



**AFYON KOCATEPE UNIVERSITY**  
**GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES**  
**DEPARTMENT OF CHEMISTRY**



**DOCTOR OF PHILOSOPHY (PhD) PROGRAM**

**FIRST YEAR**

FIRST SEMESTER								
COURSE CODE	COURSE NAME	C/E	COURSE CREDIT*					
			TH	AP	TO	CR	EC	
KIM-6501	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
KIM-6601	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>	

SECOND SEMESTER								
COURSE CODE	COURSE NAME	C/E	COURSE CREDIT*					
			TH	AP	TO	CR	EC	
KIM-6502	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
KIM-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	
KIM-6503	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
KIM-6603	THESIS PREPARATION	C	0	1	1	0	1	
KIM-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	
KIM-6504	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
KIM-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	
KIM-6505	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
KIM-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	
KIM-6506	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
KIM-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	
KIM-6507	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
KIM-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	
KIM-6508	DIRECTED FIELD STUDIES	C	8	0	8	0	9	
KIM-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>	

**ELECTIVE COURSES**



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COURSE CODE	COURSE NAME	C/E	COURSE CREDIT*				
			TH	AP	TO	CR	EC
FBE-5001	SCIENTIFIC RESEARCH AND METHODS	C	3	0	3	3	5
KIM-6001	SEPERATION METHODS IN ORGANIC CHEMISTRY	E	3	0	3	3	5
KIM-6002	SYNTHESIS METHODS OF POLYMER	E	3	0	3	3	5
KIM-6003	RADIOPHARMACEUTICAL CHEMISTRY	E	3	0	3	3	5
KIM-6004	BIOLOGICAL EFFECTS IONIZING RADIATION	E	3	0	3	3	5
KIM-6005	ADVANCED NUCLEAR CHEMISTRY	E	3	0	3	3	5
KIM-6006	ADVANCED RADIATION CHEMISTRY	E	3	0	3	3	5
KIM-6007	ADVANCED NMR SPECTROSCOPY	E	3	0	3	3	5
KIM-6008	HETEROCYCLIC CHEMISTRY	E	3	0	3	3	5
KIM-6009	ASYMETRIC SYNTHESIS IN ORGANIC CHEMISTRY	E	3	0	3	3	5
KIM-6010	ADSORPTION AND CATALYSIS	E	3	0	3	3	5
KIM-6011	FUNCTIONAL GROUPS	E	3	0	3	3	5
KIM-6012	CHEMICAL ANALYSIS METHODS OF WATER	E	3	0	3	3	5
KIM-6013	ADVANCED ELECTROCHEMISTRY	E	3	0	3	3	5
KIM-6014	BIOCHEMISTRY LABORATORY TECHNIQUES AND METHODS	E	3	0	3	3	5
KIM-6015	CHARACTERIZATION AND ANALYSIS METHODS OF PROTEIN OXIDATION	E	3	0	3	3	5
KIM-6016	LIPOPROTEINS	E	3	0	3	3	5
KIM-6017	TITANIUMDIOXIDE NANOMATERIALS	E	3	0	3	3	5
KIM-6018	BIOSENSORS	E	3	0	3	3	5
KIM-6019	HETEROGENEOUS PHOTOCATALYSIS OF ORGANIC SYNTHESIS	E	3	0	3	3	5
KIM-6020	MOLECULAR BIOCHEMISTRY	E	3	0	3	3	5
KIM-6021	FOOD ADDITIVES AND TOXINS	E	3	0	3	3	5
KIM-6022	BASIC MOLECULES IN BIOCHEMISTRY	E	3	0	3	3	5
KIM-6023	METABOLISM	E	3	0	3	3	5
KIM-6024	ANTIOXIDANTS	E	3	0	3	3	5
KIM-6025	BIOCHEMISTRY LABORATORY TECHNIQUES	E	3	0	3	3	5
KIM-6026	CHARACTERİZATION OF POLYMER	E	3	0	3	3	5
KIM-6027	SPECTROELECTROCHEMISTRY	E	3	0	3	3	5
KIM-6028	CHEMISTRY OF METALS	E	3	0	3	3	5
KIM-6029	CHEMISTRY OF MAIN GROUP ELEMENTS	E	3	0	3	3	5
KIM-6030	ADVANCED INORGANIC CHEMISTRY I	E	3	0	3	3	5
KIM-6031	ADVANCED INORGANIC CHEMISTRY II	E	3	0	3	3	5



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KIM-6032	SOLID STATE AND MATERIALS CHEMISTRY	E	3	0	3	3	5
KIM-6033	CHEMICAL CRYSTALLOGRAPHY	E	3	0	3	3	5
KIM-6034	PHYSICAL INORGANIC CHEMISTRY I	E	3	0	3	3	5
KIM-6035	PHYSICAL INORGANIC CHEMISTRY II	E	3	0	3	3	5
KIM-6036	BIOINORGANIC CHEMISTRY I	E	3	0	3	3	5
KIM-6037	BİYOANORGANİK KİMYA II	E	3	0	3	3	5
KIM-6038	ADVANCED CHEMISTRY PROJECTS I*	E	3	0	3	3	5
KIM-6039	SOME INSTRUMENTAL METHODS AND APPLICATIONS I	E	3	0	3	3	5
KIM-6040	SOME INSTRUMENTAL METHODS AND APPLICATIONS II	E	3	0	3	3	5
KIM-6041	ADSORPTION AND CATALYSIS	E	3	0	3	3	5
KIM-6042	STRIPPING VOLTAMMETRIC METHODS	E	3	0	3	3	5
KIM-6043	NEW METHODS IN ELECTROCHEMISTRY	E	3	0	3	3	5
KIM-6044	MİCROENCAPSULATION METHODS	E	3	0	3	3	5
KIM-6045	EMULSION, AEROSOL AND FOAM SYSTEMS	E	3	0	3	3	5
KIM-6046	CARBOHYDRATES AND METABOLISM	E	3	0	3	3	5
KIM-6047	LIPIDS AND METABOLISM	E	3	0	3	3	5
KIM-6048	PROTEINS AND METABOLISM	E	3	0	3	3	5
KIM-6049	NUCLEIC ACIDS AND PROTEIN SYNTHESIS	E	3	0	3	3	5
KIM-6050	TISSUE AND ORGAN BIOCHEMISTRY	E	3	0	3	3	5
KIM-6051	CLINICAL BOICHEMISTRY	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