NEAR EAST
UNIVERSITY

DEPARTMENT OF Materials Science and Nanotechnology Engineering

Course Structure Diagram with Course Credits

2021-2022

1 (1th Semester)

Course Code	Course Name	CR	ECTS	Status	Grade
PHY101	General Physics I	4	6	Compulsory	
CHM101	General Chemistry I	4	5	Compulsory	
MTH101	Calculus I	4	6	Compulsory	
ENG101	English I	3	3	Compulsory	
ECC 103	Technical Drawing I	3	5	Compulsory	
MSN 101	Introduction to Materials Science and Nanotechnology Engineering	2	2	Compulsory	
CAM101	Campus Orientation	0	2	Compulsory	
		20	30		

2 (2nd Semester)

Course Code	Course Name	CR	ECTS	Status	Grade
PHY102	General Physics II	4	6	Compulsory	
CHM112	General Chemistry II	3	5	Compulsory	
MTH102	Calculus II	4	6	Compulsory	
ENG102	Foreign Language II	3	3	Compulsory	
ECC 101	Introduction to Computers and Programming	3	3	Compulsory	
CHM122	Organic Chemistry	3	5	Compulsory	
CAR122	Career Planning	0	2	Compulsory	
		20	30		

3 (3rd Semester)

Course Code	Course Name	CR	ECTS	Status	Grade
MSN201	Materials Science I	3	5	Compulsory	
MSN203	Foundations of Nanotechnology	3	5	Compulsory	
CHM201	Inorganic Chemistry	3	5	Compulsory	
MSN205	Physical Chemistry and Thermodynamics	3	5	Compulsory	
ENG201	Oral Communication Skills	3	3	Compulsory	
MTH201	Differential Equations	4	5	Compulsory	
YIT101	Turkish for Foreign Students I	2	2	Compulsory	
TUR101	Turkish Language I	2	2	Compulsory	
		21	30		

4 (4th Semester)

Course Code	Course Name	CR	ECTS	Status	Grade
MSN202	Materials Science II	3	5	Compulsory	
MSN204	Mechanics of Nanomaterials	3	5	Compulsory	
MSN206	Materials for Biological and Medical Applications	3	5	Compulsory	
MSN208	Nanomaterials	3	6	Compulsory	
PHY201	Introduction to Quantum Physics	3	6	Compulsory	
MSN 200	Summer Practice I	0	1	Compulsory	
YIT102	Turkish for Foreign Students II	2	2	Compulsory	
TUR102	Turkish Language II	2	2	Compulsory	
		17	30		

5 (5th Semester)

Course Code	Course Name	CR	ECTS	Status	Grade
MSN301	Synthesis and Fabrication of Nanoengineering Systems	4	6	Compulsory	
MSN303	Introduction to Solid State Chemistry	3	5	Compulsory	
MSN305	Phase Transformations and Kinetics	3	6	Compulsory	
MSN307	Crystallography of Materials	3	6	Compulsory	
MSN309	Research Skills in Science	3	5	Compulsory	
AIT101	Principles of Atatürk and the History of Turkish Revolotion I	2	2	Compulsory	
AIT103	Principles of Atatürk and the History of Turkish Revolotion I	2	2	Compulsory	
		18	30		

6 (6th Semester)

Course Code	Course Name	CR	ECTS	Status	Grade
MSN302	Materials Selection in Engineering Design	3	5	Compulsory	
MSN304	Nanoengineering System Design	3	6	Compulsory	
MSN306	Instrumental Methods for Materials Science and Nanoengineering	4	6	Compulsory	
MSN308	Composite Materials	3	5	Compulsory	
TOSD-1	Nontechnical Electives	3	5	R. Elective	
MSN 300	Summer Practice II	0	1	Compulsory	
AIT102	Principles of Atatürk and the History of Turkish Revolotion II	2	2	Compulsory	
AIT104	Principles of Atatürk and the History of Turkish Revolotion II	2	2	Compulsory	
		18	30		

7 (7th Semester)

Course Code	Course Name	CR	ECTS	Status	Grade
MSN401	Characterization of Nanoengineering Systems	3	6	Compulsory	
MSN403	Experimental Methods in Materials Science	3	7	Compulsory	
BSD-1	Elective Courses	3	4	T. Elective	
BSD-2	Elective Courses	3	4	T. Elective	
BSD-3	Elective Courses	3	4	T. Elective	
TOSD-2	Nontechical Elective Course	3	5	R. Elective	
		18	30		

8 (8th Semester)

Course Code	Course Name	CR	ECTS	Status	Grade
MSN400	Graduation Project	4	13	Compulsory	
BSD-4	Elective Courses	3	4	Compulsory	
BSD-5	Elective Courses	3	4	T. Elective	
BSD-6	Elective Courses	3	4	T. Elective	
TOSD-3	Nontechical Elective Course	3	5	R. Elective	
		16	30		

4.4. *Program details and the individual grade/marks obtained:*

TOTAL LOCAL CREDITS: 148 - ECTS:240 CGPA: