					School ho			Grade	┥	Necessary	_
Code	Classific	A completion requirements item name and	Instructor	Unit	Spring and	Fall and	2nd.Grade Spring and Fall and		Unit multiplication	Necessary	Upper
	ation	subject name			Summer Terms	Winter Terms	Summer Terms	Winter Terms	method	limit units	limit uni
		Total			Terms	Terms	rerms	ierms	1+2	30	
		1.Advanced Liberal Arts Educational subjects	(solvet from the attached	liet "[E	三亩粉美粉岩	5利.日11フト <i>(</i> 桂	却システム	工学重政)」	112	2	
		2.Major Subjects Advanced Global Literacy E		IISt F	可反软拨铁	I AT D J A I (IE	1和ノハノム.	工于导致门。	(1)+(2)	28	
			ducational subjects						(1,1)+(1,2)+(1,3)	22	
		(1)Core Subjects (1,1)Core Subjects(Required)							(1,1)+(1,2)+(1,3)	4	
		Research on Information Systems		<u> </u>	_					4	
331421	M	Engineering Ia	All Staff	2	6					_	
331422	M	Research on Information Systems Engineering 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	
331413	M	Exercises on Information Systems Engineering I	All Staff	2	4						l
		Exercises on Information Systems		1	-				_		
331414	M	Engineering II	All Staff	2		4					
		(1,2,2)Required Elective Subjects 2								0	
331426	М	Introduction to Exercises on Information Engineering for Interactive Creation A	Taro Maeda Haruo Takemura Toru Fujiwara (Yuki Uranishi) (Susumu Date) (Yuichi Ito)	4	4	4					
		(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	M	Special Lectures on Information Science & Technology II	(Toshiyuki Kano) (Norihiko Taya)	2		2					
331427	M	Embedded System Design		2					\		
331402	M	Introduction to VLSI Design		2					\		
331404	M	Computer-Aided System-on-a-Chip Design		2					\		
331408	M	Concurrent Systems		2					\		
331428	M	Advanced Computing Systems		2					\ \		
331429	M	Advanced Information Systems	Noriyuki Miura	2	2				\ \		
331409	М	System Interface Design	Jun Shiomi Haruo Takemura Yuki Uranishi	2	2				\		
331410	М	Design Methodology of Advanced Information Systems	Takao Onoye Ittetsu Taniguchi Norio Ito Kimihiko Imamura Shohei Yamada	2		2			`		
331411	G · M	Seminar on Information Systems	All Staff	2	2					\	
	○ 1¥1	Engineering I				1	<u> </u>			\	
331412	M	Seminar on Information Systems Engineering II	All Staff	2		2				\	
331419	М	Integrated System Architecture and Synthesis	Takao Onoye Ittetsu Taniguchi Norio Ito Kimihiko Imamura Shohei Yamada	2	2					\	\
331420	M	Dependable Systems	Tatsuhiro Tsuchiya Hiroyuki Nakagawa	2	2						
331423	М	Research on Information Systems Engineering IIa	All Staff	2			6				\
331424	M	Research on Information Systems Engineering IIb	All Staff All Staff	2				6			\
331425	M	Internship on Information Systems Engineering	(Except Collaborative Division)	2	3	3					\
331430	M	Introduction to Reliable Integrated System Design		0.5							
		(2)Elective subject		ĺ					(2,1)+(2,2)+(2,3)		
		(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) & Other	2		2					
331030	М	Innovation Management	Minoru Eto Yuko Sasahara	2	2						

Department of Information Systems Engineering Necessary Classific Unit multiplication A completion requirements item name and Upper Code Instructor Unit Spring and Fall and Spring and Fall and lower ation subject name method limit units limit units 331203 Μ Computational Informatics Takayuki Wada 2 331204 \mathbf{M} Mathematical Programming Yutaro Yamaguchi 2 2 All staff of dept. of Advenced Introduction to Information 331222 Μ Information and 2 2 Physical Scienc Jyun Tanida Kenji Taima 331226 Introduction to Smart Contracts 2 Hiroshi Noguchi Kayo Yoshimoto Toshimitsu Masuzawa 331307 Algorithm Design 2 Taisuke Izumi 331308 \mathbf{M} Theory of Distributed System Software 2 All staff of dept. of 331325 2 M Fundamentals of Computer Science 2 Computer Science Hajime Nagahara 2 331338 Μ Computational Phogography 2 Tomoya Nakamura Takashi Watanabe 331503 Information Network Architecture 2 Shunsuke Saruwatari Hirozumi Yamaguchi 331507 Μ Mobile Computing 2 2 Akira Uchiyama 331508 Μ Mobile Communication Protocols 2 Hirozumi Yamaguchi 331511 Μ Economics of Information Network 2 2 (Keita Arai) All staff of dept. of Advanced Introduction to Information 331525 2 2 Information Networking Shinji Shimojo Susumu Date 331601 M Architecture for Multimedia Systems 2 2 Kazuhide Kojima Yoshiyuki Kido 331635 M Big Data Engineering 2 Makoto Onizuka 331636 Big Data Analytics 2 Chuan Xiao 331621 2 Μ Information Security Leibnitz Kenji Ferdinand Peper 331639 $G \cdot M$ Studies on International Integrated Sciences 2 2 Cruz Jason Paul 331637 Μ Yasuyuki Matsushita 2 Robot Vision 2 331701 Μ Bio-database Engineering 2 Taro Maeda 331709 2 2 Human Information Processing Masahiro Frukawa Naoki Wakamiya 331720 M Bio-network Engineering 2 Masaki Ogura All staff of dept. of 331724 Μ Introduction to Bioinformatic Engineering Bioinformatic 2 2 Engineering Hiroshi Shimizu Introduction to Integrated Biological and Fumio Matsuda 331732 M 2 2 Yoshihiro Toya Nobuyuki Okahashi Information Engineering MAHZOON HAMED Satoru Iwasaki Taisuke Izumi 331031 Μ Humanware Fundamentals I M 2 Hiroshi Shimizu Takahiro Hara Satoru Iwasaki Taisuke Izumi Suguru Shimomura Ittetsu Taniguchi 331032 Μ Humanware Fundamentals II M 2 2 Shin-ichi Arakawa Takuya Maekawa Nobuyuki Okahashi Takahiro Hara Toshimitsu Masuzawa 331033 Μ Humanware Innovation Creation M 2 2 Shigeru Kondo Hiroshi Ishiguro Ittetsu Taniguchi Nobuyuki Okahashi Fumihiko Ino 331034 2 Μ Humanware Seminar M 1 1 MAHZOON HAMED Satoru Iwasaki Hiroshi Shimizu

Department of Information Systems Engineering

Code	Classific ation	A completion requirements item name and subject name	Instructor	Unit	School hour a week 1st.Grade 2nd.Grade						
					Spring and Summer Terms	Fall and Winter Terms	Spring and Summer Terms	Fall and Winter Terms	Unit multiplication method	Necessary lower limit units	limit unite
331035	M	Humanware Innovation Introduction M	Tatsuhiro Tsuchiya Naoki Wakamiya	2	1	1					
331036	M	Humanware Communication M	Shin-ichi Arakawa Suguru Shimomura Takahiro Hara	2			1	1			
331037	M	Humanware Laboratory Rotation M	Fumihiko Ino	2	1	1					/
331038	M	Internship (Short Term) M	Takuya Maekawa Naoki Wakamiya Satoru Iwasaki	2	3	3					\
331039	M	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	Overseas Internship (Short Term) M	Toru Fujiwara 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	Overseas Internship (Long Term) M	Toru Fujiwara 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
- AAX= 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.
- 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
- 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.
 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, it 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 Systems Engineering 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(情報システム工学専攻)」「高度国際性涵養教育科目リスト(情報システム工学専攻)」 10. Only Humanware Innovation Program students can register subjects from 331037 to 331041.