Department of Information Networking

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	Necessary lower 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(情報ネットワーク学専攻)」")							(1)	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	
331521	M	Research on Information Netwoking Ia	All Staff	2	6						
331522	M	Research on Information Netwoking Ib	All Staff	2		6					
		(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	M	Exercises on Information Security I	Morito Matsuoka Yuki Koizumi 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	M	Exercises on Information Security II	Morito Matsuoka Yuki Koizumi Naoto Yanai (Shingo Okamura)	2	2	2					
		(1,3)Core Subjects（Elective）							Σ	0	
331003	M	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	M	Special Lectures on Information Science & Technology II	(Toshiyuki Kano) (Norihiko Taya)	2		2					
331501	M	Information Network Design	Morito Matsuoka Shin-ichi Arakawa	2	2						
331502	M	Multimedia Network		2							
331503	M	Information Network Architecture		2							
331504	M	Network Software	Takashi Watanabe Shunsuke Saruwatari	2		2					
331506	M	Information Sharing Platform		2							
331507	M	Mobile Computing		2							
331508	M	Mobile Communication Protocols	Hirozumi Yamaguchi	2		2					
331509	M	Gigabit Network		2							
331510	M	High-Speed Network Architecture	Masayuki Murata Tomoki Yoshihisa	2	2						
331511	M	Economics of Information Network	Hirozumi Yamaguchi (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	M	Information Sharing Network Design	Toru Hasegawa Shuichi Yoshino Norihito Yasuda Yasue Kishino	2	2						
331523	M	Research on Information Netwoking IIa	All Staff	2			6				
331524	M	Research on Information Netwoking IIb	All Staff	2				6			
331525	M	Advanced Introduction to Information Networking	All Staff	2		2					
331526	M	Internship on Information Networking	Masayuki Murata Takashi Watanabe Toru Hasegawa Morito Matsuoka Shin-ichi Arakawa Shunsuke Saruwatari Yuki Koizumi Hirozumi Yamaguchi Tomoki Yoshihisa Akira Uchiyama Takuya Fujihashi	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 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) Others	2		2					
331030	M	Innovation Management	Minoru Eto Yuko Sasahara	2	2						
331135	M	Topics in Frontiers of Mathematics	Masaaki Wada	2		2					
331208	M	Advanced Statistical Analysis	Hiroshi Morita	2		2					
331222	M	Advanced Introduction to Information Pysical Science	All staff of dept. of Information and Physical Sciences	2	2						
331307	M	Algorithm Design		2							
331308	M	Theory of Distributed System Software	Toshimitsu Masuzawa Taisuke Izumi	2		2					
331319	M	Theory of Software Design	Shinji Kusumoto Yoshiki Higo	2	2						
331325	M	Fundamentals of Computer Science	All staff of dept. of Computer Science	2	2						
331427	M	Embedded System Design		2							
331402	M	Introduction to VLSI Design		2							
331408	M	Concurrent Systems	Tatsuhiro Tsuchiya Hiroyuki Nakagawa	2	2						
331420	M	Dependable Systems		2							

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331635	M	Big Data Engineering	Makoto Onizuka Chuan Xiao	2	2						
331636	M	Big Data Analytics		2							
331621	M	Information Security	Toru Fujiwara Atsuo Inomata Kenji Yasunaga	2	2						
331622	M	Content Security		2							
331637	M	Robot Vision		2							
331639	G・M	Studies on International Integrated Sciences	Leibnitz Kenji Ferdinand Peper Cruz Jason Paul Miranda	2	2						
331709	M	Human Information Processing		2							
331720	M	Bio-network Engineering		2							
331721	M	Basic Theory of Bio-networks	Naoki Wakamiya Masaki Ogura	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 Yoshinori Toya Nobuyuki Okahashi	2	2						
331031	M	Humanware Fundamentals I M	MAHZOON HAMED Satoru Iwasaki Taisuke Izumi Hiroshi Shimizu Takahiro Hara	2	2						
331032	M	Humanware Fundamentals II M	Satoru Iwasaki Taisuke Izumi Yusuke Ogura Ittetsu Taniguchi Shin-ichi Arakawa Kenji Yasunaga Nobuyuki Okahashi Takahiro Hara	2			2				
331033	M	Humanware Innovation Creation M	Toshimitsu Masuzawa Takahiro Hara Shigeru Kondo Hiroshi Ishiguro	2			2				
331034	M	Humanware Seminar M	Nobuyuki Okahashi Ittetsu Taniguchi Fumihiko Ino MAHZOON HAMED Shin-ichi Arakawa Satoru Iwasaki Hiroshi Shimizu	2	1	1					
331035	M	Humanware Innovation Introduction M	Tatsuhiro Tsuchiya Naoki Wakamiya	2	1	1					
331036	M	Humanware Communication M	Yusuke Ogura Shin-ichi Arakawa Takahiro Hara	2			1	1			
331037	M	Humanware Laboratory Rotation M	Fumihiko Ino Hiroshi Shimizu	2	1	1					
331038	M	Internship (Short Term) M	Kenji Yasunaga Naoki Wakamiya Satoru Iwasaki	2	3	3					
331039	M	Internship (Long Term) M	Kenji Yasunaga 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	Overseas Internship (Short Term) M	Toru Fujiwara Satoru Iwasaki	2	3	3					
		(2,3,2)									
331025	G・M	Academic Internship Abroad M(S)	All Staff	4	6	6	(※6)				
331041	G・M	Overseas Internship (Long Term) M	Toru Fujiwara Satoru Iwasaki	4	6	6					
		(2,3,3)								0	
331027	G・M	Academic Internship Abroad M(L)	All Staff	8	12	12	(※12)				

Note1)
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 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 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 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.