	Prerequisite	COURSE C.	COURSE NAME	Taken from	Compulsory or elective	T	A	L	ECTS
Mechanical Engineering Double Major Program for the Department of Materials Science and Engineering **Mechanical Engineering Double Major Program for Department of Metallurgical and Materials Engineering**								

	Prerequisite	COURSE C.	COURSE NAME	Taken from	Compulsory or elective	T	A	L	ECTS
1st YEAR FALL		CHE103	General Chemistry	Major	Compulsory	3	0	2	5
		MAT101	Calculus I	Major	Compulsory	3	2		7
		MSE115	Introduction to Materials Science Engineering	Major	Compulsory	2	0		4
		PHY101	Physics I	Major	Compulsory	3	0	2	7
		ENG110	English I	Major	Compulsory	2	0		3
		ATA101	Principles of Atatürk and Hist. of the Turkish Rev. I	Major	Compulsory	2	0		2
		TDE101	Turkish Language I	Major	Compulsory	2	0		2
			TOTAL SEMESTER ECTS						**30**
1st YEAR SPRING	MAT101	MAT102	Calculus II	Major	Compulsory	3	2		7
		MSE110	Computer Aided Engineering Graphics	Major	Compulsory	2	2		4
		MSE219	Statics and Strength of Materials	Major	Compulsory	3	0		5
		PHY102	Physics II	Major	Compulsory	3	0	2	7
		ENG111	English II	Major	Compulsory	2	0		3
		ATA102	Principles of Atatürk and Hist.of the Turkish Rev. II	Major	Compulsory	2	0		2
		TDE102	Turkish Language II	Major	Compulsory	2	0		2
			TOTAL SEMESTER ECTS						**30**
2nd YEAR FALL		COE201	Computer Programming and Applications	Major	Compulsory	2	2		4
		MSE211	Applied Engineering Mathematics	Major	Compulsory	3	0		5
		ME211	Computer Aided Engineering Drawing II	Double Major	Compulsory	2	2		5
		MSE215	Materials Science I	Major	Compulsory	3	0		6
		MSE213	Thermodynamics of Materials I	Major	Compulsory	3	0		5
		MSE317	Mechanical Behaviour of Materials	Major	Compulsory	3	0		5
			Non-Technical Elective I	Major	Elective	2	0		3
			TOTAL SEMESTER ECTS						**33**
2nd YEAR SPRING		ME212	Dynamics	Double Major	Compulsory	3	0		4
	MSE215	MSE216	Materials Science II	Major	Compulsory	3	0		6
		MSE222	Statistical Methods for Engineering	Major	Compulsory	3	0		5
		ME242	Thermodynamics II	Double Major	Compulsory	3	0		4
		ME252	Fundamentals of Electrical and Electronic Circuits	Double Major	Compulsory	3	0		4
		ME262	Strength of Materials II	Double Major	Compulsory	3	0		5
			Non-Technical Elective II	Major	Elective	2	0		3
			TOTAL SEMESTER ECTS						**31**
3rd YEAR FALL		ME311	Machine Elements I	Double Major	Compulsory	2	2		5
		ME321	Fluid Mechanics	Double Major	Compulsory	4	0		5
		ME331	Theory of Mechanisms	Double Major	Compulsory	3	0		4
		ME341	Numerical Methods in Engineering	Double Major	Compulsory	3	1		4
		ME351	Heat Transfer	Double Major	Compulsory	4	0		5
		MSE324	Materials Process Technologies	Major	Compulsory	3	0		5
			Non-Technical Elective III	Major	Elective	2	0		3
			TOTAL SEMESTER ECTS						**31**
3rd YEAR SPRING		ME300	Summer Practice I	Double Major	Compulsory	0	2		5
		ME312	Machine Elements II	Double Major	Compulsory	2	2		4
		ME322	Thermal&Fluid Engineering	Double Major	Compulsory	2	2		4
		ME332	Dynamics of Machinery	Double Major	Compulsory	3	0		3
		ME362	Manufacturing Engineering	Double Major	Compulsory	3	0		4
	MSE215	MSE312	Materials Laboratory	Major	Compulsory	2	0	4	5
		ME382	System Analysis and Control	Double Major	Compulsory	4	0		4
			Non-Technical Elective IV	Major	Elective	2	0		3
			TOTAL SEMESTER ECTS						**32**
4th YEAR FALL		ES411	Occupational Health and Safety I	Major	Compulsory	2	0		3
		MSE400	Summer Practice II	Major	Compulsory	0	2		5
		ENG4XX	Interdisciplinary Technical Elective Courses	Major or Double Major	Elective	0	2		6
		ME4XX	Departmental Elective (3 courses will be selected from ME4XX elective c.)	Double Major	Elective				18
			TOTAL SEMESTER ECTS						**32**
4th YEAR SPRING		ES412	Occupational Health and Safety II	Major	Compulsory	2	0		3
		ME4DE2	Design Elective Course (Group B)	Double Major	Elective				8
		ME4XX	Departmental Elective (3 courses will be selected from ME4XX elective c.)	Double Major	Elective				18
			TOTAL SEMESTER ECTS						**29**
	CUMULATIVE ECTS								**248**