DIAGNOSTIC MEDICAL IMAGING SCIENCES (Radiologic Technology)  

Table of Contents
Program Admission Requirements, p. 1  
Prerequisite Courses, p. 2  
Associate in Science Degree, p. 2  
Certificate of Achievement, p. 4  
Recommended, but not required, classes, p. 4  
Additional Program Information, p. 4  
Certificates of Accomplishment, p. 5  
Computed Tomography, p. 5  
Magnetic Resonance Imaging Technologist, p. 5  
Career Opportunities, p. 5  
Program Mission and Outcomes, p. 5  
Legend, p. 5

Students planning to transfer to a four-year college or university should refer to the ASSIST web site at www.assist.org and consult a counselor before beginning a program of study. To meet with a counselor, please call 562-938-4561 for the LAC, or 562-938-3920 for PCC. Students may also wish to visit the Transfer Center on either campus.

Program Admission Requirements
Applications are not accepted until the following prerequisites are met:
1. Graduation from an accredited high school, or the equivalent.
2. Before students may begin the program, the following proficiencies must be met:
   a) A passing score on the reading section of the Long Beach City College assessment test OR
   b) Completion READ 82 or 83 at Long Beach City College with a grade of "C" or better, OR
   c) Documentation from LBCC Counseling stating proficiency has been met.
   
   MATHEMATICS:
   a) A passing score on the Elementary Algebra Diagnostic Test (part of the LBCC Assessment Test, OR
   b) Successful completion of a math course at the level of intermediate algebra (Math 130A or 130) or higher, OR
   c) Documentation from LBCC Counseling stating proficiency has been met.
3. High school grade point average or current GPA is considered.
4. Completion of AH 60, AH 61, and ANAT 41 within seven years with a letter grade of "C" or better.
5. C.P.R. for Health Care Providers certification is required before the practicum phase, which begins 1st Fall semester.
6. Evidence of physical and emotional fitness by medical examination and personal interview. This is submitted in the Summer of the 1st year in DMI 20.
7. Students MUST keep the Admissions and Records Office AND the School of Health and Science advised of their current address and telephone number and any name changes. All changes MUST be submitted in writing.
8. A current background check is required to be submitted during the 1st spring semester.

Selection Process
The following is considered in the selection process:
1. Date of application
2. Number of program required science and general education courses taken (ENGL 1; PSYCH 1; COMM 10, 20, or 30; Humanities; Anatomy 41; AH 60; AH 61)
3. Applicant responses to required application procedure (i.e. attending advisement session).
4. It is suggested that applicants complete as many of the General Education courses as possible prior to admission to the program.
5. Current college grade point average (a minimum cumulative GPA of 2.0 or better is required for program admission.)
Information Session
Students who need additional information are invited to attend an information session, held on the first Tuesday of every month from September to May (EXCEPT JANUARY) at 11:15 AM in Room C100.

Application Procedures
Applications are accepted on a continuous basis.
1. Apply for admission to the college through the Admissions Office (applications are available online at http://www.lbcc.edu/admissions/).
2. Make an appointment to take the college assessment test.
3. Submit transcripts from high school and previous college work to the Admissions Office and the School of Health and Science.
4. Complete the Diagnostic Medical Imaging Program Application form and bring the completed application form and documentation with a self-addressed stamped, legal-size envelope (4½ X 9½ available in the Campus Bookstore) to the School of Health and Science, Room C100.
5. All applicants will be notified by mail (see #4 regarding envelope) regarding the status of their applications. Applicants will be invited to an Advisement Session which they MUST attend. Only those applicants who are qualified and who have attended an Advisement Session (different from and Information Session) will be considered for admission into the program.

Prerequisite Courses
The following courses must be completed within five years prior to the first Spring Semester of the program:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 41</td>
<td>Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>AH 60</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>AH 61</td>
<td>Integration of Patient Care</td>
<td>2</td>
</tr>
</tbody>
</table>

Subtotal Units: 10

Program of study leading to:

Associate in Science (A.S.) Degree

FIRST YEAR

Spring Semester REQUIRED COURSES:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>† DMI 10</td>
<td>Intro to Radiologic Technology</td>
<td>3</td>
</tr>
<tr>
<td>† DMI 20</td>
<td>Intro. to Radiologic Physics</td>
<td>3</td>
</tr>
<tr>
<td>† DMI 403</td>
<td>Cross-Sectional Anatomy</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal Units: 9

Fall Semester REQUIRED COURSES:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>^ Gen. Ed. Course</td>
<td>See Explanation in Legend</td>
<td>3</td>
</tr>
<tr>
<td>^ Gen. Ed. Course</td>
<td>See Explanation in Legend</td>
<td>3</td>
</tr>
<tr>
<td>Computer Class—Any class which satisfies the Information Competency- Technology requirement for graduation. Recommended course COSA 1. For a complete listing see GE Course Pattern Guide (Plan A).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>† DMI 11</td>
<td>Radiographic Techniques</td>
<td>1</td>
</tr>
<tr>
<td>† DMI 12</td>
<td>Contrast Fluoroscope &amp; Radiographic Procedures</td>
<td>3</td>
</tr>
<tr>
<td>† DMI 21</td>
<td>Applied Radiological Physics</td>
<td>2</td>
</tr>
<tr>
<td>† DMI 30</td>
<td>Positioning for General Diagnostic Radiography</td>
<td>3</td>
</tr>
<tr>
<td>† DMI 40A</td>
<td>Clinical Radiology</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Subtotal Units: 18.5-21.5

Spring Semester REQUIRED COURSES:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>† DMI 60</td>
<td>Radiologic Pathology</td>
<td>3</td>
</tr>
<tr>
<td>† DMI 24</td>
<td>Radiation: Biology &amp; Protection</td>
<td>3</td>
</tr>
<tr>
<td>† DMI 31</td>
<td>Positioning for Cranial Radiography</td>
<td>3</td>
</tr>
<tr>
<td>† DMI 40B</td>
<td>Clinical Radiology</td>
<td>6</td>
</tr>
</tbody>
</table>

Subtotal Units: 15

Associate Degree requirements continue on the following page:
SECOND YEAR
Summer Session** REQUIRED COURSES:
† DMI 40C  Clinical Radiology  6  
Subtotal Units  6  

Fall Semester REQUIRED COURSES:
^ Gen. Ed. Course  See Explanation in Legend  3  
† DMI 222  Venipuncture  .5  
† DMI 15  Computer Applications in Radiology  3  
† DMI 40D  Clinical Radiology  11  
Subtotal Units  17.5  

Spring Semester REQUIRED COURSES:
^ Gen. Ed. Course  See Explanation in Legend  3  
† DMI 14  Trends & Self-Assessment in Rad. Tech.  3  
† DMI 40E  Clinical Radiology  11  
† DMI 61  Fluoroscopy  2  
Subtotal Units  19  
TOTAL UNITS in Program  85-88  
TOTAL UNITS (including Prerequisites)  95-98  

For graduation with an Associate in Science (A.S.) Degree with a major in Diagnostic Medical Imaging:
1. Minimum Unit Requirements: §Any course that appears on a curriculum guide and the General Education Pattern (Plan A) may fulfill both major and general education requirements (Approved by College Curriculum Committee Spring 2012). For this degree, complete a minimum of 60 units in courses numbered 1-599. Please note that additional elective units may be required to meet this minimum based upon courses selected to fulfill General Education for the Associate Degree. 

   Diagnostic Medical Imaging Major  85-88 units  
   General Education/A.S.§  19 units  

2. Scholarship: Maintain an overall grade point average (GPA) of 2.0 (“C” average) based on all accredited college work applied to the degree, no matter where completed. For this field of concentration, complete each course above with a grade of “C” or better, or “P” if course is graded on a P/NP basis. 

3. Residence for the Degree: Complete at least 30 units of the required 60 in residence at LBCC, or complete in residence at LBCC at least 20 units within the last 30 units of work applied to the degree. 

4. Residence for the Field of Concentration: Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at least 42.5-44 units of the required 85-88 must be completed at Long Beach City College. Credit earned by exam, where applicable, may be included. 

5. General Education and Proficiency Requirements: Complete the required A.A./A.S. General Education and Proficiency requirements, otherwise known as “Plan A”. For Plan A requirements, refer to the general catalog or view it online at http://osca.lbcc.edu . 

6. Complete and submit the degree application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at http://admissions.lbcc.edu/ . Refer to the Schedule of Classes (http://schedule.lbcc.edu) and click the “Important Dates” link to view the actual deadline for each semester. 

*The requirements for general education/proficiency and the field of concentration (major) need to be from the same catalog year. This catalog year may be any year between the year of initial enrollment to the present, provided continuous enrollment is maintained throughout. See the catalog for definition of "continuous enrollment".
Program of study leading to:  
Certificate of Achievement

REQUIRED COURSES—Complete the 85 – 88 units of required courses as listed in the Associate Degree requirements box on the first page.

<table>
<thead>
<tr>
<th>REQUIRED COURSES</th>
<th>In Progress</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL UNITS</td>
<td>85-88</td>
<td></td>
</tr>
</tbody>
</table>

For graduation with a Diagnostic Medical Imaging Certificate of Achievement:

1. Complete each of the REQUIRED COURSES listed above with a minimum cumulative grade point average of 2.0 (“C” average, and complete all DMI, AH, and ANAT courses with a grade of “C” or better.
2. Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at least 42.5 - 44 units of the required 85-88 must be completed at Long Beach City College. Credit earned by exam, where applicable, may be included.
3. Complete and submit the certificate application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at [http://admissions.lbcc.edu/](http://admissions.lbcc.edu/). Refer to the Schedule of Classes ([http://schedule.lbcc.edu](http://schedule.lbcc.edu)) and click the “Important Dates” link to view the actual deadline for each semester.

Note: A Diagnostic Medical Imaging Sciences student must obtain a minimum of an Associate Degree, but the degree may be earned from another accredited institution. Students must have official transcripts on file in the Admissions and Records Office.

For both the Associate in Arts and the Certificate of Achievement, the following courses are recommended, BUT ARE NOT REQUIRED to earn either.

RECOMMENDED but not required courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>†DMI 62</td>
<td>Mammography</td>
<td>3.5</td>
</tr>
<tr>
<td>LEARN 11</td>
<td>Learning and Academic Strategies</td>
<td>2</td>
</tr>
</tbody>
</table>

Additional Program Information

Clinical Education

The following modern medical centers in the community are used as extension campuses for the Clinical Education Courses:

- Lakewood Regional Medical Center  
- Saint Francis Medical Center  
- Los Alamitos Medical Center  
- Saint Mary Medical Center  
- Long Beach Memorial Medical Center  
- Veterans Affairs Medical Center

Cost of Program

Students purchase their own books and uniforms and pay a student body fee. The college has no dormitory facilities; students must provide for their own living expenses and transportation. Limited educational grants and loan funds are available.

ESTIMATED expenses for the two year program:

- Books and Supplies: $750
- C.S.R.T. Membership (optional): $50
- Student Body Fees: $20/sem.
- Parking Fees: $25/sem.
- Uniforms: $300
- ARRT Exam: $200
- Graduation Expenses: $500
- CRT Exam: $425
- Enrollment Fees: $26/unit
- Health Fee: $17/sem.
- A.S.R.T. Membership (optional): $75
- Malpractice Insurance (optional): $15/sem.
- Background Check: a recent background check which is obtained at their own expense: $75

Accreditation

Long Beach City College is fully accredited by the Western Association of Schools and Colleges. The program is approved by the California State Department of Health, Radiological Health Branch.

*Eligibility for the ARRT examination requires the candidate to be of good moral character. Conviction of a misdemeanor or felony may disqualify the candidate. An Ethics pre-application review may be pursued by contacting the ARRT at [www.ARRT.org](http://www.ARRT.org).
Program of study leading to:

**Certificates of Accomplishment**

### Certificate: Computed Tomography 4045

**REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>UNITS</th>
<th>In Progress</th>
<th>Completed Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>† DMI 403</td>
<td>Cross-Sectional Anatomy</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>† DMI 404</td>
<td>MRI/CT Pathology</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>† DMI 405A</td>
<td>MRI/CT Clinical Practicum</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>† DMI 406</td>
<td>CT Physics</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>† DMI 407</td>
<td>CT Procedures</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>† DMI 405B</td>
<td>MRI/CT Clinical Practicum</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL UNITS** 17

### Certificate: Magnetic Resonance Imaging Technologist 4613

**Note:** All courses must be completed within three (3) years of starting the program.

**REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>UNITS</th>
<th>In Progress</th>
<th>Completed Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>† DMI 401</td>
<td>Physical Principles of Magnetic Resonance Imaging</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>† DMI 402</td>
<td>MR Imaging Procedures</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>† DMI 403</td>
<td>Cross-Sectional Anatomy</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>† DMI 404</td>
<td>MRI/CT Pathology</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>† DMI 405A</td>
<td>MRI/CT Clinical Practicum</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>† DMI 405B</td>
<td>MRI/CT Clinical Practicum</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL UNITS** 17

For graduation with a Certificate of Accomplishment:

1. Complete the above required courses with a minimum grade of “C”, or P if course is graded on a P/NP basis.
2. Fifty percent (50%) or more of the required units must be completed in residence at LBCC.
3. Complete and submit the certificate application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at [http://admissions.lbcc.edu/](http://admissions.lbcc.edu/).

---

**Career Opportunities**

This field of concentration is designed to prepare the student for Certification by the State Department of Health Services, Radiological Health Section, and Registration by the American Registry of Radiological Technologists after testing. The AART is the national testing/registration body ([www.ARRT.org](http://www.ARRT.org)). The end objective is to prepare students for employment as practicing medical imaging professionals in Acute Care Hospitals, Medical Clinics and/or private offices.

**NOTE:** An applicant should contact the ARRT to determine if he or she will be disqualified due to the conviction of a felony or misdemeanor.

**Program Mission and Outcomes**

The Diagnostic Medical Imaging Program at Long Beach City College is dedicated to providing high-quality education and clinical practicum to qualified students. It is responsive to the diverse needs of the local medical community. It specializes in the education and training that lead to entry-level employment as a competent, ethical health care professional, and an Associate of Science Degree. The program emphasizes the necessity of professional development and life-long learning.

**Outcomes:**

- Diagram the photographic and digital process and define the technical factors utilized in medical image formation.
- Distinguish the fundamental structure of matter, diagram the production of x-rays, and examine how different radiographic techniques affect the resultant image on a radiograph.
- Assess how radiation effects body systems, differentiate between different types of radiation and their effects on human tissue, and formulate ways to decrease exposure.
- Demonstrate ability to properly use all equipment required to produce a diagnostic radiograph, produce an industry standard and diagnostic radiograph.

**Legend**

† This course has a prerequisite. Prerequisite courses must be complete with at least a “C” or “P” grade. Refer to the General Catalog ([http://www.lbcc.edu/cat/index.html](http://www.lbcc.edu/cat/index.html)), the Schedule of Classes ([http://schedule.lbcc.edu/](http://schedule.lbcc.edu/)), or the online Credit Course Outline ([http://osca.lbcc.edu/coursedetails/](http://osca.lbcc.edu/coursedetails/)) for specific prerequisite information.

^ Specific General Education courses required: ENGL 1; COMM 10, 20 or 30; PSYCH 1; Humanities (any course that meets the Associate Degree requirement); 1 unit of Physical Education (can be two half-unit P.E. courses).

**Due to budget constraints, a summer session may not be offered. If it is not, the program will resume in the fall and courses will be shifted accordingly.**