SABANCI UNIVERSITY - FACULTY OF ENGINEERING AND NATURAL SCIENCES

DATA SCIENCE AND ANALYTICS PROGRAM

RECOMMENDED COURSE PLAN

Year-1 Freshman Semester-1

Course Code	Course Name	Course Type	Prerequisite Courses	SU Credits	ECTS
MATH 101	Calculus I	University C.		3	6
NS 101	Science of Nature I	University C.		4	6
CIP 101N	Civic Involvement Projects I	University C.		0	1
HIST 191	Principles of Atatürk and the History of the	University C.		2	3
SPS 101	Humanity and Society I	University C.		3	6
TLL 101	Turkish Language and Literature I	University C.		2	3
IF 100	Computational Approaches to Problem Solv	University C.		3	5
			TERM TOTAL	**17**	**30**

Year-1 Freshman Semester-2

Course Code	Course Name	Course Type	Prerequisite Courses	SU Credits	ECTS
MATH 102	Calculus II	University C.	MATH 101	3	6
NS 102	Science of Nature II	University C.	NS 101	4	6
AL 102	Academic Literacies	University C.		3	5
HIST 192	Principles of Atatürk and the History of the	University C.	HIST 191	2	3
SPS 102	Humanity and Society II	University C.	SPS 101	3	6
TLL 102	Turkish Language and Literature II	University C.	TLL 101	2	3
			TERM TOTAL	**17**	**29**

Year-2 Sophomore Semester-3

Course Code	Course Name	Course Type	Prerequisite Courses	SU Credits	ECTS
*PROJ 201	*Undergraduate Project Course	University C.		1	1
HUM ...	Major Works of ...	University C.		3	5
DSA 201	Advanced Programming for Data Science	Required	IF 100	3	6
MATH 201	Linear Algebra	Required		3	6
MATH 203	Introduction to Probability	Required	MATH 102	3	6
CORE/AREA/FREE		Elective		3	6
			TERM TOTAL	**16**	**30**

Undergraduate Project Course (PROJ 201) may also be taken during freshman year.

Year-2 Sophomore Semester-4

Course Code	Course Name	Course Type	Prerequisite Courses	SU Credits	ECTS
DSA 210	Introduction to Data Science	Required	IF 100 & MATH 203	3	6
MATH 306	Statistical Modelling	Required	MATH 203	3	6
CORE/AREA/FREE		Elective		3	6
CORE/AREA/FREE		Elective		3	6
CORE/AREA/FREE		Elective		3	5
			TERM TOTAL	**15**	**29**

Year-3 Junior Semester-5

Course Code	Course Name	Course Type	Prerequisite Courses	SU Credits	ECTS
ECON 301	Econometrics	Required	MATH 306	3	7
OPIM 390	Introduction to Business Analytics	Required	MGMT 203 OR MATH 306	3	6
CORE/AREA/FREE		Elective		3	6
CORE/AREA/FREE		Elective		3	6
CORE/AREA/FREE		Elective		3	6
			TERM TOTAL	**15**	**31**

Year-3 Junior Semester-6

Course Code	Course Name	Course Type	Prerequisite Courses	SU Credits	ECTS
**DSA 301	**Data Visualization	Required	DSA 210 or CS210	3	6
SPS 303	Law and Ethics	University C.		3	5
CORE/AREA/FREE		Elective		3	6
CORE/AREA/FREE		Elective		3	6
CORE/AREA/FREE		Elective		3	5
			TERM TOTAL	**15**	**28**

**DSA 301 is only offered in Spring semesters.

Year-3 Junior SUMMER

Course Code	Course Name	Course Type	Prerequisite Courses	SU Credits	ECTS
DSA 395	Internship Project	Required	PROJ 201 & Junior Standing at the beginning of Spring semester	0	5
			TERM TOTAL	**0**	**5**

Year-4 Senior Semester-7

Course Code	Course Name	Course Type	Prerequisite Courses	SU Credits	ECTS
DSA 492	Graduation Project	Required	DSA 201 & (DSA 210 OR CS 210) & 91 credits	3	5
CS 412	Machine Learning	Required	MATH 201 & MATH 203	3	6
CORE/AREA/FREE		Elective		3	6
CORE/AREA/FREE		Elective		3	6
CORE/AREA/FREE		Elective		3	6
			TERM TOTAL	**15**	**29**

Year-4 Senior Semester-8

Course Code	Course Name	Course Type	Prerequisite Courses	SU Credits	ECTS
CORE/AREA/FREE		Elective		3	6
CORE/AREA/FREE		Elective		3	6
CORE/AREA/FREE		Elective		3	6
CORE/AREA/FREE		Elective		3	6
CORE/AREA/FREE		Elective		3	5
			TERM TOTAL	**15**	**29**