

DOGUS UNIVERSITY
MS IN COMPUTER AND INFORMATION SCIENCES CURRICULUM

COMPULSARY COURSES															
FALL							SPRING								
Course Code	Title	T	P	L	Cr.	ECTS	Prereq.	Course Code	Title	T	P	L	Cr.	ECTS	Prereq.
CIS 601	Theory of Computing	3	0	0	3	10		CIS 670	Advanced Data Structures and Algorithms	3	0	0	3	10	
CIS 597	Graduate Seminar	0	1	0	0	0		CIS 598	Term Project**	0	1	0	0	20	
CIS 599	Graduate Thesis***	0	6	0	0	50									

OPTIONAL COMPULSORY FIELD COURSES															
FALL							SPRING								
Course Code	Title	T	P	L	Cr.	ECTS	Prereq.	Course Code	Title	T	P	L	Cr.	ECTS	Prereq.
CIS 501	System Theory I	3	0	0	3	10		CIS 630	Compiler Systems Theory	3	0	0	3	10	
CIS 557	Object Oriented Design and Applications	3	0	0	3	10		CIS 590	Computer Graphics and Visualization	3	0	0	3	10	
CIS 640	Computer Networks	3	0	0	3	10		CIS 610	Parallel Computer Organization	3	0	0	3	10	
CIS 650	Artificial Intelligence Systems	3	0	0	3	10		CIS 620	Operating Systems Theory	3	0	0	3	10	
CIS 660	Distributed and Parallel Databases	3	0	0	3	10									

ELECTIVE FIELD COURSES															
COMPUTER SOFTWARE															
FALL							SPRING								
Course Code	Title	T	P	L	Cr.	ECTS	Prereq.	Course Code	Title	T	P	L	Cr.	ECTS	Prereq.
CIS 615	User Interface Design	3	0	0	3	10		CIS 522	Internet, Intranet and Applications	3	0	0	3	10	
CIS 616	Advanced Software Engineering	3	0	0	3	10		CIS 562	Systems Modeling and Simulation	3	0	0	3	10	

COMPUTER HARDWARE															
FALL							SPRING								
Course Code	Title	T	P	L	Cr.	ECTS	Prereq.	Course Code	Title	T	P	L	Cr.	ECTS	Prereq.
CIS 541	Sequential Logic Circuits	3	0	0	3	10		CIS 506	Computer Based Data Acquisition	3	0	0	3	10	
CIS 551	Computer Controlled Systems	3	0	0	3	10		CIS 680	Multimedia Systems and Applications	3	0	0	3	10	

COMPUTER SCIENCES															
FALL							SPRING								
Course Code	Title	T	P	L	Cr.	ECTS	Prereq.	Course Code	Title	T	P	L	Cr.	ECTS	Prereq.
CIS 503	Discrete-Event Systems Theory and	3	0	0	3	10		CIS 502	Systems Theory II	3	0	0	3	10	
CIS 505	Fuzzy System Theory and Applications	3	0	0	3	10		CIS 552	Adaptive Systems Theory and Applications	3	0	0	3	10	
CIS 537	Image Processing and Applications	3	0	0	3	10		CIS 554	Optimal Control Theory	3	0	0	3	10	
CIS 555	Neural Computation and Neural Networks	3	0	0	3	10		CIS 556	Optimal Estimation Theory and Applications	3	0	0	3	10	
CIS 559	Wavelet Theory and Applications	3	0	0	3	10		CIS 558	Optimization Theory and Applications	3	0	0	3	10	
CIS 618	Data Mining	3	0	0	3	10		CIS 560	System Identification Theory and Applications	3	0	0	3	10	
CIS 528	Introduction to Text Mining	3	0	0	3	10		CIS 564	Advanced Process Control System	3	0	0	3	10	
CIS 538	Web Search and Mining	3	0	0	3	10		CIS 548	Social Network Analysis	3	0	0	3	10	
CIS 565	Introduction to Bioinformatics	3	0	0	3	10									

	Thesis		Non-Thesis	
	Cr	ECTS	Cr	ECTS
Total Credit for Compulsory Courses	9	30	9	30
Total Credit for Elective Courses	12	40	21	70
Thesis/Project	0	50	0	20
Total Credit for graduation	21	120	30	120

PREPARATORY PROGRAM															
FALL							SPRING								
Course Code	Title	T	P	L	Cr.	ECTS	Prereq.	Course Code	Title	T	P	L	Cr.	ECTS	Prereq.
COME 207	Advanced Object Oriented Programming	2	0	2	0	6		COME 218	Data Structures and Algorithms	2	0	2	0	6	
								COME 226	Computer Organization and Architecture	2	0	2	0	6	

** Students are charged for 1 credit
 *** Students are charged for 6 credits

Graduation Requirements

After completing the courses in the curriculum, to be successful and complete graduation thesis/project under the consultancy of an advisor and defend against a jury determined by the institute.