## Master's Program Subject and Completion Requirements 2022

Dopurth	10110 01 1	internation and i hybroar berendes				School hou	ır a week				
	Classifie	A completion acquirements item name			1st Grade		2nd Grade		Unit	Necessary	п
Code	otion	A completion requirements item name	Instructor	Unit	Spring and	Fall and	Spring and	Fall and	multiplication	lower limit	Upper limit units
	ation	and subject name			Summer	Winter	Summer	Winter	method	units	mmit units
					Terms	Terms	Terms	Terms			
		Total							1+2	30	
		1.Advanced Liberal Arts Educational subj	ects (select from the attac	ched lis	t "「高度教養	義育科目リ	スト(情報数	理学専攻)」		2	
		2.Major Subjects · Advanced Global Litera	cy Educational subjects						(1)+(2)	28	
		(1)Core Subjects							(1,1)+(1,2)	22	
		(1,1)Core Subjects(Required)							Σ	7	
331212	М	Exercises on Information and Physical	All Staff	2	2	2					
		Sciences I			_						
331213	Μ	Exercises on Information and Physical	All Staff	2	2	2					
		Sciences II Research on Information and Physical									-
331214	Μ	Seioneos I	All Staff	3	4.5	4.5					
		(1 2)Core Subjects (Elective)							Σ	0	
331203	М	Computational Informatics	Takayuki Wada	2		2			<u> </u>	Ű	
331204	M	Mathematical Programming	Yutaro Yamaguchi	2	2	-			$\mathbf{A}$		
331225	М	Topics on Nonlinear Phenomena	Hideyuki Suzuki	2		2			$\mathbf{\lambda}$		
331206	М	Nonlinear Analysis	Shou Shirasaka	2	2				$\mathbf{\lambda}$		
331207	М	Applied Information Analysis	Yasumasa Fujisaki	2	2						
331208	М	Advanced Statistical Analysis	Hiroshi Morita	2		2					
331210	$G \cdot M$	Seminar on Information and Physical	All Staff	2	1	1					
		Sciences I Sominar on Information and Physical									
331211	$G \cdot M$	Seminar on information and Physical	All Staff	2	1	1					
		Research on Information and Physical									
331215	М	Sciences II	All Staff	3			4.5	4.5			
991010	м	Special Lectures on Information and	(Takuma Akimoto)	0			1			<u>۱</u>	
əə1216	IVI	Physical Sciences I	(Masaki Nakagawa)	Z	Z					$\backslash$	
331217	м	Special Lectures on Information and	(Undecided)	2		2				\	
001217	141	Physical Sciences II	T m (1	-		-				\	
331218	M	Information Physics I	Jun Tanida	2	2	<u>^</u>	L			\	
331219	M	Information Physics II	Yusuke Ogura	2	0	2					
331220 221994	M	Knowlodge Information	Masayuki Numao	2	2	9				\	
əə1224	IVI	Advanced Introduction to Information	rxemeni r ukui	2		2				\	
331222	Μ	Physical Science	All Staff	2	2						$\mathbf{X}$
		i nysicai beience	Yasumasa Fujisaki								$\mathbf{X}$
			Jun Tanida								$\mathbf{X}$
331223	м	Internship on Information and Physical	Hiroshi Morita	2	3	3					$\langle \rangle$
001220	141	Sciences	Masavuki Numao	2	5	5					
			Hidevuki Suzuki								$\backslash$
		(2)Elective subject	THUEYUKI DUZUKI						(2 1)+(2 2)+(2 3)	0	
		(2) Inter-disciplinary Subjects							$\Sigma$	0	
		(2,1)Ther disciplinary publices	T 10 11						2	0	
			Jyun Tanida								
331226	М	Introduction to Smart Contracts	Kenji Taima	2	2	1					
			Hiroshi Noguchi								
			Kayo Yoshimoto								
			Staffs of dept. of								
	26		Information Systems								
			Engineering						I)		
331005	М	Information Technology and Ethics	Staffs of dept. of	2	2						
			Multimedia						1		
			Engineering								
001000	G 14		(Michio Nakanishi)		*0	*0					
331006	G・M	English Presentation Skills	Bettina Wutzl (Shujahi Mukaj)	2	*2	*2					
331014	м	The Foundation of Intellectual Property	(Tauvachi Maauda)	2		2					
001014	IVI	(Focusing on Computer Science)	& Other	-		4					
			Minoru Eto				1				
331030	М	Innovation Management	Yuko Sasahara	2	2						
331130	М	Computational Mathematics I	Daisuke Furihata	2	2		1				
331131	М	Computational Mathematics II	Tsuyoshi Chawanya	2	1	2	1				
331132	Μ	Applied Mathematics	Yoshie Sugiyama	2	2				1		
331135	Μ	Topics in Frontiers of Mathematics	Kouichi Yasui	2		2			1		
331205	м	Fundamentals of Computer Science	All staff of dept. of	9	9				\ \		
001020	IVI	r unuamentais of Computer Science	Computer Science	4	4						
331338	м	Computational Phogography	Hajime Nagahara	2		2	_				
301000			Tomoya Nakamura	-			L		\ \		
331428	М	Advanced Computing Systems		2							
-			Nonimulti Mi								
331429	Μ	Advanced Information Systems	Inoriyuki Miura	2	2				\ \		
									\ \		
001-0-		Advanced Introduction to Information	All staff of dept. of			~			1		
331525	IVI	Networking	Information	2		2	1				
			Networking	+							
									1		
331621	Μ	Information Security		2					<u>۱</u>		
331639	G•М		Leibnitz Kenji	2							
		Studies on International Integrated Sciences	Ferdinand Peper		2						
			Cruz Jason Paul						\ \	1	
			Miranda								
		+	T M 1								
			1 aro Maeda								
		Interdeption to D	naruo Takemura								
331426	Μ	Introduction to Exercises on Information	1 oru Fujiwara Valsi Hagadala	4	4	4			I		
		Engineering for Interactive Creation A	1 uki Uranishi Suoumu Doto						\	1	
			Susumu Date Vujebi Ito							1	
	L		i ulciii ito							1	
331702	М	Molecular Bio-information Analysis	riideo Matsuda	2	4 (Spring)					1	
		-	Singeto Seno				1			1	

## Department of Information and Physical Sciences

Master's Program	Subject and	Completion	<b>Requirements 2022</b>
------------------	-------------	------------	--------------------------

Departr	nent of I	nformation and Physical Sciences									
	Classific	A completion requirements item name			School hour a week				Unit	Necessary	
Code			Instructor	Unit	1st. Spring and	Fall and	2nd.Grade Spring and Fall at		nd multiplication	lower limit	Upper
	ation	and subject name			Summer Terms	Winter Terms	Summer Terms	Winter Terms	method	units	limit units
331720	М	Bio-network engineering	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	2	2						
331031	М	Humanware Fundamentals I M	MAHZOON HAMED Satoru Iwasaki Taisuke Izumi Hiroshi Shimizu Takahiro Hara	2	2						
331032	м	Humanware Fundamentals II M	Satoru Iwasaki Taisuke Izumi Suguru Shimomura Ittetsu Taniguchi Shin-ichi Arakawa Takuya Maekawa Nobuyuki Okahashi Takahiro Hara	2		2					
331033	М	Humanware Innovation Creation M	Toshimitsu Masuzawa Takahiro Hara Shigeru Kondo Hiroshi Ishiguro	2		2					
331034	М	Humanware Seminar M	Ittetsu Taniguchi Nobuyuki Okahashi Fumihiko Ino MAHZOON HAMED Satoru Iwasaki Hiroshi Shimizu	2	1	1					
331035	М	Humanware Innovation Introduction M	Tatsuhiro Tsuchiya Naoki Wakamiya	2	1	1					
331036	М	Humanware Communication M	Shin-ichi Arakawa Suguru Shimomura Takahiro Hara	2			1	1			
331037	Μ	Humanware Laboratory Rotation M	Fumihiko Ino	2	1	1					1
331038	М	Internship (Short Term) M	Takuya Maekawa Naoki Wakamiya Satoru Iwasaki	2	3	3					
331039	М	Internship (Long Term) M	Takuya Maekawa Naoki Wakamiya Satoru Iwasaki	4	6	6					
		(2,2)Others							MAX((0.0.1) (0.0.0	(	)
		(2,3)Academic Internship Abroad							MAX{(2,3,1),(2,3,2),(2,3,3)}	(	)
		(2,3,1)	<b>I</b> III II ''							(	)
331040	G·M	Overseas Internship (Short Term) M	Toru Fujiwara Satoru Iwasaki	2	3	3					
331025	G·M	Academic Internship Abroad M(S)	All Staff	4	6	6	(6)		1		
331041	G·M	Overseas Internship (Long Term) M	Toru Fujiwara Satoru Iwasaki	4	6	6					
001005	0.15	(2,3,3)	A11 CL	_	10	10	(10)			(	)
331027	$G \cdot M$	Academic Internship Abroad M(L)	All Staff	8	12	12	(12)				

Note)

1.  $\Sigma$ = 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. The class with \* is held twice a year. However, registration is limited according to the department. 3.

The class is not offered this year when the instructor's name field is blank. 4.

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 27 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

 With the classification column represents Major subjects, Grepresents Advanced Global Literacy Educational subjects, and GrW represents subjects with both Advanced Global Literacy Educational subjects, the credits will be included preferentially for Advanced Global Literacy Educational subjects is already fulfilled, the credits will be included for Major subjects.
 If you have acquired subjects with both Advanced Global Literacy Educational and Major 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 and Physical Sciences can be included for Requirements for Completion up to 2 credits for Advanced University. 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)」.

10. Only Humanware Innovation Program students can register subjects from 331036 to 331041.