FIRST YEAR

First Semester			SU	ECTS
IF	100	Computational Approaches to Problem Solvi	3	5
MATH	101	Calculus I	3	6
NS	101	Science of Nature I	4	6
SPS	101	Humanity and Society I	3	6
TLL	101	Turkish Language and Literature I	2	3
HIST	191	Principles of Atatürk and the History of the T	2	3
CIP	101	Civic Involvement Projects I	0	1
		Total Credit	**17**	**30**

Second Semester			SU	ECTS
AL	102	Academic Literacies	3	5
MATH	102	Calculus II	3	6
NS	102	Science of Nature II	4	6
SPS	102	Humanity and Society II	3	6
TLL	102	Turkish Language and Literature II	2	3
HIST	192	Principles of Atatürk and the History of the Tur	2	3
		Total Credit	**17**	**29**

SECOND YEAR

Third Semester			SU	ECTS
DSA	**210**	**Introduction to Data Science**	3	6
PROJ	201	Undergraduate Project Course	1	1
ENS	205	Introduction to Materials Science	3	6
ENS	**202**	**Thermodynamics**	3	6
MATH	201 / 203	Linear Algebra / Introduction to Probability	3	6
ENS	204	Mechanics	3	6
		Total Credit	**16**	**31**

Fourth Semester			SU	ECTS
MATH	202	Differential Equations	3	6
MAT	**204**	**Electrical, Optical and Magnetic Proper**	3	6
NS	218	Fundamentals of Nanoscience	3	6
ENS	209	Introduction to Computer Aided Drafting and S	3	6
MAT	206	Kinetics of Materials	3	6
		Total Credit	**15**	**30**

THIRD YEAR

Fifth Semester			SU	ECTS
MAT	312	Materials Characterization	4	7
MAT	314	Mechanical Properties of Materials	3	5
CHEM	**405**	**Electrochemistry**	3	6
CHEM	**301**	**Inorganic Chemistry**	3	6
MAT	305	Polymer Engineering I	3	5
		Total Credit	**16**	**29**

Sixth Semester			SU	ECTS
HUM	20X	Major Works	3	5
MAT	306	Computational Techniques for Materials at the	3	5
MAT	307	Composite Materials	3	6
ENRG	**322**	**Battery Science and Engineering**	3	6
	Elective		3/4	6/7
		Total Credit	**15/16**	**28/29**

PROJ	**395**	**Internship Project**	**0**	**5**

FOURTH YEAR

Seventh Semester			SU	ECTS
SPS	303	Law and Ethics	3	5
ENS	491	Graduation Project (Design)	1	2
MAT	408	Introduction to Ceramics	3	5
ME	301	Mechanical Systems	3	6
ENRG	**424**	**Cell Design, Modelling and Battery Pack Development**	3	6
	Elective		3/4	6/7
		Total Credit	**16/17**	**30-31**

Eight Semester			SU	ECTS
ENS	492	Graduation Project (Implementation)	3	5
MAT	406	Nanoengineered Systems Fabrication	3	5
MAT	**405**	**Advanced Materials Characterization**	4	7
	Elective		3	5/6
	Elective		3/4	6/7
		Total Credit	**15/17**	**27/30**

Recommended electives:

IE 309	Manufacturing Processes
IE 402	Integrated Manufacturing Sys.
IE 416	Additive Manufacturing
MAT 402	Polymer Engineering II
ME 302	Mechanical Systems II
ME 303	Control System Design
ME 415	Comp. Analysis & Simulation

(at least two to complete track)