ÜSKÜDAR UNIVERSITY MASTER OF SCIENCE PROGRAM IN CYBER SECURITY (with THESIS)

COURSE LIST

1st Semester						
Course Code	**Course Name**	**T**	**P**	**C**	**ECTS**	**Mandatory / Elective**
CYS501	Cyber Systems and Information Security	3	0	3	8	Mandatory
CYS503	Introduction to Cryptography	3	0	3	8	Mandatory
CYS505	Network Security	3	0	3	8	Mandatory
	Elective Course-I	3	0	3	8	Elective
	Total	**12**	**0**	**12**	**32**	

2nd Semester						
Course Code	**Course Name**	**T**	**P**	**C**	**ECTS**	**Mandatory / Elective**
CYS502	Seminar	0	0	0	2	Mandatory
CYS500	Research Methods and Scientific Ethics	3	0	3	6	Mandatory
CYS504	Application Security	3	0	3	8	Mandatory
	Elective Course-II	3	0	3	8	Elective
	Elective Course-III	3	0	3	8	Elective
	Total	**12**	**0**	**12**	**32**	

3rd Semester						
Course Code	**Course Name**	**T**	**P**	**C**	**ECTS**	**Mandatory / Elective**
CYS595	Master's Thesis	0	0	0	30	Mandatory
	Total	**0**	**0**	**0**	**30**	

4th Semester						
Course Code	**Course Name**	**T**	**P**	**C**	**ECTS**	**Mandatory / Elective**
CYS595	Master's Thesis	0	0	0	30	Mandatory
	Total	**0**	**0**	**0**	**30**	
	TOTAL FOR GRADUATION	**24**	**0**	**24**	**124**	

ELECTIVE COURSES

Course Code	**Course Name**	**T**	**P**	**C**	**ECTS**	**Elective**
CYS506	Coding Theory	3	0	3	8	Elective
CYS507	Computer Forensics	3	0	3	8	Elective
CYS508	Cyber Attack Techniques	3	0	3	8	Elective
CYS509	Advanced Cryptography and Data Security	3	0	3	8	Elective
CYS510	Wireless and Mobile Security	3	0	3	8	Elective
CYS511	The Legal Dimensions of Cyber Security	3	0	3	8	Elective
CYS512	Biometric Systems and Authentication	3	0	3	8	Elective
CYS513	Cryptocurrency Technologies	3	0	3	8	Elective
CYS514	Big Data Security and Privacy	3	0	3	8	Elective
CYS515	Intrusion Detection and Protection	3	0	3	8	Elective
CYS516	Malware Analysis and Detection	3	0	3	8	Elective

CYS517	Penetration Testing and Vulnerability Analysis	3	0	3	8	Elective
CYS518	Cybersecurity in Cloud Computing	3	0	3	8	Elective
CYS519	Secure Embedded Systems	3	0	3	8	Elective
CYS520	Special Topics in Cyber Security	3	0	3	8	Elective
CYS521	Cybersecurity for Industry 4.0: Analysis for Design and Manufacturing	3	0	3	8	Elective
CYS522	IoT Forensics and Security	3	0	3	8	Elective
CYS523	Linux Essentials for Cybersecurity	3	0	3	8	Elective
CYS524	AI in Cybersecurity	3	0	3	8	Elective
EEE514	Data Compression	3	0	3	8	Elective
EEE515	Digital Image Forensics	3	0	3	8	Elective
CYS527	Wireless Sensor Networks	3	0	3	8	Elective

PREREQUISITED COURSES FOR OTHER FIELDS

Course Code	Course Name	T	P	C	ECTS	Mandatory / Elective
COME 102	Introduction to Algorithms and Programming	2	2	3	4	Mandatory
COME 104	Discrete Mathematics	3	0	3	4	Mandatory
COME 205	Data Structures	2	2	3	5	Mandatory
COME 302	Operating Systems	3	0	3	5	Mandatory
COME305	Analysis of Algorithms	3	0	3	5	Mandatory
COME 413	Computer Networks	3	0	3	5	Mandatory