All Staff	4	6	6	(6)				
331041	G · M	Humanware Overseas Internship (Long Term) M	Yasuyuki Matsushita Satoru Iwasaki	4	6	6					
		(2,3,3)								0	
331027	$G \cdot M$	Academic Internship Abroad M(L)	All Staff	8	12	12	(12)				

- 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.
- $4.\ {\rm The\ class}$ 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".
- "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. 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 is already fulfilled, the credits will be included for Major subjects.
- 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 Networking can be included for Requirements for Completion up to 2 credits for Advanced Liberal Arts
- Educational subjects and 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(情報ネットワーク学専攻)」、「高度国際性涵養教育科目リスト(情報ネットワーク学専攻)」、
- $10. \ Only \ Humanware \ Innovation \ \ Program \ students \ can \ register \ subjects \ from \ 331036 \ to \ 331041.$

Note 2) The requirements to complete "SecCap" course shall be prescribed separately.