Biochemistry 531 - General Biochemistry

Course Schedule: Spring 2017

Date	Day/Time	Lecture	Chapter	Topic	Instructor
January 2017					
1/9	M 10	1	2	Water, acid, base concepts	Gunther
1/9	M 11	2	2	Buffering physiological pH	Gunther
1/11	W 10	3	3	Amino acid properties	Gunther
1/11	W 11	4	2,3	Amino acid ionization and peptide bond	Gunther
1/16	-	-	-	**Martin Luther King Jr. Holiday**	-
1/18	W 10	5	3,4	Protein Primary/Secondary structure	Gunther
1/18	W 11	6	4	Protein Tertiary/Quaternary structure	Gunther
1/23	M 10	7	4	Fibrous Protein Collagen	Gunther
1/23	M 11	8	4	Myoglobin and Hemoglobin	Gunther
1/25	W 10	9	4	Hemoglobin, gas transport, buffering	Gunther
1/25	W 11	10	5	Enzyme catalysis and kinetics	Gunther
1/30	M 10	11	6	Mechanisms of enzyme catalysis	Gunther
1/30	M 11	12	6	Enzyme inhibitors	Gunther
February 2017					
2/1	W 10	13	5	Regulation of protein activity	Gunther
2/1	W 11	14	n/a	Blood coagulation 1	Gunther
2/3	**F 10**	-	-	**EXAM 1, Lectures 1-12**	**Gunther**
2/6	M 10	15	n/a	Blood coagulation 2	Gunther
2/6	M 11	CC1	n/a	Clinical Correlation 1: Hemostasis	Weaver
2/8	W 10	16	8	Carbohydrates and glycoconjugates	Shiemke
2/8	W 11	17	4,8	Therapeutic enzyme inhibitors I	Gunther
2/13	M 10	18	9	Lipids and membranes	Shiemke
2/13	M 11	19	9	Membrane transport	Shiemke
2/15	W 10	20	9	Transduction of extracellular signals	Shiemke
2/15	W 11	21	10	Introduction to metabolism and bioenergetics	Shiemke
2/20	M 10	22	11	Glycolysis	Shiemke
2/20	M 11	23	13	Acetyl Co-A and the TCA Cycle	Shiemke
2/22	W 10	24	13	Fates of pyruvate and lactic acidosis	Shiemke
2/22	W 11	25	14	Oxidative phosphorylation I: electron transport	Shiemke
2/24	**F 10**	-	-	**EXAM 2, Lectures 13-23 + CC1**	**Gunther/Shiemke**
2/27	M 10	26	14	Oxidative Phosphorylation II: ATP synthesis	Shiemke
2/27	M 11	27	11/13	Reactive Oxygen Species (ROS)	Shiemke
March 2017					
3/1	W 10	28	12	Pentose shunt and glycogen synthesis	Leonardi
3/1	W 11	29	16	Fatty acid and triacylglycerol synthesis	Leonardi
3/13	M 10	30	16	Fatty acid oxidation and ketone body metab.	Leonardi

3/13	M 11	31	12	Glycogen breakdown and gluconeogenesis	Leonardi
3/15	W 10	32	17	Protein turnover and Urea cycle	Leonardi
3/15	W 11	33	17	Amino acid catabolism and products	Leonardi
3/20	M 10	34	12/16	Regulation of Fed and Fasting state pathways	Leonardi
3/20	M 11	CC2	-	Clinical correlation 2: Obesity	Leonardi
3/22	W 10	35	11-14,16	Metabolism during exercise	Leonardi
3/22	W 11	36	11,13,14	Metabolism of tumor cells	Leonardi
3/24	**F 10**	**-**	**-**	**EXAM 3, Lectures 24-34 + clin corr 2**	**Shiemke/Leonardi**
3/27	M 10	37	16	Metabolism of membrane lipids	Leonardi
3/27	M 11	38	16	Absorption and transport of fuel lipids	Leonardi
3/29	W 10	CC3	16	Clinical Correlation 3: Diabetes Mellitus	Leonardi
3/29	W 11	CC4	-	Clinical correlation 4: Atherosclerosis	Leonardi
April 2017					
4/3	M 10	39	19	Nucleotide metabolism I	Ruppert
4/3	M 11	40	19	Nucleotide Metabolism II	Ruppert
4/5	W 10	41	18	Nucleic Acid structure/function I	Ruppert
4/5	W 11	42	18	Nucleic Acids II	Ruppert
4/7	**F 10**	**-**	**-**	**Exam 4, Covers lectures 35-42**	**Leonardi/Ruppert**
4/10	M 10	43	20	DNA Replication	Ruppert
4/10	M 11	44	21	Transcription	Ruppert
4/12	W 10	45	21	Regulation of gene transcription	Ruppert
4/12	W 11	46	20	DNA Repair	Ruppert
4/17	M 10	CC5	-	CC 5: HIV progression into AIDS	Shiel/Gunther
4/17	M 10	CC6	-	Carcinogenesis and oral tumors	Gunther
4/19	W 10	47	21	Therapeutic Enzyme Inhibitors II	Gunther
4/19	W 11	48	18	Post-transcriptional RNA processing	Ruppert
4/24	M 10	49	22	Genetic code and tRNA	Ruppert
4/24	M 11	50	22	Translation	Ruppert
4/27	W 10	51	22	Regulation of Translation	Ruppert
4/27	W 11	52	22	Protein processing and sorting	Ruppert
May 2017					
5/3	**W 10**	**-**	**-**	**Exam 5, covers Lectures 43-52 + CC5 – CC6**	**Ruppert/Gunther**