



**AFYON KOCATEPE UNIVERSITY**  
**GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES**  
**DEPARTMENT OF MATERIAL SCIENCE AND ENGINEERING**



**DOCTOR OF PHILOSOPHY (PhD) PROGRAM**

**FIRST YEAR**

FIRST SEMESTER								
COURSE CODE	COURSE NAME	C/E	COURSE CREDIT*					
			TH	AP	TO	CR	EC	
MLZ-6501	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
MLZ-6601	THESIS PREPARATION	C	0	1	1	0	1	
MLZ-6001	ENGINEERING MATHEMATICS ***	C	3	0	3	3	5	
	ELECTIVE COURSE	E	3	0	3	3	5	
	ELECTIVE COURSE	E	3	0	3	3	5	
	ELECTIVE COURSE	E	3	0	3	3	5	
<b>TOPLAM</b>			<b>20</b>	<b>1</b>	<b>21</b>	<b>12</b>	<b>30</b>	

\*\*\*: Students Are Required To Choose Another Elective Course From The List If They Have Been Succeed The Engineering Mathematics Lecture At Master Of Science

SECOND SEMESTER								
COURSE CODE	COURSE NAME	C/E	COURSE CREDIT*					
			TH	AP	TO	CR	EC	
MLZ-6502	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
MLZ-6602	THESIS PREPARATION	C	0	1	1	0	1	
	ELECTIVE COURSE	E	3	0	3	3	5	
	ELECTIVE COURSE	E	3	0	3	3	5	
	ELECTIVE COURSE	E	3	0	3	3	5	
	ELECTIVE COURSE	E	3	0	3	3	5	
<b>TOTAL</b>			<b>20</b>	<b>1</b>	<b>21</b>	<b>12</b>	<b>30</b>	



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**SECOND YEAR**

THIRD SEMESTER								
COURSE CODE	COURSE NAME	C/E	COURSE CREDIT*					
			TH	AP	TO	CR	EC	
MLZ-6503	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
MLZ-6603	THESIS PREPARATION	C	0	1	1	0	1	
MLZ-6701	SEMINAR	C	0	2	2	0	5	
	ELECTIVE COURSE	E	3	0	3	3	5	
	ELECTIVE COURSE	E	3	0	3	3	5	
	ELECTIVE COURSE	E	3	0	3	3	5	
<b>TOTAL</b>			<b>17</b>	<b>3</b>	<b>20</b>	<b>9</b>	<b>30</b>	

FOURTH SEMESTER								
COURSE CODE	COURSE NAME	C/E	COURSE CREDIT*					
			TH	AP	TO	CR	EC	
MLZ-6504	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
MLZ-6604	THESIS	C	0	1	1	0	21	
<b>TOTAL</b>			<b>8</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>30</b>	



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**THIRD YEAR**

FIFTH SEMESTER								
COURSE CODE	COURSE NAME	C/E	COURSE CREDIT*					
			TH	AP	TO	CR	EC	
MLZ-6505	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
MLZ-6605	THESIS	C	0	1	1	0	21	
<b>TOTAL</b>			<b>8</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>30</b>	

SIXTH SEMESTER								
COURSE CODE	COURSE NAME	C/E	COURSE CREDIT*					
			TH	AP	TO	CR	EC	
MLZ-6506	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
MLZ-6606	THESIS	C	0	1	1	0	21	
<b>TOTAL</b>			<b>8</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>30</b>	

**FOURTH YEAR**

SEVENTH SEMESTER								
COURSE CODE	COURSE NAME	C/E	COURSE CREDIT*					
			TH	AP	TO	CR	EC	
MLZ-6507	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
MLZ-6607	THESIS	C	0	1	1	0	21	
<b>TOTAL</b>			<b>8</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>30</b>	

EIGHTH SEMESTER								
COURSE CODE	COURSE NAME	C/E	COURSE CREDIT*					
			TH	AP	TO	CR	EC	
MLZ-6508	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
MLZ-6608	THESIS	C	0	1	1	0	21	
<b>TOTAL</b>			<b>8</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>30</b>	



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**GRADUATE PROGRAMS**

**ELECTIVE COURSES**

COURSE CODE	COURSE NAME	C/E	COURSE CREDIT*				
			TH	AP	TO	CR	EC
FBE-5001	SCIENTIFIC RESEARCH AND METHODS	E	3	0	3	3	5
MLZ-5001	ENGINEERING MATHEMATICS	E	3	0	3	3	5
MLZ-5002	TECHNOLOGY OF ALUMMINA	E	3	0	3	3	5
MLZ-5003	PROCESS PLANNING AND PLANT DESIGN	E	3	0	3	3	5
MLZ-5004	COMPOSITES	E	3	0	3	3	5
MLZ-5005	DIELECTRIC MATERIALS	E	3	0	3	3	5
MLZ-5006	SINTERING OF CERAMICS	E	3	0	3	3	5
MLZ-5007	TECHNICAL GLASSES	E	3	0	3	3	5
MLZ-5011	ADVANCED CERAMOGRAPHY	E	3	0	3	3	5
MLZ-5013	BUSINESS MANAGEMENT	E	3	0	3	3	5
MLZ-5015	SOLID STATE PHYSICS	E	3	0	3	3	5
MLZ-5016	ADVANCED TECHNOLOGY CEMENTS	E	3	0	3	3	5
MLZ-5017	MAGNETIC MATERIALS	E	3	0	3	3	5
MLZ-5018	OPTICAL CERAMICS	E	3	0	3	3	5
MLZ-5019	ELECTRICAL DAMAGES IN CERAMICS	E	3	0	3	3	5
MLZ-5020	ELECTRONIC CERAMICS	E	3	0	3	3	5
MLZ-5021	PHASE TRANSFORMATION AND KINETICS	E	3	0	3	3	5
MLZ-5023	METALLIC GLASSES	E	3	0	3	3	5
MLZ-5024	ELECTRON MICROSCOPY METHODS	E	3	0	3	3	5
MLZ-5025	INTRODUCTION TO SOL-GEL PROCESSIS	E	3	0	3	3	5
MLZ-5027	TECHNOLOGY OF FIBER MATERIALS	E	3	0	3	3	5
MLZ-5027	FABRICATION AND CHARACTERIZATION OF REFRACTORIES	E	3	0	3	3	5
MLZ-5028	MECHANICAL PROPERTIES AND FRACTURE BEHAVIOUR OF CERAMICS	E	3	0	3	3	5
MLZ-5028	FABRICATION AND CHARACTERIZATION OF NANOMATERIALS	E	3	0	3	3	5
MLZ-5029	SURFACE ANALYSIS	E	3	0	3	3	5
MLZ-5029	STRUCTURE AND CRYSTALLOGRAPHY	E	3	0	3	3	5
MLZ-5030	BORON TECHNOLOGY	E	3	0	3	3	5
MLZ-5030	RHEOLOGICAL BEHAVIOR OF CERAMICS	E	3	0	3	3	5
MLZ-5031	TECHNIQUES OF THIN FILM COATING	E	3	0	3	3	5



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**GRADUATE PROGRAMS**

**ELECTIVE COURSES**

COURSE CODE	COURSE NAME	C/E	COURSE CREDIT*				
			TH	AP	TO	CR	EC
MLZ-5032	SOLUTIONS THERMODYNAMICS	E	3	0	3	3	5
MLZ-6002	UNSHAPED (MONOLITHIC) REFRACTORIES	E	3	0	3	3	5
MLZ-6003	NON-OXIDE CERAMICS	E	3	0	3	3	5
MLZ-6004	CEMENT- CONCRETE CHARACTERIZATION AND DESIGN	E	3	0	3	3	5
MLZ-6005	ELECTRONIC MATERIALS	E	3	0	3	3	5
MLZ-6006	NANOFIBERS	E	3	0	3	3	5
MLZ-6007	SOLIDIFICATION	E	3	0	3	3	5
MLZ-6008	FRACTURE AND TOUGHENING OF CERAMIC MATERIALS	E	3	0	3	3	5
MLZ-6009	POROUS MATERIALS TECHNOLOGY	E	3	0	3	3	5
MLZ-6010	PROPERTIES OF INORGANIC GLASSES	E	3	0	3	3	5
MLZ-6011	PLASMA ASSISTED SURFACE PROCESSING	E	3	0	3	3	5
MLZ-6012	TRIBOLOGY OF METALS	E	3	0	3	3	5
MLZ-6013	CORROSION MECHANISM AND FAILURES IN METALS	E	3	0	3	3	5
MLZ-6015	FATIGUE AND CREEP BEHAVIOUR OF MATERIALS	E	3	0	3	3	5
MLZ-6016	THEORY OF ELASTICITY	E	3	0	3	3	5
MLZ-6016	RECYCLING AND CHARACTERIZATION OF INDUSTRIAL WASTE	E	3	0	3	3	5
EGT-6001	DEVELOPMENT AND LEARNING	E	3	0	3	3	5
EGT-6002	INSTRUCTIONAL PLANNING AND EVALUATION	E	3	0	3	3	5