



**AFYON KOCATEPE UNIVERSITY- MEHMET AKIF ERSOY UNIVERSITY DEPARTMENTS  
OF BIOCHEMISTRY (VETERINARY) CORPORATE DOCTORATE PROGRAMME**

I. SEMESTER							
C. CODE	COURSE NAME	C/E	Theo.	Prac.	Tot.	Credit	
	<b>Compulsory Course</b>					<b>National</b>	<b>ECTS</b>
VBOD 101	Expertise Branch Course	C	8	0	8	0	9
VBOD 102	Thesis Preparation Study	C	0	1	1	0	1
<b>Elective Courses (Total 20 ECTS credit courses will be taken in the Elective Courses Pool)</b>							
	Elective Course I	E					4
	Elective Course II	E					4
	Elective Course III	E					4
	Elective Course IV	E					4
	Elective Course V	E					4
	<b>Total</b>						<b>30</b>

II. SEMESTER							
C. CODE	COURSE NAME	C/E	Theo.	Prac.	Tot.	Credit	
	<b>Compulsory Course</b>					<b>National</b>	<b>ECTS</b>
VBOD 103	Expertise Branch Course	C	8	0	8	0	9
VBOD 104	Thesis Preparation Study	C	0	1	1	0	1
<b>Elective Courses (Total 20 ECTS credit courses will be taken in the Elective Courses Pool)</b>							
	Elective Course I	E					4
	Elective Course II	E					4
	Elective Course III	E					4
	Elective Course IV	E					4
	Elective Course V	E					4
	<b>Total</b>						<b>30</b>

III. SEMESTER							
C. CODE	COURSE NAME	C/E	Theo.	Prac.	Tot.	Credit	
	<b>Compulsory Course</b>					<b>National</b>	<b>ECTS</b>
VBOD 105	Expertise Branch Course	C	8	0	8	0	9
VBOD 106	Thesis Preparation Study	C	0	1	1	0	1
VBOD 107	Seminar	C	0	2	2	2	4
<b>Elective Courses (Total 16 ECTS credit courses will be taken in the Elective Courses Pool)</b>							
	Elective Course I	E					4
	Elective Course II	E					4
	Elective Course III	E					4
	Elective Course IV	E					4
	<b>Total</b>						<b>30</b>

IV. SEMESTER							
C. CODE	COURSE NAME	C/E	Theo	Prac.	Tot.	Credit	
	<b>Compulsory Course</b>					<b>National</b>	<b>ECTS</b>
VBOD 108	Thesis Study	C	0	1	1	0	21
VBOD 109	Expertise Branch Course	C	8	0	8	0	9
<b>Total</b>			<b>8</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>30</b>

V. SEMESTER							
C. CODE	COURSE NAME	C/E	Theo	Prac.	Tot.	Credit	
	<b>Compulsory Course</b>					<b>National</b>	<b>ECTS</b>
VBOD 110	Thesis Study	C	0	1	1	0	21
VBOD 111	Expertise Branch Course	C	8	0	8	0	9
<b>Total</b>			<b>8</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>30</b>

VI. SEMESTER							
C. CODE	COURSE NAME	C/E	Theo	Prac.	Tot.	Credit	
	<b>Compulsory Course</b>					<b>National</b>	<b>ECTS</b>
VBOD 112	Thesis Study	C	0	1	1	0	21
VBOD 113	Expertise Branch Course	C	8	0	8	0	9
<b>Total</b>			<b>8</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>30</b>

VII. SEMESTER							
C. CODE	COURSE NAME	C/E	Theo	Prac.	Tot.	Credit	
	<b>Compulsory Course</b>					<b>National</b>	<b>ECTS</b>
VBOD 114	Thesis Study	C	0	1	1	0	21
VBOD 19	Expertise Branch Course	C	8	0	8	0	9
<b>Total</b>			<b>8</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>30</b>

VIII. SEMESTER							
C. CODE	COURSE NAME	C/E	Theo	Prac.	Tot.	Credit	
	<b>Compulsory Course</b>					<b>National</b>	<b>ECTS</b>
VBOD 116	Thesis Study	C	0	1	1	0	21
VBOD 117	Expertise Branch Course	C	8	0	8	0	9
<b>Total</b>			<b>8</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>30</b>

IX. SEMESTER							
C. CODE	COURSE NAME	C/E	Theo	Prac.	Tot.	Credit	
	<b>Compulsory Course</b>					<b>National</b>	<b>ECTS</b>
VBOD 118	Thesis Study	C	0	1	1	0	21
VBOD 119	Expertise Branch Course	C	8	0	8	0	9
<b>Total</b>			<b>8</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>30</b>

X. SEMESTER							
C. CODE	COURSE NAME	C/E	Theo	Prac.	Tot.	Credit	
	<b>Compulsory Course</b>					<b>National</b>	<b>ECTS</b>
VBOD 120	Thesis Study	C	0	1	1	0	21
VBOD 121	Expertise Branch Course	C	8	0	8	0	9
<b>Total</b>			<b>8</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>30</b>

XI. SEMESTER							
C. CODE	COURSE NAME	C/E	Theo	Prac.	Tot.	Credit	
	<b>Compulsory Course</b>					<b>National</b>	<b>ECTS</b>
VBOD 122	Thesis Study	C	0	1	1	0	21
VBOD 123	Expertise Branch Course	C	8	0	8	0	9
<b>Total</b>			<b>8</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>30</b>

XII. SEMESTER							
C. CODE	COURSE NAME	C/E	Theo	Prac.	Tot.	Credit	
	<b>Compulsory Course</b>					<b>National</b>	<b>ECTS</b>
VBOD 124	Thesis Study	C	0	1	1	0	21
VBOD 125	Expertise Branch Course	C	8	0	8	0	9
<b>Total</b>			<b>8</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>30</b>

**ELECTIVE COURSES POOL**

C. CODE	COURSE NAME	C/E	Theo	Prac.	Tot.	Credit	
						National	ECTS
	<b>Elective Courses</b>						
VBOD 126	Amino Acid Metabolism	E	3	0	3	3	4
VBOD 127	Anorganic Metabolism	E	3	0	3	3	4
VBOD 128	Antioxidative Metabolism	E	3	0	3	3	4
VBOD 129	Chemistry of Immunology	E	3	0	3	3	4
VBOD 130	Biochemistry of Nutrition	E	3	0	3	3	4
VBOD 131	Scientific Research, Article Writing and Ethics	E	3	0	3	3	4
VBOD 132	Biophysical Chemistry	E	3	0	3	3	4
VBOD 133	Biostatistic	E	3	0	3	3	4
VBOD 134	Biocatalisors	E	3	0	3	3	4
VBOD 135	Methods and Equipments in Biochemical Laboratory	E	2	2	4	3	4
VBOD 136	Preparation of Solutions In Biochemistry Laboratory	E	2	2	4	3	4
VBOD 137	Control of Metabolic Pathway in Biochemistry	E	3	0	3	3	4
VBOD 138	Biological Membranes and Transport Systems	E	3	0	3	3	4
VBOD 139	Malignant Growth and Development	E	3	0	3	3	4
VBOD 140	Spesific Biochemical Tests of Various Diseases	E	2	2	4	3	4
VBOD 141	Laboratory Animal and Applications	E	2	2	4	3	4
VBOD 142	DNA Structure, Replication and Transcription	E	3	0	3	3	4
VBOD 143	Biochemistry of Extracellular Matrix and Bone	E	3	0	3	3	4
VBOD 144	Enzymes, Coenzymes And Principles Of Detection	E	3	0	3	3	4
VBOD 145	Regulation of Gene Expression and Terminology	E	2	2	4	3	4
VBOD 146	General Laboratory Tecniques and Collecting Samples	E	2	2	4	3	4
VBOD 147	General Organic Chemistry	E	3	0	3	3	4
VBOD 148	Homones and Principles of Detections	E	3	0	3	3	4
VBOD 149	Biochemistry of Cell	E	3	0	3	3	4
VBOD 150	Analysis of Urine	E	2	2	4	3	4
VBOD 151	Detection of Minerals in Blood	E	2	2	4	3	4
VBOD 152	Measurements of Organic Elements in Blood	E	2	2	4	3	4
VBOD 153	Carbohydrates and Their Metabolism	E	3	0	3	3	4
VBOD 154	Metabolic Illnesses of Clinical Biochemistry	E	3	0	3	3	4
VBOD 155	Clinic Enzymology	E	2	2	4	3	4
VBOD 156	Lipoproteins and Clinical Importance	E	3	0	3	3	4
VBOD 157	Nucleic Acids and Metabolism	E	3	0	3	3	4
VBOD 158	Oxidative Stess and Antioxidants	E	3	0	3	3	4
VBOD 159	Metabolic Relationship Among Different Organs	E	3	0	3	3	4
VBOD 160	PCR, Electrophoresis and Its Applications	E	2	2	4	3	4
VBOD 161	Proteins and Metabolism	E	3	0	3	3	4
VBOD 162	RIA, EIA Techniques and Application Fields	E	2	2	4	3	4

VBOD 163	Biochemistry of Ruminant Diseases	E	3	0	3	3	4
VBOD 164	Digestive Chemistry	E	3	0	3	3	4
VBOD 165	Respiration Chemistry	E	3	0	3	3	4
VBOD 166	Tumor Growth and Tumor Markers	E	3	0	3	3	4
VBOD 167	Vitamines and Principles of Detections	E	3	0	3	3	4
VBOD 168	Body Fluids and Acid-Base Balance	E	3	0	3	3	4
VBOD 169	Chemistry Of Biological Fluids And Tissues Liquids	E	3	0	3	3	4
VBOD 170	Fatty Acids and Lipid Metabolism	E	3	0	3	3	4
VBOD 171	Biosynthesis and Metabolism Of High Energy Phoshate Groups	E	3	0	3	3	4
VBOD 172	Development And Learning	E	3	0	3	3	4
VBOD 173	Instructional Planning and Evaluation	E	3	0	3	3	4
VBOD 174	Investigation Methods	E	3	0	3	3	4