1. Passion for the Profession

This presentation is offered to give educators and students an idea at what it takes to remain passionate and effective in our profession. There will be a discussion of the role of Radiologic Technologists in the medical arena and in patients’ results. An overview of other modalities will be examined.

2. Normalization of Deviance

Several authors have recently suggested that it is time to abandon the Linear Non-Threshold dose response relationship and replace it with a Linear Threshold relationship or even the Hormesis relationship. I think that such a change would be another example of “Normalization of Deviance” and could result in a challenge to the health of our patients and ourselves.

This presentation begins with a description of the 1986 Challenger disaster and the term “Normalization of Deviance” coined by Diane Vaughn. During this introduction I will remark on two nuclear reactor incidents, the SL-1 and the WTR, in which I participated and which caused me to leave nuclear physics for medical physics.

Then we will concentrate on the various types of dose-response relationships and the history of their development. I will describe in depth the radiation responses: stochastic and deterministic. We will develop a strategy for confronting the overutilization and inappropriate utilization of medical imaging. Consider, for example, the approximate 80 million CT studies performed annually in the USA and the resulting estimated lethality of 30,000 from radiation-induced cancer.

The normalization of deviance occurs daily in medical imaging as we take shortcuts that violate ALARA – as low as reasonably achievable – or result in suboptimal images. Image masking, radiation dose creep, and proper application of the cardinal principles of radiation safety – time, distance, and shielding – are discussed in depth.

The presentation concludes with a discussion of three new imaging modalities that I believe show promise of reduced patient radiation dose and significant diagnostic benefit – digital radiographic tomosynthesis, functional imaging and quantitative imaging.
3. **Examining Grade Inflation and Considerations for the Radiologic Sciences**

   Grade inflation is defined as an increase in the number of “A” grades being awarded to students. This may lead to students who have the grade by not necessarily the skill to prove they have mastered the content. Causes of grade inflation will be discussed during this presentation as well as considerations for the profession. Suggestions for mitigating this trend will also be examined. Because no studies in radiologic sciences currently exist, examining grade inflation is this field is critical, because faculty are the gatekeepers of the profession.

4. **Radiation Exposed Martyrs of Radiation Incidents and the Resulting Lessons**

   Because radiation cannot be detected by the senses, many people throughout history have fallen ill and died of radiation exposure. This presentation will discuss some of the early martyrs of radiation poisoning including: Marie Curie, Clarence Dally, Harry Daghlian Jr., and Louis Slotin. Accidents such as Goiania, K-12, Three Mile Island, Chernobyl, and Fukushima will be discussed. Interlaced in the presentation will be a review of basic radiobiology and protection.

5. **And You Thought Physics had to be Boring**

   Educators often report that this topic is among the most difficult to teach. Student radiographers generally find this the most boring of their courses. This presentation will illustrate that neither has to be the case. By reviewing the key concepts of x-ray physics in a fast-paced and practical fashion, educators and students will place this topic in its proper perspective and find ways to enhance learning this topic. Clinical practitioners will have a great review of this topic and a better appreciation of the role played by physics in their daily work.

6. **3D Dimensional Teaching: Hands on Learning with 3D Printed Objects**

   Teaching students complex anatomy and pathology has always been a challenge. Radiologic Science instructors teach in a two-dimensional world, and yet we live and work in a three-dimensional world. The advent of three-dimensional printers has created a new way of teaching anatomical structures to students. The presentation will focus on a current 3D printing, and advanced visualization course taught at Weber State University to help students gain a better understanding of anatomy and pathology. The presentation will also present career opportunities with three-dimensional reconstruction and printing.
7. **A Walk in Their Shoes: Let’s Make a Difference in the Patient Care Experience**

This presentation is in reference to a personal experience the Speaker had with the death of her father. She spent 75 days living in the hospital. It has been 5 years since his death and she will share the perspective shift she has had in regards to the medical field, and what healthcare providers can do to make a difference in a larger way.

8. **The Standards Revision – What’s New for 2018 Part 1**

This presentation will provide participants with an overview of the Revision of the Standards for an Accredited Educational Program in Radiography, Radiation Therapy, Magnetic Resonance, and Medical Dosimetry that become effective January 2021. The revision of the Standards is a comprehensive review that will assist in determining the validity, reliability and ease of interpretation of the Standards. The presentation will also include the timeline associated with the revision process.

9. **The Mental Health Crisis of College Students**

College students are under pressure to succeed. This presentation will share the current literature review of how college students are coping, what the top mental health issues are, and how college campuses can support this growing crisis. Faculty will also reflect on the mental health issues of radiologic technology students. Some basic tips will be given on what to do when a student is in the office with a mental health situation.

10. **One Health One Medicine One Image**

The purpose of this presentation is to update and inform technologists on the joint initiative One Health One Medicine of the AMA and AVMA to help them gain an understanding of the positive effects from collaborative medicine practices. For technologists specifically, this presentation also focuses on comparative imaging and anatomy between species to emphasize the cross-focus diagnostic imaging provides.

11. **The Standards Revision- What’s New for 2018 Part 2**

This is a continuation of Lecture #8

12. **Growing Your Professional Portfolio**

A well-developed professional portfolio helps technologists and educators showcase their experiences and expertise. The portfolio can also serve as a visual representation of a candidate’s strengths and weakness when applying for a new position or promotion. This presentation will help participants develop and organize a working portfolio, as well as suggest opportunities for portfolio growth.
13. **From My Boots to Scrubs**

A review of how the military prepares its members for readiness and real world contingencies and transitioning to civilian sector post military service. Presentation includes some graphic images and explanations of what takes place when saving lives.

14. **Using Concept Maps in Radiologic Science Education**

A concept map is a graphic representation of related content. Concept mapping can be used in any course of a radiologic technology program curriculum. There are also various ways concept maps can be used, including collaborative concept mapping. This presentation would provide specific applications and examples of concept mapping in radiologic science courses. It would also include the results of a research study conducted to determine students’ perceptions of collaborative concept mapping.

15. **Stories from the Front Line: Dealing with Millennials in the Clinical Environment**

Continuing to see the impact of the Millennial individual in the workplace, educators are confronted with the presence of a disconnect that has emerged between the expectations of the clinical workplace and the understanding and actions of these individuals. Situations will be explored that exemplify this disconnect as well as methodologies on how to address these arising situations. When implementing these tools, there is a direct change and cohesiveness occur between the student and clinical site. This presentation will include presentation of tools currently used within Oregon Tech’s imaging programs to address and resolve any deficiencies that arise. This will give the audience tools to take back to their programs to help students be successful in their clinical journey.

16. **Trauma Radiography 101**

Trauma radiography is often a very intimidating environment for student radiographers. This presentation will demonstrate procedural adaptation techniques for trauma situations through interesting trauma case discussions. The importance of image quality and patient care pointers will also be included.

17. **Compilation/Overview of Electronic Media Used by Radiation Sciences Faculty**

There is a wealth of electronic media available to radiologic science faculty. These include media from online publishers, computer programs, smartphone apps, electronic simulation units, and positioning assistance found on new radiographic equipment. The presenters have compiled and categorized lists of known websites to show samples of many of the currently available products. All identified resources will be summarized and presented in a format with hyperlinked sites made available for those interested.
18. The Wild World of Radiation Therapy: It’s Not Just for Humans

When one thinks about the administration of radiation therapy for treatment, human malignancies come to mind. However, radiation oncology departments and veterinary offices across the country use the technology to treat pets and other captive animals on a daily basis. To begin, this presentation will cover the science and basic procedures involved in radiation therapy treatment. Next, treatment of household pets, including dogs and cats, will be discussed. The final portion will include radiation therapy treatment for large zoo and/or sanctuary animals, as well as endangered species. Videos and images of animal radiation therapy treatment will be included.

19. The Radiographer Lawsuit: An Unpleasant Experience

The speaker has been actively involved as expert witnesses for both the defense and the plaintiff in a variety of radiography lawsuits and arbitration hearings. These cases have directly involved radiologic technologists, and in some cases, radiography students. Several of the most poignant cases and the outcomes will be discussed. Thoughts will be shared on what it is like facing a radiographer, radiology manager or program director in a courtroom and having to tell a jury he or she fell below the standard of care, did not teach a procedure correctly or used an incorrect technique. Suggestions will be given on how to avoid finding oneself in the courtroom.

20. Using Interprofessional Learning to Improve the Professional

Interprofessional interactions are becoming increasingly important in health care facilities and in educational program. This presentation will explore the differences between terms interprofessional and interdisciplinary. Suggestions of how to incorporate IP activities into academia and how this impacts student learning will be discussed. Discussions will also include how health care facilities are using IP education to improve patient care and outcomes.

21. The Imaging Professional – Encouraging Student Involvement in Our Profession

In this session professional behaviors, as related to the technologist’s role as a healthcare provider, will be discussed. The imaging professional’s role extends well beyond the textbook. Encouraging involvement in professional societies, giving back through service learning, and interprofessional collaboration with the healthcare team offers an avenue to keep abreast of current changes in healthcare. Students will identify how to take ownership of their role as an imaging professional. This course will explore methods of exhibiting professionalism in the workplace, identify current trends in our field, and discuss opportunities for participation in student service to the field.
22. **The (Radiation) Safety Dance**

This session will review all of the material from the updated content specifications outline for the safety section of the ARRT exam. Topics include radiation physics, radiobiology and radiation protection. Topics also include biological aspects of radiation, minimizing patient exposure, personnel protection, and radiation exposure and monitoring. Additionally, there will be review questions built into the presentation, in the form of an interactive Kahoot session.

23. **Teaching Students Who Feel Entitled to an A**

The target audience include program and clinical faculty. The presentation will overview defining entitlement infiltration, grade inflation, creating environments to promote student learning, how to develop and deliver explicit faculty explicit faculty expectations (rubrics). The goal is to provide program and clinical faculty with some tools to help move students from entitlement to empowerment.

24. **A Personal Philosophy of Teaching and Learning: The Radiologic Science Educator**

The presentation will explore the components of a philosophy of teaching and learning, and apply the principles of each component to radiologic sciences education. A philosophy of teaching and learning takes into consideration the educator’s definition of the concepts, view of the learner, goals and expectations of the student-teacher relationship, teaching methods and evaluation, and personal context of teaching. While not cast in stone, together, these five components provide for the educator, the framework for consciously formulating and assessing his/her impact in the classroom and on student outcomes. A personal philosophy of teaching and learning has a necessary and intimate relationship between classroom practice and student outcomes. The objective of the presentation is to help RT educators identify their personal philosophy of teaching and learning and its impact on their pedagogical practices.


This lecture will cover the newly published 2017 content specifications as defined by ARRT for the Imaging Procedures section of the radiography examination. The transition of content will be highlighted for Junior and Senior level students. The lecture will follow the detailed published outline of content specifications for radiographic positions and projections. The speaker will use mock registry question and answer format to prompt student participation. Socrative application for students to engage and compete in answering questions will be included. A disclosure statement will be made at the beginning of the lecture for data usage. Study tips and mnemonics will be threaded throughout the lecture.
26. **Medical 3D Printing: Introduction for Radiologic Technologists**

Recent application of 3D printing in medicine is growing and evolving rapidly, providing promising potential for future research and development in the supporting fields of study. Physical models of anatomical structures can be developed using high-resolution volumetric images that are typically derived from computed tomography scans. The process of model creation consists of multiple steps including image acquisition, image post-processing, image segmentation, and 3D printing. In the recent practice, 3D models have been successfully used in the custom prostheses and implants production, complex surgical planning, and education. The purpose of this presentation is to offer an overview of this emerging technology from the perspective of a radiologic technologist. It focuses on the steps of 3D printing, the current and future application of the technology, its limitations and challenges, and the role of radiologic technologists in medical prototyping.

27. **Enough Already! Addressing Unprofessional Behaviors in the Workplace**

This presentation will discuss the importance of professionalism. In this day and time, a lack of professionalism is often evident in the workplace. Students will realize behaviors that are considered professional as well as unprofessional. Program faculty and clinical instructors will acquire the knowledge to contend with unprofessional behaviors as well as ascertain the importance of modeling professional behaviors. Strategies to combat unprofessional behaviors, the use of social media and e-professionalism will also be discussed. Recent research related to unprofessional behaviors will also be included.

28. **Ace it! Test Taking Strategies for Radiography Students**

This presentation will cover strategies individuals can utilize to be successful in demonstrating their knowledge on exams. The content will break down the preparation process prior to testing and the process of answering questions during testing sessions. This presentation can aid students of all academic abilities master the art of test taking by identifying the answer distractors and zeroing in on the correct answer. Content will also cover test anxiety parameters such as causes of test anxiety and combating test anxiety. By implementing strategies taught in this presentation students will be more prepared and more comfortable come testing day!
29. **Using Role-Play to Enhance Student Learning in Procedures and Positioning Courses**

Students benefit from opportunities to practice honing their process, considering how they will handle a variety of common patient interactions, as well as maintaining composure and the all-important “poker face”. Role-playing activities give students the chance to consider what they might say and do in real-life situations. This presentation will highlight several role-playing activities that can be used to enhance student learning in procedures and positioning courses. Activities to be discussed include: the use of instructor and student made videos for discussion and critique, collecting a patient history, preparing for and performing barium enema exams, and working with diabetic feet. Methods and materials for the activities will be described and example resources shared.

30. **Enhancing Students’ Reception to Feedback**

The purpose of this study was to identify the relationships between instructor’s feedback and student’s receptivity in a clinical setting. We posed two research questions in a correlational design using a convenience sample of 132 students enrolled in imaging education. The null hypothesis was not rejected for all correlations calculated between separate predictor (FES) and criterion (FOS) variables. Clinical instructors are essential to the feedback environment and play a significant role in helping students receive, accept, and develop competency. Feedback receptivity is promoted when students perceive consistent, relevant, specific, and altruistic messages. Training for clinical instructors may deliberately focus on principles of feedback quality and delivery to enhance the clinical instructor/student relationship and learning.

31. **Developing Electronic Professionalism and Accountability in Allied Health Students**

Personal communication, in part due to the availability of communicating via text message, instant message, email, and various social media platforms, has caused concern regarding the lack of appropriate professional communication between radiologic sciences students and their professors. The presenters have experienced students who write emails resembling text messages (i.e., lack of appropriate capitalization, incorrect grammar and punctuation, and missing/incorrect salutations and closings), students who submit emails with an aggressive/disrespectful tone which they may not be inclined to use when in face-to-face situations, students who use inappropriate language and/or all emails in which all words are capitalized, and students who fail to provide enough information in an original email for the instructor to be able to answer their questions in fewer than two emails. These experiences have occurred primarily with distance education students in the Bachelor of Science, Radiologic Science program students. The primary purpose of this presentation is to gather and develop best practices to instill professional electronic communication and accountability in all allied health professions students.
32. Radiography and Terrorism: Dealing with Victims of Bomb Blast Injuries

In the past, terrorism was a term used for violent actions taking place in distant countries that had little to do with the United States or its citizens. Today, terrorism has become a part of the lives of continental Americans, resulting in new different types of patient care environments. In addition to dealing with large numbers of multi-trauma victims, hospitals now must be able to deal with injuries foreign to day-to-day traumatic events. This course will discuss categories of injuries from terroristic acts of bombing, the methods of injury, and imaging modalities best suited to image these injuries. The role of imaging in diagnosis or injuries as well as victim identification will be discussed as well as suggestions for staffing and management protocols.