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| For Academic Affairs and Research Use Only |
| Proposal Number |  |
| CIP Code:  |  |
| Degree Code: |  |

**NEW OR MODIFIED COURSE PROPOSAL FORM**

**[X] Undergraduate Curriculum Council**

**[ ] Graduate Council**

|  |
| --- |
| **[X]New Course, [ ]Experimental Course (1-time offering), or [ ]Modified Course (Check one box)** |

Signed paper copies of proposals submitted for consideration are no longer required. Please type approver name and enter date of approval.

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| --- | --- |
| Deanna Barymon 10/19/2020**Department Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**COPE Chair (if applicable)** |
| Cheryl DuBose 10/13/2020**Department Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Head of Unit (if applicable)**   |
| Shanon Brantley 10/28/2020**College Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Undergraduate Curriculum Council Chair** |
| Mary Elizabeth Spence 10/28/20**Office of Assessment (new courses only)** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Graduate Curriculum Committee Chair** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**College Dean** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Vice Chancellor for Academic Affairs** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**General Education Committee Chair (if applicable)**   |  |

1. **Contact Person (Name, Email Address, Phone Number)**

Jessica Cooper, jmcooper@astate.edu, 870.972.2747

Cheryl DuBose, cdubose@astate.edu, 870.972.2772

1. **Proposed starting term and Bulletin year for new course or modification to take effect.**

**Fall 2021**

**Instructions:**

*Please complete all sections unless otherwise noted. For course modifications, sections with a “Modification requested?” prompt need not be completed if the answer is “No.”*

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| --- | --- | --- |
|  | **Current (Course Modifications Only)** | **Proposed (New or Modified)** *(Indicate “N/A” if no modification)* |
| **Prefix** |  | **RSLT** |
| **Number\*** |  | **2013** |
| **Title** |  | **Imaging Equipment and Exposure** |
| **Description\*\*** |  | **Image acquisition for image receptors; image quality evaluation process, factors, and analysis; manipulation of exposure factors and evaluation in laboratory setting. Focus on application of skills and optimal image acquisition.** **Prerequisite, Admission to Certificate of Proficiency for the Limited X-Ray Machine Operator. Fall.** |

 ***\**** (Confirm with the Registrar’s Office that number chosen has not been used before and is available for use. For variable credit courses, indicate variable range. *Proposed number for experimental course is 9*.)

\*\*Forty words or fewer as it should appear in the Bulletin.

1. **Proposed prerequisites and major restrictions** **[Modification requested? No]**

(Indicate all prerequisites. If this course is restricted to a specific major, which major. If a student does not have the prerequisites or does not have the appropriate major, the student will not be allowed to register).

1. Yes Are there any prerequisites?
	1. If yes, which ones?

 Admission into the Certificate of Proficiency for the Limited X-ray Machine Operator

* 1. Why or why not?

Limited Admission into certificate program. All courses must be taken simultaneously.

1. YES Is this course restricted to a specific major?
	1. If yes, which major? Admission into the Certificate of Proficiency for the Limited X-Ray Machine Operator program
2. **Proposed course frequency [Modification requested? No]**

(e.g. Fall, Spring, Summer; if irregularly offered, please indicate, “irregular.”) *Not applicable to Graduate courses.*

Fall

1. **Proposed course type [Modification requested? No]**

Will this course be lecture only, lab only, lecture and lab, activity (e.g., physical education), dissertation/thesis, capstone, independent study, internship/practicum, seminar, special topics, or studio? Please choose one.

Lecture and lab

1. **Proposed grade type [Modification requested? No]**

What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental, or other [please elaborate])

Standard letter

1. NO Is this course dual-listed (undergraduate/graduate)?
2. NO Is this course cross-listed?

*(If it is, all course entries must be identical including course descriptions. Submit appropriate documentation for requested changes. It is important to check the course description of an existing course when adding a new cross-listed course.)*

**a.** – If yes, please list the prefix and course number of the cross-listed course.

 Enter text...

 **b.** – **Yes / No** Can the cross-listed course be used to satisfy the prerequisite or degree requirements this course satisfies?

 Enter text...

1. YES Is this course in support of a new program?

a. If yes, what program?

 Certificate of Proficiency for the Limited X-Ray Machine Operator

1. NO Will this course be a one-to-one equivalent to a deleted course or previous version of this course (please check with the Registrar if unsure)?

a. If yes, which course?

Enter text...

**Course Details**

1. **Proposed outline** **[Modification requested? No]**

(The course outline should be topical by weeks and should be sufficient in detail to allow for judgment of the content of the course.)

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| **Week** | **Content** |
| 1 | Basic Physics for Radiography |
| 2 | X-ray Production |
| 3 | X-ray Circuit and Tube Heat Management |
| 4 | X-ray Circuit and Tube Heat Management |
| 5 | Principles of Exposure and Image Quality |
| 6 | Principles of Exposure and Image Quality – Lab |
| 7 | Screen/Film Image Receptor Systems |
| 8 | Screen/Film Image Receptor Systems – Lab |
| 9 | Digital Image Receptor Systems |
| 10 | X-ray Dark Room and Film Processing |
| 11 | Scatter Radiation and Safety |
| 12 | Radiobiology |
| 13 | Formulating X-ray Techniques |
| 14 | Formulating X-ray Techniques - Lab |
| 15 | Primary Factors |
| 16 | Review and final exam per A-State academic calendar |

1. **Proposed special features** **[Modification requested? No]**

(e.g. labs, exhibits, site visitations, etc.)

lab

1. **Department staffing and classroom/lab resources**

1 instructor and 1 classroom and lab.

1. Will this require additional faculty, supplies, etc.?

 no

1. No Does this course require course fees?

 *If yes: please attach the New Program Tuition and Fees form, which is available from the UCC website.*

**Justification**

**Modification Justification (Course Modifications Only)**

1. Justification for Modification(s)

Enter text...

**New Course Justification (New Courses Only)**

1. Justification for course. Must include:

 a. Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain)

 This course provides foundational content to enable students to meet these goals and outcomes. Upon completion of this course, the student will be able to:

1. Discuss basic physics principles of radiography.

2. Identify x-ray components and discuss the function.

3. Demonstrate radiographic changes by adjusting primary technical factors.

4. Discuss density and contrast changes related to technical factor adjustment.

b. How does the course fit with the mission of the department? If the course is mandated by an accrediting or certifying agency, include the directive.

 This certificate program will educate students in limited scope of practice radiography and fundamentals of clinical lab science. This aligns with the Medical Imaging and Radiation Sciences department mission of providing a comprehensive, multi-skilled education. We will be preparing students to obtain jobs in clinics and physician offices.

c. Student population served.

Undergraduate students enrolled in the Certificate of Proficiency for the Limited X-Ray Machine Operator program

d. Rationale for the level of the course (lower, upper, or graduate).

This is an introductory level course. Students should be accepted in good standing for the A-State – Jonesboro campus

**Assessment**

**Assessment Plan Modifications (Course Modifications Only)**

1. No Do the proposed modifications result in a change to the assessment plan?

 *If yes, please complete the Assessment section of the proposal*

**Relationship with Current Program-Level Assessment Process (Course modifications skip this section unless the answer to #18 is “Yes”)**

1. What is/are the intended program-level learning outcome/s for students enrolled in this course? Where will this course fit into an already existing program assessment process?

Students will be able to meet program goals:

1. Students will provide proper radiation safety.

2. Students will produce quality radiographs.

3. Students will recommend corrective action for sub-optimal radiographs.

1. Considering the indicated program-level learning outcome/s (from question #19), please fill out the following table to show how and where this course fits into the program’s continuous improvement assessment process.

*For further assistance, please see the ‘Expanded Instructions’ document available on the UCC - Forms website for guidance, or contact the Office of Assessment at 870-972-2989.*

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| **Program-Level Outcome 1 (from question #19)** | Students will provide proper radiation safety. |
| Assessment Measure | 70% or higher course grade; lab participation by rubric  |
| Assessment Timetable | Fall semester, weekly throughout the semester |
| Who is responsible for assessing and reporting on the results? | Program faculty |

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| **Program-Level Outcome 2 (from question #19)** | Students will produce quality radiographs. |
| Assessment Measure | 70% or higher course grade; lab participation by rubric  |
| Assessment Timetable | Fall semester, weekly throughout the semester |
| Who is responsible for assessing and reporting on the results? | Program faculty |

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| **Program-Level Outcome 3 (from question #19)** | Students will recommend corrective action for sub-optimal radiographs. |
| Assessment Measure | 70% or higher course grade; lab participation by rubric  |
| Assessment Timetable | Fall semester, weekly throughout the semester |
| Who is responsible for assessing and reporting on the results? | Program faculty |

 *(Repeat if this new course will support additional program-level outcomes)*

 **Course-Level Outcomes**

1. What are the course-level outcomes for students enrolled in this course and the associated assessment measures?

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| **Outcome 1** | Discuss basic physics principles of radiography. |
| Which learning activities are responsible for this outcome? | Homework, quizzes, exams |
| Assessment Measure  | Submit assignments on time, maintain 70% or higher course grade. |

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| **Outcome 2** | Identify x-ray components and discuss the function |
| Which learning activities are responsible for this outcome? | Homework, quizzes, exams, lab practical |
| Assessment Measure  | Submit assignments on time, maintain 70% or higher course grade. |

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| **Outcome 3** | Demonstrate radiographic changes by adjusting technical factors. |
| Which learning activities are responsible for this outcome? | Homework, quizzes, exams, lab practical |
| Assessment Measure  | Submit assignments on time, maintain 70% or higher course grade. |

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| **Outcome 4** | Discuss density and contrast changes related to technical factor adjustment. |
| Which learning activities are responsible for this outcome? | Homework, quizzes, exams, lab practical |
| Assessment Measure  | Submit assignments on time, maintain 70% or higher course grade. |

 *(Repeat if needed for additional outcomes)*

**Bulletin Changes**

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| **Instructions**  |
| **Please visit** [**http://www.astate.edu/a/registrar/students/bulletins/index.dot**](http://www.astate.edu/a/registrar/students/bulletins/index.dot) **and select the most recent version of the bulletin. Copy and paste all bulletin pages this proposal affects below. Please include a before (with changed areas highlighted) and after of all affected sections.** **\*Please note: Courses are often listed in multiple sections of the bulletin. To ensure that all affected sections have been located, please search the bulletin (ctrl+F) for the appropriate courses before submission of this form.**  |

**[AFTER]**

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**Certificate of Proficiency for the Limited X-Ray Machine Operator**

This program will prepare students for the ARRT Limited Scope of Practice in Radiography exam for the State of Arkansas Licensure and to work in the clinical setting of physician offices. This is a formal education program to educate limited license technicians on radiologic positioning, radiation safety, and image critique.

RSLT 2012 Introduction to Limited X-Ray Machine Operator 2

RSLT 2013 Imaging Equipment and Exposure 3

RSLT 2021 Limited X-Ray Machine Operator Chest and Spine Procedures *or*

RSLT 2031 Limited X-Ray Machine Operator Extremity Procedures 1

CLS 1512 Fundamentals of Clinical Laboratory Science 2

CLS 1511 Fundamentals of Clinical Laboratory Science Lab 1

HP 2013 Medical Terminology 3

RS 436V Independent Study 3

 **Total Required Hours: 15**

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RSLT 2012. Introduction to Limited X-Ray Machine Operator. An introduction to the clinical environment, general patient care, legal and ethical issues, radiation protection, and general radiobiology. Prerequisite, Admission to Certificate of Proficiency for the Limited X-Ray Machine Operator. Fall.

RSLT 2013. Imaging Equipment and Exposure. Image acquisition for image receptors; image quality evaluation process, factors, and analysis; manipulation of exposure factors and evaluation in laboratory setting. Focus on application of skills and optimal image acquisition. Prerequisite, Admission to Certificate of Proficiency for the Limited X-Ray Machine Operator. Fall.

RSLT 2021. Limited X-Ray Machine Operator Chest and Spine Procedures. Radiographic terminology and steps of radiographic exams. Radiographic anatomy and positioning of the chest and spine. Prerequisite, Admission to Certificate of Proficiency for the Limited X-Ray Machine Operator. Fall.

RSLT 2031. Limited X-Ray Machine Operator Extremity Procedures. Radiographic terminology and steps of radiographic exams. Radiographic anatomy and positioning of the extremities. Prerequisite, Admission to Certificate of Proficiency for the Limited X-Ray Machine Operator. Fall.