COURSE DESCRIPTION
The Duke Review Course provides a comprehensive review of diagnostic radiology provided by the faculty of Duke Radiology.

The course is designed for radiology senior residents as well as practicing radiologists looking for a comprehensive review and state-of-the-art update of general radiology.

TARGET AUDIENCE
Senior radiology residents and practicing radiologists.

LEARNING OBJECTIVES
Upon completion of this course, participants should be able to:

- Identify and discuss the latest modalities and techniques being used in the field of Diagnostic Radiology
- Discuss differential diagnoses of common disease processes as they are seen on radiographic images
- Demonstrate compliance with various governing agencies to sustain accreditation, licensing and board certification requirements

COURSE DIRECTORS
- Charles M. Maxfield, M.D.
- Michael Malinzak, M.D., Ph.D.

ACCREDITATION

In support of improving patient care, Duke University Health System Department of Clinical Education & Professional Development is accredited by the American Nurses Credentialing Center (ANCC), the Accreditation Council for Pharmacy Education (ACPE), and the Accreditation Council for Continuing Medical Education (ACCME), to provide continuing education for the health care team.

CREDIT STATEMENT
Duke University Health System Department of Clinical Education & Professional Development designates this educational activity for a maximum of 50.75 AMA PRA Category 1 Credit(s)™. Physicians should claim only credit commensurate with the extent of their participation in the activity.
Lecture Schedule

MARCH 3 Saturday
12:35 – 12:40 p.m. WELCOME

BREAST IMAGING
12:35 – 2:20 p.m. BI-RADS and the Management of Mammographic Abnormalities
2:20 – 2:30 p.m. BREAK
2:30 – 3:35 p.m. Breast Imaging – The Rest of the Story
3:35 – 3:45 p.m. BREAK
3:45 – 5:15 p.m. Physics: X-Ray
5:15 – 5:25 p.m. BREAK
5:25 – 6:30 p.m. Physics: X-Ray Cont’d

MARCH 4 Sunday
7:00 – 7:30 a.m. Continental Breakfast
7:30 – 9:00 a.m. Physics: CT
9:00 – 9:10 a.m. BREAK
9:10 – 9:55 a.m. Liver & Splenic Imaging
9:55 – 10:10 a.m. Non-Vascular Intervention
10:10 – 10:45 a.m. Quality Control & Safety
10:45 – 10:55 a.m. BREAK
10:55 – 11:55 a.m. Physics: Ultrasound
11:55 – 12:55 p.m. LUNCH
12:55 – 1:25 p.m. Vascular Ultrasound

Speakers and schedule subject to change
# Lecture Schedule

## MARCH 4 Sunday

### INTERVENTIONAL

<table>
<thead>
<tr>
<th>Time</th>
<th>Lecture Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:25 – 1:45 p.m.</td>
<td>Peripheral Interventional Radiology I</td>
</tr>
<tr>
<td>1:45 – 2:00 p.m.</td>
<td>Mesenteric Arteriography &amp; Intervention</td>
</tr>
<tr>
<td>2:00 – 2:20 p.m.</td>
<td>Venous Disease and Management</td>
</tr>
<tr>
<td>2:20 – 2:45 p.m.</td>
<td>Non-Vascular Interventions</td>
</tr>
<tr>
<td>2:45 – 2:55 p.m.</td>
<td>BREAK</td>
</tr>
<tr>
<td>2:55 – 3:10 p.m.</td>
<td>Renal Diagnostic &amp; Intervention Radiology</td>
</tr>
<tr>
<td>3:10 – 3:35 p.m.</td>
<td>Celiac Arterial &amp; Hepatoportal Venous Interventions</td>
</tr>
<tr>
<td>3:35 – 3:55 p.m.</td>
<td>Peripheral Interventional Radiology II</td>
</tr>
<tr>
<td>3:55 – 4:15 p.m.</td>
<td>Basics of Cerebral Angiography</td>
</tr>
<tr>
<td>4:15 – 4:25 p.m.</td>
<td>BREAK</td>
</tr>
</tbody>
</table>

### NEURORADIOLOGY

<table>
<thead>
<tr>
<th>Time</th>
<th>Lecture Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:25 – 5:10 p.m.</td>
<td>Temporal Bones &amp; Skull Base</td>
</tr>
</tbody>
</table>

## MARCH 5 Monday

<table>
<thead>
<tr>
<th>Time</th>
<th>Lecture Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 – 7:30 a.m.</td>
<td>CONTINENTAL BREAKFAST</td>
</tr>
<tr>
<td>7:30 – 8:30 a.m.</td>
<td>Physics: Radiation Biology &amp; Safety</td>
</tr>
<tr>
<td>8:30 – 8:40 a.m.</td>
<td>BREAK</td>
</tr>
</tbody>
</table>

Speakers and schedule subject to change
Lecture Schedule

MARCH 5 Monday

NEURORADIOLOGY

8:40 – 9:10 a.m.  Head & Neck Radiology
9:10 – 9:55 a.m.  Practical Approach to Brain Tumors
9:55 – 10:25 a.m. Congenital Anomalies of the Brain
10:25 – 10:35 a.m. BREAK
10:35 – 11:20 a.m. Cerebrovascular Disease
11:20 – 11:40 a.m. Central Nervous System Infections
11:40 – 12:05 p.m. Diseases of White Matter
12:05 – 1:05 p.m. LUNCH
1:05 – 1:35 p.m. Imaging of the Spine — Extradural Disease
1:35 – 2:15 p.m. Intradural & Intramedullary Diseases of the Spine
2:15 – 2:50 p.m. Imaging of the Orbits
2:50 – 3:00 p.m. BREAK

PEDIATRICS

3:00 – 3:30 p.m. Newborn Chest
3:30 – 3:55 p.m. Pediatric Chest
3:55 – 4:25 p.m. Pediatric Abdominal Masses
4:25 – 4:45 p.m. Neonatal Head & Spine Ultrasound
4:45 – 7:00 pm. DINNER BREAK
7:00 – 9:00 p.m. Multiple choice question review

Speakers and schedule subject to change
### Lecture Schedule

**Tuesday, MARCH 6**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 – 7:30 a.m.</td>
<td>CONTINENTAL BREAKFAST</td>
</tr>
<tr>
<td>7:30 – 8:05 a.m.</td>
<td>Pediatric Uroradiology</td>
</tr>
<tr>
<td>8:05 – 8:45 a.m.</td>
<td>Peds Gastrointestinal Imaging</td>
</tr>
<tr>
<td>8:45 – 8:55 a.m.</td>
<td>BREAK</td>
</tr>
<tr>
<td>8:55 – 9:55 a.m.</td>
<td>Physics: Nuclear Medicine</td>
</tr>
<tr>
<td>9:55 – 10:15 a.m.</td>
<td>Endocrine Imaging/CNS Imaging</td>
</tr>
<tr>
<td>10:15 – 10:40 a.m.</td>
<td>V/Q Imaging</td>
</tr>
<tr>
<td>10:40 – 10:50 a.m.</td>
<td>BREAK</td>
</tr>
<tr>
<td>10:50 – 11:20 a.m.</td>
<td>Tumor/Infection/Lymphoscinigraphic Imaging</td>
</tr>
<tr>
<td>11:20 – 11:45 a.m.</td>
<td>Nuclear Cardiology</td>
</tr>
<tr>
<td>11:45 – 12:45 p.m.</td>
<td>LUNCH</td>
</tr>
<tr>
<td>12:45 – 1:05 p.m.</td>
<td>Scintigraphic Studies of the Genitourinary Tract</td>
</tr>
<tr>
<td>1:05 – 1:25 p.m.</td>
<td>Hepatobiliary &amp; GI Scintigraphic Studies</td>
</tr>
<tr>
<td>1:25 – 1:55 p.m.</td>
<td>PET CT</td>
</tr>
<tr>
<td>1:55 – 2:05 p.m.</td>
<td>BREAK</td>
</tr>
<tr>
<td>2:05 – 2:45 p.m.</td>
<td>Musculoskeletal Scintigraphy</td>
</tr>
</tbody>
</table>

Speakers and schedule subject to change
# Lecture Schedule

**MARCH 6**

**Tuesday**

**MUSCULOSKELETAL**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:45 – 3:25 p.m.</td>
<td>Pediatric Skeletal Radiology</td>
</tr>
<tr>
<td>3:25 – 4:00 p.m.</td>
<td>Orthopedic Trauma</td>
</tr>
<tr>
<td>4:00 – 4:10 p.m.</td>
<td><strong>BREAK</strong></td>
</tr>
<tr>
<td>4:10 – 4:40 p.m.</td>
<td>Metabolic Bone Disease</td>
</tr>
<tr>
<td>4:40 – 5:15 p.m.</td>
<td>Musculoskeletal Miscellany</td>
</tr>
<tr>
<td>5:15 – 5:45 p.m.</td>
<td>Malignant Skeletal Tumors</td>
</tr>
</tbody>
</table>

**MARCH 7**

**Wednesday**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 – 7:30 a.m.</td>
<td><strong>CONTINENTAL BREAKFAST</strong></td>
</tr>
<tr>
<td>7:30 – 9:30 a.m.</td>
<td>Physics: MR</td>
</tr>
<tr>
<td>9:30 – 9:40 a.m.</td>
<td><strong>BREAK</strong></td>
</tr>
</tbody>
</table>

**MUSCULOSKELETAL**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:40 – 10:10 a.m.</td>
<td>MRI of the Shoulder</td>
</tr>
<tr>
<td>10:10 – 10:55 a.m.</td>
<td>MRI of the Knee</td>
</tr>
<tr>
<td>10:55 – 11:05 a.m.</td>
<td><strong>BREAK</strong></td>
</tr>
<tr>
<td>11:05 – 11:20 a.m.</td>
<td>MSK Ultrasound</td>
</tr>
<tr>
<td>11:20 – 12:00 noon</td>
<td>Benign Lytic Bone Lesions</td>
</tr>
<tr>
<td>12:00 – 1:00 p.m.</td>
<td><strong>LUNCH</strong></td>
</tr>
<tr>
<td>1:00 – 1:40 p.m.</td>
<td>Radiology of Arthritis</td>
</tr>
</tbody>
</table>

Speakers and schedule subject to change
## Lecture Schedule

### MARCH 7 Wednesday

### CARDIAC IMAGING

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:40 – 2:10 p.m.</td>
<td>Cardiac Imaging: A Pattern-Based Approach – Part 1</td>
</tr>
<tr>
<td>2:10 – 2:40 p.m.</td>
<td>Imaging Coronary Artery Disease</td>
</tr>
<tr>
<td>2:40 – 2:50 p.m.</td>
<td>Break</td>
</tr>
<tr>
<td>2:50 – 3:30 p.m.</td>
<td>Cardiac Imaging: A Pattern-Based Approach – Part 2</td>
</tr>
<tr>
<td>3:30 – 4:10 p.m.</td>
<td>Aortic Disease</td>
</tr>
<tr>
<td>4:10 – 4:40 p.m.</td>
<td>Congenital Heart Disease</td>
</tr>
<tr>
<td>4:40 – 7:00 pm.</td>
<td>DINNER BREAK</td>
</tr>
<tr>
<td>7:00 – 9:00 p.m.</td>
<td>Multiple choice question review</td>
</tr>
</tbody>
</table>

### MARCH 8 Thursday

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 – 7:30 a.m.</td>
<td>CONTINENTAL BREAKFAST</td>
</tr>
<tr>
<td>7:30 – 8:20 a.m.</td>
<td>Practical IT</td>
</tr>
<tr>
<td>8:20 – 8:30 a.m.</td>
<td>BREAK</td>
</tr>
</tbody>
</table>

Speakers and schedule subject to change
Lecture Schedule

MARCH 8
Thursday

CHEST IMAGING

8:30 – 9:20 a.m.  
**Airway Disease**

9:20 – 9:55 p.m.  
**Airspace Disease**

9:55 – 10:05 a.m.  
**BREAK**

10:05 – 10:35 a.m.  
**Mediastinum**

10:35 – 11:20 a.m.  
**Interstitial Lung Disease – Part 1**

11:20 – 11:30 a.m.  
**BREAK**

11:30 – 12:15 p.m.  
**Interstitial Lung Disease – Part 2**

12:15 – 1:15 p.m.  
**LUNCH**

1:15 – 1:45 p.m.  
**Pulmonary Nodules**

1:45 – 2:05 p.m.  
**Pleural Disease**

ULTRASOUND

2:05 – 2:35 p.m.  
**Ultrasound of the Kidneys**

2:35 – 3:05 p.m.  
**US of Thyroid & Scrotum**

3:05 – 3:15 p.m.  
**BREAK**

3:15 – 3:45 p.m.  
**GYN US**

3:45 – 4:35 p.m.  
**Ultrasound of 1st Trimester & Ectopic Pregnancy**

4:35 – 5:20 p.m.  
**2nd & 3rd Trimester Obstetric Ultrasound**

5:20 – 5:50 p.m.  
**Abdominal Ultrasound**

*Speakers and schedule subject to change*
# Lecture Schedule

## MARCH 9

**Friday**

7:00 – 7:30 a.m.  
**CONTINENTAL BREAKFAST**

## ABDOMINAL IMAGING

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 – 8:00 a.m.</td>
<td><strong>Acute Abdomen</strong></td>
</tr>
<tr>
<td>8:00 – 8:30 a.m.</td>
<td><strong>Non-Invasive Imaging of the Biliary System</strong></td>
</tr>
<tr>
<td>8:30 – 9:00 a.m.</td>
<td><strong>Imaging of Pancreatic Disease</strong></td>
</tr>
<tr>
<td>9:00 – 9:10 a.m.</td>
<td><strong>BREAK</strong></td>
</tr>
<tr>
<td>9:10 – 9:40 a.m.</td>
<td><strong>Radiology of the Adrenals &amp; Retroperitoneum</strong></td>
</tr>
<tr>
<td>9:40 – 10:25 a.m.</td>
<td><strong>Renal Masses/Infection</strong></td>
</tr>
<tr>
<td>10:25 – 10:35 a.m.</td>
<td><strong>BREAK</strong></td>
</tr>
<tr>
<td>10:35 – 10:50 a.m.</td>
<td><strong>Imaging of the Ureters, Bladder &amp; Urethra</strong></td>
</tr>
<tr>
<td>10:50 – 11:20 a.m.</td>
<td><strong>MR of the Female Pelvis</strong></td>
</tr>
<tr>
<td>11:20 – 11:50 a.m.</td>
<td><strong>LUNCH</strong></td>
</tr>
<tr>
<td>11:50 – 12:20 p.m.</td>
<td><strong>Esophagus to Stomach</strong></td>
</tr>
<tr>
<td>12:20 – 12:55 p.m.</td>
<td><strong>Small Bowel &amp; Colon</strong></td>
</tr>
</tbody>
</table>

*Speakers and schedule subject to change*
Faculty

ABDOMINAL IMAGING
Brian Allen, M.D.
Assistant Professor
Mustafa Bashir, M.D.
Associate Professor
Wendy Ehieli, M.D.
Medical Instructor
Sujata Ghate, M.D.
Associate Professor
Rajan Gupta, M.D.
Associate Professor
Clare Haystead, M.D.
Assistant Professor
Barbara Hertzberg, M.D.
Professor
Lisa Ho, M.D.
Associate Professor
Tracy Jaffe, M.D.
Professor
Richard Leder, M.D.
Associate Professor
Daniele Marin, M.D.
Associate Professor
Chad Miller, M.D.
Assistant Professor
Rendon Nelson, M.D.
Professor

BREAST IMAGING
Jay Baker, M.D.
Professor
Karen Johnson, M.D.
Assistant Professor

CARDIOPULMONARY/CARDIOVASCULAR
Lynne Hurwitz Koweek, M.D.
Associate Professor
Joseph Mammarappallil, M.D., Ph.D.
Assistant Professor
H. Page McAdams, M.D.
Professor
Tina Tailor, M.D.
Assistant Professor
E. Lacey Washington
Associate Professor

INTERVENTIONAL
Charles Kim, M.D.
Associate Professor
James Ronald, M.D., PhD
Assistant Professor
Tony P. Smith, M.D.
Professor
David Sopko, M.D.
Medical Instructor
Paul Suhocki, M.D.
Associate Professor

MUSCULOSKELETAL
R. Lee Cothran, M.D.
Assistant Professor
Thomas Farmer, M.D.
Assistant Professor
Clyde Helms, M.D.
Consulting Professor
Nicholas Said, M.D., MBA
Assistant Professor
Charles Spritzer, M.D.
Professor
Emily Vinson, M.D.
Assistant Professor
Faculty

NEURORADIOLOGY
Timothy Amrhein, M.D.
Assistant Professor
Daniel Barboriak, M.D.
Professor
James Eastwood, M.D.
Associate Professor
David Enterline, M.D.
Associate Professor
Linda Gray, M.D.
Associate Professor
Jenny Hoang, MBBS
Associate Professor
Peter Kranz, M.D.
Associate Professor
Michael Malinzak, M.D., Ph.D.
Medical Instructor
Co-Course Director
James Provenzale, M.D.
Professor
Christopher Roth, M.D.
Associate Professor

NUCLEAR MEDICINE
Salvador Borges-Neto, M.D.
Professor
Michael Hanson, M.D.
Professor
Brandon Howard, M.D., Ph.D.
Assistant Professor
Olga James, M.D.
Assistant Professor

PEDIATRICS
Caroline Carrico, M.D.
Associate Professor
Joseph Davis, M.D.
Assistant Professor
Gary Schooler, M.D.
Assistant Professor
Charles Maxfield, M.D.
Professor, Co-Course Director

PHYSICS
Joseph Lo, Ph.D.
Professor
Robert Reiman, M.D.
Associate Professor
Timothy Turkington, Ph.D.
Associate Professor

All faculty are members of the Duke Department of Radiology.

Duke Radiology
Duke University Medical Center
Durham, North Carolina
www.radiology.duke.edu
COURSE FEE

<table>
<thead>
<tr>
<th>Category</th>
<th>On or prior to 2/3/18</th>
<th>After 2/3/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practicing Radiologists</td>
<td>$1,450</td>
<td>$1,525</td>
</tr>
<tr>
<td>Military/VA/Retired Radiologists</td>
<td>$1,000</td>
<td>$1,075</td>
</tr>
<tr>
<td>Residents/Fellows</td>
<td>$950</td>
<td>$1,025</td>
</tr>
</tbody>
</table>

Fees include all continental breakfasts, breaks, and lunches.

In an effort to be more environmentally conscious, we will distribute syllabus electronically. You are encouraged to bring your laptop or electronic device to follow along. All seats are equipped with power strips for your convenience. A paper syllabus will only be provided upon request at a cost of $100. Please mark the appropriate box on the registration form.

A $100 administrative fee will be assessed on all refunds prior to 2/16/2018. After that date, no refund will be made.

For more information contact: Debbie Griffin
Administrative Coordinator
919.684.7228
deborah.griffin@duke.edu

PRACTICING RADIOLOGISTS

Practicing radiologists are assigned to a spacious and comfortable auxiliary conference room with tiered seating. Seating is limited to 100 persons. When room capacity is reached, you would be assigned to the larger conference room. The lectures are projected via a live audio/video feed from the main conference room. Practicing radiologists will have ample access to the faculty for questions after each session.

Breakfast and breaks are served directly in the private auxiliary conference room.
Duke Review Course 2018

REGISTRATION
Registration and payment is easy with one of three convenient options:

◊ Register and pay online at www.radiology.duke.edu with a credit card.

◊ Download the registration form and fax with complete credit card information to: 919.660.1769

◊ Download the registration form from the website and mail with check payable to Duke University to:
  
  Duke University Conference Services  
  Radiology Review Course  
  0066 Bryan University Center, Box 90841  
  Durham, NC 27708-0841

Early registration is recommended as the course fills to room capacity.  
**No on site registration is available.**

Course materials will be available outside the conference room on Saturday, March 3 beginning at 9 a.m.

TRAVEL ARRANGEMENTS
The area is served by the Raleigh-Durham International Airport.
ACCOMMODATIONS

The meeting is conveniently located at the Sheraton Imperial Hotel & Convention Center in Research Triangle Park, only 5 minutes away from the Raleigh-Durham International Airport (RDU) located between Durham (the “City of Medicine”: home of Duke University), Raleigh (capital of North Carolina) and Chapel Hill.

A block of discounted rooms is available at the Sheraton Imperial Hotel & Convention Center for the Review Course. The hotel houses two restaurants and has a 30,000 square foot athletic facility and adjacent lighted fitness trail. Airport transportation is provided by the hotel. Van service to nearby locales in the evening is provided for registrants.

Reservations can be made at www.radiology.duke.edu (click on the Duke Review Course link and select Hotel Reservation) or by contacting the hotel directly.

Sheraton Imperial Hotel
4700 Emperor Blvd Durham, NC 27703
919.941.5050
www.sheratonrtp.com
$148 single/double per night

OTHER NEARBY LODGING

- Springhill Suites by Marriott: 919-998-9500
- Comfort Suites – RTP: 919-314-4949
- Wingate Inn: 919-941-2854
- Sleep Inn Hotel: 919-933-3393
- Hilton Raleigh-Durham Airport – RTP: 919-941-6000

AREA & WEATHER

The weather in April is beautiful! Average high temperatures in the spring are in the mid 70s with nightly lows in the 40-50s. Lightweight clothing is the preferred dress during the day with possibly a sweater or light jacket in the evenings and early mornings.

The meeting room is typically cool – Bring a sweater!
DISCLOSURE
It is the policy of the Duke University Health System Clinical Education & Professional Development to require the disclosure of anyone who is in a position to control the content of an educational activity. All relevant financial relationships with any commercial interests and/or manufacturers must be disclosed to participants at the beginning of each activity.

RESOLUTION OF CONFLICTS OF INTEREST
Duke University Health System Clinical Education & Professional Development has implemented a process to resolve any potential conflicts of interest for each continuing education activity in order to help ensure content objectivity, independence, fair balance, and the content that is aligned with the interest of the public.

DISCLAIMER
The information provided at this educational activity is for continuing medical education purposes only and is not meant to substitute for the independent medical judgment of a physician relative to diagnostic and treatment options of a specific patient’s medical condition.

SPECIAL NEEDS STATEMENT
The Duke Department of Radiology is committed to making its activities accessible to all individuals. If you are in need of an accommodation, please do not hesitate to call and/or submit a description of your needs in writing in order to receive service.