



VINUNIVERSITY

COLLEGE OF HEALTH SCIENCES

CURRICULUM FRAMEWORK

RADIOLOGY RESIDENCY PROGRAM

Program code: 62720501

Applicable for Cohort 2024-2028 from Academic Year 2024-2025

(Decision No: 501a/2024/QĐ-VUNI, Dated: 20/09/2024, by the Provost of VinUniversity)



Records of change

Version	Published date	Effective Date	Approved by	Description of changes
1.1	14/11/2023	14/11/2023	<p>Developed by: Curriculum Review Taskforce</p> <p>Reviewed by: Program Curriculum Committee, College Vice Dean; VinUni Scientific and Educational Committee</p> <p>Approved by: Provost</p>	First release (submitted to MOH), along with Decision 512a/2023/QĐ-VUNI
1.2	20/09/2024	20/09/2024	<p>Developed by: Curriculum Review Taskforce</p> <p>Reviewed by: Program Curriculum Committee, College Vice Dean; VinUni Scientific and Educational Committee</p> <p>Approved by: Provost</p>	Add new courses to clinical rotations; Change credit number of clinical rotations, compulsory courses; Change Supporting course into CCS course as other programs; along with Decision 501a/2024/QĐ-VUNI

Contents

1. GRADUATE ATTRIBUTES	4
2. PROGRAM OVERVIEW	5
2.1 Program Description.....	5
2.2 Program Mission	5
2.3 Professional competency standard.....	5
3. CURRICULUM STRUCTURE	9
3.1 Curriculum Composition.....	9
3.2 Courses and Credit Distribution by Courses.....	9
3.3 Curriculum Planner	13
<i>3.3.1 General Curriculum Planner</i>	<i>13</i>
<i>3.3.2 Year-1 Curriculum Planner</i>	<i>16</i>
3.4 Brief Course Descriptions.....	17
<i>3.4.1 Compulsory Courses by MOH.....</i>	<i>17</i>
<i>3.4.2 Supporting Courses</i>	<i>19</i>
<i>3.4.3 Core Clinical Rotations</i>	<i>19</i>

1. GRADUATE ATTRIBUTES

The Radiology Residency Program at VinUniversity – College of Health Sciences (CHS) complies with the regulations and requirements of the Vietnamese government. Specifically, the program design is guided by the Ministry of Health (MOH) Framework (Endorsed in 2006 by MOH, Decision: 19/2006/QĐ-BYT). Moreover, the training program is developed based on competency standards, accredited by the Accreditation Council for Graduate Medical Education – International (ACGME-I) for international schools outside the U.S., while also meeting all the requirements of the Ministry of Health of Vietnam. This is a results-based approach to designing, implementing, and evaluating the training program using a competency framework. The competency-based training program emphasizes enhanced process evaluation, providing regular feedback to guide residents in improving and achieving the necessary competencies. VinUni will periodically assess both the training program and the residents. Upon completion of the training, residents will have a personal portfolio documenting the outcomes of each phase of their training. Additionally, the specialized physician training program at VinUni offers a diverse learning environment, combining both breadth and depth. The training program at CHS is dedicated to residents' learning and the achievement of competencies by:

- Being a competency-, pedagogy-, and evidence-based program¹;
- Becomes doctors who possess good moral character.
- Diagnose and treat diseases within the Diagnostic Imaging specialty comprehensively, with a strong focus on excellent clinical skills, evidence-based practices, enthusiasm, cultural appropriateness, and achieving the highest treatment outcomes.
- Be thoroughly trained and prepared with the necessary competencies for advanced training in diagnostic and interventional imaging.
- Conduct clinical research, improve treatment quality, or engage in patient safety studies.
- Educate patients and collaborate effectively with colleagues.
- Collaborate and work with colleagues in interdisciplinary teams, including leadership capabilities. The training program prioritizes values, aims, and principles of health care services in Vietnam, international competencies for learning and life, and a focus on community, local, national, and global health needs.

VinUni Foundational Graduate Attributes

VinUni generic graduate attributes are a set of skills, attributes, and values that all learners should achieve regardless of discipline or field of study; should be measurable and broad. The five Generic Graduate Attributes for VinUni, framed around the EXCEL Model, are listed as below:

- **EMPATHY:** Sense other people's emotions, understand others without judgement.
- **EXCEPTIONAL CAPABILITIES:** Exceptional capabilities and competencies that are proven determinants of future success.
- **CREATIVITY:** Perceive the world in new ways, make connections, generate solutions.

¹ Deborah J. DeWaay et al, Am J Med Sci 2016, Redesigning Medical Education in Internal Medicine: Adapting to the Changing Landscape of 21st Century Medical Practice

- **ENTREPRENEURIAL MINDSET:** Overcome challenges, be decisive, accept responsibility, be impactful for society.
- **LEADERSHIP SPIRIT:** Motivate and influence people to act toward achieving a common goal.

2. PROGRAM OVERVIEW

2.1 Program Description

Name of the program degree	Radiology Residency Program
Program duration	4 years
Total credits	200 credits

2.2 Program Mission

The program aims to train residents to become doctors, who:

- Possess good moral character.
- Diagnose and treat diseases within the Diagnostic Imaging specialty comprehensively, with a strong focus on excellent clinical skills, evidence-based practices, enthusiasm, cultural appropriateness, and achieving the highest treatment outcomes.
- Be thoroughly trained and prepared with the necessary competencies for advanced training in diagnostic and interventional imaging.
- Conduct clinical research, improve treatment quality, or engage in patient safety studies.
- Educate patients and collaborate effectively with colleagues.
- Collaborate and work with colleagues in interdisciplinary teams, including leadership capabilities. The training program prioritizes values, aims, and principles of health care services in Vietnam, international competencies for learning and life, and a focus on community, local, national, and global health needs.

2.3 Professional competency standard

<p>1. Professionalism</p> <p>Residents must demonstrate a commitment to professionalism and an adherence to ethical principles.</p> <p>Residents must demonstrate:</p>	<p>1.1 Compassion, integrity, and respect for others</p> <p>1.2 Responsiveness to patient needs that supersedes self-interest</p> <p>1.3 Respect for patient privacy and autonomy</p> <p>1.4 Accountability to patients, society, and the profession</p>
---	--

	<p>1.5 Sensitivity and responsiveness to a diverse patient population, including diversity in gender, age, culture, race, religion, disabilities, and sexual orientation</p> <p>1.6 Ethical and medical jurisprudence</p>
<p>2. Patient Care and Procedural Skills</p> <p>Residents must provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents must demonstrate competence in:</p>	<p>2.1 Using safe, efficient, appropriate, and quality controlled diagnostic radiology techniques</p> <p>2.2 Interpreting CT, MRI, radiography, and radionuclide imaging of the cardiovascular system (heart and great vessels)</p> <p>2.3 Interpreting images obtained during the performance of interventional procedures, and integration of the imaging findings into the procedure</p> <p>2.4 Generating ultrasound images using the transducer and imaging system, and interpretation of ultrasonographic examinations of various types</p> <p>2.5 Applying low-dose radiation to adults and children</p> <p>2.6 Using needles, catheters, guide wires, balloons, stent-grafts, vascular filters, embolic agents, biopsy devices, ablative technologies, and other interventional devices</p> <p>2.7 Managing contrast reactions</p> <p>2.8 Communicating effectively and in a timely manner the results of procedures, studies, and examinations to the referring physician and/or other appropriate individuals</p> <p>2.9 Accessing, interpreting, and applying best scientific evidence to the care of patients (evidence-based medicine)</p> <p>2.10 Exhibiting ongoing awareness of radiation exposure, protection, and safety, as well as the application of these principles in imaging</p> <p>2.11 Administering pharmacologic agents, including sedatives, analgesics, antibiotics, and other drugs commonly employed in conjunction with endovascular, invasive, and non-vascular procedures.</p> <p>2.12 Residents must be able to:</p> <ul style="list-style-type: none"> • Perform basic image-guided procedures

	<ul style="list-style-type: none"> • Perform invasive diagnostic venous and arterial imaging • Demonstrate clinical judgement and technical ability to perform vascular and non-vascular image-guided interventions on a sufficient variety of patients and pathological conditions to allow for competent postgraduate practice
<p>3. Medical Knowledge</p> <p>Residents must demonstrate knowledge of established and evolving biomedical clinical, epidemiological, and social-behavioral sciences, as well as the application of this knowledge to patient care. Residents must demonstrate knowledge of:</p>	<p>3.1. The principles of medical imaging physics, including CT, dual-energy X-ray absorptiometry, fluoroscopy, gamma camera and hybrid imaging technologies, MRI, radiography, and ultrasonography</p> <p>3.2. Health care economics</p> <p>3.3. Appropriate and patient-centered imaging utilization</p> <p>3.4. Quality improvement techniques</p> <p>3.5. Physiology, utilization, and safety of contrast agents and pharmaceuticals</p> <p>3.6. Radiologic/pathologic correlation</p>
<p>4. Practice-based Learning and Improvement</p> <p>Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and lifelong learning. Residents are expected to develop skills and habits to be able to meet the following goals:</p>	<p>4.1. Identify and perform appropriate learning activities</p> <p>4.2. Identify strengths, deficiencies, and limits in one's knowledge and expertise</p> <p>4.3. Incorporate formative evaluation feedback into daily practice</p> <p>4.4. Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems</p> <p>4.5. Participate in the education of patients, patients' families, students, other residents, and other health professionals</p> <p>4.5. Set learning and improvement goals</p> <p>4.6. Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement</p> <p>4.7. Use information technology to optimize learning</p>

<p>5. Interpersonal and Communication Skills</p> <p>Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. Residents must:</p>	<p>5.1 Communicate effectively with patients, patients’ families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds</p> <p>5.2 Communicate effectively with physicians, other health professionals, and health-related agencies</p> <p>5.3 Work effectively as a member or leader of a health care team or other professional group</p> <p>5.4 Act in a consultative role to other physicians and health professionals</p> <p>5.5 Maintain comprehensive, timely, and legible medical records, if applicable</p> <p>5.6 Demonstrate competence in obtaining informed consent and effectively describing appropriate imaging, safety issues, and the results of diagnostic imaging and procedures to patients</p> <p>5.7 Supervise, provide consultation, and teach medical students and/or other residents</p> <p>5.8 Function as a consultant for other health care professionals and act as a resource for information regarding the most appropriate use of imaging resources</p>
<p>6. Systems-based Practice</p> <p>Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. Residents must:</p>	<p>6.1. Work effectively in various health care delivery settings and systems relevant to their clinical specialty</p> <p>6.2. Coordinate patient care within the health care system relevant to their clinical specialty</p> <p>6.3. Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate</p> <p>6.4. Advocate for quality patient care and optimal patient care systems</p> <p>6.5. Work in interprofessional teams to enhance patient safety and improve patient care quality</p> <p>6.6. Participate in identifying system errors and implementing potential systems solutions.</p>

3. CURRICULUM STRUCTURE

3.1 Curriculum Composition

The Radiology Residency Program is to be completed within four years on a full-time basis. The curriculum consists of 200 credits.

MOH (2006) requires a minimum of 150 educational credits for all residency training programs, regardless of the specialty. CHS Radiology Residency Program fulfills this requirement in the following way:

No	Area of Study	Number of Credits	Credit Distribution
1	Compulsory Courses by MOH	17	8%
2	Supporting Courses	3.5	2%
3	Core Clinical Rotations	169.5	85%
4	Graduation Thesis	10	5%
Total		200	100%

3.2 Courses and Credit Distribution by Courses

Compulsory Courses by MOH

17 credits (17 theory, 0 practice)

No	Subjects/ Education Units	Course code	Level	Credits	Distribution	
					Theory	Practice
1	Marxism-Leninism Philosophy (Philosophy Science and Society)	HASS1010	PGY1	3	3	0
2	Research Methods and Evidence-Based Medicine	CCSC6142	PGY1	2	2	0
3	Medical English	ENGL6011	PGY1 PGY2	10	10	0
4	Medical Pedagogy	PEDA6011	PGY1 PGY2	2	2	0

Supporting Courses

3.5 credits (0.5 theory, 3 practice)

No	Subjects/Education Units	Course code	Level	Credits	Distribution	
					Theory	Practice
5	CCS	CCSC6160	PGY1	3.5	0.5	3

Core Clinical Rotations

STT	Subjects/Rotation Blocks	Course name	Level	Week	Credits	Distribution		Site
						Theory	Practice	
6	Radiology Anatomy	RAD61110	PGY1	2	4	3	1	VinUni
7	Pathology	RAD61120	PGY1	2	2	1	1	VinUni
8	General Surgery	RAD61130	PGY1	2	2	1	1	Vinmec
9	Oncology	RAD61140	PGY1	2	2	1	1	Vinmec
10	Orthopedic Surgery	RAD61220	PGY1	2	2	1	1	Vinmec
11	Anesthesia	RAD61230	PGY1	2	2	1	1	Vinmec
12	Internal Medicine	RAD61240	PGY1	2	2	1	1	Vinmec
13	Intensive Care Unit	RAD61250	PGY1	2	2	1	1	Vinmec
14	Radiology Principles	RAD61150	PGY1	3	4	3	1	Vinmec
15	Thoracic Radiology	RAD61160	PGY1	4	3	1	2	Vinmec
16	Cardiovascular Radiology	RAD61170	PGY1	4	2.5	1	1.5	Vinmec
17	Gastrointestinal, Hepatobiliary, and Abdominal Emergency Radiology	RAD61180	PGY1	4	2	0.5	1.5	Vinmec
18	Urogenital Radiology	RAD61190	PGY1	4	2	0.5	1.5	Vinmec
19	Neurological Radiology	RAD61200	PGY1	4	2	0.5	1.5	Vinmec
20	Musculoskeletal Radiology	RAD61210	PGY1	4	2	0.5	1.5	Vinmec
21	Vacation			4				
				47	35.5	17	18.5	
22	Thoracic radiology	RAD62160	PGY2	2.5	2	0.5	1.5	Vinmec
23	Cardiovascular Radiology	RAD62170	PGY2	2.5	2	0.5	1.5	Vinmec
24	Gastrointestinal, Hepatobiliary, and Abdominal Emergency Radiology	RAD62180	PGY2	4	4	1	3	Vinmec

STT	Subjects/Rotation Blocks	Course name	Level	Week	Credits	Distribution		Site
						Theory	Practice	
25	Urogenital Radiology	RAD62190	PGY2	4	4	1	3	Vinmec
26	Neurological Radiology	RAD62200	PGY2	4	4	0.5	3.5	Vinmec
27	Musculoskeletal Radiology	RAD62210	PGY2	4	3	0.5	2.5	Vinmec
28	Pediatric Radiology	RAD62220	PGY2	5	4	1	3	Vinmec
29	Obstetrics and Gynecology Radiology	RAD62230	PGY2	2	4	1	3	Vinmec
30	Head and Neck Radiology	RAD62240	PGY2	5	4	0.5	3.5	Vinmec
31	Nuclear Medicine	RAD62250	PGY2	5	4	1	3	Vinmec
32	Interventional Radiology	RAD62260	PGY2	6	4	0.5	3.5	Vinmec
33	Breast Radiology	RAD62270	PGY2	2	1	0.5	0.5	Vinmec
33	Vacation			4				Vinmec
				50	40	8.5	31.5	
34	Thoracic radiology	RAD63160	PGY3	1	2	0.5	1.5	Vinmec
35	Cardiovascular Radiology	RAD63170	PGY3	1	2	0.5	1.5	Vinmec
36	Gastrointestinal, Hepatobiliary, and Abdominal Emergency Radiology	RAD63180	PGY3	2	4	1	3	Vinmec
37	Urogenital Radiology	RAD63190	PGY3	2	4	1.5	2.5	Vinmec
38	Neurological Radiology	RAD63200	PGY3	2	4	1	3	Vinmec
39	Musculoskeletal Radiology	RAD63210	PGY3	2	4	1	3	Vinmec
40	Obstetrics and Gynecology Radiology	RAD63230	PGY3	4	4	1	3	Vinmec

STT	Subjects/Rotation Blocks	Course name	Level	Week	Credits	Distribution		Site
						Theory	Practice	
41	Breast Radiology	RAD63270	PGY3	4	2	0.5	1.5	Vinmec
42	Pediatric Radiology	RAD63220	PGY3	4	6	2	4	Vinmec
43	Head and Neck Radiology	RAD63240	PGY3	4	4	1	3	Vinmec
44	Nuclear Medicine	RAD63250	PGY3	6	4	1	3	Vinmec
45	Interventional Radiology	RAD63260	PGY3	4	2	0.5	1.5	Vinmec
46	Elective Advanced Specialization	RAD63290	PGY3	8	2	0.5	1.5	Vinmec
Vacation			PGY3	4				Vinmec
				48	44	12	32	
47	Thoracic Radiology	RAD64160	PGY4	1	2	0.5	1.5	Vinmec
48	Cardiovascular Radiology	RAD64170	PGY4	1	2	0.5	1.5	Vinmec
49	Gastrointestinal, Hepatobiliary, and Abdominal Emergency Radiology	RAD64180	PGY4	1	2	0.5	1.5	Vinmec
50	Urogenital radiology	RAD64190	PGY4	1	2	0.5	1.5	Vinmec
51	Neurological Radiology	RAD64200	PGY4	2	2	0.5	1.5	Vinmec
52	Musculoskeletal Radiology	RAD64210	PGY4	2	2	0.5	1.5	Vinmec
53	Obstetrics and Gynecology Radiology	RAD64230	PGY4	2	4	1	3	Vinmec
54	Head and Neck Radiology	RAD64240	PGY4	2	2	0.5	1.5	Vinmec
55	Pediatric Radiology	RAD64220	PGY4	4	2	0.5	1.5	Vinmec
56	Interventional Radiology	RAD64260	PGY4	4	4	0	4	Vinmec
57	Breast Radiology	RAD64270	PGY4	4	2	0.5	1.5	Vinmec
58	Nuclear Medicine	RAD64250	PGY4	4	4	1	3	Vinmec

STT	Subjects/Rotation Blocks	Course name	Level	Week	Credits	Distribution		Site
						Theory	Practice	
59	Elective Advanced Specialization	RAD64290	PGY4	12	10	0	10	Vinmec
60	Review and Graduation Exam	RAD64300	PGY4	8	10	10	0	Vinmec
61	Vacation		PGY4	4	0			Vinmec
				52	50	16.5	33.5	
Total					169.5	54	115.5	

Site Abbreviations:

- Vinmec: Vinmec Times City International Hospital

Graduation Thesis

10 credits (10 theory, 0 practice)

No	Subjects/Education Units	Course code	Week(s)	Total credits	Distribution	
					Theory	Practice
58	Thesis	RAD62280	2	5	5	0
59	Thesis	RAD63280	4	5	5	0

3.3 Curriculum Planner

Please see the High Level Curriculum Planner below for details.

3.3.1 General Curriculum Planner

In general:

- Firstly, 7 residents will study Radiology in Fundamental in 9 weeks at Vinmec Times City International Hospital, then they have rotations in 7 clinical departments. After that, they have clinical rotations at Diagnostic Imaging and Nuclear Medicine Department at Vinmec Times City International Hospital.
- Each resident has 4 weeks of vacation per year.

During almost of the first program year (Residency year 1) and **the whole second program year** (Residency year 2):

- All rotations will be at Vinmec Times City International Hospitals.

At the end of third program year (Residency year 3):

- Residents will begin to be layered on top of first year residents on some rotations. This is to provide direct supervision of intern activities with respect to patient care as well as provide opportunities for these residents to begin to have clinical and teaching responsibilities.
- Residents will be expected to be able to well-read diagnosis imaging result, including X-rays, Ultrasound, MRI, CT, intervention course, nuclear medicine.

In the fourth program year (Residency year 4):

- Residents will begin to function as senior level residents and will have the opportunity to lead at VMTC.

Outpatient Clinic

- Each resident will be responsible for participating in patient care in the outpatient clinic associated with their specific rotation for at least one-half day per week. This only applies to appropriate rotations (i.e., no outpatient clinic responsibility during ICU or ED rotations).

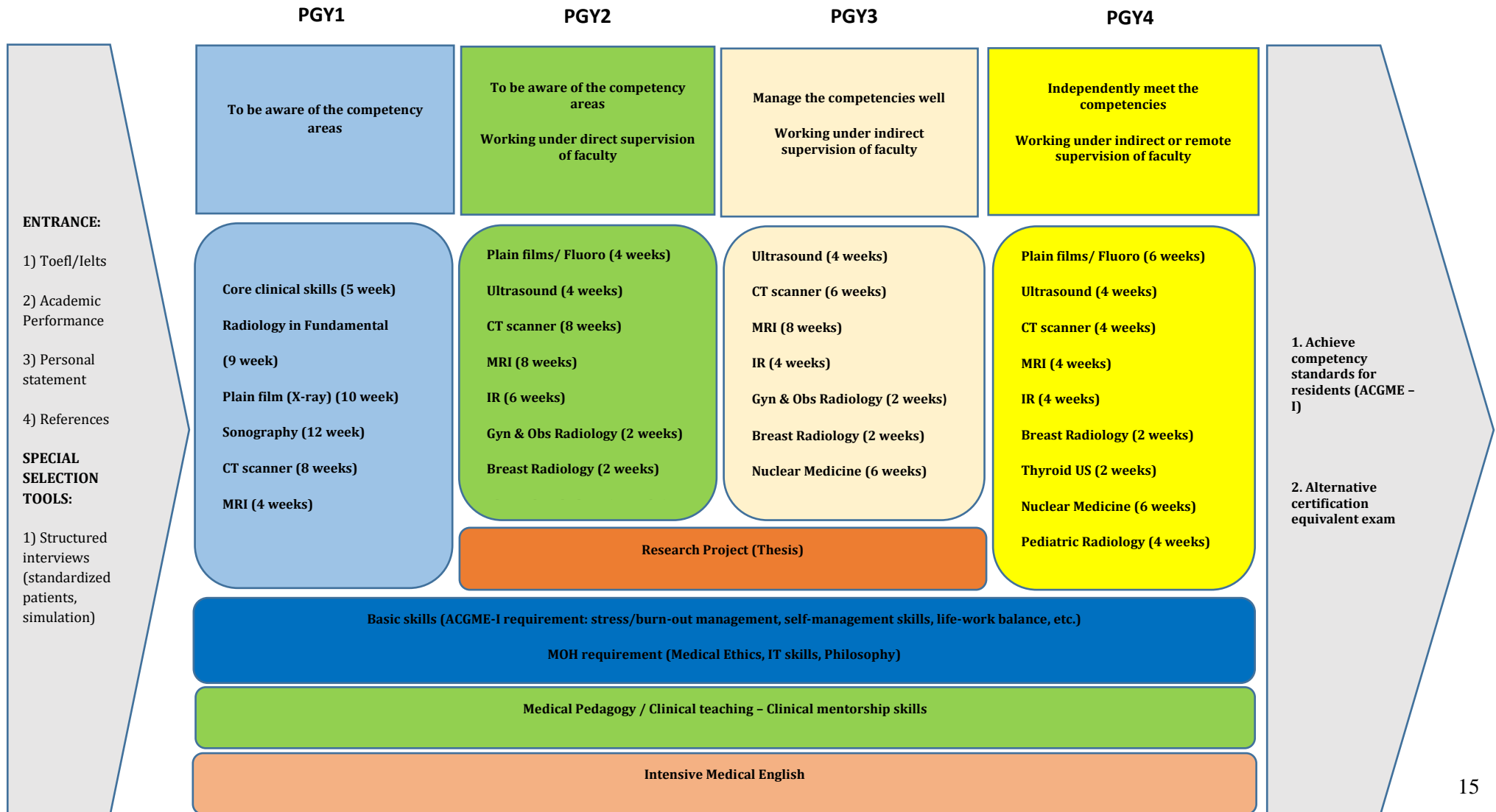
Conferences

- Residents will be required to attend both a weekly didactic session focusing on the core principles of radiology and a weekly case conference. These conferences will be held at a central location. All residents are mandated to attend and thus cannot be given clinical responsibilities during this time.

Thesis

- Residents have 6-week rotations to meet the thesis requirements. They will use this time to research and write their thesis.

High level Curriculum Planner



3.3.2 Year-1 Curriculum Planner

Week (Starting Monday)	Resident 1	Resident 2	Resident 3	Resident 4	Resident 5	Resident 6	Resident 7
9/23/2024	CCS	CCS	CCS	CCS	CCS	CCS	CCS
30/9/2024	CCS	CCS	CCS	CCS	CCS	CCS	CCS
7/10/24	CCS	CCS	CCS	CCS	CCS	CCS	CCS
14/10/24	CCS	CCS	CCS	CCS	CCS	CCS	CCS
21/10/24	CCS	CCS	CCS	CCS	CCS	CCS	CCS
28/10/24	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental
4/11/24	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental
11/11/24	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental
18/11/24	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental
25/11/24	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental
2/12/24	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental
9/12/24	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental
16/12/24	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental
23/12/24	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental	Radiology in Fundamental
30/12/24	ICU/ US	Orthopedic/ MRI	General Surgery/ CT	Anesthesia/ X-RAY	ICU/ US	IM/ X-RAY	Oncology/ CT
6/1/25	ICU/ US	Orthopedic/ MRI	General Surgery/ CT	Anesthesia/ X-RAY	ICU/ US	IM/ X-RAY	Oncology/ CT
13/1/25	Oncology/ CT	ICU/ US	Orthopedic/ MRI	General Surgery/ CT	Anesthesia/ X-RAY	Oncology/ CT	IM/ X-RAY
20/1/25	Vacation	Vacation	Vacation	Vacation	Vacation	Vacation	Vacation
27/1/25	Tet holiday	Tet holiday	Tet holiday	Tet holiday	Tet holiday	Tet holiday	Tet holiday
3/2/25	Oncology/ CT	ICU/ US	Orthopedic/ MRI	General Surgery/ CT	Anesthesia/ X-RAY	Oncology/ CT	IM/ X-RAY
10/2/25	IM/ X-RAY	Oncology/ CT	ICU/ US	Orthopedic/ MRI	General Surgery/ CT	Anesthesia/ X-RAY	Orthopedic/ MRI
17/2/25	IM/ X-RAY	Oncology/ CT	ICU/ US	Orthopedic/ MRI	General Surgery/ CT	Anesthesia/ X-RAY	Orthopedic/ MRI
24/2/25	Pathology/ US	IM/ X-RAY	Oncology/ CT	ICU/ US	Orthopedic/ MRI	General Surgery/ CT	Anesthesia/ X-RAY
3/3/25	Pathology/ US	IM/ X-RAY	Oncology/ CT	ICU/ US	Orthopedic/ MRI	General Surgery/ CT	Anesthesia/ X-RAY
10/3/25	Anesthesia/ X-RAY	Pathology/ US	IM/ X-RAY	Oncology/ CT	Pathology/ US	Orthopedic/ MRI	General Surgery/ CT

17/3/25	Anesthesia/ X-RAY	Pathology/ US	IM/ X-RAY	Oncology/ CT	Pathology/ US	Orthopedic/ MRI	General Surgery/ CT
24/3/25	General Surgery/ CT	Anesthesia/ X-RAY	Pathology/ US	IM/ X-RAY	Oncology/ CT	ICU/ US	Pathology/ US
31/3/25	General Surgery/ CT	Anesthesia/ X-RAY	Pathology/ US	IM/ X-RAY	Oncology/ CT	ICU/ US	Pathology/ US
7/4/25	Orthopedic/ MRI	General Surgery/ CT	Anesthesia/ X-RAY	Pathology/ US	IM/ X-RAY	Pathology/ US	ICU/ US
14/4/25	Orthopedic/ MRI	General Surgery/ CT	Anesthesia/ X-RAY	Pathology/ US	IM/ X-RAY	Pathology/ US	ICU/ US
21/4/25	US	US	Vacation	X-RAY	CT	CT	CT
28/4/25	US	US	X-RAY	X-RAY	CT	CT	CT
5/5/25	US	US	X-RAY	Vacation	CT	CT	CT
12/5/25	Vacation	US	X-RAY	X-RAY	CT	CT	CT
19/5/25	US	US	X-RAY	X-RAY	X-RAY	X-RAY	X-RAY
26/5/25	US	Vacation	US	US	Vacation	X-RAY	X-RAY
2/6/25	US	US	US	US	X-RAY	Vacation	MRI
9/6/25	US	US	US	US	MRI	MRI	MRI
16/6/25	US	US	US	US	MRI	MRI	Vacation
23/6/25	X-RAY	X-RAY	US	US	X-RAY	X-RAY	X-RAY
30/6/25	X-RAY	X-RAY	US	Vacation	X-RAY	X-RAY	X-RAY
7/7/25	X-RAY	X-RAY	US	US	X-RAY	X-RAY	X-RAY
14/7/25	X-RAY	X-RAY	US	US	X-RAY	X-RAY	X-RAY
21/7/25	X-RAY	X-RAY	Vacation	US	US	Vacation	US
28/7/25	X-RAY	X-RAY	CT	CT	Vacation	US	US
4/8/25	CT	CT	CT	CT	US	US	Vacation
11/8/25	CT	Vacation	MRI	MRI	US	US	US
18/8/25	Vacation	CT	MRI	MRI	US	US	US
25/8/25	CT	CT	X-RAY	X-RAY	US	US	US
1/9/25	CT	CT	X-RAY	X-RAY	US	US	US
8/9/25	MRI	MRI	CT	CT	US	US	US
15/9/25	MRI	MRI	CT	CT	US	US	US

3.4 Brief Course Descriptions

3.4.1 Compulsory Courses by MOH

Marxism-Leninism Philosophy (Philosophy Science and Society) (HASS1010, 3 credits, 3 theory, 0 practice) – PGY1 at VinUni campus

Philosophy will help residents achieve VinUni's learning outcomes related to their qualities, abilities, critical thinking, national pride and global awareness as outlined in the Competency Framework of VinUni learners.

Research Methods and Evidence-Based Medicine (CCSC6142, 2 credits, 2 theory, 0 practice)
– PGY1 at VinUni campus

The Medical Research and Evidence-Based Medicine (EBM) course provides an overview of the research process, research methods, and EBM. Specific topics covered in this course include introduction to public health, study design, measures of disease, formulation of research questions using the PICO (Population/Patient, Intervention, Control/Comparison, Outcome) format, and EBM. Learners will learn to apply research methods and EBM into patient care scenarios as well as into scholarship. The Learning objectives of this course includes recognizing the importance of research and evidence-based medicine; summarizing the steps needed to practice evidence-based medicine; demonstrating proficiency in formulating a research question using the PICO framework; describing the process to conduct a literature search; learning to effectively facilitate a journal club session.

Medical English (ENGL6011, 10 credits, 10 theory, 0 practice) – PGY1 at various locations

The courses are focused on improving residents' English language proficiency, clinical communication skills, intercultural competence, and academic literacies.

Medical English combines teacher-led online learning with guided independent self-study. By doing so, residents can focus on the skills and topics that are most useful for them and create their own personalized learning plan with the support of the instructor. This allows each resident to have their own tailored learning pathway based on their unique needs.

Live classes (2 x 1-hour classes per week over the course of 6 months) will focus on applying the language and content from their independent learning through communicative activities and feedback.

By the end of this course, the general English proficiency and clinical communicative skills of learners will improve, helping them communicate more effectively in English with patients and healthcare professionals from diverse backgrounds.

College of Arts and Sciences (CAS) in charge of this course. Residents can be released from this subject if they have a VSTEP/IELTS equivalent certificate or pass the placement test of CAS.

Medical Pedagogy (PEDA6011, 2 credits, 2 theory, 0 practice) – PGY1 & PGY2 at various locations

The overriding goal of this course is for residents to develop the knowledge, attitudes, and skills needed to effectively understand and integrate core concepts in medical education into your work as a physician. By offering opportunities for residents to hone their skills in areas such as clinical reasoning, giving feedback, and assessing junior trainees and learners, we aim to strengthen the physician workforce and to promote the delivery of high-quality health care in Vietnam.

This course will occur over a 2-year period during residency training. The first credit will be delivered during the Core Clinical Skills course of the PGY-1 year, and the second credit will be delivered during the PGY-2 year.

Part 1 will consist of 5 workshops, and the exact timing of the workshops will be decided in conjunction with the course director(s) of Core Clinical Skills. Part 2 will consist of 3 workshops delivered on working Saturdays. In both Parts 1 and 2, GME residents will join the sessions together. This course uses multiple teaching modalities including but not limited to

didactic lectures, facilitated small-group discussion, case studies, role play, and simulation training.

3.4.2 Supporting Courses

Core Clinical Skills (CCSC6160, 3.5 credits, 0.5 theory, 3 practice) – PGY1 at VinUni campus
Core Clinical Skills Course focuses on common topics of pharmacotherapy which are essential for all residents regardless of their specialty, communication skills and simulation training and clinical procedural skills.

Pharmacotherapy reinforces reviewing of antibiotic classes, PK/PD of antibiotics and antimicrobial stewardship aim to:

- Understand the pharmacokinetic and pharmacodynamic principles for the most common antimicrobials in hospital settings
- Optimize the antimicrobial dosing based on Pharmacokinetic and Pharmacodynamic Principles
- Review the current challenge of antibiotic resistance
- Outline components of an effective stewardship program
- Understand the role of prescribers in antibiotic stewardship program

Communication skills reinforce core principles focused on professionalism, interpersonal and communication skills, and effective patient care. The residents will practice in detail scenarios such as breaking bad news, medical errors and disclosure, interprofessional communication and obtaining patient consent. These scenarios will help residents recognize the key role of communication in patient care and interprofessional collaboration, demonstrate effective communication in a variety of settings including obtaining patient consent, medical error disclosure, breaking bad news, and end of life care planning and describe medical professionalism and the fundamental principles and professional responsibilities.

The Simulation Training and Clinical Procedural Skills sessions utilize a variety of teaching pedagogies to develop practical skills required for all residents. The curriculum includes a combination of didactic lectures, small-group learning, and simulation activities that are primarily conducted at the VinUniversity Simulation Center. Core content covered in this course includes Basic Life Support (BLS), Advanced Cardiovascular Life Support (ACLS) training as well as communication skills training, procedural skills training, and mock code simulations. These sessions aim to:

- Attain certification in BLS, ACLS
- Practice advanced life support skills in clinical scenarios in a simulated setting.
- Understand the indications, contraindications, potential complications, anatomic considerations, required equipment, and expected outcomes for procedures that are commonly performed in the clinical setting.
- Develop proper and safe basic techniques for procedures that are commonly performed in the clinical setting to facilitate future deliberate practice in the simulation and clinical setting.

3.4.3 Core Clinical Rotations

Radiology Anatomy (RAD61110, 4 credits, 3 theory, 1 practice) – PGY1 at VMTC

Human anatomy is a fundamental subject that studies the structural and functional anatomy of the body's systems, as well as the relationships between these structures in three-dimensional space and possible anatomical variations. Anatomy is a core subject for radiology resident doctors. Based on knowledge of sectional anatomy and simulated anatomy, radiology residents can easily approach imaging anatomy (X-ray, ultrasound, computed tomography, magnetic resonance imaging, digital subtraction angiography, etc.), enabling them to identify abnormal signs leading to a diagnosis

Pathology (RAD61120, 2 credits, 1 theory, 1 practice) – PGY1 at VMTC

Pathology studies lesions at various levels (systems, tissues, cells), providing a comprehensive description of lesions at the macroscopic, microscopic, and ultrastructural levels, and concludes which disease category the lesion belongs to (inflammation, tumor, cancer, metabolic disorder, etc.). It equips students with fundamental knowledge of the histopathology of organs and body parts, enabling them to diagnose some common diseases, contributing to better diagnosis, treatment, and patient care.

General Surgery (RAD61130, 2 credits, 1 theory, 1 practice) – PGY1 at VMTC

Radiology residents will study General Surgery as part of the supplementary subjects in their first year. Additionally, according to ACGME-I standards, radiologists must undergo a 2-week internship in the General Surgery department. During this course, residents will learn about surgical indications for the treatment of malignant and benign diseases in the digestive system, thorax, urology, and neurology. The residents will study and work directly under the supervision of general surgeons and neurosurgeons. The training will take place in patient wards, outpatient clinics, and operating rooms.

Oncology (RAD61140, 2 credits, 1 theory, 1 practice) – PGY1 at VMTC

Its pathogenesis, natural progression, epidemiology, and basic principles in screening, diagnosis, and treatment. It serves as a foundation for students to delve into the specialized pathology of each organ system and the specific treatment methods for each type of cancer. Through this, students will acquire comprehensive knowledge to conduct research and write theses, while also equipping them to excel in their professional work within the specialty.

Anesthesia (RAD61230, 2 credits, 1 theory, 1 practice) – PGY1 at VMTC

The goal of this observational experience is to enhance the radiology resident's understanding of the role of anesthesia in perioperative care, with a specific focus on the interactions between anesthetic techniques and imaging modalities. The residents will observe the principles and practices of anesthesia administration, including sedation and pain management, and how these aspects affect patient imaging protocols and outcomes. By engaging with anesthesia professionals, the resident will develop insights into the collaborative care environment, understanding how effective communication and teamwork are essential for optimizing patient safety and comfort during imaging procedures. The experience aims to foster a holistic approach to patient care, integrating knowledge of anesthetic practices with radiological principles.

Internal Medicine (RAD61240, 2 credits, 1 theory, 1 practice) – PGY1 at VMTC

The goal of this course is to provide residents with experience and understanding of the assessment and care of internal medical patients. The residents will understand the role of radiology in internal medicine diagnosis, identify common radiological findings in common conditions, such as pneumonia, congestive heart failure, liver cirrhosis, and renal calculi. Besides, the residents also develop communication strategies between radiologists and internists, and understand the importance of collaboration in interpreting imaging results and tailoring radiology reports to the needs of the internal medicine team.

Orthopedic Surgery (RAD61220, 2 credits, 1 theory, 1 practice) – PGY1 at VMTC

Residents will study the role of imaging in Orthopedics and Sport Medicine. The course equips residents with ability to recognize the contribution of radiology to the diagnosis, treatment planning, and follow-up of bone, joint, and soft tissue injuries. Also, residents learn key imaging findings in common injuries in multimodalities, such as Xray, ultrasound, CT, and MRI.

Intensive Care Unit (RAD61250, 2 credits, 1 theory, 1 practice)

This course provides residents with experience and understanding of the assessment and care of critically ill medical patients. After the course, the residents recognize common imaging findings in critical illnesses and the role of radiology in critical care decision-making. Residents will observe interventional radiology procedures commonly performed in the ICU and enhance interdisciplinary collaboration with ICU team.

Radiology Principles (RAD61150, 4 credits, 3 theory, 1 practice) – PGY1 at VinUni/ VMTC

The "Overview of Diagnostic Imaging" is a fundamental and introductory course in the specialized training program, offering a comprehensive understanding of the history and development of diagnostic imaging both globally and in Vietnam, as well as the evolution of specialized fields such as radiography, ultrasound, computed tomography (CT), magnetic resonance imaging (MRI), interventional imaging, molecular imaging, and future trends in the field. This course provides knowledge on the physical principles of medical imaging techniques, the advantages and limitations of each method, image processing and storage systems, image noise, radiation safety in healthcare, contrast agents, and the safe use of contrast agents.

The course equips radiology residents with a thorough understanding of the history of the field, the physical principles of imaging, as well as the pros and cons of each imaging technique, enabling them to apply this knowledge in clinical practice, specialized consultations, and patient care. This helps meet high standards of technical and diagnostic quality, optimizes costs, and ensures maximum patient safety. Understanding the history and future trends, radiology residents will be fully prepared to direct their professional development in line with their abilities and the demands of the specialty.

Thoracic Radiology (RAD 61160, 3 credits, 1 theory, 2 practice) – PGY1

Thoracic Radiology (RAD 62160, 2 credits, 0.5 theory, 1.5 practice) – PGY2

Thoracic Radiology (RAD 63160, 2 credits, 0.5 theory, 1.5 practice) – PGY3

Thoracic Radiology (RAD 64160, 2 credits, 0.5 theory, 1.5 practice) – PGY4

This is a core teaching program that provides essential knowledge and skills related to chest imaging, including ultrasound, X-ray, low-dose chest computed tomography (CT), high-resolution chest CT (HRCT), vascular imaging, and image-guided procedures. The program features lectures delivered by experts in the field, covering topics such as anatomy, physiology, pathology, imaging techniques, interpretation, and description of both common and uncommon cardiothoracic diseases.

The overall objectives, specific goals, and expectations, along with the level of involvement in reading cases and interventions, increase progressively as the students' knowledge and skills advance. The course aims to prepare residents to be competent and confident in clinical practice and specialized consultations while fostering interest and enthusiasm for cardiothoracic imaging.

Cardiovascular Radiology (RAD61170, 2.5 credits, 1 theory, 1.5 practice) – PGY1

Cardiovascular Radiology (RAD62170, 2 credits, 0.5 theory, 1.5 practice) – PGY2

Cardiovascular Radiology (RAD63170, 2 credits, 0.5 theory, 1.5 practice) – PGY3

Cardiovascular Radiology (RAD64170, 2 credits, 0.5 theory, 1.5 practice) – PGY4

This subject refers to the study and use of medical imaging techniques specifically focused on visualizing the heart and the blood vessels throughout the body. It is a multidisciplinary field combining cardiology, radiology, and imaging technology to diagnose, monitor, and sometimes treat cardiovascular diseases.

Gastrointestinal, Hepatobiliary, and Abdominal Emergency Radiology (RAD61180, 2 credits, 0.5 theory, 1.5 practice) – PGY1

Gastrointestinal, Hepatobiliary, and Abdominal Emergency Radiology (RAD62180, 4 credits, 1 theory, 3 practice) – PGY2

Gastrointestinal, Hepatobiliary, and Abdominal Emergency Radiology (RAD63180, 4 credits, 1 theory, 3 practice) – PGY3

Gastrointestinal, Hepatobiliary, and Abdominal Emergency Radiology (RAD64180, 2 credits, 0.5 theory, 1.5 practice) – PGY4

The course "Gastrointestinal – Hepatobiliary – Abdominal Emergency Imaging" is one of the core modules in the Radiology Residency Training Program, providing essential knowledge and skills for diagnosing abdominal diseases. The program adheres to ACGME-I standards and guidelines for specialized education.

The training includes theoretical lectures and practical sessions covering imaging anatomy, pathophysiology, basic symptoms, imaging techniques, and the analysis of common and some uncommon abdominal diseases. The program also incorporates case-based discussions, interactive questions, and self-assessment modules.

The aim of the course is to equip residents with the competence and confidence required for clinical practice and specialized consultations, while fostering their interest and enthusiasm for gastrointestinal and abdominal imaging. General objectives, specific goals, and expectations,

along with the level of involvement in cases, proactivity, and complexity, will increase as students' knowledge and skills grow, as determined by the faculty.

Urogenital Radiology (RAD61190, 2 credits, 0.5 theory, 1.5 practice) – PGY1

Urogenital Radiology (RAD62190, 4 credits, 1 theory, 3 practice) – PGY2

Urogenital Radiology (RAD63190, 4 credits, 1.5 theory, 2.5 practice) – PGY3

Urogenital Radiology (RAD64190, 2 credits, 0.5 theory, 1.5 practice) – PGY4

The course "Imaging of the Genitourinary System" in the Radiology Residency Program is a core module designed to provide knowledge on urogenital diseases, including urinary tract infections, kidney stones, urological cancers, and other malignancies, through various imaging modalities such as X-ray, ultrasound, CT, and MRI. The objective is to enhance the residents' competency in clinical practice and specialized consultations, while also inspiring and fostering their interest in genitourinary imaging.

Neurological Radiology (RAD61200, 2 credits, 0.5 theory, 1.5 practice) – PGY1

Neurological Radiology (RAD62200, 4 credits, 0.5 theory, 3.5 practice) – PGY2

Neurological Radiology (RAD63200, 4 credits, 1 theory, 3 practice) – PGY3

Neurological Radiology (RAD64200, 2 credits, 0.5 theory, 1.5 practice) – PGY4

The "Neuroimaging" course is a core module in the Radiology Residency Program, designed to provide essential knowledge and skills for diagnosing neurological diseases and performing neurointerventional imaging techniques. The program adheres to ACGME-I standards and guidelines for specialized education.

This course primarily consists of theoretical lectures and practical sessions covering imaging anatomy, pathophysiology, imaging techniques, and the interpretation of neurological diseases, along with neurointerventional imaging procedures. It also includes case-based discussions, interactive questions, and self-assessment modules.

The program aims to equip residents with the competence and confidence required for clinical practice and specialized consultations, while fostering interest and enthusiasm for neuroimaging. General objectives, specific goals, and expectations, as well as the level of involvement in case reading and interventions, will increase as students' knowledge and skills develop, as determined by the faculty.

Musculoskeletal Radiology (RAD61210, 2 credits, 0.5 theory, 1.5 practice) – PGY1

Musculoskeletal Radiology (RAD62210, 3 credits, 0.5 theory, 2.5 practice) – PGY2

Musculoskeletal Radiology (RAD63210, 4 credits, 1 theory, 3 practice) – PGY3

Musculoskeletal Radiology (RAD64210, 2 credits, 0.5 theory, 1.5 practice) – PGY4

The "Musculoskeletal Imaging" course is a core module in the Radiology Residency Program, providing essential knowledge and skills for diagnosing musculoskeletal and soft tissue disorders, as well as basic procedures for diagnosing and treating these conditions under image guidance. The program adheres to ACGME-I standards and guidelines for specialized education.

This course includes both theoretical lectures and practical sessions covering imaging anatomy, pathophysiology, imaging techniques, and the interpretation of common and some uncommon musculoskeletal and soft tissue diseases. It also covers basic interventional techniques under

image guidance. Additionally, the program features case-based discussions, interactive questions, and self-assessment modules.

Pediatric Radiology (RAD62220, 4 credits, 1 theory, 3 practice) – PGY2

Pediatric Radiology (RAD63220, 6 credits, 2 theory, 4 practice) – PGY3

Pediatric Radiology (RAD63220, 2 credits, 0.5 theory, 1.5 practice) – PGY4

The "Pediatric Imaging" course is a core module in the Radiology Residency Program, providing essential knowledge and skills for diagnosing pediatric diseases. The program adheres to ACGME-I standards and guidelines for specialized education.

The course content primarily includes theoretical lectures and practical sessions covering imaging anatomy, pathophysiology, basic symptoms, imaging techniques, and the interpretation of common and some uncommon pediatric diseases. It also features case-based discussions, interactive questions, and self-assessment modules.

The program aims to equip residents with the competence and confidence required for clinical practice and specialized consultations, while also fostering their interest and passion for pediatric imaging. General objectives, specific goals, and expectations, as well as the level of involvement in cases, proactivity, and complexity, will increase as residents' knowledge and skills develop, as determined by the faculty.

Obstetrics and Gynecology Radiology (RA62230, 4 credits, 1 theory, 3 practice) – PGY2

Obstetrics and Gynecology Radiology (RA63230, 4 credits, 1 theory, 3 practice) – PGY3

Obstetrics and Gynecology Radiology (RA64230, 4 credits, 1 theory, 3 practice) – PGY4

The "Obstetrics and Gynecology Imaging" course is a core module in the Radiology Residency Program, providing essential knowledge and skills in:

- Imaging diagnostics for normal and abnormal fetal development, placentas, and amniotic fluid.
- Imaging diagnostics for normal and abnormal gynecological conditions related to the female reproductive organs, including the uterus, fallopian tubes, and ovaries.

The program adheres to ACGME-I standards and guidelines.

The course content primarily includes theoretical lectures and practical sessions covering imaging anatomy, pathophysiology, imaging techniques, and the interpretation of normal and pathological findings in obstetrics and gynecology.

Head and Neck Radiology (RAD62240, 4 credits, 0.5 theory, 3.5 practice) – PGY2

Head and Neck Radiology (RAD63240, 4 credits, 1 theory, 3 practice) – PGY3

Head and Neck Radiology (RAD64240, 2 credits, 0.5 theory, 1.5 practice) – PGY4

On this rotation, residents will experience radiology for Head, Neck, Skin and Soft Tissue diseases. Learning will occur on ward rounds, in the operating theatre and the outpatient clinic.

Breast Radiology (RAD62270, 1 credits, 0.5 theory, 0.5 practice) – PGY2

Breast Radiology (RAD63270, 2 credits, 0.5 theory, 1.5 practice) – PGY3

Breast Radiology (RAD64270, 2 credits, 0.5 theory, 1.5 practice) – PGY4

The "Breast Imaging" course is a core module in the Radiology Residency Program, providing essential knowledge and skills for diagnosing breast and soft tissue diseases, as well as basic procedures for diagnosing and treating breast conditions under image guidance. The program adheres to ACGME-I standards and guidelines for specialized education.

The course primarily includes theoretical lectures and practical sessions on imaging anatomy, pathophysiology, imaging techniques, and the interpretation of common and some uncommon breast diseases. It also covers basic interventional techniques guided by imaging. The program features case-based discussions, interactive questions, and self-assessment modules.

The course aims to prepare residents with the competence and confidence needed for clinical practice and specialized consultations, while encouraging their interest and enthusiasm in breast imaging.

Nuclear Medicine (RAD62250, 4 credits, 1 theory, 3 practice) – PGY2

Nuclear Medicine (RAD63250, 4 credits, 1 theory, 3 practice) – PGY3

Nuclear Medicine (RAD64250, 4 credits, 1 theory, 3 practice) – PGY4

The "Nuclear Medicine" course is a core and important module in the Radiology Residency Training Program. Its purpose is to help residents accumulate knowledge, develop clinical skills, and enhance decision-making processes in diagnosis and differential diagnosis. The program adheres to ACGME-I standards and guidelines for specialized education.

Interventional Radiology (RAD62260, 4 credits, 0.5 theory, 3.5 practice) – PGY2

Interventional Radiology (RAD623260, 2 credits, 0.5 theory, 1.5 practice) – PGY3

Interventional Radiology (RAD64260, 4 credits, 0 theory, 4 practice) – PGY4

Interventional Radiology is a diagnostic and therapeutic technique involving minimally invasive interventions for various diseases, including vascular and non-vascular conditions. The advantages of Interventional Radiology techniques include minimal invasiveness, reduced risk of complications for patients, precise guidance through imaging, faster recovery, shorter hospital stays, and lower costs.

In the Radiology Residency Program, the "Interventional Radiology" course provides residents with the knowledge and practical skills to perform diagnostic and interventional techniques, understand indications and contraindications, manage complications, and explore the applications of interventional radiology in areas such as cardiovascular, central nervous system, hepatobiliary, genitourinary, musculoskeletal, respiratory, gastrointestinal, and endocrine systems. The course is delivered through theoretical lectures, hands-on practice, case-based discussions, interactive questions, and self-assessment modules.

The program adheres to ACGME-I standards and guidelines for specialized education.

Elective Advanced Specialization (RAD63290, 2 credits, 0.5 theory, 1.5 practice) – PGY3

Elective Advanced Specialization (RAD64290, 10 credits, 0 theory, 10 practice) – PGY4

In the 3rd and 4th years, residents may rotate through departments of their choice at affiliated teaching hospitals. This allows them to receive more in-depth training in the specialized areas they are interested in or wish to pursue after graduation. However, there may be other limitations within the training program, so elective courses must be approved.

Review and Graduation Exam (RAD64300, 10 credits, 10 theory, 0 practice) - PGY4

Residents in their last year will take this rotation to review all the knowledge and study scope to prepare for the graduation exam.

Graduation Thesis

Thesis (RAD62280, 5 credits, 5 theory, 0 practice) – PGY2 at various locations

Thesis (RAD63280, 5 credits, 5 theory, 0 practice) – PGY3 at various locations

Residents will be allocated a dedicated six-week period outside their clinical rotation schedule, supplemented with additional time, to formulate a research proposal, obtain Institutional Review Board (IRB) approval, engage in research activities, compose their thesis, and subsequently defend it.