

University of Maryland  
Department of Radiation Oncology  
Radiobiology Lecture Schedule 2019-20

#	Date	Topic	Instructor	Notes
1	9/4/19	Course Overview & Introduction	ZV	Class is held Wednesdays @5pm
2	9/11/19	Molecular Biology Basics	FC	
--	9/18/19	ASTRO Week NO CLASS	-----	
3	9/25/19	Cancer Biology/Hallmarks of Cancer/Oncogenes & Tumor Suppressor Genes/Signal Transduction Pathways	FC	
4	10/2/19	Interaction of Radiation with Biological Systems	EZ	
5	10/23/19	DNA Damage & Molecular Repair	KH	
6	10/30/19	Modes of Cell Death	EK	
7	11/6/19	Cell Survival Curves/Survival Curve Theory/Calculations	EZ	RSS week
8	11/13/19	Tissue Dose Response Curves/Calculations	EZ	
	11/20/19	Molecular Biology of the Mammalian Cell Cycle & Radiation Effects (other than age response, above)	KH	
--	11/27/19	Thanksgiving Week NO CLASS	-----	
9	12/11/19	Radiation Carcinogenesis	EK	
10	12/18/19	Radiation Protection	EK	
--	12/25/19	Christmas Week NO CLASS	-----	
--	1/1/20	New Year's Week NO CLASS	-----	
11	1/8/20	Sublethal/Potentially Lethal Damage Recovery & Age Response	EZ	
12	1/15/20	Oxygen Effect & Tumor Hypoxia, Part 1 (Zeman)	EZ	

University of Maryland  
Department of Radiation Oncology  
Radiobiology Lecture Schedule 2019-20

#	Date	Topic	Instructor	Notes
13	1/22/20	Radiation Sensitizers/Protectors/Bioreductive Drugs & Mitigators	KH	
14	1/29/20	Tumor Angiogenesis	JM	
15	2/5/20	Tumor Metastasis (Possibly combine with angiogenesis lecture?)	JM	
16	2/12/20	Hyperthermia: Biology	JR	
17	2/19/20	Oxygen Effect & Tumor Hypoxia, Part 2 (Zeman)	EZ	
18	2/26/20	Normal and Tumor Cell Kinetics, Part 1	EZ	
--	3/4/20	In-Training Exam Week NO CLASS	-----	
19	3/11/20	Early & Late Effects 1: Total Body Irradiation Syndromes & Radiologic Terrorism	IJ	
20	3/18/20	Early & Late Effects 2: Heritable Effects, Teratogenesis & Cataracts	EK	
21	3/25/20	Early & Late Effects 3: Normal Tissue Tolerance Doses/Clinical Response of Normal Tissues/Molecular Etiology of Normal Tissue Injury	IJ	
22	4/1/20	Therapeutic Ratio: Volume Effects/Retreatment Tolerance/TCP-NTCP	KH	
23	4/8/20	Normal and Tumor Cell Kinetics, Part 2	EZ	
--	4/15/19	Easter Week NO CLASS		
24	4/22/20	The 4 (or 5) R's of Radiotherapy, Part 1	EZ	
--	4/23/20	Radbio & Physics Review Course Week	-----	April 23rd-24th
25	4/29/20	The 4 (or 5) R's of Radiotherapy, Part 2	EZ	
26	5/6/20	The Linear-Quadratic Isoeffect Model, Part 1	Zeman, E	

**University of Maryland  
Department of Radiation Oncology  
Radiobiology Lecture Schedule 2019-20**

#	Date	Topic	Instructor	Notes
27	5/13/20	Alternate Dose Delivery: Brachytherapy, IMRT, IGRT, SABR/SBRT, etc.	JM	
28	5/20/20	Hyperthermia: Clinical	EZ	
29	5/27/20	LET & RBE/High LET Radiotherapy (including protons, carbon ions & BNCT)	RM	
30	6/3/20	Makeup Date		
31	6/10/20	Makeup Date		
	6/17/20	QUIZ		