

Radiation Oncology Program

Course Syllabus

ROC 131

I. Course Information

Course Title: ROC 131 Clinical Clerkship I

Section: 001H

Semester: Spring 2026

Days/Time: Wednesdays 10:00 a.m. – 12:00 p.m. in-person every week plus VERT times specified below
Clinic Tues, Thurs 8:00 am – 4:30 pm

Location: HP238 & HP239, Online modules, Clinical Sites

II. Instructor Information

Instructor Name: Brenda Greenway
Email Address: bgreenway@viriniawestern.edu
Phone Number: 540-857-6126
Office Location: Fralin Center-HP222

Office Hours

Type	Days of a Week	Time	Location
Online	Mondays	9am-1pm	ZOOM Link: https://vccs.zoom.us/j/5408576126
OR	Tuesdays	1-4pm	OR
In-Person	Thursdays	1-4pm	HP 222

III. Course Description

The student is introduced to the clinical setting and the basics of Radiation Oncology. The student gains experience in basic technical and patient care skills through supervised direct patient contact, clinical, and phantom work.
4 credits

This is a hybrid course. There will be learning material and tasks assigned before and after class meetings each week. **Class meetings/lectures will take place at the set lecture time, on campus.** Zoom meetings will take place only when necessary (weather, restrictions, other exceptions). You can find more information about hybrid learning at the course site on Canvas.

IV. Course Goals

Students will learn and practice basic technical and patient care skills for radiotherapy.

V. Recommended Pre-Requisites

Admittance to VWCC/NOVA Radiation Oncology Program and completion of the program's first semester curriculum

VI. Readings/Materials and Textbooks

Scientific Calculator

Phone pdf scanning app or printer with scanning capabilities. You will be required to upload documents and pictures to Canvas as specified by the assignment.

Washington, C. M., Leaver, D. T., & Trad, M. (2020). *Washington & leaver's principles and practice of radiation therapy* (5th ed.). Mosby.

Olson, A., Sutton, M., and Arazie J. (2022). *Radiation Therapy Essentials: Radiation Therapy and Medical Dosimetry Board Exam Review 2nd Edition*. ISBN: 979-8-218-02065-1

Nappi, Laura. (2021). Radiation Therapy Calculations Manual.

ASRT Student Membership

VII. Pedagogical Methods or Instructional Techniques

Students will experience online assignments, activities, and assessments to prepare for and follow-up class meeting lectures each week.

VIII. Course Schedule with Weekly Learning Activities/Assignments

Week	In-Class Meeting Dates	Online Learning Activities/Assignments	Due Dates
Week 1	Date: Wednesday, 01/21/26 10:00 am – 12:00 pm	- Syllabus, Canvas, Trajecsyst Tour - Physician Order, CT Sim Review - Sim Major Steps Review, Shift vs No-Shift Method - Prescription (Rx) Review - Treatment Task Procedures (General) Review - OARs and TD 5/5s - Planning Basics: Image Fusion, Target Volumes, Contouring - Treatment Techniques W& Leaver Readings p.162-163 (Box 8.1,8.2) p.419-420 (Box 21.7, Fig. 21.18, Fig. 21.19) p.175-177 (Treatment Techniques up to Stereotactic Radiation, including all figures) p.470-481 (Tx Planning Essentials ALL) RTE Readings Chapter 14 p. 205 Treatment Planning Chapter 15 p. 217 Treatment Delivery	Module 0 and 1 Homework Due: 1/27
Week 2	Date: Wednesday, 01/28/26-Class 8-10am MANDATORY VERT 4 LAB LECTURE 10 - 12:00 pm	- Electron Setups - Whole Brain: borders, landmarks, skin reactions, simulation - Whole vs. Primary Brain setups/tx - Head casts/masks - Tx chart, EMR, Field Verification Concepts Review	Module 2

	VERT Open lab 12:00 pm - 2:00 pm Extra Practice: 1/26, 1/28, 2/02, & 2/04	• W& Leaver Readings p. 162-167 ALL up to Patient Transfers p. 168 – 171 (Pt Positioning, Isocenter, Field Placement) p. 173 (Bolos, Fig. 8.12) p.178 (Electron Beam ALL sections, figures) p.765-770 (Tx Techniques and Rad Therapy) Skin p.771 (Role of Radiation Therapist) Skin p.624-629 ALL • RTE Readings p. 41-44 (CNS Cancers) p. 151 (Skin Reactions) p. 152 (Alopecia and Brain Edema)	Homework Due: 2/3
Week 3	Date: Wednesday, 02/04/26-Class 8am-10am VERT LAB PRACTICE 10:00 pm – 3:00 pm	• Primary Bone Setups • Spine/Cord Compressions • Bone Mets • SSD vs SAD setups • Tumor Localization and IFD Concepts Review • W&L Readings p.507-508 (Metastatic Bone Disease) p.513 (Radiation Therapy) p.515-518 (Role of Radiation Therapist, Cases, Summary) • RTE Readings p. 175-183 • Rad Therapy Calc Manual p. 49 SSD vs SAD p. 75-76 Patient Separation	Module 3 Homework Due: 2/10
Week 4	Date: Wednesday, 02/11/26 VERT Comp Time Slots 2/9 & 2/11	TEST ONE-in Testing Center	Module 4 Test One VERT Comp: Review of ROC 125 VERT skills plus spine, brain
Week 5	Date: Wednesday, 02/18/26 -Class 10-12pm	• VERT: Image Matching CBCT • Lung and SVC • Lung Scenarios • W& Leaver Readings p.556-557 (Clinical Presentation, SVC, Fig. 28.2) p.560-568 (Tx Considerations through Summary, ALL) p.685 (table 33.1) • RTE Readings p. 26-27 (Thorax) p. 229 (Tumors in the Chest Only)	Module 5 Homework Due: 2/24
Week 6	Date: Wednesday, 02/25/26 Class 8am-10am	• Shrinking Field Technique, Boost • Table Shifts • Magnification Factors • Inverse Square Law Review • W& Leaver Readings p.111 (Geometric Factors) p.112 (Fig 6.17)	Module 6 Homework Due: 3/3

	MANDATORY 5 VERT LAB LECTURE 10 - 12:00 pm VERT Open lab 12:00 pm - 2:00 pm Extra Practice: 3/02, 3/04, 3/09, & 3/11	• RTE Readings p.168-174 (Geo Parameters & PT Measurement) p. 193-194(Mayneord's Factor) • Rad Therapy Calc Manual p.29-31 Mag Factors p. 13-18 Inverse Square Law	
Week 7	Date: Wednesday, 3/4/26 Class 8am-10am VERT LAB PRACTICE 10:00 pm – 2:00 pm	• Bladder, Kidney • Contours (Manual vs Digital) • Beam Weighting • W& Leaver Readings p.693-695 (Bladder Tx Techniques, Radiation Therapy, Fig. 33.17) p.701-703 (Kidney Tx Techniques, Rad Therapy Techniques, all figures and table) • RTE Readings p. 34 (Bladder) p. 233 (Tumors of the Pelvis) • Rad Therapy Calc Manual p. 57-58	Module 7 Homework Due: 3/10
Week 8	Date: Wednesday, 03/11/26 Class 8am-10am VERT LAB PRACTICE 10:00 pm – 2:00 pm	• Prostate • Penis and Testis • Scenarios • Bariatric Patients • W& Leaver Readings p.679-688 (Prostate Tx Techniques, Results of Tx, Side Effects/Complications) p.690- 692 (Penis Tx Techniques, Results of Tx, Side Effects/Complications) p. 697-699 (Testis Tx, Routes of Spread, Results of Tx) • RTE Readings p. 35 (Prostate) p. 36 (Testicular) p. 234 (Prostate & Seminoma)	Module 8 Homework Due: 3/17
Week 9	3/18/26	SPRING BREAK NO CLASSES	Module 9
Week 10	Date: Wednesday, 03/25/26 VERT Comp Time Slots 3/23 & 3/25	TEST TWO-in Testing Center	Module 10 Test Two VERT Comp: Review Topics, Image Matching, and Table Shifts
Week 11	Date: Wednesday, 04/01/26	• Hodgkin vs Non-Hodgkin • Para-aortic	Module 11

	Class 8am-10am MANDATORY 6 VERT LAB LECTURE 10 - 12:00 pm VERT Open lab 12:00 pm - 2:00 pm Extra Practice: 4/06, 4/08, 4/13, & 4/15	• Testicular vs lymphoma fields • W& Leaver Readings p.524-529 (Hodgkin start at Tx Techniques and read ALL up to Non-Hodgkin Lymphoma) p.530-531 (Non-Hodgkin Tx Techniques and read ALL up to Leukemia) • RTE Readings p. 36 (Testicular) p. 40 (Lymphoma) p. 234 (Seminoma)	Homework Due: 4/7
Week 12	Date: Wednesday, 04/08/26 Class 8am-10am VERT LAB PRACTICE 10:00 pm – 2:00 pm	• Head and Neck: oral cavity, pharynx (oro, hypo, and nasopharynx), larynx • W& Leaver Readings p.585-590 (Tx Considerations ALL up to Site-Specific Study) p. 592-594 (Rad for Oral Cavity ALL) p.596-600 (Rad for Pharynx ALL) p.600-602 (Rad for Larynx ALL) • RTE Readings p. 17- 19 (Head & Neck) p. 20 (Oral Cavity) p. 21 - 23 (Naso, Oro, Hypo, & Larynx) ***Will discuss summer book assignment.	Module 12 Homework Due: 4/14
Week 13	Date: Wednesday, 04/15/26 Class 9am-11am VERT LAB PRACTICE 11:00 am – 3:00 pm	• Head and Neck: maxillary sinus and salivary glands • W& Leaver Readings p. 602-603 (The Salivary Glands and Rad for Salivary Glands) p.603-609 (from The Paranasal Sinuses ALL up to the Summary) • RTE Readings p. 20 (Maxillary) p. 21 (Parotid) p. 152-153 (Xerostomia, Mucositis, & Pharyngitis) p. 229 (Head and Neck Tumors)	Module 13 Homework Due: 4/21
Week 14	Date: Wednesday, 04/22/26 VERT Comp Time Slots 4/20 & 4/22	Test Three in Testing Center	Module 14 VERT COMP: Image Matching and Review Skills
Week 15	Date: Wednesday, 04/29/26 10:00 am – 12:00 pm	• Imaging • W& Leaver Readings p.115-135	Module 15 Turn in "Area of Study" Workbooks

Week 16	05/06/26 10:00am-12:00pm	Prepare for the Summer Semester	Module 16
FINAL	Tuesday, May 12, 2026	Final Exam in Testing Center	Module 17 Final Exam

IX. Assignments

- Learning modules that include activities, assignments (homework, reading assignments, content review, discussion, reflection), and assessments.
- Formal Tests/Exams
- In-Person Skill, Performance, and Knowledge Assessments
- Freshman Workbook (Areas of Study)
- Clinical Evaluations, Competencies

X. Online Learning Activity Details

Students are required to complete an assigned learning module each week.

XI. Assessments and Grading Scale

Posting of Grades: Student assignments will be evaluated within 10 days, grades posted to Canvas.

METHOD OF EVALUATION

- **Clinical Classroom 60%**
 - Tests/Quizzes 60%
 - Final 25%
 - Assignments, other Assessments, Attendance 15%
- **Area of Study Workbook 10%**
- **Clinical Evaluations 15%**
- **Clinical Competencies, Including VERT 15%**

Grading

A = 95-100

B = 88-94

C = 81-87

F = <80 (unacceptable)

XII. Minimum Technology Requirements and Skills

This course includes both classroom meetings and online learning. A portion of this course is delivered online via Canvas learning management system. Students must have access to the Internet and access to Canvas. A hybrid course requires additional work outside the traditional lecture time in the classroom. To that end, you will complete a series of online learning activities and assignments, which will take you about the same amount of time as you spend in the classroom. This will require you to have access to a computer and reliable, preferably high-speed, Internet connection. Students should also have MS Office. Students should have a basic working knowledge of Excel, PowerPoint, and Word.

XIII. Course Policies

- **Academic Dishonesty** Academic Dishonesty will not be tolerated. Academic dishonesty includes cheating, plagiarism, and other forms of dishonorable conduct. Penalties can range from failing grades (on an assignment, an exam, or the course) to being referred to the Dean of Students for further disciplinary action, including possible expulsion from the college. This course will follow the VWCC Academic Integrity Policy which can be found at: <https://www.virginiawestern.edu/about/legal-and-policies/policies/student-affairs/i-85/>

Academic dishonesty, as a general rule, involves one of the following acts:

1. Cheating on an examination or quiz; including the giving, receiving, or soliciting of information and the unauthorized use of notes or other materials during the examination or quiz.
2. Buying, selling, stealing, or soliciting any material purported to be the unreleased contents of a forthcoming examination, or the use of such material. This includes online.
3. Substituting for another person during an examination or allowing such substitution for one's self.
4. Plagiarism. This is the act of appropriating passages from the work of another individual, either word for word or in substance, and representing them as one's own work. This includes any submission of written work other than one's own.
5. Collusion with another person in the preparation or editing of assignments submitted for credit, unless such collaboration has been approved in advance by the instructor.
6. Knowingly furnishing false information to the College; forgery and alteration or use of College documents or instruments of identification with the intent to defraud.

Be aware of the following (Exams/Tests/Quizzes):

- Internet-enabled devices and/or texts and other materials are prohibited during classroom or testing center testing. The computer you're testing on is the only device allowed for remote testing.
 - If you need to leave the room or camera viewing area during the testing, for whatever reason, your test will be collected/ended immediately for grading without any additional time for more work on the test or quiz.
 - Students will complete exams either in-person or while in a Zoom meeting with the instructor. Lockdown Browser may be required. In all environments, you are expected to present yourself as if you were in the classroom or testing center.
 - Calculators, a pen/pencil, and scratch paper are allowed for each exam.
 - If there is a technical difficulty, an email complete with a picture or screenshot of the issue must be sent to the instructor within 10 minutes of the problem occurring.
- **Instructor/Student Communication Policy**
The primary means of communication outside the classroom between the instructor and the student is via Canvas Announcements and email. **Students should check Canvas and their email daily for any instruction communications. Failure on the part of the student to check Canvas and email on a regular basis is not an excuse for missed/late assignments or exams.** The instructor turn-around time to response to voice messages and emails is 24-48 hours Monday through Friday.

I will email you at the email address on my class list which is your VCCS email address. If you do not check this address frequently, I would recommend you set it up for automatic forwarding to an email address you do check more frequently. When emailing the instructor, always send email from your VCCS email address.

- **Attendance Policy**

This is a hybrid course whereas a portion of the coursework assignments are completed online. Students are expected to work at least six-eight hours a week to complete coursework expectations, in addition to their clinical hours. Students are required to log onto Canvas at least three times a week, including weekends, to ensure awareness of assignment updates, coursework modifications and weekly announcements. Regular attendance is expected, and an attendance record will be maintained for each class.

Absences will affect a student's grade due to the student not being able to participate in class/group discussions. Arriving on time for class must be observed to maximize students' benefits from course activities and minimize disruption to other students. Late arrival to class will have a negative impact on the attendance grade. Students missing more than thirty percent of the scheduled classes without an excused absence from the professor will receive zero points for their entire attendance grade. Class absence does not excuse a student from meeting assignment due dates.

- **See Radiation Oncology Program Handbook for Clinical Attendance Policy relevant to clinical days for this class.**

- **Make-Up/Late Work Policy**

No make-up tests will be given unless a legitimate written excuse (e.g. illness) or prior notification is provided. Grades will be modified for late assignments, resulting in a dropped letter grade per day late. Points will be deducted for each hour past a time due on the due date.

- **Cellphones, Smartphones, Laptops and Other Electronic Devices**

Electronic communication devices are to be turned off while in class. Dedicated audio recording devices may be used if approved by the instructor in advance. No "texting" will be allowed. If texting/social media activity is observed, the grade for the course may be affected.

- **Student Professionalism**

All students are considered adults and will conduct themselves in a professional manner at all times. Please read the section titled ***Student Conduct and Integrity*** in the Student Handbook.

- **Inclement Weather Policy**

In the event of a VWCC closing, there will be no class. In addition, the student may not go to clinical.

- **AI Usage**

For the duration of this course, the use of Generative AI in assignments is strictly prohibited. Assignments are opportunities for personal growth, critical thinking, and applying your acquired knowledge. Your individual effort and creativity are essential in demonstrating your understanding of the course material. Dependence on AI undermines these objectives and compromises the integrity of the learning process. We appreciate your commitment to academic honesty.

Please see Part 2 in this syllabus module for information regarding Disability Services.