

Location: BCCA: Vancouver & Vancouver Island Centres.

Times: Tuesday & Friday 9:30 – 11:00am

Date	Lecture number	
Sep 2 – ST	1	Course Introduction Non-ionizing Radiation I
Sep 5 – ST	2	Non-ionizing Radiation II
Sep 9 – AB	3	Radiation Safety I
Sep 12 – AB Assign #1	4	Radiation Safety II
Sep 16 – MM	5	X-ray attenuation and absorption
Sep 19 – MM	6	
Sep 23 – MM	7	Thompson and Rayleigh scattering, Compton effect
Sep 26 – MM	8	
Sep 30 – MM	9	Photoelectric effect, Pair production
Oct 3 – DH Assign #2	10	Charged particles, stopping power, LET
Oct 7 – DH	11	
Oct 10 – DH/ST/MM/AB		Mid-Term
Oct 14 – DH	12	Exposure, Dose, Kerma
Oct 17 – DH	13	
Oct 21 – DH Assign #3	14	Heavy charged particles and neutrons
Oct 24 – DH/ST/MM/AB		Mid Term Review (Optional)
Oct 28 – DH	15	Heavy charged particles and neutrons (ctd)
Oct 31 – WB	16	Introduction to Medical Physics, Radiotherapy Medical Physics, X-ray tubes
Nov 4 – WB	17	Production of x-rays (x-ray tube operating characteristics, x-ray spectra)
Nov 7 – WB Assign #4	18	The Clinical X-ray Machine
Nov 11		Reading Break/Remembrance Day – No Class
Nov 14 – WB	19	Isotope Units
Nov 18 – WB	20	Betatrons, cyclotrons, LINACS
Nov 21 – WB	21	LINACS (detail)
Nov 25 – SZ	22	Modern techniques in radiotherapy (intro to IMRT, EPIDs)
Nov 28 – AB/WB/MM		Course Review

Course final mark weightings: Assignments 25%, Mid-Term Exam 30%, Final Exam 45%

NB: A BCCA Facility tour to be arranged at mutually agreeable time at the Vancouver & Victoria Clinics (probably after hours)

Lecturers: WB = Dr. Wayne Beckham (Coordinator), BCCA Vancouver Island Centre
 SZ = Dr. Sergei Zavgorodni, BCCA Vancouver Island Centre
 AB = Dr. Alistair Baillie, BCCA Centre for the Southern Interior
 ST = Dr. Steven Thomas, BCCA Fraser Valley Centre
 DH = Dr. Derek Hyde, BCCA Centre for the Southern Interior
 MM = Dr. Marie-Pierre Milette, BCCA Centre for the Southern Interior

Contacts for Vancouver Students:

Dr. Cheryl Duzenli, BCCA Vancouver Centre
 TA TBA

UVIC Requirement: Calculators – On all examinations the only acceptable calculator is the Sharp EL-510R.

This calculator can be bought in the Bookstore for about \$10. DO NOT bring any other calculator to examinations.

Revised 21 August 2014