



<b>Course Number</b> <b>Course Name</b>	<b>ES 333 RADIATION BIOLOGY</b>
<b>Credit Value</b> <b>(Breakdown of theory and lab credits)</b>	3 Theory
<b>Catalog Course Description</b>	Survey of radiobiology: effects of differing types of radiation on matter, different radiations and their properties; detailed modes of action of radiation on biochemical and biophysical systems with emphasis on the large macromolecules of living tissue; nature of radiation damage to long-chain nucleic acid molecules; potential problems from indiscriminate use of radiation therapy and diagnostic x-rays, and nuclear facility accidents; effects of low-level radiation exposure.
<b>Student Learning Outcomes/Objectives /Competencies of the Course</b>	<ol style="list-style-type: none"> <li>1. Knowledge of the global significance of the history and use of radiation and effects on human health.</li> <li>2. Knowledge of radiation safety techniques to reduce exposure including use of Personal Protective Equipment and monitoring devices.</li> <li>3. Demonstrate knowledge of survey equipment and technique for area surveys and surveys for removable contamination, radioactive decontamination procedures and disposal of radioactive waste.</li> </ol>
<b>College-Wide Student Learning Outcomes</b>	<ol style="list-style-type: none"> <li>1. <i>Critical Thought</i> <i>Critical Thought will be assessed by testing of concepts related to Radiation Biology.</i></li> </ol>