

## 2.5. Course List of Information Systems Science Major

### 2.5.1. Master's Program (For students entering in 2019 and after)

Code	Course Title	Credits	Year	Available Year	Semester	Class instructors	Remark
<b>○Elective Course (14 credits or more)</b>							
<Mathematical Informatics System Field>							
INFO500	Information Mathematical Science A	2	1・2	Even	Spring	KITANO Teruaki	
INFO501	Information Mathematical Science B	2	1・2	Odd	Spring	KITANO Teruaki	
INFO502	Information Mathematical Science C	2	1・2	Even	Fall	YAMAGAMI Atsushi	
INFO503	Information Mathematical Science D	2	1・2	Odd	Fall	YAMAGAMI Atsushi	
INFO504	Design and Analysis of Algorithms A	2	1・2	Annually	Spring	Kiyoko F. KINOSHITA	*ET
INFO505	Design and Analysis of Algorithms B	2	1・2	Annually	Fall	UNEMI Tatsuo	*ET
INFO506	Mathematical Models in Computer Science A	2	1・2	Even	Fall	KOBAYASHI Yukio	
INFO507	Mathematical Models in Computer Science B	2	1・2	Odd	Fall	KOBAYASHI Yukio	
INFO508	Applied Multivariate Analysis A	2	1・2	Even	Spring	SAKABE Soichi	
INFO509	Applied Multivariate Analysis B	2	1・2	Odd	Spring	SAKABE Soichi	
INFO539	Lectures in Emergent Systems	2	1・2	Annually	Fall	SAKIYAMA Tomoko	*ET(O)
INFO540	Special Lecture on Mathematical Sciences	2	1・2	Annually	集中	KITANO Teruaki	
<Information Processing System Field>							
INFO510	Advanced Networking	2	1・2	Odd	Fall	SHINOMIYA Norihiko	*ET
INFO511	Information Network Design	2	1・2	Even	Spring	SHINOMIYA Norihiko	
INFO514	Intelligent Systems A	2	1・2	Annually	Spring	UNEMI Tatsuo	*ET(E)
INFO515	Intelligent Systems B	2	1・2	Annually	Fall	ATSUMI Masayasu	*ET(O)
INFO537	Computer Security A	2	1・2	Even	Fall	KANEKO Tomoko	*ET
INFO538	Computer Security B	2	1・2	Odd	Fall	KANEKO Tomoko	*ET
INFO534	Wireless Network Design	2	1・2	Annually	Spring	TERASHIMA Yoshiaki	
INFO535	Intelligent Systems	2	1・2	Even	Fall	KASAMATSU Daisuke	*ET
<Communication and Control System Field>							
INFO516	Robotics	2	1・2	Odd	Spring	Yongwoon Choi	
INFO517	Opt-Electronics	2	1・2	Annually	Fall	NISHIYAMA Michiko	*ET(E)
INFO518	Measurement Systems and Instruments	2	1・2	Annually	Spring	HAGIWARA Yoshinobu	*ET(E)
INFO519	Scientific Visualization	2	1・2	Even	Fall	ISHII Yoshio	
INFO520	Non-Linear Systems (Complex System)	2	1・2	Odd	Fall	ISHII Yoshio	
INFO521	Image processing technology	2	1・2	Annually	Fall	SHISHIDO Hidehiko	*ET
INFO522	Advances in Digital Signal Analysis	2	1・2	Even	Fall	IMAMURA Hiroki	*ET
INFO523	Digital System Design Based on FPGA and HDL	2	1・2	Odd	Fall	IYOTA Taketoshi	
INFO524	Mechanism and Implementation of A Real Time OS	2	1・2	Even	Fall	IYOTA Taketoshi	
INFO525	Advances in Computer Graphics	2	1・2	Odd	Fall	IMAMURA Hiroki	*ET
INFO526	System Control Theory	2	1・2	Annually	Spring	ISHII Yoshio	
INFO533	Advanced Laser Engineering	2	1・2	Annually	Fall	KUBODERA Shoichi	
<Common Courses>							
INFO528	Presentation Skills 1	2	1・2	Annually	Spring	UNEMI Tatsuo Colin Rundle	
INFO529	Presentation Skills 2	2	1・2	Annually	Fall	UNEMI Tatsuo Colin Rundle	
INFO530	Technical Writing Skills 1	2	1・2	Annually	Spring	UNEMI Tatsuo Colin Rundle	
INFO531	Technical Writing Skills 2	2	1・2	Annually	Fall	UNEMI Tatsuo Colin Rundle	
INFO550	Special Lectures: Intellectual Property	2	1・2	Annually	Spring	UNEMI Tatsuo TERASHIMA Yoshiaki	
INFO551	Special Lectures: Technology and Entrepreneur	2	1・2	Annually	Fall	Yongwoon Choi	
INFO532	Internship in Graduate Course	2	1・2	Annually	Sp/Fall	IMAMURA Hiroki	
<b>○Required Courses (17 credits) *16 credits are required for students entering in 2019-2021, excluding "Research Ethics"</b>							
INFO570	Research Ethics	1	1	Annually	Spring	KAWAI Hideki IYOTA Taketoshi	*ET *1
INFO600	Advanced Seminar in Information Systems 1	2	1	Annually	Sp/Fall	Each Supervisor	
INFO601	Advanced Seminar in Information Systems 2	2	1	Annually	Sp/Fall	Each Supervisor	
INFO602	Advanced Seminar in Information Systems 3	2	2	Annually	Sp/Fall	Each Supervisor	
INFO603	Advanced Seminar in Information Systems 4	2	2	Annually	Sp/Fall	Each Supervisor	
INFO604	Advanced Research in Information Systems 1	2	1	Annually	Sp/Fall	Each Supervisor	
INFO605	Advanced Research in Information Systems 2	2	1	Annually	Sp/Fall	Each Supervisor	
INFO606	Advanced Research in Information Systems 3	2	2	Annually	Sp/Fall	Each Supervisor	
INFO607	Advanced Research in Information Systems 4	2	2	Annually	Sp/Fall	Each Supervisor	

\*1: Research Ethics [INFO570] is a course offered for students entering in 2022; students in 2019-2021 are not required to take this course.

※The "\*ET" in the Remarks indicates that the course is an English Track course; an "E" or "O" after "ET" indicates that the course is offered as an English Track course in an even or odd year in the Western calendar. Courses with "\*ET" may be offered in Japanese if there are no students enrolled in the English Track.

## 2.5.2. Doctoral Program (For students entering in 2019 and after)

Code	Course Title	Credits	Year	Available Year	Semester	Class instructors	Remark
○必修科目 (12 科目 24 単位)							
INFO700	Advanced Seminar in Information Systems 5	2	1	Annually	Sp/Fall	Each Supervisor	
INFO701	Advanced Seminar in Information Systems 6	2	1	Annually	Sp/Fall	Each Supervisor	
INFO702	Advanced Seminar in Information Systems 7	2	2	Annually	Sp/Fall	Each Supervisor	
INFO703	Advanced Seminar in Information Systems 8	2	2	Annually	Sp/Fall	Each Supervisor	
INFO704	Advanced Seminar in Information Systems 9	2	3	Annually	Sp/Fall	Each Supervisor	
INFO705	Advanced Seminar in Information Systems 10	2	3	Annually	Sp/Fall	Each Supervisor	
INFO706	Advanced Research in Information Systems 5	2	1	Annually	Sp/Fall	Each Supervisor	
INFO707	Advanced Research in Information Systems 6	2	1	Annually	Sp/Fall	Each Supervisor	
INFO708	Advanced Research in Information Systems 7	2	2	Annually	Sp/Fall	Each Supervisor	
INFO709	Advanced Research in Information Systems 8	2	2	Annually	Sp/Fall	Each Supervisor	
INFO710	Advanced Research in Information Systems 9	2	3	Annually	Sp/Fall	Each Supervisor	
INFO711	Advanced Research in Information Systems 10	2	3	Annually	Sp/Fall	Each Supervisor	

## 2.6. Instructors teaching research guidance courses

Field	Name	Remark
Mathematical Informatics System	Professor KITANO Teruaki	
	Professor SAKABE Soichi	
	Professor KOBAYASHI Yukio	Master's Program Only
	Professor YAMAGAMI Atsushi	Master's Program Only
	Associate professor SAKIYAMA Tomoko	
Information Processing System	Professor UNEMI Tatsuo	
	Professor ATSUMI Masayasu	
	Professor SHINOMIY Norihiko	
	Professor TERASHIMA Yoshiaki	
	Professor KANEKO Tomoko	
	Associate professor KASAMATSU Daisuke	Master's Program Only
	Associate professor HAGIWARA Yoshinobu	Master's Program Only
Communication and Control System	Associate professor ISHII Yoshio	
	Professor Yongwoon Choi	
	Associate professor IYOTA Taketoshi	Master's Program Only
	Professor IMAMURA Hiroki	
	Professor KUBODERA Shoichi	
	Associate professor NISHIYAMA Michiko	
	Associate professor SHISHIDO Hidehiko	