PHYSICS 539 COURSE OUTLINE: JAN-APR 2015

EVALUATION: Assignments - 35%, Lab Reports - 35% Final - 30% SCHEDULE:

- Lecture times are Mondays 14:30 -16:00 and Fridays 9:00 - 10:30

- Labs (see 4 dates below) will be from 15:30 - 18:00

Date	Material Covered	Instructor	VCC Location
5 Jan	Intro to course and Review: fundamentals of radiation dosimetry	CD/TP	Rad Onc Seminar Room
9 Jan	Photon and electron interactions	TP	Rad Onc Seminar Room
12 Jan	Introduction to Monte Carlo simulation	TP	Rad Onc Seminar Room
16 Jan	Simulation of photon and electron interactions	TP	Rad Onc Seminar Room
19 Jan	Linac head simulation with BeamNRC	TP	Rad Onc Seminar Room
23 Jan	Stopping power ratios, Spencer-Attix Cavity theory (Dose to Water)	TP	Rad Onc Seminar Room
26 Jan	Cavity Ionization Chambers, Chamber correction factors	TP	4 th Floor Teaching Room
30 Jan	TG-51 protocol, photon and electron beam calibration	TP	Rad Onc Seminar Room
2 Feb	LAB 1: TG-51	CD	ТВА
6 Feb	Relative Dosimetry Techniques: Thermoluminescent/ Optically Simulated Luminescence dosimetry	CD	Rad Onc Seminar Room
9-13 Feb 16-20 Feb	UVic Mid-Term Break –LAB 2: OSLDs / TLDs at UBC CD UBC Mid-Term Break – LAB 2: OSLDs / TLDs at UVic WA		
23 Feb	Relative Dosimetry Techniques Film dosimetry	CD	4 th Floor Teaching Room
27 Feb	LAB 3: Film dosimetry	CD	Rad Onc Seminar Room
2 Mar	Relative Dosimetry Techniques : Diodes, MOSFETs and EPIDs	CD	Rad Onc Seminar Room
6 Mar	LAB 4: Detector arrays	CD	Rad Onc Seminar Room
9 Mar	Absolute dosimetry techniques: Calorimetry and chemical dosimetry	CD	Rad Onc Seminar Room
13 Mar	Ortho-voltage x-ray dosimetry and brachytherapy source calibration, TG 43 protocol	TP	Rad Onc Seminar Room
16 Mar	Dosimetry for CT and planar kV x-ray imaging techniques	CD	Rad Onc Seminar Room
20 Mar	Proton beam dosimetry	CD	Rad Onc Seminar Room
23 Mar	Special problems in radiation Dosimetry: surface dose, inhomogeneous media and very small fields	CD	Rad Onc Seminar Room
27 Mar	Radiation protection dosimetry	PP	Rad Onc Seminar Room
30 Mar	Course review	CD/TP	4 th Floor Board Room
	Exam		

DIRECTIONS TO VCC LECTURE LOCATIONS:

Rad Onc Seminar Room

BC Cancer Agency, 600 West 10th Avenue (Between Heather St. and Ash St.)
- Take main elevators to 4th floor

- Turn left on exiting elevator and left again around the corner
- Turn right through door following sign to "South Wing" and "Physicians' Offices"
- Walk all the way to end of hall and turn left
- Rad Onc Seminar Room is room #4480 on the left-hand side

686 West Broadway

686 West Broadway Avenue (Between Heather St. and Ash St.)

- Take elevators to 8th floor
- Follow signs to conference room

Fairmont Boardroom

750 West Broadway Avenue (Between Heather St. and Willow St.)

- Take main elevators to 6th floor
- Follow signs to boardroom

4th Floor Boardroom

BC Cancer Agency, 600 West 10th Avenue (Between Heather St. and Ash St.)
- Take main elevators to 4th floor

- Turn right on exiting elevator and right again following sign to "Boardroom"
- Walk halfway down hall
- Boardroom is room #4218 on the right-hand side and is marked with a large sign overhead

4th Floor Teaching Room

BC Cancer Agency, 600 West 10th Avenue (Between Heather St. and Ash St.)

- Take main elevators to 4th floor
- Turn right off elevator and following the corridor turn right twice more
- At the end of the hall enter the door on the left and proceed past the secretarial desks to the second corridor on the right
- The classroom is straight ahead