

**Virginia Western Community
College COURSE SYLLABUS
Spring 2026**

- I. COURSE NUMBER** ROC 145
- II. COURSE TITLE** Quality Improvement
- III. CREDIT HOURS** 2
- IV. CONTACT HOURS** 30
- V. COURSE PREREQUISITES** ROC 110

VI. COURSE DESCRIPTION

Methods for performing various quality assurance tasks will be discussed, including the medical record component, as well as standards and specifications of therapeutic equipment. The student will acquire the knowledge and ability to recognize inaccuracy of treatment delivery. Warm-up guidelines will be reviewed. A research project will be included.

VII. COURSE OBJECTIVES

1. Describe the primary goal of a QA program.
2. Discuss the process for collecting data for ongoing data evaluation and the evaluation process.
3. Discuss the importance of chart accuracy.
4. Define recommended checking frequency for various components of the chart.
5. Discuss the importance of machine checks and warm-up procedure.
6. Discuss the necessity for proper documentation of equipment function.
7. Explain the importance of audio and visual communication.
8. Describe the types, function and check techniques for communication devices.
9. Develop a research project specific to quality improvement in radiation oncology.

VIII. REQUIRED TEXT

1. Washington C. and Leaver, D. (2020). Principles and Practice of Radiation Therapy. (5th edition) MO: Mosby Co. ISBN-13: 978-032359695-4
2. Comprehensive Quality Assurance for Radiation Oncology: Report of AAPM Radiation Therapy Committee Task Group Report #40 and #66. Click on the links below to view/print:
[AAPM Report #46, Task Group 40](#) (41 pages)
[AAPM Report of the AAPM Radiation Therapy Task Group #66](#) (31 pages)
3. McDermott, P. and Orton, C. (2010). *The Physics and Technology of Radiation Therapy*. Medical Physics Publishing ISBN:978-1-930524-32-3 (hard cover) 978-1-930524-44-7 (soft copy)
4. *Safety is No Accident*-ASRT document, click on the following to view/print: [Safety is No Accident-ASRT](#)

REFERENCED COURSE MATERIALS

1. Khan, Faiz (2009). *The Physics of Radiation Therapy* (4th ed). Lippincott Williams and Wilkins. ISBN: 978-0-7817-8856-4

IX. GRADING FORMAT

A = 93 – 100

B = 85 – 92

C = 77 - 84

F = 76 and below

X. METHOD OF EVALUATION

Tests: 60%

Research Paper: 15%

Comprehensive Final Exam: 25%

XI. INSTRUCTOR

Tillie Conner MS, R.T. (R) (T)

Office: Office #219, Fralin Center

Phone: 540-857-6104

Email: mconner@virginiawestern.edu

I will respond to emails within 72 hours.

Office Hours: Tuesday 8:00 AM - 12:00 PM & 2:00 - 4:00 PM,

Thursday 8:00 AM – 12:00 PM

ACADEMIC HONESTY

This course will follow the VWCC Student Conduct policy found in the online VWCC Student Handbook under the “VWCC Course Policies” tab. If a student is found cheating on any assignment, test, or quiz a grade of “F” will be awarded

XII. CLASS EXPECTATIONS

No makeup tests will be given unless a legitimate written excuse; i.e. illness or prior notification is provided. Grades will be modified for late assignments resulting in a dropped letter grade per day late.

XIII. INCLEMENT WEATHER

In the event of a college closing due to inclement weather on a testing day, the deadline for taking the test will be extended 24 hours or an additional day when the college re-opens.

College inclement weather link:

<http://www.virginiawestern.edu/about/inclementweather.php>

Students should try to take tests/exams before the deadline. In the case of inclement weather which closes the student learning center, the instructor will extend the deadline the number of days that the learning center was closed. In the case of extreme weather, the instructor will work with the student to make suitable arrangements.

IX. FINAL EXAM STATEMENT

There is a comprehensive final exam. The final exam will be taken in the testing center. If you cannot take the exam in the VWCC or MEC testing centers, you must contact me and let me know where you will be taking it and submit the appropriate proctoring forms.

X. AI POLICY

No Generative AI Usage Permitted: 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 and dedication to upholding this course's principles by refraining from using Generative AI in your assignments.

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