EVT 2100—Introduction to Health Physics
Three Semester Hours

PREREQUISITES:
Recommend general chemistry, physics, algebra, and calculus

COURSE OVERVIEW:
Addresses fundamental principles of health physics and radiation protection. Topics include atomic structure, types of radiation, radioactive decay, methods of radiation detection, dosimetry, biological effects, and radiation protection.

METHODS OF COURSE INSTRUCTION:
All material for this course is print-based. Instructor and students communicate and exchange materials through postal mail.

E-PRINT OPTION:
In this course, an option exists to use e-mail to submit your lesson assignments. Your assignment will be returned to you either as an e-mail attachment or as a hard copy sent through the postal mail, depending on the preferences of the instructor and/or program.

TEXTBOOKS AND SUPPLIES:

NUMBER OF LESSONS:
The course has ten lessons, including a midcourse examination and a final examination. These lessons include:
- Lesson 1: Introduction to Health Physics
- Lesson 2: Interactions of Radiation with Matter
- Lesson 3: Biological Effects of Radiation
- Lesson 4: Radiation Quantities and Dosimetry Calculations
- Lesson 5: Midcourse Examination
- Lesson 6: Radiation Detectors and Dosimetry
- Lesson 7: Environmental Monitoring Programs and Equipment
- Lesson 8: Protection Principles, Shielding, and Transport
- Lesson 9: Radioactive Waste Management
- Lesson 10: Final Examination
TYPES OF WRITING ASSIGNMENTS:

The writing assignments in Lessons 1–4 and 6–9 consist of short-answer questions that require you to define a term or identify a concept and problems that require you to use calculation and problem-solving skills. All assignments have clear directions in each lesson.

Please note: for all calculation and problem-solving assignments, you must show work. Each assignment is submitted to your instructor for evaluation and grading.

For this course, there are two supervised exams—a midcourse and a final. The midcourse covers the first four lessons and the final exam covers the last four lessons. You will have two hours to complete each exam. The exams are comprehensive and include fill-in-the-blank, calculation, and problem-solving questions. All work must be shown on the calculation and problem-solving parts of the exam. Specific information about each examination and the forms necessary to schedule the examinations with a supervisor are included in Lessons 5 and 10.

GRADING CRITERIA:

Your final grade for the course will be weighted on the following factors:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Lesson Assignments</td>
<td>20%</td>
</tr>
<tr>
<td>Midcourse Exam</td>
<td>30%</td>
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<tr>
<td>Final Exam</td>
<td>50%</td>
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