Code # NHP68 (2015)

**New Course Proposal Form**

[x]  **Undergraduate Curriculum Council** - Print 1 copy for signatures and save 1 electronic copy.

[ ]  **Graduate Council** - Print 1 copy for signatures and send 1 electronic copy to pheath@astate.edu

|  |
| --- |
| [x] **New Course or** [ ]  **Experimental Course (1-time offering) (Check one box)***Please complete the following and attach a copy of the bulletin page(s) showing what changes are necessary.*  |

|  |  |
| --- | --- |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Department Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**COPE Chair (if applicable)** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Department Chair:**  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**General Education Committee Chair (If applicable)**   |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**College Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Undergraduate Curriculum Council Chair** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**College Dean** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Graduate Curriculum Committee Chair** |
|  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Vice Chancellor for Academic Affairs** |

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

Ray Winters

rwinters@astate.edu

ext.3329

2. Proposed Starting Term and Bulletin Year

Fall 2016

3. Proposed Course Prefix and Number (Confirm that number chosen has not been used before. For variable credit courses, indicate variable range. *Proposed number for experimental course is 9*. )

RAD 4203

 4. Course Title – if title is more than 30 characters (including spaces), provide short title to be used on transcripts. Title cannot have any symbols (e.g. slash, colon, semi-colon, apostrophe, dash, and parenthesis). Please indicate if this course will have variable titles (e.g. independent study, thesis, special topics).

Radiography Clinic III

5. Brief course description (40 words or fewer) as it should appear in the bulletin.

Supervised clinical experience in routine radiographic procedures. Students are evaluated with a competency based evaluation system.

6. Prerequisites and major restrictions. (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. Are there any prerequisites? Yes
	1. If yes, which ones? Formal Acceptance into the Radiography Program
	2. Why or why not?

The Radiography Program is lockstep and students move through in cohorts.

1. Is this course restricted to a specific major? Choose an item.
	1. If yes, which major? Formal Acceptance into the Radiography Program

7. Course frequency(e.g. Fall, Spring, Summer). *Not applicable to Graduate courses.*

Fall

8. Will this course be lecture only, lab only, lecture and lab, activity, dissertation, experiential learning, independent study, internship, performance, practicum, recitation, seminar, special problems, special topics, studio, student exchange, occupational learning credit, or course for fee purpose only (e.g. an exam)? Please choose one.

Clinical Practicum

9. What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental)?

standard letter

10. Is this course dual listed (undergraduate/graduate)?

No

11. Is this course cross listed? (If it is, all course entries must be identical including course descriptions. It is important to check the course description of an existing course when adding a new cross listed course.)

No

1. If yes, please list the prefix and course number of cross listed course.

 Enter text...

1. Are these courses offered for equivalent credit? No

 Please explain. No

12. Is this course in support of a new program? No

a. If yes, what program?

 No

13. Does this course replace a course being deleted? Yes

a. If yes, what course?

RAD 4202

14. Will this course be equivalent to a deleted course? Yes

a. If yes, which course?

RAD 4202

15. Has it been confirmed that this course number is available for use? yes

16. Does this course affect another program? No

If yes, provide contact information from the Dean, Department Head, and/or Program Director whose area this affects.

no

**Course Details**

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

Week1-14 Clinical experiences, both planned and unplanned, which challenge the student’s performance and reinforce skills obtained in Radiography lab

18. Special features (e.g. labs, exhibits, site visitations, etc.)

This will be a guided clinical course with activities designed to allow students to apply critical thinking skills related to real life clinical practice.

19. Department staffing and classroom/lab resources

No additional resources will be required

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

 No

20. Does this course require course fees? No

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

**Course Justification**

21. Justification for course being included in program. Must include:

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

 This is an upper division clinical course containing practices essential to the professional curriculum. The clinical activities will require application of previously learned materials, critical thinking, decision-making, and evaluation of outcomes in order to succeed in this course..

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

 This course is mandated by the current American Society of Radiologic Technologists Radiography Educational Curriculum stipulated by the Joint Review Committee on Education in Radiologic Technology. It is a foundational course which leads to preparing students for entry level practice of radiologic technology

c. Student population served.

Students formally admitted to the Bachelor of Science in Radiologic Sciences program

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

This is an upper division clinical course containing practices essential to the professional curriculum. The clinical activities will require application of previously learned materials, critical thinking, decision-making, and evaluation of outcomes in order to succeed in this course..

**Assessment**

**University Outcomes**

22. Please indicate the university-level student learning outcomes for which this new course will contribute. Check all that apply.

|  |  |  |
| --- | --- | --- |
| * 1. [ ] Global Awareness
 | * 1. [x] Thinking Critically
 | * 1. [x] Information Literacy
 |

**Relationship with Current Program-Level Assessment Process**

23. 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?

This RAD course will contribute to program level learning in all four MIRS student learning outcomes.

1. Use proper radiographic techniques to display clinical competence.
2. Demonstrate acceptable problem solving skills.
3. Communicate effectively with peers, medical staff, and patients.
4. Exhibit professional behaviors and attitudes.

RAD 4203 Course Learning Outcomes

1. Prepare the radiography room and equipment for each exam.
2. Verify correct patient and exam information.
3. Obtain and record patient history, including contraindications and/or previous diagnostic studies.
4. Demonstrate age appropriate communication skills when explaining the procedure to the patient and/or patient’s family.
5. Manipulate x-ray tube, bucky, and console inputs for exams of the chest, abdomen, and upper extremities.
6. Demonstrate competency for exams of the chest, abdomen, and upper extremities.
7. Evaluate final images for image quality and optimal demonstration of the anatomic region of interest.
8. Apply proper radiation safety techniques throughout the exam.
9. Practice effective communication with peers and medical staff.

24. Considering the indicated program-level learning outcome/s (from question #23), 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.*

|  |  |
| --- | --- |
| **Program-Level Outcome 1 (from question #23)** | Use proper radiographic techniques to display clinical competence. |
| Assessment Measure | Competency checklist; Faculty image evaluation; Attitude and Behavior Evaluation; Employer Satisfaction Survey; ARRT exam pass rate |
| Assessment Timetable | Competency checklist (formative assessment throughout the semester); Faculty image evaluation (pass/fail summative evaluation at the end of each semester); Attitude and Behavior Evaluation (3 times per semester); Employer Satisfaction Survey (6 months post graduation); ARRT exam pass rate (data gathered as students take exam—data reported on calendar year, fiscal year and by class cohort) |
| Who is responsible for assessing and reporting on the results? | Program Director and Clinical Coordinator collect and report data. MIRS faculty evaluate results and develop action plans based upon those results. |

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| **Program-Level Outcome 2 (from question #23)** | Demonstrate acceptable problem solving skills. |
| Assessment Measure | Competency checklist; Faculty image evaluation with image critique; Attitude and Behavior Evaluation, question #10; Employer Satisfaction Survey; ARRT exam pass rate |
| Assessment Timetable | Competency checklist (formative assessment throughout the semester); Faculty image evaluation (pass/fail summative evaluation at the end of each semester); Attitude and Behavior Evaluation (3 times per semester); Employer Satisfaction Survey (6 months post-graduation); ARRT exam pass rate (data gathered as students take exam—data reported on calendar year, fiscal year and by class cohort) |
| Who is responsible for assessing and reporting on the results? | Program Director and Clinical Coordinator collect and report data. MIRS faculty evaluate results and develop action plans based upon those results. |

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| **Program-Level Outcome 3 (from question #23)** | Communicate effectively with peers, medical staff, and patients. |
| Assessment Measure | Attitude and Behavior Evaluation, question #3; Employer Satisfaction Survey; Competency form (patient communication question) |
| Assessment Timetable | Attitude and Behavior Evaluation (3 times per semester); Employer Satisfaction Survey (6 months post-graduation); Competency form (formative assessment throughout the semester); |
| Who is responsible for assessing and reporting on the results? | Program Director and Clinical Coordinator collect and report data. MIRS faculty evaluate results and develop action plans based upon those results. |

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| **Program-Level Outcome 4 (from question #23)** | Exhibit professional behaviors and attitudes. |
| Assessment Measure | Attitude and Behavior Evaluation, question #3; Employer Satisfaction Survey; Graduate Follow Up Survey |
| Assessment Timetable | Attitude and Behavior Evaluation (3 times per semester); Employer Satisfaction Survey (6 months post-graduation); Graduate Follow Up Survey (6 months post-graduation) |
| Who is responsible for assessing and reporting on the results? | Program Director and Clinical Coordinator collect and report data. MIRS faculty evaluate results and develop action plans based upon those results. |

**Course-Level Outcomes**

25. What are the course-level outcomes for students enrolled in this course and the assessment measures and benchmarks for student-learning success?

|  |  |
| --- | --- |
| **Outcome 1** | Prepare the radiography room and equipment for each exam. |
| Which learning activities are responsible for this outcome? | Clinical competency checklist |
| Assessment Measure and Benchmark | Students will successfully complete this section of the checklist on the first attempt 75% of the time. |
| **Outcome 2** | Verify correct patient and exam information. |
| Which learning activities are responsible for this outcome? | Clinical competency checklist |
| Assessment Measure and Benchmark | Students will successfully complete this section of the checklist on the first attempt 75% of the time. |
| **Outcome 3** | Obtain and record patient history, including contraindications and/or previous diagnostic studies. |
| Which learning activities are responsible for this outcome? | Clinical competency checklist; Attitude and Behavior Evaluation – Q#4 |
| Assessment Measure and Benchmark | Students will successfully complete this section of the competency checklist on the first attempt 75% of the time. Students will average a 4 out of 5 on question #4 of the Attitude and Behavior Evaluation. |
| **Outcome 4** | Demonstrate age appropriate communication skills when explaining the procedure to the patient and/or patient’s family. |
| Which learning activities are responsible for this outcome? | Clinical competency checklist; Attitude and Behavior Evaluation – Q#3 |
| Assessment Measure and Benchmark | Students will successfully complete this section of the checklist on the first attempt 75% of the time. Students will average a 4 out of 5 on question #3 of the Attitude and Behavior Evaluation. |
| **Outcome 5** | Manipulate x-ray tube, bucky, and console inputs for exams of the chest, abdomen, and upper extremities. |
| Which learning activities are responsible for this outcome? | Competency checklist totals per semester; Attitude and Behavior Evaluation – Q#8 |
| Assessment Measure and Benchmark | Students will successfully complete a minimum of 8 competency evaluations for completion of this course. Students will average a 4 out of 5 on question #8 of the Attitude and Behavior Evaluation. |
| **Outcome 6** | Demonstrate competency for exams of the chest, abdomen, and upper extremities. |
| Which learning activities are responsible for this outcome? | Competency checklist totals per semester; Attitude and Behavior Evaluation – Q#8; Faculty Image Evaluation |
| Assessment Measure and Benchmark | Students will successfully complete a minimum of 8 competency evaluations for completion of this course. Students will average a 4 out of 5 on question #8 of the Attitude and Behavior Evaluation. Students will achieve a score of 80% or higher on the Faculty Image Evaluation. |
| **Outcome 7** | Evaluate final images for image quality and optimal demonstration of the anatomic region of interest. |
| Which learning activities are responsible for this outcome? | Competency checklist totals per semester; Faculty Image Evaluation |
| Assessment Measure and Benchmark | Students will successfully complete a minimum of 8 competency evaluations for completion of this course. Students will achieve a score of 80% or higher on the Faculty Image Evaluation. |
| **Outcome 8** | Apply proper radiation safety techniques throughout the exam. |
| Which learning activities are responsible for this outcome? | Competency checklist totals per semester; Attitude and Behavior Evaluation – Q#8; Faculty Image Evaluation |
| Assessment Measure and Benchmark | Students will successfully complete a minimum of 8 competency evaluations for completion of this course. Students will average a 4 out of 5 on question #8 of the Attitude and Behavior Evaluation. Students will achieve a score of 80% or higher on the Faculty Image Evaluation. |
| **Outcome 9** | Practice effective communication with peers and medical staff. |
| Which learning activities are responsible for this outcome? | Clinical competency checklist; Attitude and Behavior Evaluation – Q#3 |
| Assessment Measure and Benchmark | Students will successfully complete this section of the checklist on the first attempt 75% of the time. Students will average a 4 out of 5 on question #3 of the Attitude and Behavior Evaluation. |

**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. Follow the following guidelines for indicating necessary changes.** **\*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.** - Deleted courses/credit hours should be marked with a red strike-through (~~red strikethrough~~)- New credit hours and text changes should be listed in blue using enlarged font (blue using enlarged font). - Any new courses should be listed in blue bold italics using enlarged font (***blue bold italics using enlarged font***)*You can easily apply any of these changes by selecting the example text in the instructions above, double-clicking the ‘format painter’ icon 🡪 , and selecting the text you would like to apply the change to.* *Please visit* [*https://youtu.be/yjdL2n4lZm4*](https://youtu.be/yjdL2n4lZm4) *for more detailed instructions.* |

The following reflects all current MIRS proposals submitted to UCC.

Page 318-333

Major in Radiologic Sciences

Bachelor of Science in Radiologic Sciences

Emphasis in Computed Tomography/Magnetic Resonance Imaging

A complete 8-semester degree plan is available at http://registrar.astate.edu/. University Requirements:

See University General Requirements for Baccalaureate degrees (p. 41)

First Year Making Connections Course: Sem. Hrs.

RT 1003, Making Connections in Radiology 3

General Education Requirements: Sem. Hrs.

See General Education Curriculum for Baccalaureate degrees (p. 83)

Students with this major must take the following:

MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite

BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory

~~PHYS 1203 AND 1201, Physical Science and Laboratory PSY 2013~~,

Introduction to Psychology COMS 1203,

Oral Communication (Required Departmental Gen. Ed. Option)

35

Major Requirements: Sem. Hrs.

HP 2013, Medical Terminology 3

HP 3413, Cultural Competency 3

RAD 2001, Intro to Medical Imaging 1

RAD 3103, Intro to Radiography 3

RAD 3113 AND RAD 3111, Radiographic Procedures I and Laboratory 4

RAD 3123, Radiation Physics and Imaging 3

RAD 3202, Imaging Equipment 2

RAD 3203 AND RAD 3201, Radiographic Procedures II and Laboratory 4

RAD 3213 AND RAD 3211, Image Acquisition & Evaluation I and Laboratory 4

RAD 3223, Sectional Anatomy 3

RAD 3233, Radiography Clinical I 3

RAD 4103 AND RAD 4101 – Radiographic Procedures III and Laboratory 4

RAD 4113, Image Acquisition & Evaluation II 3

RAD 4123, Imaging Pathology 3

RAD 4132, Radiobiology 2

RAD 4143, Radiography Clinical II 3

~~RAD 4202, Radiography Clinical III 2~~

***RAD 4203, Radiography Clinical III 3***

RAD 4213, Radiography Clinical IV 3

Sub-total ~~53~~ 54

Emphasis Area (CT/MRI): Sem. Hrs.

RS 4623, CT Instrumentation 3

RS 4633, CT Procedures 3

RS 4644, CT Clinical Education 4

RSMR 4703, MRI Safety & Instrumentation 3

RSMR 4712, Imaging Information Management 2

RSMR 4723, MRI Procedures I 3

RSMR 4733, MRI Procedures II 3

RSMR 4753, MRI Clinical Ed I 3

RSMR 4763, MRI Clinical Education II 3

RSMR 4803, MRI Physics 3

RSMR 4823, Data Acquisition and Processing 3

RSMR 4833, Advanced MRI Imaging 3

Sub-total 36

Additional Support Courses: Sem. Hrs.

BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory 4

CS 1013, Introduction to Computers 3

Sub-total 7

Total Required Hours: ~~134~~ 135

Major in Radiologic Sciences

Bachelor of Science in Radiologic Sciences

Emphasis in Computed Tomography/Mammography

A complete 8-semester degree plan is available at http://registrar.astate.edu/. University Requirements:

See University General Requirements for Baccalaureate degrees (p. 41)

First Year Making Connections Course: Sem. Hrs.

RT 1003, Making Connections in Radiology 3

General Education Requirements: Sem. Hrs.

See General Education Curriculum for Baccalaureate degrees (p. 83)

Students with this major must take the following:

MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite

BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory

~~PHYS 1203 AND 1201, Physical Science and Laboratory~~

PSY 2013, Introduction to Psychology

COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)

35

Major Requirements: Sem. Hrs.

HP 2013, Medical Terminology 3

HP 3413, Cultural Competency 3

RAD 2001, Intro to Medical Imaging 1

RAD 3103, Intro to Radiography 3

RAD 3113 AND RAD 3111, Radiographic Procedures I and Laboratory 4

RAD 3123, Radiation Physics and Imaging 3

RAD 3202, Imaging Equipment 2

RAD 3203 AND RAD 3201, Radiographic Procedures II and Laboratory 4

RAD 3213 AND RAD 3211, Image Acquisition & Evaluation I and Laboratory 4

RAD 3223, Sectional Anatomy 3

RAD 3233, Radiography Clinical I 3

RAD 4103 AND RAD 4101 – Radiographic Procedures III and Laboratory 4

RAD 4113, Image Acquisition & Evaluation II 3

RAD 4123, Imaging Pathology 3

RAD 4132, Radiobiology 2

RAD 4143, Radiography Clinical II 3

~~RAD 4202, Radiography Clinical III 2~~

***RAD 4203, Radiography Clinical III 3***

RAD 4213, Radiography Clinical IV 3

Sub-total ~~53~~ 54

Emphasis Area (CT/Mammography): Sem. Hrs.

RS 4623, CT Instrumentation 3

RS 4633, CT Procedures 3

RS 4644, CT Clinical Ed 4

RS 3122, Legal and Regulatory Environ of Radiology 2

RS 3733, Geriatric Considerations in Radiology 3

RS 4363, Independent Study in the Rad Sciences 3

RS 4463, Statistics for Medical Imaging 3

RS 4502, Mammography Procedures 2

RS 4512, Mammography Instrumentation 2

RS 4553, Mammography Clinical Education I 3

RS 4563, Mammography Clinical Education II 3

RS 4822, Psychosocial Factors in Healthcare 2

RSMR 4712, Imaging Information Management 2

Sub-total 35

Additional Support Courses: Sem. Hrs.

BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory 4

CS 1013, Introduction to Computers 3

Sub-total 7

Total Required Hours: ~~133~~ 134

Major in Radiologic Sciences

Bachelor of Science in Radiologic Sciences

Emphasis in Computed Tomography/Cardiovascular-Interventional Technology

A complete 8-semester degree plan is available at <http://registrar.astate.edu/>.

University Requirements: See University General Requirements for Baccalaureate degrees (p. 41)

First Year Making Connections Course: Sem. Hrs.

RT 1003, Making Connections in Radiology 3

General Education Requirements: Sem. Hrs.

See General Education Curriculum for Baccalaureate degrees (p. 83)

Students with this major must take the following:

MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite

BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory

~~PHYS 1203 AND 1201, Physical Science and Laboratory~~

PSY 2013, Introduction to Psychology

COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)

35

Major Requirements: Sem. Hrs.

HP 2013, Medical Terminology 3

HP 3413, Cultural Competency 3 RAD 2001,

Intro to Medical Imaging 1

RAD 3103, Intro to Radiography 3

RAD 3113 AND RAD 3111, Radiographic Procedures I and Laboratory 4

RAD 3123, Radiation Physics and Imaging 3

RAD 3202, Imaging Equipment 2

RAD 3203 AND RAD 3201, Radiographic Procedures II and Laboratory 4

RAD 3213 AND RAD 3211, Image Acquisition & Evaluation I and Laboratory 4

RAD 3223, Sectional Anatomy 3

RAD 3233, Radiography Clinical I 3

RAD 4103 AND RAD 4101 – Radiographic Procedures III and Laboratory 4

RAD 4113, Image Acquisition & Evaluation II 3

RAD 4123, Imaging Pathology 3

RAD 4132, Radiobiology 2

RAD 4143, Radiography Clinical II 3

~~RAD 4202, Radiography Clinical III 2~~

***RAD 4203, Radiography Clinical III 3***

RAD 4213, Radiography Clinical IV 3

Sub-total ~~53~~ 54

Emphasis Area (CT/CIT): Sem. Hrs.

RS 3122, Legal & Regulatory Environment of Radiology 2

RS 3733, Geriatric Considerations in Radiology 3

RS 4343, Radiologic Administrative Concepts 3

RS 4423, Cardiovascular-Interventional Procedures and Instrumentation 3

RS 4442, Cardiac Physiology and Procedures 2

RS 4443, Stats for Medical Imaging 3

RS 4453, Cardiovascular-Interventional Clinical Education 3

RS 4464, Cardiovascular-Interventional Internship 4

RS 4622, CT Instrumentation 2

RS 4632, CT Procedures 2

RS 4644, CT Clinical Ed 4

RS 4822, Psychosocial Factors in Healthcare 2

RSMR 4712, Imaging Information Management 2

Sub-total 35

Additional Support Courses: Sem. Hrs.

BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory 4

CS 1013, Introduction to Computers 3

Sub-total 7

Total Required Hours: ~~133~~ 134

Major in Radiologic Sciences

Bachelor of Science in Radiologic Sciences

Emphasis in Computed Tomography/Medical Imaging Informatics

A complete 8-semester degree plan is available at http://registrar.astate.edu/. University Requirements:

See University General Requirements for Baccalaureate degrees (p. 41)

First Year Making Connections Course: Sem. Hrs.

RT 1003, Making Connections in Radiology 3

General Education Requirements: Sem. Hrs.

See General Education Curriculum for Baccalaureate degrees (p. 83)

Students with this major must take the following:

MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite

BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory

~~PHYS 1203 AND 1201, Physical Science and Laboratory~~

PSY 2013, Introduction to Psychology

COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)

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Major Requirements: Sem. Hrs.

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RAD 3213 AND RAD 3211, Image Acquisition & Evaluation I and Laboratory 4

RAD 3223, Sectional Anatomy 3

RAD 3233, Radiography Clinical I 3

RAD 4103 AND RAD 4101 – Radiographic Procedures III and Laboratory 4

RAD 4113, Image Acquisition & Evaluation II 3

RAD 4123, Imaging Pathology 3

RAD 4132, Radiobiology 2

RAD 4143, Radiography Clinical II 3

~~RAD 4202, Radiography Clinical III 2~~

***RAD 4203, Radiography Clinical III 3***

RAD 4213, Radiography Clinical IV 3

Sub-total ~~53~~ 54

Emphasis Area (CT/Medical Imaging Informatics): Sem. Hrs.

CIT 1503, Microcomputer Applications 3

CIT 2033, Programming Fundamentals 3

CIT 2523, Telecommunications and Networking 3

CIT 3013, Management Information Systems 3

CIT 3403, Database Management 3

CIT 3623, LAN Administration 3

CIT 4623, Computer Security 3

RS 3733, Geriatric Considerations in Radiology 3

RS 4362, Leadership Practicum in RIS 2

RS 4623, CT Instrumentation 3

RS 4633, CT Procedures 3

RS 4644, CT Clinical Education 4

Sub-total 36

Additional Support Courses: Sem. Hrs.

BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory 4

CS 1013, Introduction to Computers 3

Sub-total 7

Total Required Hours: ~~134~~ 135

Major in Radiologic Sciences

Bachelor of Science in Radiologic Sciences

Emphasis in Computed Tomography/Radiology Management

A complete 8-semester degree plan is available at http://registrar.astate.edu/. University Requirements:

See University General Requirements for Baccalaureate degrees (p. 41)

First Year Making Connections Course: Sem. Hrs.

RT 1003, Making Connections in Radiology 3

General Education Requirements: Sem. Hrs. See General Education Curriculum for Baccalaureate degrees (p. 83) Students with this major must take the following:

MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite B

IO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory

~~PHYS 1203 AND 1201, Physical Science and Laboratory~~

PSY 2013, Introduction to Psychology

COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)

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Major Requirements: Sem. Hrs.

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HP 3413, Cultural Competency 3

RAD 2001, Intro to Medical Imaging 1

RAD 3103, Intro to Radiography 3

RAD 3113 AND RAD 3111, Radiographic Procedures I and Laboratory 4

RAD 3123, Radiation Physics and Imaging 3

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RAD 3203 AND RAD 3201, Radiographic Procedures II and Laboratory 4

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RAD 4103 AND RAD 4101 – Radiographic Procedures III and Laboratory 4

RAD 4113, Image Acquisition & Evaluation II 3

RAD 4123, Imaging Pathology 3

RAD 4132, Radiobiology 2

RAD 4143, Radiography Clinical II 3

~~RAD 4202, Radiography Clinical III 2~~

***RAD 4203, Radiography Clinical III 3***

RAD 4213, Radiography Clinical IV 3

Sub-total ~~53~~ 54

Emphasis Area (CT/Radiology Management): Sem. Hrs.

BCOM 2463, Business Communication 3

MGMT 3123, Principles of Management 3

MGMT 3143, Human Resource Management 3

MGMT 3153, Organization Behavior 3

MGMT 4143, Org Change & Development 3

MGMT 4163, Small Business Management 3

RS 3122, Legal & Regulatory Environ of Radiology 2

RS 4343, Radiologic Administrative Concepts 3

RS 4623, CT Instrumentation 3

RS 4633, CT Procedures 3

RS 4644, CT Clinical Ed 4

RS 4822, Psychosocial Factors in Healthcare 2

RSMR 4712, Imaging Information Management 2

Sub-total 37

Additional Support Courses: Sem. Hrs.

BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory 4

CS 1013, Introduction to Computers 3

Sub-total 7

Total Required Hours: ~~135~~ 136

Major in Radiologic Sciences

Bachelor of Science in Radiologic Sciences

Emphasis in Diagnostic Medical Sonography

A complete 8-semester degree plan is available at http://registrar.astate.edu/. University Requirements:

 See University General Requirements for Baccalaureate degrees (p. 41)

First Year Making Connections Course: Sem. Hrs.

RT 1003, Making Connections in Radiology 3

General Education Requirements: Sem. Hrs.

See General Education Curriculum for Baccalaureate degrees (p. 83)

Students with this major must take the following:

MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite

BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory

~~PHYS 1203 AND 1201, Physical Science and Laboratory~~

PSY 2013, Introduction to Psychology

COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)

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Major Requirements: Sem. Hrs.

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HP 3413, Cultural Competency 3

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RAD 3123, Radiation Physics and Imaging 3

RAD 3202, Imaging Equipment 2

RAD 3203 AND RAD 3201, Radiographic Procedures II and Laboratory 4 R

AD 3213 AND RAD 3211, Image Acquisition & Evaluation I and Laboratory 4

RAD 3223, Sectional Anatomy 3

RAD 3233, Radiography Clinical I 3

RAD 4103 AND RAD 4101 – Radiographic Procedures III and Laboratory 4

RAD 4113, Image Acquisition & Evaluation II 3

RAD 4123, Imaging Pathology 3

RAD 4132, Radiobiology 2

RAD 4143, Radiography Clinical II 3

~~RAD 4202, Radiography Clinical III 2~~

***RAD 4203, Radiography Clinical III 3***

RAD 4213, Radiography Clinical IV 3

Sub-total ~~53~~ 54

Emphasis Area (Diagnostic Medical Sonography): Sem. Hrs.

RS 4822 – Psychosocial Factors in Healthcare 2

RS 436V – Independent Study 2

RSU 4122 – Small Parts Sonography 2

RSU 4132 – Small Parts Sonography Lab 2

RSU 4213 – Physics and Instrumentation I 3

RSU 4223 – Abdomen Sonography 3

RSU 4232 – Abdomen Sonography Laboratory 2

RSU 4322 – Ob/Gyn Laboratory 2

RSU 4323 – Physics and Instrumentation II 3

RSU 4413 – Vascular Sonography 3

RSU 4422 – Vascular Sonography Laboratory 2

RSU 4513 – Ultrasound Clinic I 3

RSU 4523 – Ultrasound Clinic II 3

RSU 4534 – Ultrasound Clinic III 4

RSU 4542 – Ultrasound Clinic IV 2

RSU 4551 – Sonography Clinical Relevance 1

RSU 4613 – Ob/Gyn Sono II 3

RSU 4622 – Ob/Gyn Sono I 2

RSU 4652 – Special Procedures in Sonography 2

Sub-total 46

Additional Support Courses: Sem. Hrs.

BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory 4

CS 1013, Introduction to Computers 3

Sub-total 7

Total Required Hours: ~~144~~ 145

Major in Radiologic Sciences

Bachelor of Science in Radiologic Sciences

Emphasis in Radiation Therapy

A complete 8-semester degree plan is available at http://registrar.astate.edu/. University Requirements:

See University General Requirements for Baccalaureate degrees (p. 41)

First Year Making Connections Course: Sem. Hrs.

RT 1003, Making Connections in Radiology 3

General Education Requirements: Sem. Hrs.

See General Education Curriculum for Baccalaureate degrees (p. 83)

Students with this major must take the following:

MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite

BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory

~~PHYS 1203 AND 1201, Physical Science and Laboratory~~

PSY 2013, Introduction to Psychology

COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)

35

Major Requirements: Sem. Hrs.

HP 2013, Medical Terminology 3

HP 3413, Cultural Competency 3

RAD 2001, Intro to Medical Imaging 1

RAD 3103, Intro to Radiography 3

RAD 3113 AND RAD 3111, Radiographic Procedures I and Laboratory 4

RAD 3123, Radiation Physics and Imaging 3

RAD 3202, Imaging Equipment 2

RAD 3203 AND RAD 3201, Radiographic Procedures II and Laboratory 4

RAD 3213 AND RAD 3211, Image Acquisition & Evaluation I and Laboratory 4

RAD 3223, Sectional Anatomy 3

RAD 3233, Radiography Clinical I 3

RAD 4103 AND RAD 4101 – Radiographic Procedures III and Laboratory 4

RAD 4113, Image Acquisition & Evaluation II 3

RAD 4123, Imaging Pathology 3

RAD 4132, Radiobiology 2

RAD 4143, Radiography Clinical II 3

~~RAD 4202, Radiography Clinical III 2~~

***RAD 4203, Radiography Clinical III 3***

RAD 4213, Radiography Clinical IV 3

Sub-total ~~53~~ 54

Emphasis Area (Radiation Therapy): Sem. Hrs.

RST 4203, Intro to Radiation Therapy 3

RST 4214, Radiation Therapy Principles and Practice 4

RST 4224, Radiation Therapy Principles and Practice II 4

RST 4234, Radiation Therapy Principles and Practice III 4

RST 4242, Rad Therapy Clinical Treatment Planning 2

RST 4313, Radiation Physics I 3

RST 4323, Radiation Physics II 3

RST 4333, Applied Radiation Biology 3

RST 4413, Rad Protection, Safety, and Quality Management 3

RST 4513, Radiation Therapy Clinical Education I 3

RST 4523, Radiation Therapy Clinical Education II 3

RST 4533, Radiation Therapy Clinical Education III 3

Sub-total 38

Additional Support Courses: Sem. Hrs.

BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory 4

CS 1013, Introduction to Computers 3

Sub-total 7

Total Required Hours: ~~136~~ 137

Major in Radiologic Sciences

Bachelor of Science in Radiologic Sciences (Bridge Program)

A complete 8-semester degree plan is available at <http://registrar.astate.edu/>.

University Requirements: See University General Requirements for Baccalaureate degrees (p. 41)

General Education Requirements: Sem. Hrs.

See General Education Curriculum for Baccalaureate degrees (p. 83)

Students with this major must take the following:

MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite

BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory

~~PHYS 1203 AND 1201, Physical Science and Laboratory~~

PSY 2013, Introduction to Psychology

COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)

35

Hours by Articulation:

Students will receive credit by articulation for their associate degree/certificate radiologic science educational work. Sem. Hrs.

RAD 3103, Intro to Radiography 3

RAD 3113 AND RAD 3111, Radiographic Procedures I and Laboratory 4

RAD 3123, Radiation Physics and Imaging 3

RAD 3202, Imaging Equipment 2

RAD 3203 AND RAD 3201, Radiographic Procedures II and Laboratory 4

RAD 3213 AND RAD 3211, Image Acquisition & Evaluation I and Laboratory 4

RAD 3223, Sectional Anatomy 3

RAD 3233, Radiography Clinical I 3

RAD 4103 AND RAD 4101 – Radiographic Procedures III and Laboratory 4

RAD 4113, Image Acquisition & Evaluation II 3

RAD 4123, Imaging Pathology 3

RAD 4132, Radiobiology 2

RAD 4143, Radiography Clinical II 3

~~RAD 4202, Radiography Clinical III 2~~

***RAD 4203, Radiography Clinical III 3***

RAD 4213, Radiography Clinical IV 3

Sub-total ~~46~~ 47

Bridge Program: Sem. Hrs.

BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory 4

BCOM 2463, Business Communication 3

DPEM 3503, Principles of Disaster Preparedness 3

HP 3413, Cultural Competency 3

RS 3122, Legal & Regulatory Environ of Radiology 2

RS 3733, Geriatric Considerations in Radiology 3

RS 4343, Radiologic Administrative Concepts 3

RS 436V, Independent Study in the Radiologic Sciences 3

RS 4463, Statistics for Medical Imaging 3

RS 4822, Psychosocial Factors in Healthcare 2

RS 4852, Advanced Radiologic Pathophysiology I 2

RS 4862, Advanced Radiologic Pathophysiology II 2

Upper-level electives ~~6~~ 2

Sub-total ~~39~~ 38

Total Required Hours: 120

**RAD 4132. Radiobiology** Introduction to the biological effects of ionizing radiation and radia­tion safety standards required for professional practice. Prerequisite, Admission to the Radiologic Science Program. Spring.

**RAD 4143. Radiography Clinical II** Supervised clinical experience in routine radiographic procedures. Students are evaluated with a competency based evaluation. Prerequisite, Admission to the Radiologic Science Program. Spring.

**~~RAD 4202. Radiography Clincial III~~** ~~Supervised clinical experience in routine radiographic procedures. Students are evaluated with a competency based evaluation system. Prerequisite, Admission to the Radiologic Science Program. Summer.~~

*RAD 4203. Supervised clinical experience in routine radiographic procedures. Students are evaluated with a competency based evaluation system. Prerequisite, Admission to the Radiologic Sciences Program. Fall.*

**RAD 4213. Radiography Clinical IV** Supervised clinical experience in routine radiographic procedures. Prerequisite, Admission to the Radiologic Science Program. Summer.

Page 510