



## RSO Course Outline

### Math and Physics Review

- Scientific Notation
- Algebra Review
- Basic Calculator Operation
- Nuclear Structure
- Forces in Nature
- Fundamental Properties

### Radiation and Radioactivity

- Definitions and Units
- Half-life and Decay
- Interaction of Radiation with Matter
- Radiation Dose
- Background Radiation Exposure

### Biological Effects

- Cellular Effects
- Short-Term Effects
- Long-Term Effects

### Radiological Hazards

- External radiation
- Protection methods
- Contamination

### Detection and Measurement

- Basic Principles
- Detection Efficiency
- Counting Statistics
- Dose/Dose Rate Measurements
- Contamination Measurements
- Fixed Laboratory Instruments

### Operational Program

- ALARA
- Procedures & Training
- Surveys, Posting and Labeling
- Dosimetry
- Leak Testing
- Instrument Calibration
- Record Keeping
- Waste Disposal
- "Declared Pregnant Woman" Requirements

### Regulatory Agencies

- NRC/Agreement States – License Conditions, 10CFR20
- DOT – Transportation Requirements

# RADIATION SAFETY OFFICER *training course*

Las Vegas, Nevada  
December 6th - 10th, 2021

**Radiation Safety & Control Services, Inc.**  
93 Ledge Road, Seabrook NH 03874  
Tel: 800-525-8339 · Fax: 603-474-1531  
[www.radsafety.com](http://www.radsafety.com)

## Course Description

This comprehensive 40-hour course provides students with a balance of technical and theoretical information along with practical applications of radiation safety. Fundamental concepts are presented in a logical progression, providing a sound basis for understanding the day-to-day requirements of the Radiation Safety Officer. An optional exam for RSO's whose programs require testing is provided along with a DOT exam. References from past students are available upon request.

The three instructors of the course are Certified Health Physicists with a combined 70 years of experience in their field. As RSCS principals, they operate a nuclear instrumentation calibration facility, an analytical measurement laboratory, and also perform consulting for Radioactive Material Licensees.

Continuing education credits have been approved by the American Academy of Health Physics (40 Continuing Education Credits), and the American Society of Radiologic Technologists (40 hours of Category A Continuing Education Credits) for the five-day RSO course.

## Class Schedule

Classes will run **December 6th through December 10th 2021, 8:00 am to 5:00 pm on Monday-Thursday, and 8:00 am to 12:00 pm on Friday.** The RSO course will end at noon on Friday and an optional exam will be offered Friday afternoon. Optional evening sessions will be held on Tuesday and Thursday. On Monday, RSCS will provide lunch and a catered social after class.



## Registration and Accommodations

The fee for the course is \$1,495.00. Since enrollment is limited, early registration is advised. An early bird discount of \$100 will apply to all students who register and provide payment or purchase order for the course by November 6th 2021. Payment must be received in full no later than 15 business days prior to the start of the course. Registrations made after this period will be expected to be paid at time of registration. A full refund will be provided for course cancellations made within 3 days of enrollment. A \$200 fee will be applied to all cancellations received before 10 business days to the start of the course. No refunds will be given after that period.

Courses will be held at the Doubletree Club Hotel in Las Vegas, Nevada. The course is conveniently located near the Las Vegas airport, with easy access to "The Strip" and other area amenities. Participants are responsible for their hotel accommodations. Call direct at 702-948-4000. Remember to tell the Doubletree you are attending the RSCS course.

## More Information

To register for the course online, or to contact us for additional information, visit us at [radsafety.com](http://radsafety.com) or call us at 800-525-8339.

## About Us

Established in 1989, Radiation Safety & Control Services provides technical consulting, training and instrument support services to commercial nuclear, private industrial, medical, academic and governmental facilities. Services offered include:

## Radiation Safety Training

- RSO, ARSO
- Operation of Instrumentation
- DOT Subpart H
- Custom Courses

## Radiation Detection Equipment

- Radiation Detection Equipment Sales and Leasing
- Simulated Radiation Detection Equipment
- Radiation Safety Supplies

## Calibration & Analytical Lab

- NIST-Traceable Instrument Calibration
- Gamma, Beta and Neutron
- Loose & Fixed Contaminated Instruments
- Full Service Repair Lab On Site
- Radioactive Source Leak Testing
- Radon Testing

## Health Physics Consulting

- License Applications and Amendments
- HP Program Development
- Management and Technical Support
- Radiation Safety Program Audits
- Groundwater Support
- MCNP Shielding Calculations
- License Termination Plans
- Decommissioning Support

## Technical Staffing

- ANSI 3.1 & ANSI 18.1 Senior Radiation Protection Technicians
- Senior and Junior Decontamination Technicians