The following pages detail the requirements for you to become an X-Ray radiation worker on campus and have a radiation dosimetry issued to you.

1. You must complete the Environmental Health & Safety online training course entitled “Radiation Producing Devices” and score at least 80% on the quiz to pass the training session. Please log into Percipio and click “View Compliance” to complete the training.

2. You must complete a laboratory specific discussion and overview of the specific X-ray usage manual pertaining to the laboratory with the Authorized User. This is to include a review of specific UNC Charlotte Radiation Safety documents including: Handbook for Radiation Safety, Emergency Procedures, and Material Security & Loss/Theft Procedure. The Authorized User is responsible for ensuring that his/her radiation workers have received adequate instruction in safety principles applicable to the X-ray unit.

3. You must complete the forms detailing any previous known radiation exposure that you have had and provide all associated radiation exposure records.

Please forward all of the completed paperwork to the EHS Office. Please contact the Radiation Safety Officer at (704) 687-1111 if you have any questions with this process.
Online Radiation Safety Training – please complete the online radiation safety course entitled: Radiation Producing Devices that is assigned to you through Percipio training systems. The training takes approximately 45 minutes and there is a 20 question quiz at the end of the session.

The online training covers the following areas:

**Radiation Overview**
- Radioisotopes / Half lives / Applications
- Four Primary Types of Ionizing Radiation

**Personnel Protection and Monitoring**
- ALARA – As Low as Reasonably Achievable
- Inverse Square Law
- Time, Distance, and Shielding
- Non-Ionizing Radiation

**Health Hazards Associated With Radiation**
- DNA and Radiation
- Ionizing Radiation at the Cellular Level
- Radiosensitivity of cells, tissues and organs
- Damage of high doses of radiation
- Acute and Chronic Exposures
- Radiation – Units of Measurement
- Dose Limits & Typical Doses
- Natural and Manmade Sources

**Radiation Usage**
- Handbook for Radiation Safety and Nuclide Safety Data Sheets
- Authorized Users
- Radiation Workers
- Dosimetry Program – Dosimetry Do’s & Don’ts
- Radioactive Material Recordkeeping
- Sealed Sources
- Security
- Surveys
- Emergency Response

**Online Training Completion**

Name: ____________________  Authorized User: ____________________  Department: ____________________

To be completed by the EHS Office:

Quiz Score: _____________  Date of Completion: ____________
X-ray Machine Designation: _________________________________

Building: ___________________  Room: ________________

This program applies to all personnel (student, faculty and staff) wishing to operate X-ray machines.

I. **Objective:** To become acquainted and comfortable with the safe operation of the radiation producing equipment listed above through the following steps:

   A. Familiarity with the safe operation of X-ray equipment.
   
   B. Familiarity with the emergency shut-down procedures for X-ray machines.

II. **Specific Training Steps:**

   A. Understanding of the x-ray diffraction, spectroscopic or radiographic techniques used by the machine designated above.
   
   B. Overall operation of the x-ray machine (Reading Assignment - Operational Manual for the X-ray machine designated above)
   
   C. X-ray warning lights
   
   D. Emergency shut-off procedure
   
   E. Use of whole body and ring badge dosimeter
   
   F. Use of radiation shields and shutters, if applicable by unit
   
   G. Use of radiation survey meters
   
   H. Record keeping.

The Applicant has received the radiation awareness orientation as outlined above and agrees to comply with all UNC Charlotte procedures and regulatory requirements governing the use of this X-ray equipment.

**Applicant:** Print:_________________________  Signature:_________________________ Date:_________________________

**Authorized User:** __________________________  Print: __________________________  Signature:_________________________  Date:_________________________
Please check applicable statement:

☐ 1) I have no prior occupational dose.

☐ 2) I may have received occupational dose during the course of prior employment.*

   My lifetime cumulative exposure is: ____________________________.

   My current year annual exposure is: ____________________________.

   My current quarter exposure is: ____________________________.

   (If unknown, indicate unknown, do not leave blank)

*If you indicated No. 2, then you must complete a "Radiation Exposure History" form for each place of employment at which you received an occupational dose, indicating current cumulative exposure.
**RADIATION WORKER**

**RADIATION EXPOSURE HISTORY**

Name: _______________________________ University ID Number: _______ - _______ - _______

Birth date: _______/_______/_______  Department: __________________________

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I assert that this is a complete listing of my prior radiation employment and I request that the prior employer(s), listed above, release my radiation exposure history to the UNC Charlotte EHS Office.

Applicant: Print: _______________________________  Signature: _______________________________  Date: ____________

Xray packet for male -- 8/2020  5
RAS FORM 2
APPLICATION FOR DOSIMETRY SERVICES

1. Full name of applicant: ____________________________________________________________

2. UNCC Affiliation (please check one): Faculty/Staff ___ UNCC Student ___ Volunteer/Visitor ___

3. University e-mail: _________________________________________________________________

4. University ID number: ____________________________________________________________

5. Date of birth: ______________________________________________________________________

6. Gender: __________________________________________________________

7. Department: _________________________________________________________________

8. Authorized User: _______________________________________________________________

9. Isotopes and/or Equipment used: _________________________________________________

10. Location and description of use: _________________________________________________

11. TLD Ring? (see section 2.5 B of the Handbook for Radiation Safety) yes ___ no ___ / Ring size (S/M/L) ______

12. List coverage by all dosimetry services at locations other than UNC Charlotte: __________________________

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The applicant and Authorized User certify that all information contained herein is true and correct to the best of his or her knowledge.

Applicant: Print: ___________________________ Signature: ___________________________ Date: ____________

Authorized User: Print: ___________________________ Signature: ___________________________ Date: ____________

Radiation Safety Officer authorizes Applicant to utilize radioactive materials and certifies review of this RAS-2 Application:

Radiation Safety Officer: ___________________________ Date: ___________________________