Radiological Society of North America

This course is designed to introduce students to the world of radiological physics. It will cover the basic principles of radiological physics, including the behavior of x-rays and gamma rays, the nature of radiation detectors, and the principles of radiation protection. The course will also provide an introduction to the role of radiological physics in the fields of medicine and industry.

Introduction to Radiological Physics and Radiation Dosimetry

Radiological physics is the study of the effects of ionizing radiation on matter. It is a fundamental discipline that forms the basis for many technologies, including medicine and industry. This course will provide an introduction to the basic principles of radiological physics, including the nature of radiation, the behavior of ionizing radiation, and the principles of radiation protection.

The course will begin with an introduction to the basic principles of radiation, including the nature of ionizing radiation and the processes by which it interacts with matter. It will then cover the behavior of ionizing radiation, including the principles of absorption and scattering. The course will also provide an introduction to the principles of radiation protection, including the principles of radiation safety and the use of radiation detectors.

The course will also provide an introduction to the role of radiological physics in the fields of medicine and industry. It will cover the basic principles of medical radiology, including the use of x-rays and gamma rays in medical imaging, and the principles of radiation safety in the workplace.

The course will conclude with a review of the basic principles of radiological physics, including the behavior of ionizing radiation, the principles of radiation protection, and the role of radiological physics in medicine and industry.

The course will be taught by a team of experienced instructors, who will provide a clear and comprehensive introduction to the basic principles of radiological physics. The course will be delivered in a combination of lectures and practical sessions, and will include a range of assessment methods, including written assignments, practical exercises, and a final examination.

The course is suitable for students interested in pursuing a career in radiological physics, or for those who wish to gain a fundamental understanding of the basic principles of radiological physics.