	C12 ~ - : 6.	A completion requirements item name and subject name	Instructor	Unit	1st.G		our a week 2nd.	Grade	IInit maritiali e	Necessary lower limit units	
Code	Classific ation				Spring and	Fall and Winter Terms	Spring and Summer Terms	Fall and Winter Terms	Unit multiplication method		
		Total							1+2	30	
		1.Advanced Liberal Arts Educational subject 2.Major Subjects · Advanced Global Literacy		d list "	「高度教養教団	育科目リスト 	(情報ネットワ		(1)+(2)	28	
		(1)Core Subjects							(1,1)+(1,2)+(1,3)	22	
331521	M	(1,1)Core Subjects (Required) Research on Information Netwoking Ia	All Staff	2	6				Σ	4	
331522	M	Research on Information Netwoking Ib	All Staff	2		6			(1 0 1) (1 0 0)		
		(1,2)Core Subjects (Required Elective) (1,2,1)Required Elective Subjects 1							Σ $(1,2,1)+(1,2,2)$ Σ	2	
331514	M	Exercises on Information Networking I	All Staff	2	4						
331527	M	Exercises on Information Security I	Morito Matsuoka Yuki Koizumi	2	2	2					
001027	IVI	Exercises on information Security 1	Naoto Yanai (Shingo Okamura)		2	2					
		(1,2,2)Required Elective Subjects 2							Σ	2	
331515	M	Exercises on Information Networking II	All Staff Morito Matsuoka	2		4					
331528	M	Exercises on Information Security II	Yuki Koizumi	2	2	2					
001020	111	Daciologo on illiorination security if	Naoto Yanai (Shingo Okamura)	_							
		(1,3)Core Subjects (Elective)							Σ	0	
			(Nobuyuki Shibano) (Hideharu Nakajima)						\setminus		
		Special Lectures on Information Science &	(Hiroaki Sugiyama) (Masakazu Ishihata)								
331003	M	Technology I	(Takashi Hattori)	2	2						
			(Masaya Hirashima) (Hiroshi Ban)								
			(Yasushi Naruse)								
									\		
001004	1. /r	Special Lectures on Information Science &	(Toshiyuki Kano)	0							
331004	M	Technology II	(Norihiko Taya)	2		2			\		
									\		
331501	M	Information Notwork Design		2							
331301	M	Information Network Design		2							
331502	M	Multimedia Network	Morito Matsuoka Shin-ichi Arakawa	2		2			\		
331503	M	Information Network Architecture	Takashi Watanabe	2	2				\		
991909	IVI	Imormation Network Architecture	Shunsuke Saruwatari	2	2						
331504	M	Network Software		2					\		
			Touru Hasegawa Shuichi Yoshino						\	\	
331506	M	Information Sharing Platform	Norihito Yasuda	2		2					
			Yasue Kishino								
331507		Mobile Computing	Teruo Higashino Hirozumi Yamaguchi	2	2						
331508 331509		Mobile Communication Protocols Gigabit Network	Masayuki Murata	2		2					
331510		High-Speed Network Architecture	Masayuki Murata	2		2					
001#11	M	Economics of Information Network	Teruo Higashino	0	2					\	
331511	M	Economics of Information Network	Hirozumi Yamaguchi (Keita Arai)	2	2					\	
331512 331513		Seminar on Information Networking I Seminar on Information Networking II	All Staff All Staff	$\frac{2}{2}$	2	2					
331520 331523	M	Information Sharing Network Design Research on Information Netwoking IIa	All Staff	2 2			6			\	
331524		Research on Information Netwoking IIb Advanced Introduction to Information	All Staff	2				6		/	\
331525	M	Networking	All Staff	2		2					
			N. 1 · N								
			Masayuki Murata Takashi Watanabe								
			Toru Hasegawa Teruo Higashino								
001 200	1. /r		Morito Matsuoka	0	0						
331526	M	Internship on Information Networking	Shin-ichi Arakawa Shunsuke Saruwatari	2	3	3					
			Yuki Koizumi Hirozumi Yamaguchi								\
			Akira Uchiyama Takuya Fujihashi								\
			Takuya Fujiiiasiii								
		(2)Elective subject							(2,1)+(2,2)+(2,3)	0	
		(2,1)Inter-disciplinary Subjects	Chaffe ef 1						Σ.	0	
			Staffs of dept. of Information Systems								
331005	M	Informartion Technology and Ethics	Engineering Staffs of dept. of	2	2						
			Multimedia Engineering								
991000	CAN	English Duscontation Cl.:11	(Michio Nakanishi)	0	*0	*0					
		English Presentation Skills The Foundation of Intellectual Property	Bettina Wutzl (Shuichi Mukai)	2	*2	*2					
331014		(Focusing on Computer Science)	(Tsuyoshi Masuda) Others	2		2					
331030	M	Innovation Management	Minoru Eto	2	2						
331135		Topics in Frontiers of Mathematics	Yuko Sasahara Masaaki Wada	2		2					
331208		Advanced Statistical Analysis	Hiroshi Morita	2		2					
331222	1 1/1	Advanced Introduction to Information Pysical Science	All staff of dept. of Information and Physical	2	2						
331307	M	Algorithm Design	Sciences Toshimitsu Masuzawa	2	<u> </u>	2					
331308		Theory of Distributed System Software		2							
	M	Theory of Software Design	Shinji Kusumoto Yoshiki Higo	2	2						
331319		+	_		1	1			\		
	M	Fundamentals of Computer Science	All staff of dept. of	2	2				\		
331319	M	Fundamentals of Computer Science	Computer Science	2	2						
331319		Fundamentals of Computer Science Embedded System Design	<u> </u>	2	2						

Departn	nent of In	nformation Networking	Г		1	01 11			1	<u> </u>	ī
	Clearit.	A completion requirements item remains			School h 1st.Grade		nour a week 2nd.Grade		Init multiplicati	-	Necessary
Code	Classific ation	A completion requirements item name and subject name	Instructor	Unit		Fall and Winter	Spring and Summer	Fall and Winter	Unit multiplication method	-	lower limit units
	2.5			_	Terms	Terms	Terms	Terms	,	units	units
331408	M	Concurrent Systems	Tatsuhiro Tsuchiya	2					-		
331420	M	Dependable Systems	Hiroyuki Nakagawa	2	2						
331635	M	Big Data Engineering		2					-		
331636	M	Big Data Analytics	Makoto Onizuka Yuya Sasaki	2	2				\		
331621	M	Information Security		2					} \		
331622	M	Content Security	Toru Fujiwara Atsuo Inomata Kenji Yasunaga	2	2						
331637	M	Robot Vision	Yasuyuki Matsushita	2		2] \		
331639	G·M	Studies on International Integrated Sciences	Leibnitz Kenji Ferdinand Peper Cruz Jason Paul Miranda	2	2						
331709	M	Human Information Processing	Taro Maeda	2		2] \		
331720	M	Bio-network Engineering	Naoki Wakamiya	2	2				\		
331721	M	Basic Theory of Bio-networks	Masaki Ogura	2					-		
331724		Introduction to Bioinformatic Engineering	All staff of dept. of Bioinformatic Engineering	2	2					1	
331732	11/1	Introduction to Integrated Biological and Information Engineering	Hiroshi Shimizu Fumio Matsuda Yoshinori Toya Nobuyuki Okahashi	2	2						
331031	М	Humanware Fundamentals I M	Takahiro Hara Kazufumi Hosoda Satoru Iwasaki MAHZOON HAMED Yuichi Sudo	2	2						
331032	M	Humanware Fundamentals II M	Takahiro Hara Satoru Iwasaki Yusuke Ogura Ittetsu Taniguchi Shin-ichi Arakawa Kenji Yasunaga Nobuyuki Okahashi Yuichi Sudo Kazufumi Hosoda	2		2					
331033	M	Humanware Innovation Creation M	Masanori Hashimoto Takahiro Hara Kazufumi Hosoda	2		2					1
331034	M		Hiroshi Shimizu MAHZOON HAMED Ittetsu Taniguchi Shin-ichi Arakawa Satoru Iwasaki Kazufumi Hosoda	2	1	1					
331035	M	Humanware Innovation Introduction M	Tatsuhiro Tsuchiya	2	1	1			1		
			Naoki Wakamiya	<u> </u>	+	<u> </u>	-	-	4		
331036	M	Humanware Communication M	Yusuke Ogura Takahiro Hara Kazufumi Hosoda	2			1	1			
331037	M	Humanware Laboratory Rotation M	Fumihiko Ino Hiroshi Shimizu	2	1	1					
331038	M		Naoki Wakamiya Kenji Yasunaga Satoru Iwasaki	2	3	3					
331039	М	Internship (Long Term) M	Naoki Wakamiya Kenji Yasunaga Satoru Iwasaki	4	6	6					
		(2,2)Others								0	
		(2,3)Academic Internship Abroad (2,3,1)							MAX{(2,3,1),(2,3,2),(2,3,3)}	0	
331040	G·M	Oversees Internship (Short Term) M	Naoki Wakamiya Satoru Iwasaki	2	3	3					
331025	G·M	(2,3,2)	All Staff	4	6	6	(%6)				
331025		Academic Internship Abroad M(S) Overseas Internship (Long Term) M	Naoki Wakamiya Satoru Iwasaki	4	6	6	(%0)				
331027	G·M	(2,3,3) Academic Internship Abroad M(L)	All Staff	8	12	12	(※12)			0	
Note1)						<u> </u>	/		•		

- 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 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 Liberal

Educational subjects. If 1 credit of Advanced Global Literacy Educational subjects is already fulfilled, the credits will be included for Major subjects.

- Arts Educational and Major subjects' characteristics. 8. If you have acquired subjects with both Advanced Liberal Arts Educational and Major subjects' characteristics, the credits will be included preferentially for Advanced Global Literacy
- 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 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 331037 to 331041.

Note2)

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