



# Diagnostic Medical Imaging Program Application

# 2020

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At the time this application went to print, all information within was current, true and correct. Every effort has been made to ensure that this application packet is free from content, spelling, and typographical errors.

# INTRODUCTION

Thank you for taking the time to read this information and application packet. This packet contains all the information you need to apply to the Diagnostic Medical Imaging (DMI) program at City College of San Francisco. We hope it answers all of your questions but if it does not, feel free to email us at [DMI@mail.ccsf.edu](mailto:DMI@mail.ccsf.edu).

The first step is to learn the proper name of the profession you want to enter. We are known as either radiographers or radiologic technologists. Radiographers are highly skilled members of the healthcare team with responsibilities that include assisting physicians to perform complicated and difficult procedures. These professionals also work with surgeons during surgical procedures in the operating room. Radiographers also have continuous contact with patients; they educate patients about the examination, give injections of contrast material when needed and also give emotional support. Radiographers monitor each patient as they perform the examinations and react to emergency situations as a first responder. This profession encompasses far more than simply radiographing the skeleton.

Successful radiographers are detail oriented, interested in science and math, comfortable with computers, empathetic towards patients, customer service oriented, know how to prioritize based upon the needs of patients and physicians, and have excellent communication skills. They also possess critical thinking skills that enable them to adjust to complicated situations.

This DMI Program is a rigorous, demanding, full-time program that makes outside employment difficult if not impossible. Candidates are strongly urged to evaluate their financial status prior to application and plan for expenses including tuition, fees, books, uniforms, shoes, and transportation. It is also strongly recommended that applicants complete their General Education (GE) courses required for the Associate of Science degree prior to entering the DMI program.

Students are encouraged to visit the counseling departments at CCSF regarding questions about how your courses can be used for the DMI program and for graduation purposes. Please note that the DMI faculty do not evaluate transcripts for graduation requirements. However, counselors can assist in this process.

## **Program Overview**

The DMI program has a rich history starting in the 1950's at City College of San Francisco. This program enjoys long-term relationships with major San Francisco Bay Area hospitals where students conduct their clinical laboratory education. The DMI program has achieved prestigious accreditation by the Joint Review Committee on Education in Radiologic Technology.

The goal of this department is to prepare its students to function competently in an entry-level position as a Radiologic Technologist. The DMI Program is an integral part of this community college and combines general education and radiology courses to accomplish that goal. The DMI program is full-time, 30 months in length and can lead to national certification and state licensure.

All successful program students must graduate with an Associate's degree with a major in Diagnostic Medical Imaging upon program completion. Those students who already possess an A.A., A.S. or higher degree must matriculate through the college and meet all CCSF graduation requirements to complete the DMI program major. Upon completion of the DMI courses, and having met the CCSF requirements for graduation, the student is eligible to apply for the nationally recognized American Registry of Radiologic Technologists (ARRT) certification examination in Radiography, and upon passing, will be eligible to apply for the California Certified Radiologic Technologist (CRT) license and California's Fluoroscopy Permit.

# APPLICATION PROCESS

## Preapplication Preparation

It is recommended to meet with a CCSF counselor if you are interested in pursuing diagnostic medical imaging. The counselor can assist in selecting courses that meet the application requirements and will prepare you for the program.

## Application Checklist

- Become an official student at CCSF (if not already a CCSF student)
- Meet with a counselor
- Gather all required documentation as described in this packet
  - Applicant Information form
  - Volunteer Hour Verification form
  - Volunteer Objective Questions
  - Science GPA Prerequisite Calculation form
  - All official transcripts from every college/university attended
  - Statements (if required)
- Place all documentation in one package and mail to the DMI Program

City College of San Francisco  
Radiologic Sciences Department  
Diagnostic Medical Imaging  
50 Frida Kahlo Way, Box S-68  
San Francisco, CA 94112

## Application Instructions

- The application period is from August 1st through August 10th of the current year for admissions into the coming Spring or next Fall cohort
  - o Ex. apply in August 2000 for admissions in Spring 2001 or Fall 2001 cohort
- Applications must be mailed according to the instructions in this packet
- All application packets must contain the official forms found within this packet and will not be accepted if hand delivered, mailed in early, or mailed after the deadline
- Applicants, who have submitted an application in previous years and wish to re-apply, must submit a new application with all supporting documentation included
- Please keep a copy of your application material. All applications and associated material become the property of the DMI program and will not be returned

## Selection Process

- All communication regarding application status can be made by e-mail to DMI@ccsf.edu
- All correspondence will be through official CCSF email
- Successful applicants will be determined by the random selection process
- Approximately 15 students are admitted into the DMI program each semester
- If selected, the student must complete and pass health requirements, background check, and drug screening

# PREREQUISITE COURSE GUIDELINES

## Prerequisite Courses to Complete Before Application

These courses must be completed before applying to the program. All courses must be completed within seven years of application date.

- **Chemistry with Lab** (CHEM 32 or CHEM 101A)
  - o CHEM 32 or CHEM 101A is a prerequisite of BIO 112, which is a program prerequisite
  - o CHEM 40 does not meet this requirement
- **English** (ENG 1A)
  - o **Advanced Placement (AP)**
    - Students who have Advanced Placement credits for Language & Composition or Literature & Language Composition and can furnish College Board transcripts with test results of 3 or higher can fulfill this pre-requisite requirement
- **Human Anatomy with Lab** (BIO 108)
  - o BIO 106 does not meet this requirement
  - o Combination courses of Anatomy and Physiology will not be accepted unless they are equivalent to BIO 108 and BIO 112 and at least four units per semester
- **Human Physiology with Lab** (BIO 112)
  - o BIO 106 does not meet this requirement
  - o CHEM 32 or CHEM 101 is a prerequisite for BIO 112
  - o Combination courses of Anatomy and Physiology will not be accepted unless they are equivalent to BIO 108 and BIO 112 and at least four units per semester
- **Intermediate Algebra** (MATH 46 or MATH 60)
  - o Statistics is not a substitute for this requirement
  - o You will need to complete MATH 46, MATH 60, MATH 90, MATH 92, or other college-level algebra course (3 units minimum)
  - o **Math Placement**
    - CCSF assigned math placements in MASTEM 2000, 3000, or 4000 have fulfilled this prerequisite
    - CCSF assigned math placement in MASTEM 1000 must complete one of the following: MATH 46, 60, 90, or 92
    - A math placement score of MATH 60 or above before January 2019 is acceptable if within the last 7 years of application deadline
  - o **Advanced Placement (AP)**
    - Students who have Advanced Placement credits for Calculus AB or BC, and can furnish College Board transcripts with test results of 3 or higher can fulfill this pre-requisite requirement
- **Physics with Lab** (PHYC 10 and PHYC 10L)

## Prerequisite Courses to Complete Before or After Admission

These courses are not required to be completed before applying to the program; however, if admitted to the program, these courses must be taken before the start of the 3rd semester. These courses are required for graduation. It is highly recommended to take these courses before entering the program.

- **Advanced First Aid and Basic Life Support** (EMT 14)
  - o Completes CCSF Area G
- **Intro to Radiologic Technology** (DMI 49)
- **Medical Terminology** (HIT 50A)
- **Psychology** (PSYC 1 or 26)
  - o Completes CCSF GE Area D
- **Public Speaking** (CMST 1A, 11, or 12)
  - o Completes CCSF GE Area A

## Prerequisite Course Requirements

- Prerequisite courses and placement tests must be completed within the past seven years prior to submitting an application, with the exception of English
- An overall 2.0 GPA is required of all college courses attempted and listed on your official transcripts at submission
- A minimum 2.5 GPA is required of all math and science prerequisite courses
- Grades lower than "C" are not acceptable in the prerequisite courses for the program
- Prerequisite courses may be taken at any accredited college, but they must be evaluated as the exact equivalent of those offered at CCSF
  - o Contact a CCSF counselor for assistance in requesting course equivalency and/or comparability, and to learn about the transcript evaluation submission process
- Academic history of more than four incomplete grades, withdrawals, repetition of prerequisite courses, due to failures, academic probation, etc., may cause your application to be disqualified. More than four is considered excessive by the DMI program and an indication of academic problems.
  - o If you have more than four incomplete grades, withdrawals, and/or repetition of prerequisite courses complete an essay explaining the reasons for your academic history. This essay is not a guarantee of admission, however, it will be taken into consideration.
- No credit is given for high school courses
- Higher-level courses without a lab does not meet the requirement for Chemistry, Anatomy, Physiology, and Physics

# VOLUNTEER GUIDELINES

All applicants and hospitals must adhere to the following guidelines.

- Volunteering must be completed within seven years of application date
- Complete 40 hours of both patient and radiographer observation during general radiographic procedures
  - o Volunteer experience can only take place in an acute care setting (hospital)
    - Ambulatory care settings (clinic), doctor's offices, veterinary's offices, etc. are not acceptable
    - Hours spent volunteering in healthcare settings other than in a hospital will not be credited towards the prerequisite
  - o Complete the Volunteer Hours Verification Form provided in this packet
    - If the hours are not verifiable or total less than 40, the hours will not be accepted and will cause the applicant to be disqualified
  - o Some hospitals may require students to complete 100 hours of volunteering
    - All hours beyond the 40 in radiology can be done anywhere within the hospital system
    - Volunteering more than 40 hours in a radiology department will not improve an applicant's chances of admission to the program
- The applicant has two options when completing volunteer hours
  - 1) Volunteer 40 hours in general radiography
  - 2) Volunteer 30 hours in general radiography and 10 hours in special modalities
    - General radiography includes
      - General Radiology (Skeletal Radiography, Chest X-Rays, etc.)
      - Fluoroscopy (Barium Studies, HSG, VCUG, RUG, etc.)
      - Surgery (any surgical procedure)
    - Special modalities include
      - Computed Tomography (CT)
      - Magnetic Resonance Imaging (MRI)
      - Ultrasound (US)
      - Mammography
      - Bone Densitometry (Dexa)
      - Interventional Radiography (IR)
- It is the applicant's responsibility to contact the hospital, schedule the volunteer hours, and complete the requirement
  - o Suggested hospitals in San Francisco
    - University of California, San Francisco (UCSF)
      - Contact: David Poon ([LapKong.Poon@ucsf.edu](mailto:LapKong.Poon@ucsf.edu))
      - UCSF requires completion of Anatomy and Physiology
    - California Pacific Medical Center (CPMC)
      - Contact: (415) 660-0374
      - CPMC requires a minimum of 100 volunteer hours
    - Zuckerberg San Francisco General Hospital (ZSFGH)
      - Contact: [zsfghvolunteer@sfdph.org](mailto:zsfghvolunteer@sfdph.org)
    - Veteran's Administration Medical Center
      - Contact: Jain Li ([JainXiangLi@va.gov](mailto:JainXiangLi@va.gov))



# PHYSICAL, MENTAL, AND EMOTIONAL APTITUDE REQUIREMENTS FOR RADIOLOGIC TECHNOLOGIST

The student technologist must be capable of meeting all the following demands of the job, which are included in the job descriptions of all employers:

## Motor Function

- Stand unassisted for long periods of time
- Lift patients on and off the radiographic table independently 80% of the time as well as in and out of hospital beds, stretchers, and wheelchairs
- Lift and handle radiographic accessories and equipment of at least 30 lbs. above head
- Manipulate stationary and mobile radiographic equipment
- Assist personnel and patients in emergency situations

## Visual Observation

- Observe and evaluate reasonably, patient's condition using signs and symptoms
- Interpret instrument control panels, technique charts, and other materials for appropriate operation of equipment and patient care
- View and critique radiographs, interpret quality factors, identify anatomy and list technical and procedural components

## Hearing Ability

- Normal hearing or have hearing corrected to within normal range when facing patients or with back turned toward patient
- Hear in situations when not able to see lips (i.e., when masks are worn)
- Hear auditory alarms (i.e. monitors, fire alarms)

## Tactile

- Feel vibrations (e.g., palpate pulses)
- Detect temperature (e.g., skin and/or solutions, etc.)
- Feel differences in surface characteristics (e.g., skin, rashes)

## Communication Skills

- The student must be able to transfer information by verbal and non-verbal means to personnel and patients
- The student must be able to receive and interpret communication from personnel and patients and adhere to appropriate Health Insurance Portability and Accountability Act (HIPAA) confidentiality laws
- The student must be computer literate and able to operate a variety of computer programs, instructions, and compile data on a routine basis

## Behavioral and Social Skills

- The student's behavioral and social skills must be acceptable within the college and clinical locations

## PROGRAM EXPENSES

Tuition, health fees and other general information for CCSF may be obtained from the Registrar's Office and at [www.ccsf.edu](http://www.ccsf.edu).

The estimated costs of attending the program are as follows and may change without notice.

<b>Expense</b>	<b>Approximate Cost</b>
Books and other teaching/study materials required	\$2,000
Uniforms, Lab Coats, Shoes, Radiology Markers, etc.	\$500
Radiation Monitoring Device	\$200/year
Background and Drug Screening and Health Records	\$200
Health Fitness Verification and immunization titers	Cost dependent upon student's health insurance
Hospital Competency Tracking	\$200
Board Exams at end of program	\$500
Resident of California Tuition per credit hour	\$46
Nonresident of California Tuition per credit unit	\$264
Total DMI program costs with tuition	\$6,000 - \$7,000
Total DMI program costs for SF residents	\$3,600

### **Transportation**

Students are responsible for providing their own transportation and any related expenses to and from the campus and clinical education centers. Student placement in the clinical facilities is determined by the program officials and not the student. Transportation issues are not considered in clinical placement assignments.

### **Housing**

Students are responsible for their own room, board, and other living expenses. Campus housing is not available.

# **TRANSFER AND ADVANCED PLACEMENT**

## **Transfer and Advanced Placement**

Advanced placement in the DMI program is not granted to students transferring from other radiology/medical programs, international graduates, students who were dismissed and reapply, or due to loss of a CRT licensure or ARRT certification. All accepted students must start the program from the beginning.

## **International Radiographer Training**

The City College of San Francisco does not have a curriculum for Radiographers educated in other countries to achieve credentialing in the United States. If you would like information about the programs of this nature, please refer to the American Registry of Radiologic Technologists website, [www.ARRT.org](http://www.ARRT.org)

# **PHYSICAL EXAMINATION, VACCINES/TITERS, BACKGROUND CHECK, AND DRUG SCREEN**

Upon acceptance into the DMI program the following must be completed:

1. Physical examination by a physician to determine the physical health of the student
2. Vaccinations and positive titers\* against certain diseases
3. Negative background check for any previous felony or misdemeanor convictions
4. Negative drug screening

Any misdemeanor, felony conviction, or positive drug finding may impact the applicant's ability to attend the clinical education component, complete program requirements and/or obtain eligibility for certification. If the applicant has ANY previous convictions of a misdemeanor or felony, please contact the American Registry of Radiologic Technologists (ARRT) at [www.ARRT.org](http://www.ARRT.org) ethics department or call (651) 687-0048 before starting the program in order to establish eligibility for certification.

Background checks, drug screening, physical examinations and vaccinations/titers are required to attend the clinical portion of the program. A positive result of a conviction or positive drug finding or failure to comply with vaccinations and titers may be grounds for program dismissal due to lack of clinical placement. The cost of these requirements is the responsibility of the student.

## Applicant Information

\_\_\_\_\_  
Last Name First Name MI

\_\_\_\_\_  
Street

\_\_\_\_\_  
City State Zip Code

\_\_\_\_\_  
Main Phone Alternate Phone Alternate Phone

\_\_\_\_\_  
CCSF Email Alternate Email

\_\_\_\_\_  
CCSF Student Number

**Have you ever applied to this program before?** Yes No  
If yes, was your application qualified or disqualified? Qualified Disqualified  
If yes, when what year(s) did you apply? \_\_\_\_\_

**Have you ever been dismissed from the DMI Program?** Yes No  
If yes, please attach a written statement regarding how you improved to meet qualifications for this application that are documented and verifiable.

**Have you ever been convicted of a misdemeanor or felony?** Yes No  
If yes, contact the American Registry of Radiologic Technologists to determine eligibility to practice radiography. In order to meet national certification requirements, disclosure of all misdemeanor or felony convictions must be made for the following reasons:  
- All affiliated hospitals require background checks  
- A positive background check may be grounds for DMI program dismissal

**Do you have any physical, emotional, or medical conditions past or present which might interfere with your participation in this physically demanding profession?**  
Yes No

To the best of my knowledge, the information contained in this application is a true and correct representation of my qualifications.

\_\_\_\_\_  
Signature Date

## Volunteer Hour Verification

Applicant's Name \_\_\_\_\_

Hospital Name \_\_\_\_\_

Address \_\_\_\_\_

Radiology Dept. Phone # \_\_\_\_\_

Date (MM/DD/YY)	Hours	Modality (General X-Ray, CT, MRI, US, IR, Mammo, DEXA)	Technologist Initials

Date (MM/DD/YY)	Hours	Modality (General X-Ray, CT, MRI, US, IR, Mammo, DEXA)	Technologist Initials

Technologist Name \_\_\_\_\_ Work Phone \_\_\_\_\_ Email \_\_\_\_\_ Tech. Initials \_\_\_\_\_

Technologist Name \_\_\_\_\_ Work Phone \_\_\_\_\_ Email \_\_\_\_\_ Tech. Initials \_\_\_\_\_

Technologist Name \_\_\_\_\_ Work Phone \_\_\_\_\_ Email \_\_\_\_\_ Tech. Initials \_\_\_\_\_

Technologist Name \_\_\_\_\_ Work Phone \_\_\_\_\_ Email \_\_\_\_\_ Tech. Initials \_\_\_\_\_

<b>Total Hours General X-Ray</b>	+	<b>Total Hours Special Modalities</b>	=	<b>Total Hours (minimum 40 hours)</b>

Of the 40 hours, a maximum of 10 combined hours can be from special modalities other than general x-ray.

## Volunteer Objective Questions

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Applicant's Name

### Instructions

- Please provide a brief original answer to each question.
  - The responses must be type written; hand-written responses will not be accepted and cause for disqualification. Your written communication skills are expected to be at college level, thus "yes" or "no" responses are not acceptable.
  - Note that application screening includes the quality of answers, which indicate your research into radiography. Two or more incorrect or poorly answered questions are grounds for disqualification due to lack of research and interest in radiography.
1. Describe and identify the educational background and job description of a:
    - a. Radiologist
  
    - b. Radiologic Technologist
  
    - c. X-Ray Technician
  
  2. During volunteering you have witnessed much communication between the technologist, the patient, co-workers, and physicians. Explain in detail how your communication skills (spoken and written) are at the appropriate level for this profession.
  
  3. What type of radiation protection devices did you see the technologists use and what areas of the body were protected with each type and why?
  
  4. Does radiation remain in the room or the patient after the exposure has been made? If yes, for how long. If no, where does it go?

5. Are radiographers ever exposed to radiation? If yes, give examples. If no, explain thoroughly.
  
  
  
  
  
  
  
  
  
  
6. Is there anything radioactive within the diagnostic x-ray tube? If yes, what type of radiation? If no, how is the radiation created?
  
  
  
  
  
  
  
  
  
  
7. Radiologic technology can be a stressful job. If you witnessed stressful situation, what stressful situations did you witness? If you did not witness stressful situations, how will you prepare yourself to handle stressful situations?
  
  
  
  
  
  
  
  
  
  
8. List 10 of the examinations you observed that were performed by the radiographers and the type of patients that required these exams.

	<b>Exam Observed</b>	<b>Age &amp; Gender of Patient</b>	<b>Reason for Exam</b>
1)			
2)			
3)			
4)			
5)			
6)			
7)			
8)			
9)			
10)			

9. Describe how volunteering has enhanced your knowledge of radiologic technology.

## Science GPA Calculation Form

Applicant's Name \_\_\_\_\_

**Instructions**

Fill in each blank with the information that matches your official transcript(s). Use the most recent grade.

Under the Grade Points column, enter the appropriate "grade points" on the grade you received:

- A = 4
- B = 3
- C = 2
- D = 1
- F = 0

Course	Grade Points	Units
Anatomy		
Anatomy Lab		
Physiology		
Physiology Lab		
Physics		
Physics Lab		
Chemistry		
Chemistry Lab		
Math		

**Science GPA:**