Radiation Protection Technician

RPT 111
Radiation Fundamentals • 5.0 Credits
This course provides future radiological protection technicians with an overview of radioactivity, sources of radiation, and radioactive decay. Emphasis is placed on plant safety, radiological hazards, and radioactivity containment. **Prerequisite: Students must be accepted into CBC's Nuclear Technology program prior to enrollment.**

RPT 121
Radiation Monitoring • 5.0 Credits
Principles of radiation detection and measurement principles. Application of radiological survey and analysis instruments, sample collection equipment, and calibration sources and equipment. **Prerequisite: Completion of RPT 111 with a 0.7 or higher, or concurrent enrollment, or instructor permission.**

RPT 131
Radiation Effects • 5.0 Credits
Radiation biology, radiation effects on simple chemical systems, biological molecules, cells, organisms, and humans. Stochastic vs. deterministic effects, units of exposure, dose and dose equivalent, external dosimetry, internal dosimetry, control of external and internal exposure, detector and instrumentation systems for measuring dose. **Prerequisite: A grade of 0.7 or higher in either RPT 111 or RPT 121, or instructor permission.**

RPT 141
Radioactive Materials Handling • 5.0 Credits
Radioactive material control and methods to minimize and control external exposure and airborne radioactivity. **Prerequisite: Completion of RPT 111 with a 0.7 or higher.**

RPT 211
Radiological Safety and Response • 5.0 Credits
This course focuses on contamination control and appropriate responses to radiological events. **Prerequisite: Completion of RPT 111 with a 0.7 or higher.**

RPT 222
Radiation Protection • 5.0 Credits
Practical applications and demonstrations of radiation protection and health physics. Radiological protection standards, contamination control, radiological incident evaluation and control, decontamination, and environmental monitoring. **Prerequisite: Completion of RPT 111 with a 0.7 or higher.**