

2024

## AMSC College Catalog

WWW.AMSC.EDU

# American Medical Sciences Center

### 2024 College Catalog

MAIN CAMPUS

#### **American Medical Sciences Center**

225 West Broadway, Suite #410 Glendale, CA 91204 Tel. (818) 240-6900 Fax. (818) 240-6902 www.amsc.edu

#### **CORRESPONDENCE DIRECTORY**

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#### GENERAL CAMPUS INFORMATION

#### Welcome

Welcome to the American Medical Sciences Center (AMSC) College. We specialize in Diagnostic Medical Sonography (DMS) and cutting-edge Ultrasound Training. Our academic offerings lead to Associate of Applied Science (AAS) and Bachelor of Health Sciences (BHS) degrees in DMS. Through a combination of clinical and didactic methods, we prepare our students for rewarding careers in the medical field.

#### Mission Statement

The Mission of the American Medical Sciences Center is to provide Diagnostic Medical Sonography Programs instructed by a highly skilled faculty and tailored to the educational, professional, and personal goals of our diverse student body. AMSC College empowers its students to obtain entry to mid-level sonographer positions and advance within the healthcare industry by maintaining strong employment.

#### Objectives

AMSC is committed to equipping students for a fruitful career in Diagnostic Medical Sonography. We offer students the expertise and experience required to meet the nationwide examination standards outlined by nationally recognized professional organizations.

AMSC College educates and trains students to:

- Develop technical skills, knowledge, and understanding of their real-world application.
- Adopt professional attitudes and behaviors toward study and work habits.
- Cultivate interpersonal communication skills, self-discipline, and confidence
- Utilize the latest ultrasound imaging equipment.
- Become active participants in national, state, and legal professional organizations.

AMSC provides graduates with job placement assistance for a smooth transition into the healthcare workforce. We evolve our courses to reflect shifts in ultrasound imaging technology.

#### History and Ownership

The American Medical Sciences Center is a private educational California corporation founded in March 1996. Institutional approval from the Bureau for Private Postsecondary and Vocational Education was received pursuant to California Education Code 94915, granted in May 1997. Mr. Haik Antonyan is the CEO and Executive Director of the AMSC College.

#### Legal Control

AMSC is a private postsecondary institution. It is organized and operated as a California corporation. The College complies with all local, state, and federal laws and regulations. AMSC does not have a pending petition in

bankruptcy, is not operating as a debtor in possession, has not filed a petition within the preceding five years, or has not had a petition in bankruptcy filed against it within the preceding five years that resulted in reorganization under Chapter 11 of the United States Bankruptcy Code 11 U.S. Code § 1101.

#### Program Advisory Board

AMSC's Program Advisory Board is a dynamic team of experts, including employers and professionals from the diagnostic medical sonography field. They play a crucial role in ensuring our curriculum remains relevant, impactful, and meets the highest standards. They review and advise on course content, objectives, and resources. The roles of the Program Advisory Board are as follows:

- Evaluate existing courses to ensure their objectives, content, duration, and resources like facilities and equipment meet industry standards.
- Offer insights on new courses and assess the relevance of their objectives, content, duration, and required equipment.
- Provide feedback on student outcomes, including course completion rates, employment success, and performance on state licensing exams when applicable.
- Evaluate the performance of faculty and administrative staff.

#### Statement of Non-Discrimination

AMSC does not discriminate based on sex, age, physical disability, race, or religion in its admissions, treatment, or any aspects of its programs, including training, placement, and employment. The institution's Director is the coordinator of Title IX, the Educational Amendments Act of 1972, which prohibits discrimination based on sex in any education program or activity receiving student financial assistance.

#### Approval Disclosure Statement

The American Medical Sciences Center has been a California corporation since March 1996. Approval to operate signifies that an institution complies with state standards outlined in the Private Postsecondary Education Act. This institution has received a license to operate from the Bureau for Private Postsecondary Education (BPPE) pursuant to California Education Code 94915 in 1997. The American Medical Sciences Center is nationally accredited by the Accrediting Bureau of Health Education Schools (ABHES) and recognized by the United States Department of Education (USDE). This organization has received approval from the Student and Exchange Visitor Program (SEVP), authorized under the Department of Homeland Security (DHS) and the Department of State as an institution of higher learning for non-immigrant student visas. Students who complete a course of study are awarded an appropriate degree for their studied program. This college voluntarily undergoes periodic accrediting evaluations by teams of qualified examiners, including subject experts and specialists in occupational education and private school administration. Any questions a student may have regarding this catalog that the institution has not answered may be directed to the following:

#### THE BUREAU FOR PRIVATE POSTSECONDARY EDUCATION

(LICENSED) 1747 N. Market Blvd Ste. 225, Sacramento CA 95834

Phone (916) 574-8900

www.bppe.ca.gov



#### THE ACCREDITING BUREAU OF HEALTH EDUCATION SCHOOLS

(ACCREDITATION)
7777 Leesburg Pike Suite #314
N. Falls Church, Virginia 22043
Phone (703) 917-9503
www.abhes.org



#### THE UNITED STATES DEPARTMENT OF EDUCATION

(RECOGNIZED) (FAFSA Announcements) Phone (800) 872-5327 www.ed.gov



#### THE STUDENT AND EXCHANGE VISITOR PROGRAM

(CERTIFIED)

Department of Homeland Security and Department of State Phone (202) 305-2346

www.ice.gov



#### Vocational Programs Offered

#### **DIAGNOSTIC MEDICAL SONOGRAPHY**

Bachelor of Health Sciences (BHS) in Diagnostic Medical Sonography Program "General Learning Concentration":

- 3,010 Clock hours/109.6 weeks
- 25.0 Hours in class per week
- 130.0 Semester credit hours
- Residential, blended

#### DIAGNOSTIC MEDICAL SONOGRAPHY

Associate of Applied Science (AAS) in Diagnostic Medical Sonography Program:

- 2,290.0 Clock hours/84.4 weeks
- 25.0 Hours in class per week
- 101.0 Semester credit hours
- Residential, Blended

Authorization of Distance Education State of California Only

#### Campus Facilities and Equipment

#### **AMSC Campus**

AMSC College holds its classes at 225 West Broadway, Suite 410 in Glendale, California. The campus is directly accessible from the 134 freeway and surface streets.

AMSC has over 7,500 square feet of space for classrooms, laboratories, and offices. Our classroom and ultrasound laboratories are tailored to meet the needs of our curricula and student body.

The building has heating and air conditioning systems, ensuring a comfortable learning environment. Entrances and exits are strategically located so students can clear the building quickly and safely in an emergency.

Laboratory classrooms are multi-stationed and can accommodate 15 to 20 students. Each room contains professional-grade instructional equipment to meet the job demands of Diagnostic Medical Sonography.

#### Diagnostic Medical Sonography Program Equipment

The DMS Program has lecture classrooms and laboratory rooms equipped with 28 ultrasound machines:

- 5 ACUSON SEQUOIA 512
- 8 GE\_Logiq\_F8
- 15 DC 40 with multi-frequency, transvaginal probes

AMSC College is furnished with essential learning resources, including over 18 computer monitors, medical literature, two active obstetrical phantoms, anatomical charts, various models and phantoms, whiteboards, and school seating.

#### **AMSC Libraries**

Enrolled students can use the on-campus library from 1:00 pm to 6:00 pm, Monday to Friday. AMSC is also a part of the virtual library LIRN. Students can access LIRN online anytime, anywhere.

#### Catalog Updates

The AMSC College Catalog is updated annually and is effective from January 01, 2024, to December 31, 2024. We take special care to ensure the information in our catalog accurately describes our programs, policies, procedures, facilities, personnel, and other matters relevant to the American Medical Sciences Center (AMSC) operations.

There are times when the catalog requirements may be updated or changed. However, students' education plans will remain the same and adhere to the catalog in effect when they begin their AMSC education. American Medical Sciences Center will authorize substitutions for discontinued courses where appropriate, such as course updates or updated Federal and State Regulations.

#### Catalog Revision Dates

Year	Cover Dates Cover Dates	Revision Dates
2010	01/01/2010 - 12/31/2010	09/21/2010
2011	01/01/2011 - 12/31/2011	
2012	01/01/2012 - 12/31/2012	03/01/2012
2013	01/01/2013 - 12/31/2013	11/01/2013
2014	01/01/2014 - 12/31/2014	04/09/2014
2015	01/01/2015 - 12/31/2015	10/27/2015
2016	01/01/2016 - 12/31/2016	06/29/2016
2017	01/01/2017 - 12/31/2017	
2018	01/01/2018 - 12/31/2018	05/04/2018
2019	01/01/2019 - 12/31/2019	07/23/2019
2020	01/01/2020 - 12/31/2020	05/12/2020 11/05/2020
2021	01/01/2021 - 12/31/2021	03/02/2021

2022	01/01/2022 - 12/31/2022	07/11/2022
2023	01/01/2023 - 12/31/2023	02/10/2023
2023	01/01/2023 - 12/31/2023	04/15/2023 11/15/2023 12/22/2023
2024	01/01/2024 - 12-31/2024	02/05/2024 03/05/2024

#### Accuracy Statement

American Medical Sciences Center (AMSC) has made every effort to make this catalog accurate. It may, without notice, change general information, courses, or programs offered. The reasons for change may include student enrollment, level of funding, or other issues the institution decides. The American Medical Sciences Center also reserves the right to add, change, or cancel any rules, regulations, policies, and procedures as provided by law.

#### Regulations

To support our sustainability initiative, students are encouraged to reduce their carbon footprint and visit the digital AMSC Catalog before enrolling. Students can find AMSC's rules and regulations within this catalog and are responsible for familiarizing themselves with them. It is important to note that criteria for admission and graduation may vary by program.

#### Family Educational Rights and Privacy Act

The practices and procedures employed by the American Medical Sciences Center comply with the confidentiality and record availability laws of the Family Educational Rights and Privacy Act of 1974 and the Buckley Amendment. Students, parents of minors, and guardians of tax-dependent students have the right to inspect and challenge the information contained within the records for these students. Confidentiality of student and staff records is strictly protected. The college complies with Title IX of the 1972 Education Amendments, the Equal Opportunity Act of 1972 (Title VII of the Civil Rights Act of 1964), Section 504, the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1993. Student information is unavailable to anyone without (a) a written request or release from the student, (b) a court order or appropriate government agency requirements.

#### **ACADEMIC INFORMATION**

#### DMS Programs Schedule

Program	Total Clock Hours	Delivery Method	Total Credit Hours	Total Weeks
Bachelor of Health Sciences in Diagnostic Medical Sonography "General Learning Concentration"	3,010.00	Residential Blended	130.00 Semester	132.0 (20.0 Contact Hours Per Week) 109.6 (25.0 Contact Hours Per Week) (40.0 Clinical Hours Per Week)
Associate of Applied Science in Diagnostic Medical Sonography	2,290.00	Residential Blended	101.00 Semester	104.0 (20.0 Contact Hours Per Week) 84.4 (25.0 Contact Hours Per Week) (40.0 Clinical Hours Per Week

#### Student-to-Instructor Classroom Ratios

Program	Lecture	Laboratory
Bachelor of Health Sciences in Diagnostic Medical Sonography	25:1	20:1
"General Learning Concentration"		
Associate of Applied Science in Diagnostic Medical Sonography	25:1	20:1

Program Delivery Method

Residential/Blended

#### Class Schedule

The start frequency of AMSC classes is determined by the number of enrolled students per program, with a minimum requirement of at least 15 students per class.

#### Laboratory Policy

During lab time, imaging students use ultrasound machines to scan one another. Students may be required to disrobe for certain exam procedures partially, mirroring those performed at imaging centers or hospitals.

#### Hours of Operation

Monday through Friday: 9:00 am - 6:00 pm

#### Holiday Closure

AMSC will be closed on the following holidays:

New Year's Day | January 01, 02, 03 Martin Luther King Day | January 16 President's Day | February 20 Armenian Genocide Day | April 24

Memorial Day | May 29

Independence Day | July 03, 04
Labor Day | September 04
Columbus Day | October 9
Veterans Day | November 10
Thanksgiving | November 23, 24

Christmas Break | December 25 - January 05

Constitution Day observance commemorates the anniversary of the signing of the U.S. Constitution on Sept. 17, 1787, and honors and celebrates the privileges and responsibilities of U.S. citizenship. AMSC College will observe Constitution and Citizenship Day with a voter registration drive. The Financial Aid office will have a voter registration table in the Campus foyer, and Student Ambassadors will distribute free copies of the U.S. Constitution.

#### English as a Second Language

AMSC does not provide English as a Second Language (ESL) instruction. The program is conducted entirely in English, without instruction in any other language.

#### ADMISSIONS REQUIREMENTS AND PROCEDURES

#### Admissions Policy

As a prospective student, you must review this catalog before signing an enrollment agreement. You must also check the College Performance Fact Sheet before signing an enrollment agreement. All applicants are required to complete an application form. They must also pass the institution's test, which measures applicants' suitability for their chosen educational program. Finally, applicants must complete an oral interview with the admission representative of the college.

AMSC does not discriminate against an applicant based on sex, religion, race, ethnic origin, age, national origin, or disability. Applicants with disabilities will be evaluated based on their capacity to fulfill the program's essential functions without additional accommodations.

AMSC reserves the right to refuse admission to any applicant who does not meet the institution's established criteria for admission. Before enrollment, any material circumstance that may adversely impact an applicant's ability to complete a program or secure employment in their trained field (e.g., criminal record, credentialing requirements for employment, etc.) is disclosed to the student. This helps prevent any future complications in starting the training or securing a job in the medical field. AMSC does not accept Ability-to-Benefit (ATB) students.

#### Residential Education

#### Admissions Requirements

The general provisions for admission to the AMSC in all programs are as follows:

- Be at least 17 years of age.
- Have earned a high school diploma or equivalent or completed an Associate level degree or higher (presented within 30 days from the start).\*
- Interview with an Admissions Representative.
- Present a valid government picture ID.
- Pass the Wonderlic Scholastic Level Examination (SLEQ).
- Must take part in mandatory school orientation.
- · Pass a physical examination, which indicates that the student is physically able to perform as a student.
- Willingness and ability to acquire new knowledge.
- Work with various people on group tasks, meeting people with different backgrounds, studying abroad, or hosting an international student.
- Collaboration, social skills, and leadership abilities.

#### Admissions Procedures

The following procedures are established for admission to AMSC:

- The prospective student is encouraged to visit the AMSC website for the latest catalog.
- The applicant will make an appointment with an admissions representative.\*\*
- Before meeting with the admission representative, the applicant will:
  - o Complete an admissions application.
  - Meet financial aid officer for qualification purposes.
  - Take the admissions entrance SLEQ test. The student will be considered for admission if a passing score is 16 or better.

\*If in doubt, the presented high school diploma or transcripts are verified through various processes, such as calling the high school to verify the document's validity or searching through the list of High Schools on NCES or Federal School Code List as another source. We currently work with many third-party approved evaluation services to ensure that foreign-graduated students' diplomas are correctly evaluated as equivalent to U.S. high school graduation.

\*\*The interview will include disclosure of the completion and placement rates, a tour of the facility, and a discussion of the applicant's professional, educational, and personal goals and appropriate skills (through distance education). The applicant will be asked to submit the necessary documentation for enrollment purposes.

#### Distance Education

The distance education enrollment process is conducted online and in person, with an initial phone conversation.

#### Admissions Requirements

The curricula for the distance education offerings are comparable in academic rigor to educational offerings on the ground:

- Be at least 17 years of age.
- Have earned a high school diploma or equivalent or completed an associate level or higher. (presented within 30 days from the start).\*
- Make a distance meeting appointment with an admissions representative
- Present a valid government picture ID.
- Be present during in-person orientation, including distance education readiness assessment, verifying hardware, software, and computer literacy requirements, and confirming the ability to succeed in a virtual classroom environment.
- Pass the Wonderlic Scholastic Level Examination (SLEQ).
- Pass a physical examination, which indicates that the student can physically perform all training-related tasks
- Willingness and ability to assimilate new knowledge. Work with various people on group tasks and meet people with different backgrounds. Ability to collaborate, social skills, and leadership ability.

#### Admissions Procedures

The following procedures are established for admission to AMSC:

- Visit the AMSC website for the latest catalog.
- Schedule a distance meeting appointment with an admissions representative.
- Before meeting with the admissions representative, the applicant will

- Complete an admissions application.
- Meet a financial aid officer for qualification purposes.
- Take the admissions entrance SLE or SLEQ test. The student will be considered for admission if a passing score is 16 or better.
- Computer and technical readiness information is shared and emphasized during admission to ensure technology minimums are met to qualify for online courses. Should there be a need for additional training, it will allow students to improve the necessary skills to be successful in an online environment.

Externship components of both DMS programs are conducted off campus. Students must be willing to travel to prearranged externship locations using their own or public transportation.

Externship sites may require mandatory student drug and background testing, including unannounced or random testing, as a condition of students participating at their externship site. Students ready for the externship site are responsible for the possible cost associated with required drug testing and externship site parking.

#### **Enrollment Agreement**

Students must have a valid enrollment agreement to attend class. All tuition and student-attendance charges must be paid under the terms of the Enrollment Agreement. The Enrollment Agreement protects the students from tuition increases for the period covered by the Agreement. It is the student's responsibility to maintain a current and valid Enrollment Agreement.

#### Career Pathways

AMSC graduates qualify for Ultrasound Technologist positions. From Vascular to Echocardiographic, Ultrasound Technologists perform various procedures related to General Sonography. While employment is available without challenging board exams, AMSC students are encouraged to challenge the board exams to obtain industry-standard roles.

AMSC graduates may apply to the following certification-granting organizations:

- American Registry of Radiologic Technologists (ARRT)
- American Registry for Diagnostic Medical Sonography (ARDMS)
- Cardiovascular Credentialing International (CCI)

The State of California, where AMSC College is located, does not require licensing or specific credentialing for DMS graduates for employment purposes.

#### International Students

#### Visa Procedures

AMSC is approved by the Student and Exchange Visitor Program (SEVP), authorized under the Department of Homeland Security (DHS) and the Department of State as an institution of higher learning for nonimmigrant M-1 visa students.

Students attending another institution in the United States on an M-1 visa may enroll in AMSC by completing the admissions process and filing Form I-539. It is also possible for prospective students in the United States on some other type of visa to apply to the Immigration and Naturalization Service for a change to an M-1 visa (check with the immigration department).

Most classes of non-immigrants can begin studying while their application is pending. The exceptions are currently in B-1, B-2, or F-2 status. These nonimmigrants cannot begin a study program before approving their status change. Before international students may be considered for admission, they must:

- Complete the application form and enclose a \$75.00 processing fee.
- Provide evidence of completion of high school or equivalent diploma.
- Take the admissions entrance SLE test with a score of at least 21.

Applicants not currently in the U.S. may demonstrate proficiency in reading, writing, and speaking English in several ways. They should include the documentation with their application:

- A TOFEL score of at least 450.
- High school or college transcripts documenting English language skills or
- Completion of an appropriate English as a Second Language (ESL) course or other equivalent verification of communication skills.

#### I-20 Certification

After completing the application process and submitting all relevant materials, the admissions committee will review the file. If the student fully meets the criteria for admission and has adequate funds to meet the program's study expenses, then AMSC obtains specific biographical and financial information about the student. This is needed to issue a Form I-20, or "Certificate of Eligibility for Nonimmigrant Students." Applicants will be notified promptly and mailed a Certificate of Eligibility (I-20) along with further information regarding registration and helpful visa information.

#### Applying for a Student F-1 Visa

Prospective nonimmigrant students who are not in the U.S. must apply to the local U.S. consulate for an F-1 visa. This requires a visa interview. The student must bring several items to the interview. The consular officer must electronically verify the student's I-20 record to process the student visa application.

The potential student must pay a SEVIS I-901 fee to the Department of Homeland Security before applying for a visa and may prove payment of the fee through the internet at <a href="http://www.fmjfee.com">http://www.fmjfee.com</a> with a credit card and printed receipt as evidence that the fee has been paid. In this case, the student needs the information from their I-20 form to complete:

- Form I–901. All applicants should be prepared to provide.
- Form I-20 is signed by the Designated College Official (DSO).
- Receipt as evidence that the fee for Form I-901 has been paid.
- Diploma of completion of high school or the equivalent.
- Scores from standardized SLE tests and documentation of English language skills.

- Program outline with starting and ending dates.
- Financial evidence that shows the student or parents who are sponsoring have sufficient funds.
- Completed Form(s) for the Application for Nonimmigrant Visa.
- Valid Passport for travel and admission to the United States with a validity date of at least six months beyond the applicant's intended stay in the United States.

#### Transfer Students

#### Credit for Previous Education

The institution publishes and follows a credit transfer policy that requires consideration of credit from other institutions accredited by an agency recognized by the United States Department of Education (USDE) or the Council for Higher Education Accreditation (CHEA). AMSC does not allow credit for advanced placement or experiential learners.

#### Notice Concerning Transferability

The transferability of credits you earn at AMSC College is at the discretion of the institution to which you may seek to transfer. Acceptance of the diploma or degree you earn in the educational program is also at the discretion of the institution to which you may seek to transfer. If the diploma or degree you earn at this institution is not accepted at the institution you seek to transfer, you may be required to repeat some or all of your coursework there. For this reason, you should make certain that your attendance at this institution will meet your educational goals. This may involve contacting the institution you would like to attend after AMSC College and determining if your diploma or degree will transfer. AMSC makes no guarantees of the transferability of the credits you earn.

Students transferring from other colleges or schools to AMSC must take a test before any credit transfer. A score of 70% or better is required for each such exam to receive credit for that particular course or module. The student's training period will be reduced proportionately but not to exceed 30% of the general education course content. No credit will be granted from the core content of any program. Tuition will be prorated based on the number of credits accepted due to the transfer. Students who are granted such credit may have their tuition reduced on a pro-rata basis.

#### From One Program to Another

Should a student wish to transfer from one program to another, they must give the administration a written notice. There are no charges for a transfer based on the program of study. Transferring Students must take a test before any credit transfer. A score of 70% or better is required for each such exam to receive credit for that particular course or module. The student's training period will be reduced proportionately but not to exceed 30% of the course content. Students who are granted such credit may have their tuition reduced on a pro-rata basis.

#### Transfer Procedures

Official Transcripts must be sent directly from the other institutions or the armed forces to AMSC College for review and evaluation.

- If requested, prospective students may be required to supply course descriptions, syllabi, or other supporting materials to prove the equivalency for any course.
- The Program Director or the College Director will conduct the transfer evaluations. An evaluation sheet is completed during the review of the documentation.
- If a student wishes to appeal the determination of credits granted, they may do so in writing and by supplying any other supporting documentation for their claim (The death of a relative, an injury or illness of the student, or other special circumstances). The College Director will review the additional information and have the final authority to grant or deny transfer credits. The student will be notified of the evaluation results that impact the student's eligibility for Title IV HEA program funds.
- Units you earn in AMSC programs, in most cases, will not be transferable to any other college or university.
   For example, suppose you entered our college as a freshman. In that case, you will still be a freshman if you enter another college or university in the future, even though you earned units here at our institution.

#### Cancelation and Withdrawal Policy

#### Cancelation

The cancellation clause allows a student to cancel within five business days of signing an enrollment agreement, with a full refund of all monies paid. After this five-day cancellation period, an applicant requesting cancellation before the start of classes is entitled to a refund of all monies paid, less a portion of the registration fee that has not been collected. As stated in the enrollment agreement, AMSC requires cancellation notices to be given in writing or via email. The institutional statement defines a student's last day of attendance as the last day a student had academically related activity and withdrawal date. A student must follow the description of the procedures below to withdraw officially.

#### Withdrawal

#### Official Withdrawal

A student will automatically be withdrawn from the program for the following reasons:

- Failure to return from an approved leave of absence on the scheduled return date.
- Failure to maintain satisfactory progress for two consecutive modules.
- Failure to fulfill financial agreements.
- Fail the course in the program twice during one enrollment period.

#### **Unofficial Withdrawal**

• If the student fails to attend college for more than 14 consecutive days, the college will consider the student a drop and automatically withdraw them from the program.

#### Refund

The student must pay only for educational services rendered and unreturned books or equipment. Items of extra expense to a student, such as instructional supplies or equipment, tools, student activities, laboratory fees, service charges, rentals, credentialing fees, deposits, and all other charges, need not be considered in tuition refund

computations when they are separately shown in the enrollment agreement, or other data furnished to a student before enrollment.

#### Students must make arrangements to satisfy the balance if the amount owed exceeds the amount already paid.

Agreement of Binding Arbitration and Waiver of Jury Trial

The student agrees that any dispute arising from my enrollment at AMSC College, no matter how described, pleaded, or styled, shall be resolved by binding arbitration under the Federal Arbitration Act conducted by the American Arbitration Association ("AAA") under its Commercial Rules. The award rendered by the arbitrator may be entered in any court having jurisdiction.

#### **Terms of Arbitration:**

- I. The Student and AMSC College irrevocably agree that any dispute between them shall be submitted to arbitration.
- 2. Neither the Student nor AMSC College shall file or maintain any lawsuit in any court against the other and agree that the court shall dismiss any suit filed in violation of this Agreement in favor of an arbitration conducted pursuant to this Agreement.
- 3. AMSC College will pay the costs of the arbitration filing fee to the extent these fees are greater than a Superior Court filing fee.
- 4. The Arbitrator's decision shall be set forth in writing and shall set forth the essential findings and conclusions upon which the decision is based.
- 5. Any remedy available from a court under the law shall be available in the arbitration.
- 6. Nothing in this Agreement prohibits the student from filing a complaint with the state regulatory agency.

#### **Procedure for Filing Arbitration:**

- 1. Students are strongly encouraged, but not required, to use the Complaint Procedure described in this catalog before filing arbitration.
- 2. A student desiring to file arbitration should first contact the AMSC College Director, who will provide the student with a copy of the AAA Commercial Rules. A student desiring to file arbitration should then contact the American Arbitration Association, which will provide the appropriate forms and detailed instructions. The student should bring this form to the AAA.
- 3. A student may or may not need to be represented by an attorney at the arbitration.

The judgment upon the award rendered by the Arbitrator(s) may be entered in any court having Jurisdiction, except for non-payment of tuition and fees, which shall be settled through a small claims court action. The refund shall be the amount they paid for instruction multiplied by a fraction, the numerator of which is the number of clock hours of instruction that they have not received but for which they have paid, and the denominator of which is the total number of clock hours of instruction for which they have paid.

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No refund is due after the student completes 60% of the program. If they obtain books or equipment, as specified in the enrollment agreement, as a separate charge and return them in good condition within 30 days of their withdrawal date, the college shall refund the charge for the books or equipment paid by the student within 45 days. If they fail to return books or equipment in good condition within 30 days, the college may offset the documented cost for books or equipment exceeding the prorated refund amount against the refund. For a list of these costs, see the list on the front of the enrollment agreement.

#### Sample Refund Calculation

Assume that a student, upon enrollment in a 400-hour course, pays \$2000.00 for tuition, \$75.00 for registration, and \$150.00 (documented cost to college) for equipment as specified in the Enrollment Agreement. After completing 100 hours, they withdrew without returning the equipment they had obtained. The pro-rated refund to the student would be \$1,500 based on the calculation stated below.

Tuition Paid 100%	Tuition Paid 100% Refund 10%		Refund 50%	No Refund Beyond 60%	
\$2,000	\$200	\$500	\$1,000	\$0	

#### **TUITION AND FEES**

#### Fees, Charges, and Expenses

Program	Registration Fees (non- refundable)	Initial Assessment Fees	STRF Fees	Uniforms and Other Fees	Textbooks and Media Fees	Charges for Period	Tuition Fees	Total
Bachelor of Health Sciences in Diagnostic Medical Sonography  "General Learning Concentration"	\$75.00	\$25.00	\$0	\$275.00	\$670.00	\$6460.48	\$51,170.00	\$52,215.00

Associate of	\$75.00	\$25.00	\$0	\$275.00	\$670.00	\$6,636.61	\$38,930.00	\$39,975.00
Applied								
Science in								
Diagnostic								
Medical								
Sonography								

Transition	Registration Fees (non- refundable)	Initial Assessment	STRF Fee	Uniforms and Other Fees	Textbooks, Other Learning Media	Tuition Fee	Total Estimated Charges
Associate of Applied Science (AAS) to Bachelors of Health Sciences (BHS)	\$00.00	\$00.00	\$0	\$130.00	\$300.00	\$12,240	\$12,670

#### Tuition Policy

Tuition is a significant part of the cost at AMSC and is agreed upon at the time of enrollment. The Enrollment Agreement reflects the tuition, other fees that may be applicable, and the terms of the agreement. Part of the tuition is due and payable on the first day of class unless other arrangements have been made between the student and the Administration. The agreed-upon terms are expected to be honored by each student, with payments made consistently and on time.

Late fees may apply to past-due tuition payments. If a student fails a course and wants to continue with the DMS Program, they must borrow an additional loan to repeat the course. All graduating students must complete the payments set forth by the college before graduation. If the payments are not made promptly, the college reserves the right to use a collections agency.

#### Tuition Payment Policy

The tuition payment policy applies to all students. A non-refundable \$75 registration fee is collected at the beginning of every payment period, along with the down payment agreed upon at enrollment. The balance for the remaining program charges is paid in equal monthly installments during the student's enrollment period. Scheduled tuition payments will be billed monthly and mailed directly to the student's attention. Once the loan is obtained, the student is responsible for repaying the full amount of the loan plus interest, less the amount of any refund. If the student has

paid any part of the tuition, they are entitled to a refund of the money not paid from federal student financial aid funds.

#### Financial Aid Eligibility Requirements

AMSC is eligible to participate in the Federal Student Aid (FSA) programs. Before enrolling at AMSC, all applicants are encouraged to explore the availability of financial aid programs. The financial aid officer provides information and application assistance to ensure students understand their eligibility status. The free application for Federal Student Aid (FSA) asks questions that will determine your eligibility and dependency status.

The eligibility requirements include:

- Being a U.S. citizen or permanent resident in the United States.
- Being enrolled in an eligible program.
- Having a valid Social Security number.
- Making satisfactory academic progress.
- Being registered for the draft with Selective Service if you are a male who is at least 18.
- Not currently enrolled in high school.
- Not having previously received a bachelor's degree (FSEOG AND FEDERAL Pell programs).

Students who want to receive aid from FSEOG must first be eligible for the Pell Grant. Then, their award amount will be based on the timely submission of the FAFSA form, financial need, availability of FSEOG funding, and Expected Family Contribution (EFC). Students with remaining needs are awarded FSEOG funds based on the College's annual award amount.

#### CANCELATION, WITHDRAWAL, AND REFUND POLICY

#### Tuition Refund Policy

The college realizes that, under certain circumstances, an enrolled student may be unable to continue their educational training. Accordingly, the college has a policy for equitable tuition adjustment. Records are maintained on tuition refunds and enrollment cancellations. Governmental or accrediting agency data is included if applicable. The college's refund policy is published in the catalog and on the Enrollment Agreement. Both documents clearly state the obligations of the college and the student in cases of cancellation or withdrawal.

For students who cancel their contracts before class starts, all refunds due will be made within thirty (30) days of the first day of class or the date of cancellation. For enrolled students, all refunds due will be made based on the last date of attendance and are paid within thirty (30) days from the documented withdrawal date. For students who unofficially withdraw, the last date of attendance is taken as a date of academically related activity, which will serve as a withdrawal date. If the student fails to attend college for more than 14 consecutive days, the college will consider the student a drop and automatically withdraw them from the program.

#### Return of Title IV Funds

If the student has received Title IV student financial assistance funds, a "Return of Title IV Aid" calculation is used to determine the amount of Title IV funds a recipient can retain towards their educational costs. If you obtained a loan, you are obligated to repay the full amount of the loan plus interest, less the amount of any refund. If the student has received federal student financial aid, the student is entitled to a refund of the money not paid from federal student financial aid funds.

The Percentage of Title IV Aid earned is calculated by determining the scheduled calendar days completed in the payment period divided by the total calendar days in the payment period. Excluded are scheduled breaks of 5 days or more and days the student was on an approved leave of absence. If this amount exceeds 60%, the earned percentage is 100%. The amount of Title IV Aid Earned by the student is the Percentage of Title IV Aid earned times the total Title IV Aid amount disbursed plus the Title IV Aid that could have been disbursed for the payment period. All credit balances over \$1.00 will be issued to students within 30 days after the credit balance occurs.

Students may appeal the R2T4 calculation if they believe special circumstances should be considered. The appeal and supporting documentation must be submitted to the Financial Aid Office in writing.

#### Rejection of an Applicant by the College

Should the college reject an applicant's admission for any reason, the applicant will be entitled to a refund of the amount paid.

#### Satisfactory Academic Progress

The students are expected to maintain Satisfactory Academic Progress (SAP) to remain in the program. SAP is cumulative, applied to all students equally, and measured throughout each program term regarding classroom and clinical performance. The college employs the following procedure for unsatisfactory progress cases: If a student's grade point average is unsatisfactory for a calendar month or module, the student is counseled. Suppose a grade point average is unsatisfactory for an additional month or module. In that case, the student will be placed on academic probation and be given a maximum of two months to bring their cumulative grade point average to 70% or be terminated from the course of study.

To graduate, the student must complete all modules satisfactorily. Should mitigating circumstances be present, the student will be placed on probation for a maximum of one month and be given one last opportunity to comply with the 70% grade point average or be terminated. The institution does not offer non-credit or remedial courses. The policy applies to all Title IV and non-Title IV recipients and treats all students equally. Should a student need to repeat a course/class due to non-credit, non-punitive, or remedial reasons, it will be allowed and counted as a course/class attempted, and the higher grade will be calculated in computing the grade point average.

#### Incomplete Grades

Incomplete grades will revert to failing grades if not completed before graduation or before the commencement of any externship training, if applicable.

Qualitative—Cumulative Grade Point Average:

A Student must meet minimum cumulative GPA requirements at specific points throughout the program. Only those credits are required in the student's program of study and used in CGPA calculation.

#### Quantitative—Rate of Progress:

A student must maintain the minimum ROP requirements at specific points throughout the program. The rate of progress percentage is calculated as shown below. Only those credits or hours required in the student's program of study, including transfer credits, are used in the ROP calculation. For a student to be considered meeting academic progress, both SAP standards will be reviewed at the end of each payment period or subject completion, and the student must progress per the Satisfactory Academic Progress policy.

Students placed on probation or terminated for failure to maintain satisfactory academic progress (SAP) may appeal. A written statement describing the extenuating circumstances must be submitted to the Associate Director. The Associate Director will determine the date of re-entry if applicable. A student will be notified in writing within ten days of the appeal determination. All appeal determinations are final. Reinstatement or continuation of financial aid will only be granted for extraordinary circumstances. If the appeal is approved, the student will be placed on "Extended Probation" for four weeks. Students who do not meet minimum Satisfactory Academic Progress standards by the end of the Extended Probationary period will be terminated. A student is allowed one appeal.

#### Re-Entries

Students must go through re-entry procedures from an inactive/withdrawn status. Students on a dismissed or terminated status may appeal to the administration in writing for re-entry consideration. If the administration approves the appeal—i.e., within five business (5) days determined that there were mitigating circumstances or valid reasons presented by the student—then the student could re-enter the program, and lost time would be added to the initial scheduled graduation date.

#### Maximum Time Frame

Students must complete their programs of study within one and one-half times the period specified on their enrollment agreement. To ensure quantitative progress within each program, the college will assess such progress at the midpoint of the academic year. At such time, the college can determine whether the student can complete the program within the established timeframes. The FAO evaluates student academic progress at the end of each payment period. Once the student is identified as an SAP failing student, the RGM (third-party servicing company) system generates an automatic warning emailed to the student by the FAO.

#### Subject Withdrawals

AMSC College does not allow subject withdrawals in a program of study.

#### Course Repetitions

If a student needs to repeat a course due to non-credit, non-punitive, or remedial reasons, it will be allowed and counted as a course attempted. The higher grade will be calculated by computing the grade point average.

#### Probation

This status may result from an academic, financial, or conduct problem requiring correction. The student on probation will be permitted to attend classes. They must remedy the condition for probation within a specified period. Failing to do so may result in a continuation of probation, suspension, or dismissal. AMSC College follows the SAP guidelines, and automatic warnings are sent to students once the system (third-party services RGM) identifies the attendance or SAP issues.

#### Brush-Up Classes

The College provides brush-up classes for three months for graduates to improve their skills. Students can always let the college know if they need assistance to improve their skills. Only students who have graduated from the program can return to brush up on skills within 12 months of graduation. After 12 months, they will have to pay to sit for brush-up classes.

#### STUDENT INFORMATION AND AFFAIRS

#### Student Services

AMSC College assists students by providing access to programs outside the classroom. Students receive remediation/tutoring, career advising, and job placement assistance. Instructors at AMSC offer additional academic advising to all students. Students are also referred to community professionals for personal, non-academic counseling. Random knowledge tests will be conducted to ensure and reinforce the quality of education at AMSC.

#### Learning Resource Centers

#### **LIRN Library**

Educational materials and resources are available to all enrolled students via the LIRN online library. During the mandatory orientation process, students receive written instructions and credentials (e.g., username, password, etc.) to access LIRN. Students can access the LIRN library twenty-four hours a day, seven days a week.

#### **AMSC Library**

The Librarian's office hours are 1:00 pm to 6:00 pm. Students are required to utilize the library for research and certain assigned coursework. In addition, each program has a resource center containing materials related to the courses, including hard copies of the educational materials used in each program.

#### Technical Support

Technical support is available Monday through Friday, 9 am to 5 pm PST. For assistance, please contact Gloria Assatrian at <a href="mailto:info@amsc.edu">info@amsc.edu</a>, Narek Parlakyan at <a href="mailto:narek@parlakyan.com">narek@parlakyan.com</a>, or call (818) 240-6900.

#### Accessible Facilities

AMSC College provides access and accommodations for students with disabilities so they can partake in our programs unless the disability is determined to limit the student's performance. A doctor's note/diagnosis must be

presented upon enrollment to assist in the determination process. The student must sign the waiver/release form relieving AMSC College from liability should they choose to proceed despite AMSC College's recommendations.

The student waives, releases, and holds harmless AMSC College. This includes all faculty, staff, students, employees, representatives, officers, and volunteers. The waiver covers all rights, claims, demands, causes of action, legal actions, and damages of any kind, known or unknown, including, but not limited to, negligence-based claims in tort or contract about or arising from their decision.

#### Classroom Responsibility

Every student is responsible for the condition of their classroom during class. Misuse of equipment will not be tolerated. Such actions may lead to dismissal and charges for deliberate damages. As such, any accidents or breakdowns must be reported immediately. The classroom and equipment exist for our students' convenience and training. Thus, students are urged to keep both in good condition for the benefit of all.

#### Personal Information Updates

Students are responsible for notifying the college of any changes to their name, address, phone number, employment information (if applicable), and emergency contact.

#### Personal Property

Students are responsible for their books, uniforms, and other personal items. AMSC is not responsible for any person's lost or stolen items.

#### Campus Security

AMSC is concerned with the security of its students and staff. Campus security is administered in accordance with the law. The college has adopted and implemented Section 668.48 of Public Law 101-542, "The Student Right-to-Know and Campus Security Act," effective September 1, 1992. The following procedure will be followed to protect campus security:

- The staff is trained to be aware of any unusual occurrences/behaviors on or around the campus grounds.
   Also, the staff is trained in notifying proper authorities.
- Certified instructors monitor all classrooms.
- The College Director, or his designee, secures the building each evening and ensures that all students, faculty, and staff have properly exited the building.

Campus training/awareness is provided to each new student and newly hired employee during their orientation session. During this orientation session, the following information regarding crime prevention is provided and discussed:

Each student and employee of the college is responsible for their personal belongings.

- Any infraction of the regulation relating to Public Law 101-542 must be reported to the proper college personnel immediately.
- All students and employees are responsible for conducting themselves as professionals at all times while on campus or while attending college functions.
- Students are provided with college rules and regulations during orientation, and employees receive an employee handbook.
- Any student or employee found possessing, using, or selling alcoholic beverages or illegal drugs on campus will be suspended or terminated from college.
- All students and employees are provided information regarding the 'Drug-Free' status of the college campus during orientation.

Any criminal action or emergency must immediately be reported to the front desk. Any such reports will be transmitted to the appropriate persons, such as the Director, fire department, police, emergency medical services, etc. Unescorted persons have no access to any part of the AMSC facility beyond the reception area except for already enrolled students or faculty. The following steps will be taken in case of a criminal action or other emergencies:

- The College Director, or designated individual in their absence, is the first person to be notified of criminal activity or other emergencies on campus. The second contact person would be the college's Chief Operating Officer.
- The College will immediately notify the proper law authorities. A written statement from the victim will be obtained.
- The College will abide by all legal requirements set forth by law enforcement.
- Medical and follow-up treatment services will be available to the victim if required.

The physical facility goes through periodic inspection as required by the State of California/county and city agencies.

- Students are provided with safety instructions at the time of enrollment.
- Fire department visits regularly, and fire escape routes are posted.
- CAL OSHA requirements are followed.

Earthquake procedures are routinely reviewed with staff and students.

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Murder	Aggravated Assault	Rape	Burglary	Robbery	Motor/Vehicle Theft
0	0	0	0	0	0

#### Health Care Services

AMSC does not provide health care services on the premises. Any medical emergency should be reported to the front desk immediately. These reports will be transmitted to the police, fire, or emergency medical providers.

#### Cyber Security Policy

AMSC maintains an electronic environment that includes a network, telephones, voicemail, and computers for faculty, staff, and students. There were no occurrences of data breaches at AMSC. Our Title IV financial aid information is managed by the third party (RGM) through an online database platform with secure network assurances from the third-party servicer guaranteeing the security of the information, and the company is certified by the U. S. Department of Education. AMSC currently implements strong security policies and ongoing monitoring for the data management systems databases and processes that support all aspects of the administration of Federal Student Aid policies. AMSC strongly follows industry standards and best practices in securing PII and managing information systems. Those standards and practices include:

- Assessing the risk and magnitude of harm that could result from unauthorized access, use, disclosure, disruption, modification, or destruction of information or information systems.
- Determining the levels of information security appropriate to protect information and information systems.
- Implementing policies and procedures to reduce risks to an acceptable level cost-effectively.
- Regularly test and evaluate information security controls and techniques to ensure effective implementation and improvement of such rules and methods.

All AMSC applicants' information is protected from access by or disclosure to unauthorized personnel and functioning under various federal and state laws and authorities, including:

- HEA
- The Family Educational Rights and Privacy Act (FERPA)
- The Privacy Act of 1974, as amended
- The Gramm-Leach-Bliley Act
- State data breach and privacy Law

AMSC's standards and practice include collaborating with RGM third-party servicer and utilizing the guidelines of "US-CERT" and other organizations dedicated to the protection of information systems and sensitive data. AMSC maintains passwords on all of its computers, minimizing the risk of unwanted access, security breaches, or vulnerability of the stored information. In the event of unauthorized disclosure or an actual or suspected breach of applicant information or other sensitive information (such as PII), AMSC will immediately notify FSA at CPSSAIG@ed.gov. FERPA and GLB require the college to protect students' PII. AMSC ensures that any screens displaying PII and printouts containing PII are kept secure.

#### Sexual Misconduct/Title IX Policy and Procedure

AMSC is committed to fostering an environment that ensures the well-being of all its community members. We strive to create a space free from conduct that could unreasonably disrupt our students' educational and professional pursuits.

Students who report sexual misconduct/Title IX violations will be advised of all options outlined in this policy. AMSC officials will respect the student's right to confidentiality to the extent permitted under college and legal regulations. For a comprehensive overview of our sexual misconduct policy, including procedures for reporting incidents, please visit AMSC Sexual Misconduct Policy.

#### Copyright Policy

AMSC College will comply with United States copyright law (title 17, U.S. Code), including educational and library use sections. Downloading or distributing copyrighted materials (such as documents, books, programs, videos, or text) without permission from the rightful owner is a violation of the United States Copyright Act. The person using the reproduction equipment is liable for any infringement. AMSC will respect all copyright rights, including:

- The rights of students in all materials they create in and for college
- The rights instructors have in materials they created before their employment at the college and in materials produced during their employment at the college.

#### Social Media Policy

Social media has become an invaluable tool for connecting people, cultivating communication, and disseminating information swiftly. We recognize the importance of social media in daily life and understand our students' desire for self-expression on personal accounts. However, professionalism is expected at AMSC, even on social media.

Under AMSC's social media policy, the following actions are prohibited:

- Harassing, threatening, insulting, defaming, or bullying others.
- Making threats of harm to any student, faculty or staff member, officer, or board member, including their family members or property.
- Making comments that insult, disparage, disrespect, or defame AMSC College or its community members.
- Posting discriminatory or harassing comments that breach federal or state laws, AMSC's antidiscrimination/harassment policy, or Title IX policy.
- Infringing intellectual property laws, such as copyright, trademark, fair use, or financial disclosure laws.
- Sharing copyrighted content (text, videos, graphics, or sound files) without permission.
- Sharing trademarked content (logos, names, brands, symbols, and designs) without permission, noting that "®" signifies federal registration, while "TM and SM" indicate potential common-law rights.
- Posting photographs or videos of students, faculty, staff, or preceptors without their consent.
- Posting images or comments that violate the Health Insurance Portability and Accountability Act (HIPAA) by featuring patients or volunteers.
- Sharing vulgar, obscene, or otherwise unlawful images or comments.

AMSC has the authority to enforce disciplinary measures for violating its social media policy guidelines as it deems fit and in compliance with the law. In serious cases, social media misconduct may be reported to law enforcement.

#### Placement Services

AMSC provides job placement assistance and will exert every effort to supply employment leads to all graduates. The college receives many calls from employers requesting AMSC graduates for career openings. However, no guarantees are made concerning job placement as an inducement to enroll, nor can promises be made that placement is assured upon graduation.

#### Conduct Policy

#### Dress Code and Behavior

AMSC does not permit tank tops, blouses, or shirts that expose the midsection, shorts, sandals, torn jeans, and any clothing considered unsuitable in the workplace. All students are expected to adhere to the general rules about dress code and any specific dress code regulation that a certain department may have due to the type of training offered. While on school premises, all students MUST wear the college-assigned uniforms.

#### Grounds for Disciplinary Action

Unsatisfactory academic or attendance performance, frequent tardiness or early leaving, unprofessional behavior, or conduct that disrupts the learning process are grounds for disciplinary action.

#### Illegal Drugs

The use or sale of non-prescription drugs, including but not limited to marijuana, cocaine, and any stimulants and or depressants, will not be tolerated on the college campus or at any institution-sponsored functions off the premises. Any student believed to be under the influence or in possession of a non-prescribed drug will be dismissed from attending classes pending investigation of the matter. All students receive and sign the AMSC "Drug Information Supplement" and are responsible for abiding by its written material.

#### Food and Drink

Food and drinks (except water) are not allowed in the classroom unless designated by the Administration.

#### Smoking

AMSC maintains a smoke-free environment. Smoking is only permitted in the designated areas outside the College premises. No smoking is permitted in front of the main entrance to the College.

#### Personal Calls and Visits

Students are not allowed to use AMSC phones for personal use. The front desk will only take messages for the student to whom a call is made, and such messages will be delivered to the student at break time unless it is an emergency. Visitors are welcome only if a prior arrangement has been made and the visit will not interfere with class time. In addition, since childcare services are not provided on AMSC premises, students, staff, and guests are discouraged from bringing young children into the facility.

#### Harassment

The study environment at AMSC will not be impeded or intimidated by hostile or offensive verbal or physical actions based on race, sex, age, color, religion, physical limitation, ethnic background, national origin, or the like.

#### Sexual Harassment

AMSC will not tolerate any sexual harassment by students or staff. The college defines sexual harassment as sexual advances made, either verbal or physical. The institution will not tolerate hostile or intimidating conduct that interferes with a healthy educational environment or work performance.

#### Disciplinary Procedures

The Administration reviews all disciplinary matters. The Administrative reviews may include written statements from students and staff and interviews with the parties involved. Decisions by the Administration may result in dismissal, probation, or other appropriate action.

#### Dismissal

After thorough investigation and discussion about academic or conduct issues, AMSC reserves the right to dismiss any student for whom the continuation of their attendance would be detrimental to the student, fellow students, or the college.

#### Housing

Non-residential. AMSC has no dormitory facilities under its control and provides no housing accommodations to its students. AMSC has no responsibility to find or assist a student in finding housing. Below is the housing cost and range reasonably near the institution's facilities.

1 Bedroom	2 Bedroom	Distance from AMSC
\$2,100-\$2,300	\$2500-\$2800	2-4 Miles

#### Grievance Policy

Any grievances students may have with the college or its administration can be resolved through a personal meeting with the AMSC staff. Grievances must go through the following chain of command:

- 1. College personnel
- 2. Program Director
- 3. Student Services Supervisor
- 4. College Director

The chain of command strives to resolve grievances to the student's satisfaction. The *Book of Grievance* is available upon request. School personnel member(s) will respond to the grievance issue on the Student Grievance Form within three business days of receipt. The written complaint should contain:

- 1. Nature of the problem
- 2. Approximate date it occurred
- 3. Name(s) of the individual(s) involved in the problem(s) staff or other students
- 4. Copies of important information regarding the problem(s)
- 5. Evidence demonstrating the institution's complaint procedure was followed before the point of filing

A student or any member of the public may file a complaint about this institution with the Bureau for Private Postsecondary Education by calling (888) 370-7589 or by completing a complaint form, which can be obtained on the Bureau's website <a href="https://www.bppe.ca.gov">www.bppe.ca.gov</a>.

#### The Bureau for Private Postsecondary Education

1747 N. Market Blvd Ste. 225 Sacramento, CA 95834 P.O. Box 980818, West Sacramento, CA 95798-0818 Tel. (916) 574-8900 www.bppe.ca.gov

#### **Emergency Procedure**

Report emergencies to a staff member or the front desk immediately. In case of a fire, all students are to evacuate the building as calmly and orderly as possible. In case of an earthquake, students and staff are to take shelter under a desk or a table until it is safe to exit the building. For a comprehensive overview of our emergency procedures, please visit <u>AMSC's Emergency Preparedness Plan</u>.

#### Grounds for Disciplinary Action

Unsatisfactory academic or attendance performance, frequent tardiness or early leaving, unprofessional behavior or conduct that disrupts the learning process are grounds for disciplinary action.

#### CAMPUS ACADEMIC STANDARDS

#### Student Record Retention Policy

Official records are kept for each student from enrollment. Records must be retained for at least five years after the institution's latest fiscal year when students were last enrolled. However, student transcripts are maintained permanently.

#### Assignments Policy

Submitting all assigned work in each course is critical for completing distance education courses. Assignments are due at the time and date specified in the assignment. Anything graded within a course is due by 11:59 pm PT and is one (1) day late if submitted at 12:00 am PT the following day.

AMSC College assumes that students in our programs, delivered through synchronized, blended instruction (i.e., a combination of distance education and residential), are located in California. As of the printing date of this catalog, we don't accept any out-of-state students. All students, upon enrollment, must know that we conduct synchronized online classes, and at least twice per week, they have to take part in laboratory training at our Glendale campus.

#### Physical and Cognitive Tasks

In addition to the general admissions standards described above, all programs require candidates to have particular physical and cognitive tasks to meet the technical standards of the profession:

- Sufficient motor functions to perform basic life support, transfer, and position patients, position and operate health care equipment, and the capability to manipulate multiple objects simultaneously.
- Sufficient sensory and observation abilities to differentiate subtle variations in color, shape, and texture, observe patients from a distance or close at hand, hear audio and visual alarms, and read various forms of documentation.
- Applicants must be able to perform the profession's essential functions and meet the curriculum's standards.

#### Technical Tasks

#### Computer Skills

- Ability to use web browsers, various search engines, and library databases.
- Ability to enter Uniform Resource Locators (URLs).
- Ability to download and save files from the Internet, install software, and use virus protection.
- Be able to complete online forms and participate in discussion boards, chats, and messengers.
- Be able to cut or copy and paste, use spell-check, and save files in different formats.
- Be familiar with web-based email, including sending and receiving attachments.
- Ability to manage files and folders (save, name, copy, move, backup, rename, delete, check properties).

#### **Technical Specifications**

- Computer with at least 100MB free space, 2GB RAM, and 16 Bit sound card
- Access to Internet Service-Broadband (cable/DSL recommended)
- Printer
- Keyboard, mouse/trackpad, speakers, and microphone, internal or external webcam
- Monitor that will display 1024 x 768 or 1280x720 minimum resolution, with 32-bit color graphics

#### Software Specifications

Windows 8 or above, or Mac 10.10 or above

- Google Chrome 30, Firefox 25.0, Safari 6, or Internet Explorer 10
- Java, JavaScript, and cookies must be enabled in the browser
- Pop-up blocking software may need to be disabled
- PDF reader—Adobe Acrobat Reader DC (free download at <a href="https://get.adobe.com/reader">https://get.adobe.com/reader</a>)
- Adobe Flash Player, the latest version (free download at <a href="https://get.adobe.com/flashplayer">https://get.adobe.com/flashplayer</a>)
- Microsoft Word, or word processing software that can save files in the .doc or .docx format. OpenOffice is
  acceptable: free software is available at <a href="http://www.openoffice.org">http://www.openoffice.org</a> and is required to save files in .doc or .rtf
  format.

# Attendance Policy

Attendance is mandatory, and we keep daily records as sign-in sheets. Students must arrive precisely at the classroom and clinical site starting time. AMSC has the following regulations governing attendance.

- Any student wishing to take a leave of absence due to unavoidable absence of more than seven days must request it in writing. Leaves of absence are granted at the discretion of the Institution's Administration and will not be granted for more than 150% of the length of the program.
- A student terminated from the program for violating the attendance policy has the right to appeal in writing to the institution per the Student Rights/Grievance Policy guidelines.
- There will be a 10 % test score reduction for tests taken after the scheduled time/date.
- Students are required to attend class or externship for the entire day to receive attendance credit.
- At the end of a term, a student who has missed scheduled class/externship hours will be placed on attendance probation beginning with the next term.

## **Absences**

Students not present in the classroom (online/residential) or at the clinical site at the start of class or externship experience will be considered absent for the day, forfeit any unscheduled quizzes for the absent day, and will be required to make up the theory/externship hours. The absence will be considered excused under the circumstances described below: serious illness substantiated by doctor's notes, death, or birth in the immediate family. All other absences will be considered unexcused unless solid reasons are presented in writing verifying mitigating circumstances. Students are advised to notify college officials of their absence.

- Excused absences are absences that cannot be avoided and are supported by documentation. Examples would include but not be limited to emergency medical treatment, communicable illness, temporary disability, court appearances, and family emergencies. Determining an absence as excused is at the discretion of the Student Services Supervisor or Program Director. Students should note the following:
  - 2 excused absences within 30 days—no points deducted if it is excused (must provide supporting documents). Points will be deducted if not excused. A LIRN/SCANNING assignment must be submitted to catch up (a minimum grade of C is necessary for the assignment to be valid).
  - 3rd absence within 30 days—(excused/unexcused) points will be deducted- MUST submit a LIRN
    assignment to catch up. Students will be placed on ASAP (Academic Success Alert Form). MUST
    follow the terms of ASAP to regain academic compliance status. (A minimum Grade of C is
    necessary for the assignment to be valid)

- 4th absence within 60 days—students will be placed on probation and risk being dismissed from the program. Absences exceeding 20 hours without makeup will lead to probation and possible dismissal.
- All absences must be made up (whether excused or not) within one week from the day of absence before a
  student can progress to the next module. Methods of make-up hours will include independent study
  assignments that approximate the number of theory hours missed. Clinical hours will be made up in the
  skills lab at the discretion of the DMS Program Director and will equal the number of hours missed. Absences
  exceeding 20 hours without makeup will lead to probation and possible dismissal.
- While on attendance probation, students may not have any unexcused absences within that module. Any
  student on attendance probation who incurs any unexcused absences from scheduled class/clinical hours
  has violated the terms of probation and may be terminated from the program. Documents provided postdismissal/termination will not be accepted.

# Tardiness/Leaving Early

Tardiness is discouraged since it disrupts the instructor and the students. Excessive tardiness may result in probation. There is, however, a 10-minute grace period before a student is marked tardy. Three tardiness constitute one absence. Students leaving early will be considered as "left early." Frequent "left early" without legitimate reasons may also be a cause for probation.

# **Unsatisfactory Attendance**

Students with 14 consecutive absences of calendar days will automatically be withdrawn from their program of study. This policy is based on the attendance requirements set forth by the BPPE and followed by the college.

# **Skipping Classes**

Such action will be considered an unexcused absence and may cause the student's grade to drop.

## Make-up Hours and Assignments

Any missed class time or assignment may require physical make-up time on campus. Students must coordinate with the appropriate college personnel to complete make-up time or assignments.

## Leave of Absence (LOA)

The leave of absence (LOA) may be granted for up to 90 days. Requests for leave must be submitted in writing to the Program Director, including an anticipated return date, and be signed by the student.

Students who fail to return from a LOA will be dismissed as of the last class day of attendance. As of the same date, the loan repayment process will be initiated. Any refund due will be made within thirty (30) calendar days from the end of an approved leave of absence.

The Institution's Program Director may grant more than one leave of absence or waive satisfactory interim standards for circumstances of poor health, family crisis, or other significant occurrences outside the student's control. The student must demonstrate that the circumstances had or will hurt the student's satisfactory progress in the academic program. Students will not be assessed additional tuition charges while on their Leave of absence. No waivers will be provided for graduation requirements. Time for an approved leave of absence will not be included in calculating a student's maximum program length.

#### **Attendance**

The college attendance policy is a minimum of 90% attendance during study, calculated monthly. Graduates must complete all program courses with a minimum grade of 70% and all other curriculum requirements for their course of study. Graduation is acknowledged by being awarded a BHS or AAS degree in diagnostic medical sonography. Breach of the institution's policy will result in attendance probation. Students placed on attendance probation will have 30 days to bring their cumulative attendance back up to 90. The final exit interview for externship grades may differ from the board SPI exam's final grades. If applicable, students may receive Federal Financial Aid while on probation. Suppose this is not achieved after the probationary term. In that case, the student may have their probationary period continued for an additional 30-day term or be placed on active suspension for another 30 days. If, during this period, the student fails to comply with the opportunity given, they will then be terminated.

# **Graduation Requirements**

Students must complete all course requirements, maintain satisfactory attendance, and have minimum grade points to graduate from all programs of study. Upon graduation, a student will receive a diploma in their program of study.

# Scholastic Level Exam Policy

The American Medical Sciences Center administers the Scholastic Level Exam (SLE) to all its students. The SLE gauges a student's cognitive ability and capacity to perform the tasks related to the occupations within their program of study. All students must take and pass this test. If a prospective student fails the SLE, another version will be available immediately. A student may be given the third and final attempt after 90 days. The test is administered per the test's instructions, rules, and time limits.

# CAMPUS PROGRAM INFORMATION

## BACHELOR OF HEALTH SCIENCE DEGREE PROGRAMS OFFERED

Bachelor of Health Sciences (BHS) in DMS Programs

(D.O.T. CODE 078.364-010, CIP CODE 51-09 10)

- 3,010.00 Clock Hours
- 109.06 Weeks

- 130.00 Semester Credit Hours
- 25.00 In-Class Clock Hours per Week
- 5.00 In-Class Clock Hours per Day

# **Program Objectives**

The objective is to provide the didactic and clinical skills needed to enable the student to perform the Sonographic examination requirements published or supported by nationally recognized professional organizations. Theory content and clinical experience focus on ultrasound studies in the General Learning Concentration. The curriculum comprises classroom, laboratory, library research, and clinical practical experience. Program outcomes for a Bachelor of Health Sciences in Diagnostic Medical Sonography include:

- Competently performing as an entry-level sonographer in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains for Diagnostic Medical Sonography.
- Demonstrate ethical and professional behavior through sonographic practice congruent with standards of
  practice. Interact effectively with individuals in a manner that reflects caring and acknowledges the holistic
  nature of individuals.
- Demonstrate competence in performing sonographic examinations, including history taking, machine adjustment and operation, the acquisition of ultrasound imaging, and other sonography-related tasks.

# **Program Duties**

Graduates will be integral to the diagnostic medical imaging team, providing patient services efficiently and in a professional, sensitive manner. Duties may include ultrasound scans of the abdominopelvic, superficial structural, gynecological, and echo-vascular parts.

## **Graduation Requirements**

The college attendance policy is a minimum of 90% attendance during study, calculated monthly. Students must perform the clinical portion of their training in an approved medical facility and receive a satisfactory evaluation. Graduates must successfully complete all program courses with a minimum grade of 70% and all other curriculum requirements for their course of study. Graduation is acknowledged by being awarded a B.S. degree in Diagnostic Medical Sonography, allowing them to take the ARDMS, ARRT, and CCI tests.

# Credit/Clock Hour Conversions

For DMS programs of study, the conversion from clock hours to credit hours is as follows:

- 15 Lecture Clock Hours=1.0 Semester Credit Hour | 1 Lecture Clock Hour=0.066 Semester Credit Hour
- 30 Laboratory Clock Hours=1.0 Semester Credit Hour | 1 Laboratory Clock Hour=0.033 Semester Credit Hour
- 45 Externship Clock Hours=1.0 Semester Credit Hour | 1 Externship Clock Hour=0.022 Semester Credit Hour

## Outside Hours Learning

The credit hours include outside hours regardless of recognition.

Minimum course-by-course outside hours are calculated using the following formula:

- For one (1) hour of classroom or direct faculty instruction, a minimum of two (2) hours of outside preparation.
- For one (1) hour of laboratory or direct faculty instruction, at least one (1) hour of outside preparation.

# **Evaluation Methodology**

Component	Formula
Attendance	10%
Class Participation and Professionalism	10%
Quizzes	10%
Home/Outside work	10%
Course Final Tests	60%
Total	100%

# Sample of Grading System

Grades and Scales								
Letter Grade	Percent	Scale						
A (Excellent)	90%-100%	4.0						
B (Good)	80%-89%	3.0						
C (Average)	70%-79%	2.0						
F (Not Passing)	<70%	0.0						

Example Student Transcript									
Courses	Grade	Credits	Grade Point	G.P.A.					
Spleen	А	3.0	12	4.0					
Ultrasound Physics II	В	3.0	9.0	3.0					
Liver	С	4.5	9.0	2.0					
Disease State Identification	F	2.0	0.0	0.0					

# Admission Requirements for Bridge Status

Bridge Status may be granted to applicants currently credentialed in sonography programs and who have met general admission requirements.

### Graduated Students from Accredited Institutions

Successful completion of the curriculum requirements will be required of applicants who have:

- Earned a Certificate/Diploma and completed at least 60.0 semester or equivalent credit hours in sonography programs from Nationally Accredited Institutions and corroborate from the American Registry of Diagnostic Medical Sonography (ARDMS) or the American Registry of Radiologic Technologists (ARRT) Sonography Primary Pathway Certifications.
- Earned a Certificate/Diploma in Sonography program from the Nationally Accredited Institution, and additionally possess an associate degree from a regionally accredited institution.
- Completed at least 60.0 semester credit hours in sonography programs from a nationally accredited institution and a minimum of 5 years of experience in abdominal, vascular, and cardiac sonography.

# Graduated Students from AMSC College

Specific Coursework (General Learning Concentration)

For a bachelor's degree (General Concentration), specific coursework in sonography will be accepted from graduates of the AMSC College Diagnostic Medical Sonography Academic Associate degree program. As a Bachelor of Health Sciences in Diagnostic Medical Sonography, graduates must successfully complete the following additional courses of the program with a minimum grade of 70% and all other curriculum requirements for their course of study.

Suppose a student has graduated from the Associate degree program of the American Medical Sciences Center and wishes to enroll in the DMS BHS program. In that case, a student can waive the externship component of the bachelor's degree program if the student possesses active registration with ARDMS/ARRT/CCI and has been employed for at least two years in the ultrasound field before applying for the bachelor's degree at AMSC college. Charges for the externship component of the bachelor's degree program will be waived, and credits for the externship component will automatically be granted. The program completion for these students will be considered the last day before the externship component start date

**Program Length** (736.00 Total Hours, 29.0 Semester Credits, 25.84 Weeks)

Course Number	Lect. Clock Hours	Lect. Credit Hours	Labor Clock Hours	Labor Credit Hours	Clinical Clock Hours	Credits for Clinical	Total Hours	Total Credit Hours
BSDMS-1.7 (b)	32.00	2.13	00.00	00.00	00.00	00.00	32.00	2.00
BSDMS-1.8	52.00	3.46	52.00	1.73	00.00	00.00	32.00	5.00
BSDMS-1.9	52.00	3.46	52.00	1.73	00.00	00.00	104.00	5.00

BSDMS-2.11	32.00	2.13	32.00	1.06	00.00	00.00	104.00	3.00
BSDMS-2.12	32.00	2.13	32.00	1.06	00.00	00.00	64.00	3.00
BSDMS-2.13	32.00	2.13	32.00	1.06	00.00	00.00	64.00	3.00
BSDMS-2.14	32.00	2.13	32.00	1.06	00.00	00.00	64.00	3.00
BSDMS-5.1 (c)	00.00	00.00	00.00	00.00	240.00	5.3	240.00	5.00
Total	264.00	15.57	232.00	7.7	240.00	5.3	736.00	29.00

## General Learning Concentration

(D.O.T. 078.364-010, CIP CODE 51-0910)

- 3,010.00 Clock Hours
- 109.06 Weeks
- 130.00 Semester Credit Hours
- 25.00 In-Class Clock Hours per Week
- 5.00 In-Class Clock Hours per Day

The objective is to provide the didactic and clinical skills needed to enable the student to perform the Sonographic examination requirements published or supported by nationally recognized professional organizations. Theory content and clinical experience focus on ultrasound studies in the General Learning Concentration.

The curriculum includes classroom, laboratory, library research, and clinical practice experience. Core courses are categorized as General Learning Concentration Tract (e.g., abdominal, OB/GYN) for a Bachelor of Science degree in Diagnostic Medical Sonography, including entry-level Ultrasound Vascular Technology and Echocardiography.

Graduates must successfully complete all program courses with a minimum grade of 70% and all other curriculum requirements for their course of study. Students must perform the clinical portion of their training in an approved medical facility and receive a satisfactory evaluation. Graduation is acknowledged by being awarded a B.S. degree in Diagnostic Medical Sonography, allowing them to take the ARDMS, ARRT, and CCI tests. Program outcomes for a Bachelor of Health Sciences in Diagnostic Medical Sonography include:

- Competently performing as an entry-level sonographer in the cognitive (knowledge), psychomotor (skills),
   and affective (behavior) learning domains for Diagnostic Medical Sonography.
- Correlate current research to ensure best-practice delivery of specialty-specific, quality patient care, and services.
- Cooperate with referring physicians and other healthcare professionals in collecting and documenting complete and accurate data.
- Demonstrate competence in sonographic examinations, including history taking, machine adjustment, operation, and acquisition of ultrasound imaging and other sonographic performance.

Demonstrate ethical and professional behavior through sonographic practice congruent with standards of
practice. Interact effectively with individuals in a manner that reflects caring and acknowledges the holistic
nature of individuals.

# Program Performance Fact Sheet

We encourage prospective students to review the AMSC College Catalog and the Program Performance Fact Sheet before signing an enrollment agreement.

# **Graduation Rates (BPPE)**

Calendar Year	Number of Students Who Began Program	Students Available for Graduation	Number of on-Time Graduates	On-Time Completion Rate
2021	12	12	12	100%
2022	9	9	9	100%

# Placement Rates (BPPE)

Calendar Year	Number of Students Who Began Program	Number of Graduates	Graduates Available for Employment	Graduates Employed in the Field	Placement Rate % Employed in the Field
2021	12	12	12	7	58%
2022	9	9	9	6	66%

# Wide-Ranging Profile Grid

# (Program Outline)

Modules	Course Number	Lecture Hours	Lab Hours	Clinical Hours	Total Hours	Total Weeks	Credits Hours	ABHES Standards
General Education	BSDMS-1.1-1.9	494.0	156.0	00.00	650.0	32.5	36.5	✓
General Sonography	BSDMS-2.1 2.17	708.0	564.0	00.00	1272.0	63.6	61.5	✓
Vascular Sonography	BSDMS-3.1-3.2	80.0	96.0	00.00	176.0	8.8	8.0	✓

Cardiac Sonography	BSDMS-4.1-4.4	96.0	96.0	00.00	192.0	9.6	8.0	✓
Clinical	BSDMS-5.1	00.00	00.00	720.0	720.0	18.0	16.0	✓
Totals	BSDMS-1.1-5.1	1378.0	912.0	720.0	3,010.0	132.5	130.0	<b>√</b>

# Detail-Ranging Profile Grid

# (Program Outline)

Course Number	Course Title	Lect. Clock Hours	Labor Clock Hours	Outside Clock Hours	Extern Clock Hours	Total Clock Hours	Total Credit Hours
BSDMS-1.1	Communications Skills, Basic Mathematics, Fundamental Physics	48.0	00.00	96.0	00.00	144.0	3.0
BSDMS-1.2	General Anatomy, Physiology, Pathology	90.0	00.00	180.0	00.00	270.0	6.0
BSDMS-1.3	Medical Terminology, Career, and Professional. Development	48.0	00.00	96.0	00.00	144.0	3.0
BSDMS-1.4	Medical Ethics, Medical Law, Sonographers Safety and Patient Care	48.0	00.00	96.0	00.00	144.0	3.0
BSDMS-1.5	Ultrasound Physics I (Upper-Level Course)	56.0	00.00	112.0	00.00	168.0	3.5
BSDMS-1.6	Ultrasound Physics II (Upper-Level Course)	48.0	00.00	96.0	00.00	144.0	3.0
BSDMS-1.7	Applied Ultrasound Sciences I (a), II( b)	52.0	52.0	156.0	00.00	260.0	5.0
BSDMS-1.8	Applied Ultrasound Sciences II (Scanning	52.0	52.0	156.0	00.00	260.0	5.0

	Technique and Procedures)						
BSDMS-1.9	Applied Ultrasound Sciences III (Technical Image and Production)	52.0	52.0	156.0	00.00	260.0	5.0
BSDMS-2.1	Ultrasound Physics	56.0	00.00	112.0	00.00	168.0	3.5
BSDMS-2.2	Ultrasound Physics IV "Doppler"	56.0	00.00	112.0	00.00	168.0	3.5
BSDMS-2.3	Ultrasound Physics V "Artifacts, Bio effects Quality Assurance, Safety	48.0	00.00	96.0	00.00	144.0	3.0
BSDMS-2.4	Abdominal Vasculature And Peritoneal Cavities	48.0	48.0	144.0	00.00	240.0	4.5
BSDMS-2.5	Liver	48.0	48.0	144.0	00.00	240.0	4.5
BSDMS-2.6	Gallbladder and Biliary Tree	40.0	40.0	120.0	00.00	200.0	3.5
BSDMS-2.7	Pancreas	40.0	40.0	120.0	00.00	200.0	3.5
BSDMS-2.8	Spleen	32.0	32.0	96.0	00.00	160.0	3.0
BSDMS-2.9	Urinary Tract, Adrenal Glands	48.0	48.0	144.0	00.00	240.0	4.5
BSDMS-2.10	Male Genital Structures	36.0	36.0	108.0	00.00	180.0	3.5
BSDMS-2.11	Spinal Cord and Musculoskeletal Structures	32.0	32.0	96.0	00.00	160.0	3.0
BSDMS-2.12	Neck and Surrounded Structures	32.0	32.0	96.0	00.00	160.0	3.0
BSDMS-2.13	Anterior Abdominal wall, Tissues and GET	32.0	32.0	96.0	00.00	160.0	3.0
BSDMS-2.14	Non Cardiac Chest, Pleural Cavity	32.0	32.0	96.0	00.00	160.0	3.0
BSDMS-2.15	Gynecological Sonography	48.0	48.0	144.0	00.00	240.0	4.5

BSDMS-2.16	Obstetrical Sonography	48.0	48.0	144.0	00.00	240.0	4.5
BSDMS-2.17	Breast Sonography	32.0	48.0	112.0	00.00	192.0	3.5
BSDMS-3.1	Cerebrovascular and Upper Extremity Vascular Sonography	48.0	48.0	144.0	00.00	240.0	4.5
BSDMS-3.2	Lower Extremity Vascular Sonography	32.0	48.0	112.0	00.00	192.0	3.5
BSDMS-4.1	Cardiac Fundamentals and Principles of Cardiac Pharmacology	24.0	24.0	72.0	00.00	120.0	2.0
BSDMS-4.2	Cardiac Pathological Mechanism and Non-Invasive Diagnostic Tests	24.0	24.0	72.0	00.00	120.0	2.0
BSDMS-4.3	Hemodynamics and Practical Application	24.0	24.0	72.0	00.00	120.0	2.0
BSDMS-4.4	Disease State Identification	24.0	24.0	72.0	00.00	120.0	2.0
BSDMS-5.1	Clinical Externship	00.00	00.00	00.00	720.0	720.0	16.0
Total		1378.0	912.0	3668.0	720.0	6678.0	130.0

# Program Agenda

## General Education Courses (Non-Core Courses)

General Education pre-requisite courses within a Diagnostic Medical Sonography program are intended to create a well-rounded individual with good general knowledge of several areas outside the specific major field of the graduate. At American Medical Sciences Center, the general education component is made up of the following courses:

- BSDMS-1.1 COMMUNICATIONS SKILLS, BASIC MATHEMATICS, FUNDAMENTAL PHYSICS BSDMS-1.2 GENERAL ANATOMY, PHYSIOLOGY, PATHOLOGY
- BSDMS-1.3 MEDICAL TERMINOLOGY, CAREER, AND PROFESSIONAL DEVELOPMENT BSDMS-1.4 MEDICAL ETHICS, MEDICAL LAW, SONOGRAPHERS SAFETY AND PATIENT CARE BSDMS-1.5 ULTRASOUND PHYSICS I (UPPER-LEVEL COURSE)

- BSDMS-1.6 ULTRASOUND PHYSICS II (UPPER-LEVEL COURSE)
- BSDMS-1.7 APPLIED ULTRASOUND SCIENCES I
- BSDMS-1.8 APPLIED ULTRASOUND SCIENCES II (SCANNING TECHNIQUE AND PROCEDURES) BSDMS-1.9 APPLIED ULTRASOUND SCIENCES III (TECHNICAL IMAGE AND PRODUCTION)

#### General Sonography Learning Concentration Courses (Core Courses)

In this module, students will gain an understanding of the normal anatomy, anatomic variants, normal physiology, and pathological conditions of the organs of the abdominal-pelvic cavity. At American Medical Sciences Center, the General Sonography component is made up of the following courses:

- BSDMS-2.1 ULTRASOUND PHYSICS III "INSTRUMENTATION"
- BSDMS-2.2 ULTRASOUND PHYSICS IV "DOPPLER"
- BSDMS-2.3 ULTRASOUND PHYSICS V ARTIFACTS, BIOEFFECTS, QUALITY ASSURANCE, SAFETY BSDMS-2.4
   ABDOMINAL VASCULATURE AND PERITONEAL CAVITIES
- BSDMS-2.5 LIVER
- BSDMS-2.6 GALLBLADDER AND BILIARY TREE BSDMS-2.7 PANCREAS
- BSDMS-2.8 SPLEEN
- BSDMS-2.9 URINARY TRACT AND ADRENAL GLANDS BSDMS-2.10 MALE GENITAL STRUCTURES
- BSDMS-2.11 SPINAL CORD AND MUSCULOSKELETAL STRUCTURES BSDMS-2.12 NECK AND SURROUNDED STRUCTURES
- BSDMS-2.13 ANTERIOR ABDOMINAL WALL, TISSUES, AND GASTROINTESTINAL TRACT BSDMS-2.14 NON-CARDIAC CHEST, PLEURAL CAVITY
- BSDMS-2.15 GYNECOLOGICAL SONOGRAPHY BSDMS-2.16 OBSTETRICAL SONOGRAPHY BSDMS-2.17 BREAST SONOGRAPHY

### Vascular Sonography Minor Courses (Core Courses)

This module will provide the student with theoretical and practical knowledge of the vascular system, including anatomy, normal anatomic variants, physiology, and pathologic conditions. Classroom instruction will be coordinated with laboratory activities.

 BSDMS-3.1 CEREBROVASCULAR AND UPPER EXTREMITY VASCULAR SONOGRAPHY BSDMS-3.2 LOWER EXTREMITY VASCULAR SONOGRAPHY

Cardiac Sonography Minor Courses (Core Courses)

In this module, students will gain an understanding of the normal anatomy, anatomic variants, normal physiology and pathological conditions of the heart. At American Medical Sciences Center, the Cardiac Sonography component is made up of the following courses:

- BSDMS-4.1 CARDIAC FUNDAMENTALS AND PRINCIPLES OF CARDIAC PHARMACOLOGY BSDMS-4.2 CARDIAC
   PATHOLOGICAL MECHANISM AND NON-INVASIVE DIAGNOSTIC TESTS BSDMS-4.3 HEMODYNAMIC AND PRACTICAL
   APPLICATION
- BSDMS-4.4 DISEASE STATE IDENTIFICATION

## Externship (Core Courses)

Students participate in a clinical externship where they will gain hands-on training. The program provides students with hands-on experience in diagnostic care to patients of all ages and stages of disease in doctor/imaging clinics.

BSDMS-5.1 CLINICAL EXTERNSHIP

## **COURSE DESCRIPTIONS**

# AAS to BHS Bridge Program | Distance Part of Program

Course Title: COMMUNICATIONS SKILLS, BASIC MATHEMATICS, FUNDAMENTAL PHYSICS

Course Number: BSDMS-1.1

Prerequisite: NONE
Lecture Hours: 48.00
Laboratory Hours: 00.00
Total In-Class Hours: 48.00
Outside Clock Hours: 96.00
Total Credit Hours: 3.00

#### **Subjects:**

- Types of communications
- History and Discuss Pre-Post Procedure
- Diverse Populations
- Arithmetic and Algebraic Functions
- Principles of General and Acoustic Physics
- Principles of Hemodynamics and Doppler
- Knowledge of components utilized in Sonography

In this course, the students learn the fundamentals of basic communication concepts, the purpose of informing, of expressing feelings, of imagining/influencing, and meeting social expectations. This course familiarizes the students with understanding the types of communication (verbal, nonverbal/interpersonal, formal and informal, written, and visual). This course is designed to teach students the general principles and theories underlying basic mathematics and fundamental physics. This course builds on arithmetic concepts, including whole numbers, decimals, fractions, and metric measurements. Emphasis is placed on critical thinking and problem-solving skills. Also, the course is designed to provide students for Fundamentals Physics with an understanding of forces, momentum, energy, and other concepts.

Course Title: GENERAL ANATOMY, PHYSIOLOGY, PATHOLOGY

Course Number: BSDMS-1.2
Prerequisite: BSDMS-1.1
Lecture Hours: 90.00
Laboratory Hours: 00.00
Total In-Class Hours: 90.00
Outside Clock Hours: 180.00

**Total Credit Hours: 6.00** 

### **Subjects:**

- Cardiopulmonary, Cardiovascular systems
- Central Nervous system
- Gastrointestinal system
- Musculoskeletal system
- Reproductive systems
- Urinary system
- Endocrine system
- Reticuloendothelial system
- Skin and Integumentary system

The students will be introduced to the fundamentals of chemistry and human anatomy, physiology, and pathophysiology. The course includes the ability to recognize and identify all major body systems and understand the primary physiological reactions of the human body. This course will give the student a complete understanding of the pathological processes that may affect the whole human body.

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Course Title: MEDICAL TERMINOLOGY, CAREER, AND PROFESSIONAL DEVELOPMENT

Course Number: BSDMS-1.3 Prerequisite: BSDMS-1.2 Lecture Hours: 48.00 Laboratory Hours: 00.00 Total In-Class Hours: 48.00 Outside Clock Hours: 96.00 Total Credit Hours: 3.00

#### **Subjects:**

- Medical Abbreviations, Signs, and Symbols
- Combining Forms, Prefixes, and Suffixes
- Specific Medical Sonographic Terminology
- Process of Certification, Credentialing
- Career Pathways within the field of DMS
- Effective Resume Writing
- Conduct employment searches, Interview Skills
- Continuing Education Requirements

This course is designed to provide a comprehensive foundation for basic medical terminology to be used in healthcare careers. It Includes Greek and Latin word roots, prefixes, suffixes, combining forms, special endings, plural forms, abbreviations, and symbols. Terminology emphasis is placed on body structures, anatomical systems, pathologies, medical procedures, medical specialties, and standard terms and abbreviations used in health care.

The course introduces concepts and applications of reading, writing, and interpreting standard medical formats. The course demonstrates knowledge of the careers in sonography and professional development. Students are

introduced to professional organizations, certifications and credentialing, continuing education, essentials for employment, interviewing, and employment search.

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Course Title: MEDICAL ETHICS, MEDICAL LAW, SONOGRAPHERS SAFETY, AND PATIENT CARE

Course Number: BSDMS-1.4

Prerequisite: NONE
Lecture Hours: 48.00
Laboratory Hours: 00.00
Total In-Class Hours: 48.00
Outside Clock Hours: 96.00
Total Credit Hours: 3.00

## **Subjects:**

Ethical Decision, HIPAA Compliance

Professional Codes of Conduct and Scope of Practice

Patient Bill of Rights

Protective Equipment Requirements

- Strategies for Dealing with Difficult Patients
- Principles of Emotional and Psychological Support
- Patient Safety, Infection Control, Transportation
- Manage Emergency Situations

This course familiarizes the students with an understanding of the specific laws and regulations that impact the healthcare environment, patient bill of rights, fundamental medical ethical decision-making, patient confidentiality pertinent legal principles. This course is designed to develop the student's ability to communicate effectively. The students demonstrate knowledge and understanding of ergonomics, physical stress factors, and repetitive stress injuries. This sequence will provide the student with a sonographer-patient interaction, emotional and psychological support principles, patient safety practices, infection control, universal precautions, emergencies and procedures, patient transfer, and transportation.

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Course Title: ULTRASOUND PHYSICS-I

Prerequisite: BSDMS-1.1 Lecture Hours: 56.00 Laboratory Hours: 00.00 Total Clock Hours: 56.00 Outside Clock Hours: 112.00 Total Credit Hours: 3.5

Course Number: BSDMS-1.5

#### Subjects:

Ultrasound Physical Principles

Continuous Waves

Pulse Waves

- Intensities, Attenuations
- Sound Production, Transmission, and Reflection
- Impedances, Wave Angle Interactions

This course will provide the student with a theoretical understanding of the principles of ultrasound physics as it applies to diagnostic medical imaging. The course material will focus on the physical principles of sound energy, sound production, transmission, and reflection. This course provides an introduction and overview of ultrasound physics principles as they apply to diagnostic medical imaging. Emphasis will be placed on sound waves' physical principles and categorization.

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Course Title: ULTRASOUND PHYSICS-II

Course Number: BSDMS-1.6
Prerequisite: BSDMS-1.5
Lecture Hours: 48.00
Laboratory Hours: 00.00
Total Clock Hours: 48.00
Outside Clock Hours: 96.00
Total Credit Hours: 3.0

### Subjects:

- Transducers Architectures,
- Matching Layer
- Piezo Effects
- Damping Materials
- Beam Formers (Near, far zones)
- Type of Transducers
- Set Up Ultrasound System
- Problems and Solution

The course material will focus on the physical principles of sound energy, transducer architecture, sound production, and beam structural design. This module teaches the student the developmental concept of sonographic appearance, architectures of modern technology scan heads, and potential artifacts. This course provides an introduction to and an overview of the principles of ultrasound transducers as it applies to diagnostic medical imaging. Emphasis will be placed on physical principles of construction, beam former, and transducer applications.

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Course Title: APPLIED ULTRASOUND SCIENCES I

Course Number: BSDMS-1.7(a)\*

Prerequisite: NONE
Lecture Hours: 20.00
Laboratory Hours: 52.00
Total Clock Hours: 72.00
Outside Clock Hours: 92.00
Total Credit Hours: 3.0

#### **Subjects:**

- Image Optimization Techniques
- 2D-Modes
- M-Modes
- Duplex Imaging

The course establishes knowledge of the careers in sonography as healthcare professionals who utilize medical ultrasound in various settings to gather sonographic data to aid in the diagnosis of a variety of medical conditions and diseases.

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Course Title: APPLIED ULTRASOUND SCIENCES II

Course Number: BSDMS-1.7(b)\*
Prerequisite: BSDMS-1.7(a)
Lecture Hours: 32.00
Laboratory Hours: 00.00

Total Clock Hours: 32.00 Outside Clock Hours: 64.00 Total Credit Hours: 2.0

#### Subjects:

- Harmonic imaging characteristics
- Doppler-Modes (Spectral, Color, Power)
- Duplex Imaging Strain, Electrography)

Classroom instruction will be coordinated with instrumental activities, including appropriate adjustments to M-mode, color flow, and spectral trace. This course provides an introduction and an overview of the principles of the Doppler shift as it applies to diagnostic medical imaging.

Course Title: APPLIED ULTRASOUND SCIENCES II (SCANNING TECHNIQUE AND PROCEDURES)

Course Number: BSDMS-1.8\* Prerequisite: BSDMS-1.7 ( $\alpha$ ),(b)

Lecture Hours: 52.00 Laboratory Hours: 52.00 Total Clock Hours: 104.00 Outside Clock Hours: 156.00 Total Credit Hours: 5.0

## Subjects:

- Scanning methods and planes
- Purpose and functions
- Transducers selection
- Ergonomics and supports tools

- Acknowledge of Examination Procedures
- Type of examination (pre-sets)

The students will be able to adjust Brightness and Motion-modes and control to regulate Color Flow, Spectral, and Power Doppler instruments. Also, they will be able to demonstrate knowledge of examination procedures for appropriate protocols, including Abdominal, OB/GYN, Cardiac, and Vascular examinations.

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Course Title: APPLIED ULTRASOUND SCIENCES III (TECHNICAL IMAGE AND PRODUCTION)

Course Number: BSDMS-1.9\*
Prerequisite: BSDMS-1.8
Lecture Hours: 52.00
Laboratory Hours: 52.00
Total Clock Hours: 104.00
Outside Clock Hours: 156.00
Total Credit Hours: 5.0

#### **Subjects:**

- Scanning Techniques
- Controls to Optimize Brightness Image Production
- Controls to Optimize Hemodynamic Image Production
- Measurements and Calculations
- Significance of Bioeffects (ALARA),
- Significance Safety, Maintaining
- Report Writing

The students will be able to adjust and Control Brightness Motion- Doppler modes, regulate color flow, and Spectral instruments. This course familiarizes the students with an understanding of the measurements and calculations.

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Course Title: ULTRASOUND PHYSICS-III (INSTRUMENTATION)

Course Number: BSDMS-2.1 Prerequisite: BSDMS-1.6 Lecture Hours: 56.00 Laboratory Hours: 00.00 Total Clock Hours: 56.00 Outside Clock Hours: 112.00 Total Credit Hours: 3.5

### Subjects:

- System's Construction
- System's Vital Components
- Receiver Functions
- Pre and Post Processing
- Image Storage and Monitors

### Display Modes

This course familiarizes the students with an understanding of fundamental instrumentations, including but not limited to receiver functions, pre and post-processing, and imaging modes. This course is designed to develop the student's knobology, including physical principles of Overall gain, Time gain, Compensation, depth, Focusing, and 2-D grayscale controls. This course will provide the student with a theoretical and concrete knowledge of all components of the ultrasound machine.

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Course Title: ULTRASOUND PHYSICS-IV (DOPPLER)

Course Number: BSDMS-2.2 Prerequisite: BSDMS-2.1 Lecture Hours: 56.00 Laboratory Hours: 00.00 Total Clock Hours: 56.00 Outside Clock Hours: 112.00 Total Credit Hours: 3.5

#### **Subjects:**

- Doppler Effect
- Doppler Equations
- Doppler Technologies and Components,
- Doppler and Duplex Applications
- Doppler and Duplex Instruments
- Principles of Hemodynamics
- Physical Principles of the Vascular System
- Energy, Pressure, Flow Resistance
- Normal, Abnormal Doppler Characterizations

In this course, the students learn the fundamentals of Doppler physics. This course teaches the student the developmental concept of Sonographic appearance, including spectral and color Doppler instruments. Classroom instruction will be coordinated with instrumental activities, including appropriate adjustments to M-mode, color flow, and spectral trace. This course provides an introduction and an overview of the principles of the Doppler shift as it applies to diagnostic medical imaging. Emphasis will be placed on the physical principles of artifacts and their categorization.

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Course Title: ULTRASOUND PHYSICS- V (ARTIFACTS, BIO., QUALITY ASSURANCE, SAFETY)

Course Number: BSDMS -2.3
Prerequisite: BSDMS-2.2
Lecture Hours: 48.00
Laboratory Hours: 00.00
Total Clock Hours: 48.00
Outside Clock Hours: 96.00
Total Credit Hours: 3.0

#### **Subjects:**

- Ultrasound Imaging Artifacts (All Groups)
- Ensure and Implement Quality Assurance
- Bioeffects
- Safety Principle
- Specific Vascular Physical Principles
- Plethysmographs
- Image Documentations

This course will prepare the student to recognize Sonographic Artifacts, Performance and Safety, Bioeffects, also specific vascular physical principles, Plethysmography, Ohm's Law, methods of measuring electrical resistance, and advanced Hemodynamics. This course will provide the student with a theoretical and practical knowledge of the artifacts and ensure and implement quality assurance by maintaining image documentation, performance, and safety. Specific topics to be covered include a diagnostic statistical profile.

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Course Title: ABDOMINAL VASCULATURE AND PERITONEAL CAVITIES

Course Number: BSDMS-2.4
Prerequisite: BSDMS-1.3
Lecture Hours: 48.00
Laboratory Hours: 48.00
Total Clock Hours: 96.00
Outside Clock Hours: 144.0
Total Credit Hours: 4.5

#### **Subjects:**

- Abdominal Cavities
- Anatomy of the Abdominal Vascular System
- Physiology and Pathophysiology
- Cross-Sectional Anatomy
- Clinical Indications
- Normal and Abnormal Conditions
- Imaging Techniques and Clinical Indications

The course provides students with an understanding of the peritoneal cavity and potential spaces in the pelvic cavity where fluid collections and pathologies may be located. Also, this course will give the student a comprehensive understanding of the pathological processes that may affect the abdominal vascular organs. The cross-sectional anatomy and appearance of these structures on the sonogram will also be discussed.

Classroom instruction will be coordinated with practical activities. Graduates will be able to recognize and identify the normal sonographic appearance, understand theoretical findings in performing invasive (Lymph node biopsy), interventional, and therapeutic procedures, apply the appropriate scanning protocol, techniques, and measurements in correlation with history and physical examination, imaging and laboratory findings and Primary/Differential Diagnosis.

**Course Title: LIVER** 

Course Number: BSDMS-2.5 Prerequisite: BSDMS-2.4 **Lecture Hours: 48.00 Laboratory Hours:** 48.00 Total Clock Hours: 96.00 Outside Clock Hours: 144.0 **Total Credit Hours: 4.5** 

#### **Subjects:**

**Gastrointestinal Organs** 

- Cross-Sectional Anatomy
- Anatomy of the Liver (Segmental, Inter-Intra Vessels)
- Physiology and Pathophysiology (Laboratory Findings)
- Normal and Abnormal Conditions
- Sonographic Anatomical Structures and Appearance
- Imaging Techniques and Clinical Indications

This course will introduce the student to ultrasound imaging of the abdominal gastrointestinal organs. It includes a comprehensive anatomical review of the Liver, the cross-sectional anatomy of these structures, and their appearance. This course will give the student a complete understanding of the pathological processes that may affect the Liver. Classroom instruction will be coordinated with practical activities. Graduates will be able to recognize theoretical findings in performing invasive (Liver biopsy), interventional, and therapeutic procedures, appropriate scanning protocol, techniques, and measurements in correlation with history and physical examination. Also, graduates will be able to identify imaging, laboratory, and Differential diagnosis.

Course Title: GALLBLADDER, BILIARY TREE

Course Number: BSDMS-2.6 Prerequisite: BSDMS-2.5 **Lecture Hours: 40.00 Laboratory Hours:** 40.00 **Total Clock Hours: 80.00** Outside Clock Hours: 120.0

**Total Credit Hours: 3.5** 

## **Subjects:**

- Anatomical Structures, Physiology, Pathology
- Specific Diseases of the Gallbladder
- Specific Diseases of the Biliary System
- Normal and Abnormal Conditions
- Sonographic Anatomical Structures and Appearance
- Imaging Techniques and Clinical Indications

### Report Writing

This class introduces normal anatomy, anatomic variants, physiology and pathologic conditions, and ultrasound evaluation of the Gallbladder. This course will give the student a complete understanding of the pathological processes that may affect the Gallbladder. The cross-sectional anatomy of this structure and its appearance on the sonogram will also be discussed. Instruction will be coordinated with practical activities. Graduates will be able to recognize findings in performing appropriate scanning protocol, techniques, and measurements in correlation with history and physical examination.

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Course Title: PANCREAS
Course Number: BSDMS-2.7
Prerequisite: BSDMS-2.6
Lecture Hours: 40.00
Laboratory Hours: 40.00
Total Clock Hours: 120.0
Total Credit Hours: 3.5

#### **Subjects:**

- Anatomy of the Pancreas
- Cross-Sectional Relationship of the Pancreas
- Physiology and Pathophysiology
- Clinical and laboratory findings
- Specific Disease Processes of The Pancreas.
- Sonographic Anatomical Structures and Appearance
- Imaging Techniques and Clinical Indications

This course will prepare students to acquire knowledge of the location, anatomy, physiology, and pathology of the Pancreas. This course studies basic structures viewed in sectional anatomy. This course will give the student a comprehensive understanding of the pathological processes that may affect these organs. This course will prepare the student to recognize the pathological processes of the endocrine system, imaging and laboratory findings, and Primary/Differential Diagnosis. Graduates will be able to recognize and identify the normal and abnormal sonographic appearances and patterns of degenerative, infectious, inflammatory, and neoplastic pathologies. Also, the students will apply the appropriate scanning protocol, techniques, and measurements in correlation with history and physical examination.

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Course Title: SPLEEN

Course Number: BSDMS-2.8 Prerequisite: BSDMS-2.7 Lecture Hours: 32.00 Laboratory Hours: 32.00 Total Clock Hours: 64.00 Outside Clock Hours: 96.0 **Total Credit Hours: 3.5** 

## Subjects:

- Anatomy of the Spleen
- Cross-Sectional Relationship of the Spleen
- Physiology and Pathophysiology
- Clinical and laboratory findings
- Specific Disease Processes of The Spleen.
- Sonographic Anatomical Structures and Appearance
- Imaging Techniques and Clinical Indications
- Report Writing

This course studies structures viewed in sectional anatomy and will prepare students to acquire the knowledge of the location, anatomy, physiology, and pathology of the Spleen. This course will give the student a comprehensive understanding of the pathological processes that may affect these organs. Graduates will be able to recognize and identify the normal sonographic appearance, variants, and findings in performing invasive, interventional, and therapeutic procedures, including lymph node biopsy. The course teaches and demonstrates knowledge of the sonographic appearance patterns of pathologies in Inflammatory, traumatic, infectious, and other specific pathologies.

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Course Title: URINARY TRACT, ADRENAL GLANDS

Course Number: BSDMS-2.9 Prerequisite: BSDMS-2.8 Lecture Hours: 48.00 Laboratory Hours: 48.00 Total In-Class Hours: 96.00 Outside Clock Hours: 144.0 Total Credit Hours: 4.5

#### **Subjects:**

- Anatomy of the Spleen
- Cross-Sectional Relationship of the Spleen
- Physiology and Pathophysiology
- Clinical and laboratory findings
- Specific Disease Processes of The Spleen.
- Sonographic Anatomical Structures and Appearance
- Imaging Techniques and Clinical Indications
- Report Writing

This course will provide the student with theoretical and practical knowledge of the urinary tract, including anatomy, normal anatomic variants, physiology, and pathologic conditions of the Kidney(s), Adrenal Glands, and Urinary Bladder. This course includes a discussion of the various exam protocols for ultrasound evaluation of the urinary organs. Classroom instruction will be coordinated with practical activities. Graduates will be able to recognize and identify the normal sonographic appearance, variants, and findings in performing appropriate imaging and apply

the appropriate scanning protocol, techniques, and measurements in correlation with the clinical information (history and physical examination)/laboratory findings, Primary or Differential diagnosis).

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Course Title: MALE GENITAL STRUCTURES

Course Number: BSDMS-2.10
Prerequisite: BSDMS-2.9
Lecture Hours: 36.00
Laboratory Hours: 36.00
Total Clock Hours: 72.00
Outside Clock Hours: 108.0
Total Credit Hours: 3.5

### Subjects:

Anatomy, Physiology, Pathology of the MGS

Cross-Sectional Relationships

Clinical and Laboratory Findings

Specific Disease Processes of The MGS

Sonographic Anatomical Structures and Appearance

Imaging Techniques and Clinical Indications

Report Writing

This course will provide the student with a theoretical and practical knowledge of the genital and superficial organs, including anatomy, variants, physiology, and pathologic conditions of the male genital organs (Scrotum, Prostate). This course includes a discussion of the various exam protocols for ultrasound evaluation of the genitourinary organs. Students will be able to recognize and identify the normal sonographic appearance of the Scrotal sac, including testes, epididymis, spermatic cord, prostate, and seminal vesicles; graduates will apply the appropriate scanning protocol, techniques, and measurements in correlation with the patient history, laboratory, and diagnosis information. The participants will identify sonographic appearance patterns of the congenital, inflammatory, neoplastic pathologies and imaging of the Male Genital Structures.

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Course Title: SPINAL CORD AND MUSCULOSKELETAL STRUCTURES

Course Number: BSDMS-2.11

Prerequisite: NONE
Lecture Hours: 32.00
Laboratory Hours: 32.00
Total Clock Hours: 64.00
Outside Clock Hours: 96.0
Total Credit Hours: 3.0

## Subjects:

Location, Anatomy, Physiology

• Structure(s) Evaluation of musculoskeletal system

Probe Options for Scanning Musculoskeletal System

Medical Terms use Musculoskeletal System

- List the suggested patient position
- Sonographic Appearance and Name the survey steps
- Order and exact location to take sonographic images
- Report Writing

This course will provide the student with theoretical and practical knowledge of the Spinal cord and Musculoskeletal system and the terms used to describe it. This course teaches to evaluate the structures in the musculoskeletal system Anatomy, Physiology, Pathology, and Sonographic Appearance. The course consists of the Subscapularis Muscle and Tendon (aid in internal rotation of the shoulder), Supraspinatus Muscle and Tendon (aid abduction of the shoulder), Infraspinatus Muscle and Tendon (aid external rotation of the shoulder), Teres Minor Muscle and Tendon. Classroom instruction will be coordinated with laboratory activities.

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Course Title: NECK AND SURROUND STRUCTURES

Course Number: BSDMS-2.12 Prerequisite: BSDMS-2.11 Lecture Hours: 32.00 Laboratory Hours: 32.00 Total Clock Hours: 64.00 Outside Clock Hours: 96.0 Total Credit Hours: 3.0

### Subjects:

- Location, Anatomy, Physiology, Pathology
- Structure(s) Evaluation of musculoskeletal system
- Cross-Sectional Relationship
- Surround Structures; Thyroid, Parathyroid
- Clinical and Laboratory Findings
- Imaging Techniques and Clinical Indications
- Sonographic Appearance of the Neck
- Sonographic Appearance of the Thyroid, Parathyroid
- Report Writing

This course will provide the student with theoretical and practical knowledge of the Neck and Surround Structures, including anatomy, normal anatomic variants, physiology, and pathologic conditions. The course includes a discussion of the various exam protocols of ultrasound evaluation of the neck and teaches normal anatomy, anatomic variants, normal physiology, and pathological conditions of the Thyroid and Parathyroid. The course focuses on developing the student's ability to scan the neck accurately and surround structures, including thyroid and parathyroid glands.

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Course Title: ANTERIOR ABDOMINAL WALL TISSUES AND GASTROINTESTINAL TRACT

Course Number: BSDMS-2.13\*
Prerequisite: BSDMS-2.12
Lecture Hours: 32.00

Laboratory Hours: 32.00
Total Clock Hours: 64.00
Outside Clock Hours: 96.0
Total Credit Hours: 3.0

### Subjects:

- Anatomy, Physiology, and Pathology
- Cross-Sectional Relationships
- Clinical Indications
- Sonographic Anatomical Structures and Appearances.
- Clinical and Laboratory Findings
- Imaging Techniques and Clinical Indications
- Anatomy, Physiology, Pathology of the gastrointestinal tract includes Appendix

This course will introduce the student to ultrasound imaging of the abdominal wall and tissues. The Course provides students with an understanding of the peritoneal cavity and potential spaces, the structure of the anterior abdominal wall tissues, and the Gastrointestinal Tract. Also, this course will give the student a comprehensive understanding of the pathological processes that may affect the anterior abdominal wall (Hernias, Neoplasms, and others). The cross-sectional anatomy and appearance of these structures on the sonogram will also be discussed. Classroom instruction will be coordinated with practical activities.

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Course Title: NON-CARDIAC CHEST, PLEURAL CAVITY

Course Number: BSDMS-2.14\*
Prerequisite: BSDMS-2.13
Lecture Hours: 32.00
Laboratory Hours: 32.00
Total Clock Hours: 64.00
Outside Clock Hours: 3.0

## Subjects:

- Anatomy, Physiology, and Pathology of the Pleural Cavity
- Cross-Sectional Relationship of the Pleural Cavity
- Sonographic Anatomical Structures and Appearances.
- Clinical and Laboratory Findings
- Imaging Techniques and Clinical Indications
- Report Writing

This course will introduce the student to ultrasound imaging of the non-cardiac chest, pleural cavity, and gastrointestinal organs. The Course provides students with an understanding of the cross-sectional anatomy of these structures and their appearance on the sonogram. The comprehensive anatomical evaluation includes the Appendix. This course will give the student a complete understanding of the pathological processes that may affect the Chest, Pleural Cavity, and Gastrointestinal organs. Classroom instruction will be coordinated with certain practical activities. Lab activities are designed to develop the student's scanning skills. Graduates will be able to

recognize and identify the normal sonographic appearance, variants, and findings in performing invasive, interventional, and therapeutic procedures.

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Course Title: GYNECOLOGICAL SONOGRAPHY

Course Number: BSDMS-2.15

Prerequisite: NONE
Lecture Hours: 48.00
Laboratory Hours: 48.00
Total In-Class Hours: 96.00
Outside Clock Hours: 144.0
Total Credit Hours: 4.5

#### Subjects:

- Anatomy and Physiology of the Female Pelvis Uterus, Vagina, Ovaries, Adnexa
- Pelvic musculature, Peritoneal spaces, Pelvic vasculature
- Pathology of the Female Pelvis
- Clinical Findings Associated with each Abnormality
- Cross-Sectional Relationship Sonographic Appearances
- Imaging Techniques Clinical Indications
- Report Writing

The course teaches and demonstrates knowledge of the normal anatomy, anatomic variants, normal physiology and pathological conditions of the female pelvis. This course will prepare the students to perform sonograms of the female pelvis. It includes a comprehensive anatomical review of the female reproductive organs. This course is designed to provide students with an understanding of the potential complicating conditions of the gravid female pelvis, including uterine and ovarian location, size, and vascular changes.

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Course Title: OBSTETRICAL SONOGRAPHY

Course Number: BSDMS-2.16
Prerequisite: BSDMS-2.15
Lecture Hours: 48.00
Laboratory Hours: 48.00
Total Clock Hours: 96.00
Outside Clock Hours: 144.0
Total Credit Hours: 4.5

**Subjects:** 

- Normal Trimesters, Placenta, Amniotic Fluid
- Fetal Anatomy, Physiology, and Fetal Circulation
- Clinical and Laboratory Findings
- Pertinent assessment and measurement of fetal structures
- Sonographic Anatomical Structures and Appearance
- Imaging Techniques and Clinical Indications

- Biometric Measurements
- Report Writing

The course teaches and demonstrates knowledge of the normal trimesters and anatomic variants, including but not limited to the Placenta, Amniotic Fluid, and Fetal Circulation. It includes a comprehensive anatomical review of the clinical indications. This course will give the student a complete understanding of pathological processes. The students learn to identify the various physiological indications of well-being or distress during appropriate stages of pregnancy, including cardiovascular, gastrointestinal, skeletal, genital, urinary, and other biophysical profiles. The course demonstrates knowledge of Biometrical measurements and appropriate procedures (Amniocentesis, umbilical cord sampling/transfusion).

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Course Title: BREAST SONOGRAPHY

Course Number: BSDMS-2.17

Prerequisite: NONE
Lecture Hours: 32.00
Laboratory Hours: 48.00
Total Clock Hours: 80.00
Outside Clock Hours: 112.0
Total Credit Hours: 3.0

#### Subjects:

- Anatomy, Physiology, and Pathology of the Breast
- Cross-Sectional Relationship of the Breast
- Clinical and Laboratory Findings
- Sonographic Anatomical Structures and Appearance
- Imaging Techniques and Clinical Indications
- Report Writing

This course will provide the student with theoretical and practical knowledge of the Breast. This course includes a discussion of the various exam protocols of ultrasound evaluation and teaches normal anatomy, physiology, and pathological conditions of the Organ. Graduates will be able to apply the appropriate scanning protocol, techniques, and measurements in correlation with the following clinical information: a) History and physical examination, b) Other imaging and laboratory findings, and c) Primary/Differential Diagnosis. The course focuses on developing the student's ability to scan accurately. Graduates will be able to recognize and identify normal and abnormal sonographic appearances.

Course Title: CEREBROVASCULAR AND UPPER EXTREMITY VASCULAR SONOGRAPHY

Course Number: BSDMS-3.1

Prerequisite: NONE
Lecture Hours: 48.00
Laboratory Hours: 48.00
Total In-Class Hours: 96.00
Outside Clock Hours: 144.0

#### **Total Credit Hours: 4.5**

#### **Subjects:**

- Normal, abnormal Structures.Cross-Sectional Anatomy
- Cerebellum, Cerebrum Brain Stem
- Clinical Indications of the Sonographic Appearance
- Normal and Abnormal Conditions
- Imaging Techniques, including Doppler Flow Pattern
- Report Writing

The course familiarizes the students with an understanding of transcranial cerebrovascular Systems. This course will prepare the student to recognize the pathological processes of the cerebrovascular vascular system. The emphasis is placed on recognizing and identifying Cervical/Neck scanning techniques. The student learns to identify and perform extracranial carotid and vertebral artery exams using duplex imaging, Duplex PW Doppler, and Color Doppler with spectral analysis. Students learn to perform calculation measurements, including ICA/CCA, Peak systolic/End Diastolic Velocities, Middle Cerebral, Anterior Cerebral, Posterior Cerebral, and Vertebral Basilar Arteries. Also, emphasis is placed on recognizing and identifying the vascular systems of the upper extremities. It includes a brief anatomical review of the systemic arteries and systemic veins.

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Course Title: LOWER EXTREMITY VASCULAR SONOGRAPHY

Course Number: BSDMS-3.2 Prerequisite: BSDMS-3.1 Lecture Hours: 32.00 Laboratory Hours: 48.00 Total Clock Hours: 80.00 Outside Clock Hours: 112.0 Total Credit Hours: 3.5

## Subjects:

- Cross-Sectional Relationship of the Lower extremity
- Physiology and Pathophysiology
- Clinical and laboratory findings
- Specific Disease Processes of the Lower extremity
- Sonographic Anatomical Structures and Appearance
- Imaging Techniques and Clinical Indications
- Report Writing

This course is designed for students to gain knowledge in ultrasound imaging of the lower extremity. It includes a brief anatomical review of the systemic arteries and systemic veins. Students learn to perform Segmental Pressure, Segmental Plethysmography, and Duplex scanning of native arteries and veins of the lower extremities, including but not limited to a false aneurysm and arteriovenous fistula identification. This course will prepare the student to recognize the pathological processes of the lower vascular system.

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Course Title: CARDIAC FUNDAMENTALS AND PRINCIPLES OF CARDIAC PHARMACOLOGY

Course Number: BSDMS-4.1

Prerequisite: NONE
Lecture Hours: 24.00
Laboratory Hours: 24.00
Total Clock Hours: 48.00
Outside Clock Hours: 72.0
Total Credit Hours: 2.0

#### **Subjects:**

- Medical Cardiac Terminology
- Cardiac Anatomy and Physiology
- Echocardiology and Imaging Techniques
- Principles of Cardiac pharmacology
- Cardiac Specific Drugs
- Drugs used for Cardiac Emergency
- Report Writing

The purpose of this course is to explore in detail the construction and dynamics of the cardiovascular system. Topics include cardiac medical terminology, metric conversions required in cardiac therapy, cardiopulmonary anatomical and physiological considerations, cardiac pumping action, and Echocardiology. A student learns about systemic and pulmonary circulations, basic principles of cardiac pharmacology, and specific drugs. Classroom instruction will be coordinated with certain laboratory activities.

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Course Title: CARDIAC PATHOLOGICAL MECHANISM AND NON-INVASIVE DIAGNOSTIC TESTS

Course Number: BSDMS-4.2 Prerequisite: BSDMS-4.1 Lecture Hours: 24.00 Laboratory Hours: 24.00 Total Clock Hours: 48.00 Outside Clock Hours: 72.0

**Total Credit Hours: 2.0** 

#### **Subjects:**

- Structural Anatomy
- Sonographic Cross-Sectional Anatomy
- Pathology / Pathophysiology
- Clinical Indications and Therapeutic Measures
- Abnormal Conditions and Congenital Diseases
- Imaging Techniques, Doppler Flow Pattern
- Test Procedures and Data Correlation

The course teaches and demonstrates knowledge of cardiac structural anatomy. The cross-sectional anatomy and appearance of these structures on the sonogram will also be discussed. This course will prepare the student to recognize pathological processes and therapeutic measures. The student learns to identify and perform exams using duplex imaging, Duplex PW Doppler, and Color Doppler with spectral analysis. The class teaches the student the basic concept of sonographic appearance, patient position during sonographic examinations, and interpretation of sonographic characteristics.

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Course Title: HEMODYNAMICS AND PRACTICAL APPLICATION

Course Number: BSDMS-4.3
Prerequisite: BSDMS-4.2
Lecture Hours: 24.00
Laboratory Hours: 48.00
Total Clock Hours: 72.0
Total Credit Hours: 2.0

#### **Subjects:**

- Principles of Flow
- Measurements and Normal Values
- Physical Considerations
- M-mode and 2D Echocardiography
- Assessment Techniques (Objective, Subjective)
- Imaging Techniques, Doppler Flow Pattern
- Test Procedures, Data Correlation
- Report Writing

The purpose of this course is to explore in detail the construction and dynamics of the cardiovascular system. The student learns to identify and perform Cardiac Atrial and Ventricular Hemodynamics using duplex imaging, Duplex PW Doppler, and Color Doppler with spectral analysis. Students learn to perform M-mode and 2 Dimensional Echocardiography. Emphasis is placed on recognizing and identifying test procedure requirements and data correlation. The cross-sectional anatomy and appearance of these structures on the sonogram will also be discussed.

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Course Title: DISEASE STATE IDENTIFICATION

Course Number: BSDMS-4.4
Prerequisite: BSDMS-4.3
Lecture Hours: 24.00
Laboratory Hours: 24.00
Total Clock Hours: 48.00
Outside Clock Hours: 72.0
Total Credit Hours: 2.0

Subjects:

- Anatomy of the Spleen
- Cross-Sectional Relationship of the Spleen
- Physiology and Pathophysiology
- Clinical and laboratory findings
- Specific Disease Processes of The Spleen
- Sonographic Anatomical Structures and Appearance
- Imaging Techniques and Clinical Indications
- Report Writing

This course will prepare the student to recognize the pathological processes of the cardiovascular system. The following topics will be discussed: Ischemic Heart and Coronary Artery Diseases, Myocardial, and Pericardial Diseases, Infective Endocarditis and Rheumatic Heart Diseases, Acquired Valvular Heart disease, Heart failure, Thrombi and Aneurysms, Pulmonary Heart Disease, Murmurs, and congenital abnormalities, and Prosthetic Valves. A thorough understanding of normal cardiovascular anatomy and physiology is mandatory to comprehend these advanced topics.

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Course Title: CLINICAL EXTERNSHIP Course Number: BSDMS-5.1 (a), (b), (c)

Prerequisite: BSDMS-1.1-4.4 Clinical Clock Hours: 720.00 Total Credit Hours: 16.0

Distance Prerequisite: BSDMS 1.1-4.4

Clinical Clock Hours: 720.00 (360 Residential)

**Total Credit Hours: 16.0** 

Bridge Prerequisite: BSDMS 1.7-1.9, BSDMS 2.11-2.14

Clinical Clock Hours: 240.00
Total Credit Hours: 5.0

## Subjects:

- Hands-on Training
- Manual Analyses
- Automated Analyses,
- Monitoring and Control Procedures
- Test Procedures, Data Correlation
- Evaluation and Reporting

The clinical part of the program provides students with actual hands-on experience providing diagnostic care to patients of all ages and stages of disease in doctor/imaging clinics affiliated with the American Medical Sciences Center. This series of courses allows students to observe and perform the role of the laboratory professional in the

clinical setting. There are four different rotations each student must complete. They are in Echocardiographic, Vascular, Abdominal, and Gynecological/Obstetrical Studies.

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## ASSOCIATE OF APPLIED SCIENCES DEGREE PROGRAMS OFFERED

# Associate of Applied Sciences (AAS) in the DMS Program

(D.O.T. CODE 078.364-010, CIP CODE 51-09-10)

- 2,290.00 Clock Hours
- 104.00 Weeks
- 101.00 Semester Credit Hours
- 20.00 In-Class Clock Hours per Week
- 4.00 In-Class Clock Hours per Day

# **Program Objectives**

The objective is to provide the didactic and clinical skills needed to enable the student to perform the Sonographic examination requirements published or supported by nationally recognized professional organizations.

AMSC graduates may apply for certification-granting organizations: the American Registry of Radiologic Technologists (ARRT), the American Registry for Diagnostic Medical Sonography (ARDMS), and Cardiovascular Credentialing International (CCI). Candidates should consult the ARRT website (<a href="www.ARRT.ORG">www.ARRT.ORG</a>) for a downloadable copy of their handbook and application. Program outcomes for an Associate of Applied Sciences in Diagnostic Medical Sonography include:

- Competently performing as an entry-level sonographer in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains for Diagnostic Medical Sonography.
- Demonstrate ethical and professional behavior through sonographic practice congruent with standards of
  practice. Interact effectively with individuals in a manner that reflects caring and acknowledges the holistic
  nature of individuals.
- Demonstrate competence in sonographic examinations, including history taking, machine adjustment and operation, and acquisition of ultrasound imaging and other sonographic performance.

# **Program Duties**

Graduates will be an integral part of the diagnostic medical imaging team, providing patient services efficiently and in a professional, sensitive manner. Duties may include ultrasound scans of the abdominopelvic, superficial structural, gynecological, and echo-vascular parts.

## **Graduation Requirements**

The college attendance policy is a minimum of 90% attendance during study, which is calculated monthly. Students must perform the clinical portion of their training in an approved medical facility and receive a satisfactory

evaluation. Graduates must complete all program courses with a minimum grade of 70% and all other curriculum requirements for their course of study.

# Credit/Clock Hour Conversions

For DMS programs of study, the conversion from clock hours to credit hours is as follows:

- 15 Lecture Clock Hours =1.0 Semester Credit Hour | 1 Lecture Clock Hour=0.066 Semester Credit Hour
- 30 Laboratory Clock Hours=1.0 Semester Credit Hour | 1 Laboratory Clock Hour=0.033 Semester Credit Hour
- 45 Externship Clock Hours=1.0 Semester Credit Hour | 1 Externship Clock Hour=0.022 Semester Credit Hour

# Outside Hours Learning

The credit hours include outside hours regardless of recognition. Semester Credit Hours are the 7.5 outside hours for each credit hour of lecture/laboratory. Credits for outside hours are awarded based on homework, reading, and additional review materials to be completed weekly. Outside credit hours are calculated based on Accrediting Bureau of Health Education Schools (ABHES) guidelines.

# **Evaluation Methodology**

Component	Formula
Attendance	10%
Class Participation and Professionalism	10%
Quizzes	10%
Home/Outside work	10%
Course Final Tests	60%
Total	100%

# Sample of Grading System

Example Student Transcript							
Courses	Grade	Credits	Grade Point	G.P.A.			
Spleen	А	3.0	12	4.0			
Ultrasound Physics II	В	3.0	9.0	3.0			

Liver	С	4.5	9.0	2.0
Disease State Identification	F	2.0	00.00	00.00

# Detail-Ranging Profile Grid

Module	Module Name	Course Title	Course Number	Lect. Clock Hours	Lab Clock Hours	Clinic Clock Hours	Total In- Class Hours	Outsid e Clock Hours	Total Credi t Hours
I	GENERAL EDUCATION PREREQUISITE COURSES	Medical Terminology/Compositio n	DMS-1.1	48.00	00.00	00.00	48.00	24.00	3.0
		Medical Ethics, Medical Law, and Communications Skills, Patient Care	DMS-1.2	48.00	00.00	00.00	48.00	24.00	3.0
		Algebra, Basic Mathematics, General Physics	DMS-1.3	48.00	00.00	00.00	48.00	24.00	3.0
		General Anatomy, Physiology, and Pathology	DMS-1.4	90.00	00.00	00.00	90.00	45.00	6.0
П	ABDOMINAL ULTRASOUND	Ultrasound Physics-I	DMS-2.1	56.00	00.00	00.00	56.00	28.00	3.5
		Abdominal Vasculature Peritoneal Cavity	DMS-2.2	48.00	48.00	00.00	96.00	36.00	4.5
		Liver	DMS-2.3	48.00	48.00	00.00	96.00	36.00	4.5
		Ultrasound Physics-II	DMS-2.4	48.00	00.00	00.00	48.00	24.00	3.0
		Gallbladder, Biliary Tree	DMS-2.5	40.00	40.00	00.00	80.00	30.00	3.5
		Pancreas	DMS-2.6	40.00	40.00	00.00	40.00	30.00	3.5

		Spleen	DMS-2.7	32.00	32.00	00.00	64.00	24.00	3.0
	UROGENITAL ULTRASOUND	Ultrasound Physics-III	DMS-3.1	56.00	00.00	00.00	56.00	28.00	3.5
		Urinary Tract	DMS-3.2	48.00	48.00	00.00	96.00	36.00	4.5
		Male Genital and Superficial Structure	DMS-3.3	36.00	36.00	00.00	72.00	28.00	3.5
IV	OBSTETRICAL AND GYNECOLOGICAL	Ultrasound Physics-IV	DMS-4.1	56.00	00.00	00.00	56.00	28.00	3.5
	ULTRASOUND	Gynecology	DMS-4.2	48.00	48.00	00.00	96.00	36.00	4.5
		Obstetrics	DMS-4.3	48.00	48.00	00.00	96.00	36.00	4.5
		Breast	DMS-4.4	48.00	48.00	00.00	96.00	36.00	4.5
V	VASCULAR TECHNOLOGY ULTRASOUND	Ultrasound Physics-V	DMS-5.1	48.00	00.00	00.00	48.00	24.00	3.0
	CETTAGOGNE	Cerebral and Upper extremity Vessels	DMS-5.2	32.00	48.00	00.00	80.00	28.00	3.5
		Abdominal Vessels	DMS-5.3	16.00	24.00	00.00	40.00	14.00	1.5
		Lower Extremity Vessels	DMS-5.4	32.00	48.00	00.00	80.00	28.00	3.5
Vl	CARDIAC ULTRASOUND	Cardiac Fundamentals, Principles of Cardiac Pharmacology	DMS-6.1	24.00	36.00	00.00	60.00	21.00	2.5
		Pathological Mechanism and Non-Invasive Diagnostic Tests	DMS-6.2	24.00	36.00	00.00	60.00	21.00	2.5
		Hemodynamics and Practical Application	DMS-6.3	24.00	36.00	00.00	60.00	21.00	2.5
		Disease State Identification	DMS-6.4	24.00	36.00	00.00	60.00	21.00	2.5
VII	EXTERNSHIP	Externships	DMS-7.1	00.00	00.00	480.00	00.00	00.00	10.5
		Total		1110.00	700.00	480.00	2290.00	731.00	101.00

# Program Performance Fact Sheet

We encourage prospective students to review the AMSC College Catalog and the Program Performance Fact Sheet before signing an enrollment agreement.

#### **Graduation Rates (BPPE)**

Calendar Year	Number of Students Who Began Program	Students Available for Graduation	Number of on-Time Graduates	On-Time Completion Rate
2021	32	32	22	69%
2022	29	29	21	72%

## Placement Rates (BPPE)

Calendar Year	Number of Students Who Began Program	Number of Graduates	Graduates Available for Employment	Graduates Employed in the Field	Placement Rate % Employed in the Field
2021	32	22	22	12	54%
2022	29	21	21	13	62%

## Program Agenda

## GENERAL EDUCATION PRE-REQUISITE COURSES (NON-CORE COURSES)

General Education pre-requisite courses within a Diagnostic Medical Sonography diploma program are intended to create a well-rounded individual with good general knowledge of several areas outside the specific major field of the graduate. At American Medical Sciences Center, the general education component is made up of the following courses:

- DMS-1.1 MEDICAL TERMINOLOGY, CAREER, AND PROFESSIONAL DEVELOPMENT
- DMS-1.2 MEDICAL ETHICS, MEDICAL LAW, COMMUNICATIONS SKILLS, SONOGRAPHY SAFETY, PATIENT CARE DMS-1.3 ALGEBRA. BASIC MATHEMATICS, PHYSICS
- DMS-1.4 GENERAL ANATOMY, PHYSIOLOGY, PATHOLOGY

## ABDOMINAL ULTRASOUND (CORE COURSES)

In this module, students will gain an understanding of the normal anatomy, anatomic variants, normal physiology, and pathological conditions of the organs of the abdominal-pelvic cavity. At American Medical Sciences Center, the General Ultrasound component is made up of the following courses:

- DMS-2.1 ULTRASOUND PHYSICS-I
- DMS-2.2 ABDOMINAL VASCULATURE PERITONEAL CAVITY DMS-2.3 LIVER DMS-2.4 ULTRASOUND PHYSICS-II
- DMS-2.5 GALLBLADDER, BILIARY TREE DMS-2.6 PANCREAS DMS-2.7 SPLEEN

### **UROGENITAL ULTRASOUND (CORE COURSES)**

This module will provide the student with a theoretical and practical knowledge of the genital and superficial organs, including anatomy, normal anatomic variants, physiology and pathologic conditions of the Reproductive organs

(Scrotum, Prostate), and anatomy, physiology, and pathological conditions of the superficial structures. Also, the module focuses on developing the student's ability to scan the Thyroid and Parathyroid glands accurately. Classroom instruction will be coordinated with laboratory activities.

- DMS-3.1 ULTRASOUND PHYSICS-III DMS-3.2 UROGENITAL TRACT
- DMS-3.3 MALE GENITAL AND SUPERFICIAL STRUCTURE

## **OBSTETRICAL AND GYNECOLOGICAL ULTRASOUND (CORE COURSES)**

In this module, students will gain an understanding of the normal anatomy, anatomic variants, normal physiology, and pathological conditions of the organs of the abdominal-pelvic cavity. In this module, students will gain an understanding of the normal breast structures, including clinical indications, pathological conditions of the organs, imaging techniques, and report writing. At American Medical Sciences Center, the Obstetrical and Gynecological Ultrasound component is made up of the following courses:

- DMS-4.1 ULTRASOUND PHYSICS-IV DMS-4.2 GYNECOLOGY
- DMS-4.3 OBSTETRICS DMS-4.4 BREAST

#### **VASCULAR TECHNOLOGY**

This module is designed for students to learn about ultrasound imaging of the upper and lower extremities. It includes a brief anatomical review of the systemic arteries and systemic veins. The students will be able to identify extra and intracranial cerebral/Vascular systems. The cross-sectional anatomy and appearance of these structures on the sonogram will also be discussed. Classroom instruction will be coordinated with practical activities.

- DMS-5.1 ULTRASOUND PHYSICS-V
- DMS-5.2 CEREBRAL AND UPPER EXTREMITY VESSELS DMS-
- 5.3 ABDOMINAL VESSELS
- DMS-5.4 LOWER EXTREMITY VESSELS

#### **CARDIAC ULTRASOUND**

This module aims to explore in detail the construction and dynamics of the cardiovascular system. Topics include anatomical and physiological considerations, cardiac pumping action and regulation, basic hemodynamics, and systemic and pulmonary circulation. Classroom instruction will be coordinated with certain lab activities.

- DMS-6.1 CARDIAC FUNDAMENTALS, PRINCIPLES OF CARDIAC PHARMACOLOGY DMS-6.2 PATHOLOGICAL
   MECHANISM AND NON-INVASIVE DIAGNOSTIC TESTS DMS-6.3 HEMODYNAMICS AND PRACTICAL APPLICATIONS
- DMS-6.4 DISEASE STATE IDENTIFICATION

#### CLINICAL

Students participate in a clinical externship where they will gain hands-on training. The program provides students with hands-on experience in diagnostic care to patients of all ages and stages of disease in doctor/imaging clinics.

DMS-7.1 EXTERNSHIPS

#### **COURSE DESCRIPTIONS**

Course Title: MEDICAL TERMINOLOGY, CAREER, AND PROFESSIONAL DEVELOPMENT

Course Number: DMS-1.1
Prerequisite: NONE
Lecture Hours: 48.00
Laboratory Hours: 00.00
Total In-Class Hours: 48.00
Outside Clock Hours: 24.00
Total Credit Hours: 3.0

#### **Subjects:**

- Structure of medical words (roots, prefixes, suffixes)
- Medical abbreviations, signs, symbols
- Sonography specific terminology
- Reading, writing, spelling, and pronunciation
- Careers in sonography
- Professional development.

This course is designed to provide a comprehensive foundation for basic medical terminology to be used in healthcare careers. It Includes Greek and Latin word roots, prefixes, suffixes, combining forms, special endings, plural forms, abbreviations, and symbols. The course introduces concepts and applications of reading, writing, and interpreting common medical formats. The course demonstrates knowledge of the careers in sonography and professional development. Students are introduced to professional organizations, certifications and credentialing, continuing education, memberships, essentials for employment, interviewing, and employment search.

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Course Title: MEDICAL ETHICS, MEDICAL LAW, COMMUNICATIONS SKILLS, SONOGRAPHIC SAFETY, PATIENT CARE

Prerequisite: NONE
Lecture Hours: 48.00
Laboratory Hours: 00.00
Total In-Class Hours: 48.00
Outside Clock Hours: 24.00
Total Credit Hours: 3.0

Course Number: DMS-1.2

## Subjects:

- Ethical decision-making
- Legal principles
- Patient bill of right
- Patient communications
- Staff communications, telecommunications
- Writing technical reports
- Legal issues of patient confidentiality

This course familiarizes the students with understanding the specific laws and regulations that impact the healthcare environment, patient bill of rights, fundamental medical ethical decision-making, patient confidentiality pertinent legal principles. Emphasis is placed on the basic elements of workplace effectiveness. The students

demonstrate knowledge and understanding of ergonomics, physical stress factors, and repetitive stress injuries. This sequence will provide the student with a Sonographer – Patient interaction, Patient safety practices, Infection control, universal precautions, emotional and psychological support principles, patient transfer, and transportation.

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Course Title: ALGEBRA, BASIC MATHEMATICS, PHYSICS

Course Number: DMS-1.3
Prerequisite: NONE
Lecture Hours: 48.00
Laboratory Hours: 00.00
Total In-Class Hours: 48.00
Outside Clock Hours: 24.00
Total Credit Hours: 3.0

## Subjects:

Basic Algebra, calculations, metric conversions

- Linear equations and inequalities
- Principles of motion work and heat
- Principles of acoustic and light waves
- Principles of Ultrasound Physics
- Sound production and propagation
- Transducer architecture and selection
- Bio-effects, Artifacts, and safety

This course is designed to teach students the general principles and theories underlying algebra, mathematics, and fundamental physics. This course builds on the principles of linear equations, graphing, functions, rational expressions, radicals, and systems of equations. Emphasis is placed on critical thinking and problem-solving skills. This course is designed to teach students the general principles and theories underlying Ultrasound Physics.

Course Title: GENERAL ANATOMY, PHYSIOLOGY, PATHOLOGY

Course Number: DMS-1.4
Prerequisite: NONE
Lecture Hours: 90.00
Laboratory Hours: 00.00
Total In-Class Hours: 90.00
Outside Clock Hours: 45.00
Total Credit Hours: 6.0

### Subjects:

- Cardiopulmonary/cardiovascular systems
- Central Nervous system
- Gastrointestinal system
- Musculoskeletal system
- Reproductive systems

- Urinary system
- Endocrine system
- Hematopoietic system
- Immune system

The students will be introduced to the fundamentals of chemistry and human anatomy, physiology, and pathophysiology. The course includes the ability to recognize and identify all major body systems and understand the primary physiological reactions of the human body.

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Course Title: ULTRASOUND PHYSICS-I

Course Number: DMS-2.1
Prerequisite: DMS-1.3
Lecture Hours: 56.00
Laboratory Hours: 00.00
Total Clock Hours: 56.00
Outside Clock Hours: 28.00
Total Credit Hours: 3.5

## Subjects:

- Continuous Wave
- Pulse Wave
- Sound Attenuation
- Sound Intensity
- Impedances and Angles

This course will provide the student with a theoretical understanding of ultrasound physics principles as it applies to diagnostic medical imaging. The course material will focus on the physical principles of sound energy, sound production, transmission, and reflection. This course provides an introduction and overview of ultrasound physics principles as they apply to diagnostic medical imaging. Emphasis will be placed on sound waves' physical principles and categorization.

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Course Title: ABDOMINAL VASCULATURE, PERITONEAL CAVITY

Course Number: DMS-2.2 Prerequisite: DMS-1.4 Lecture Hours: 48.00 Laboratory Hours: 48.00 Total Clock Hours: 96.00 Outside Clock Hours: 36.00 Total Credit Hours: 4.5

## Subjects:

- Abdominal Cavities
- Abdominal Vascular System

- Cross-Sectional Anatomy
- Clinical Indications
- Normal and Abnormal Conditions
- Imaging Techniques
- Report Writing

This course will introduce the student to abdominal vascular system ultrasound imaging. It includes a brief anatomical review of the systemic arteries, systemic veins, and portal veins.

The course gives students an understanding of the peritoneal cavity and potential spaces in the pelvic-pelvic cavity where fluid collections and pathologies may be located. Also, this course will provide the student with a comprehensive understanding of the pathological processes that may affect the abdominal vascular organs. The cross-sectional anatomy of these structures and their appearance on the sonogram will also be discussed. Classroom instruction will be coordinated with practical activities.

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**Course Title: LIVER** 

Course Number: DMS-2.3 Prerequisite: DMS-2.2 Lecture Hours: 48.00 Laboratory Hours: 48.00 Total Clock Hours: 96.00 Outside Clock Hours: 36.00 Total Credit Hours: 4.5

## Subjects:

- Gastrointestinal Organs
- Anatomy of the Liver
- Physiology and Pathophysiology
- The vascular system of the Liver
- Cross-Sectional Anatomy
- Clinical Indications
- Normal Conditions and Abnormal Conditions
- Abnormal Conditions Imaging Techniques
- Imaging Techniques Report Writing
- Report Writing

This course will introduce the student to ultrasound imaging of the abdominal gastrointestinal organs. It includes a comprehensive anatomical review of the Liver, the cross-sectional anatomy of these structures, and their appearance on the sonogram. Classroom instruction will be coordinated with practical activities. This course will give the student a complete understanding of the pathological processes that may affect the Liver.

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Course Title: ULTRASOUND PHYSICS-II

Course Number: DMS-2.4 Prerequisite: DMS-2.1

Lecture Hours: 48.00 Laboratory Hours: 00.00 Total Clock Hours: 48.00 Outside Clock Hours: 24.00 Total Credit Hours: 3.0

#### Subjects:

- Transducers Architectures,
- Matching Layer
- Piezo Effects
- Damping Materials
- Beam formers (Near and far zones)
- Type of transducers
- Set up ultrasound system
- Problems and Solution

The course material will focus on the physical principles of sound energy, transducer architecture, sound production, and beam structural design. This module teaches the student the developmental concept of sonographic appearance, architectures of modern technology scan heads, and potential artifacts. This course provides an introduction to and an overview of the principles of ultrasound transducers as it applies to diagnostic medical imaging. Emphasis will be placed on physical principles of construction, beam former, and transducer application.

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Course Title: GALLBLADDER AND BILIARY TREE

Course Number: DMS-2.5 Prerequisite: DMS-2.3 Lecture Hours: 40.00 Laboratory Hours: 40.00 Total Clock Hours: 80.00 Outside Clock Hours: 30.00

**Total Credit Hours: 3.5** 

### Subjects:

- Anatomy of the Gallbladder, Biliary Tree
- Physiology and Pathophysiology
- Cross-Sectional Anatomy
- Clinical Indications
- Normal and Abnormal Conditions
- Imaging Techniques
- Report Writing

This course introduces the normal anatomy, anatomic variants, physiology and pathologic conditions, and ultrasound evaluation of the Gallbladder. This course will give the student a complete understanding of the pathological processes that may affect the Gallbladder. The cross-sectional anatomy of this structure and its appearance on the sonogram will also be discussed. Instruction will be coordinated with practical activities.

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Course Title: PANCREAS
Course Number: DMS-2.6
Prerequisite: DMS-2.5
Lecture Hours: 40.00
Laboratory Hours: 40.00
Total Clock Hours: 80.00
Outside Clock Hours: 30.00
Total Credit Hours: 3.5

## Subjects:

Anatomy of the Pancreas

- Physiology and Pathophysiology
- Cross-Sectional Anatomy
- Clinical Indications
- Normal and Abnormal Conditions
- Imaging Techniques
- Report Writing

This course will prepare students to learn about the Pancreas' location, anatomy, physiology, and pathology. This course studies basic structures viewed in sectional anatomy. This course will give the student a comprehensive understanding of the pathological processes that may affect these organs. This module also provides the development of skills in scanning techniques. This course will prepare the student to recognize the pathological processes of the endocrine system.

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Course Title: SPLEEN
Course Number: DMS-2.7

Prerequisite: DMS-2.6 Lecture Hours: 32.00 Laboratory Hours: 32.00 Total Clock Hours: 64.00 Outside Clock Hours: 24.00 Total Credit Hours: 3.0

## Subjects:

- Anatomy of the Spleen
- Physiology and Pathophysiology
- Cross-Sectional Anatomy
- Clinical Indications
- Normal and Abnormal Conditions
- Imaging Techniques
- Report Writing

This course will prepare students to acquire knowledge of the location, anatomy, physiology, and pathology of the Spleen. This course studies basic structures viewed in sectional anatomy. This course will give the student a comprehensive understanding of the pathological processes that may affect these organs. This module also provides the development of skills in scanning techniques. This course will prepare the student to recognize the pathological processes of the hematopoietic system. This course will give the student a complete understanding of the pathological processes that may affect the Spleen.

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Course Title: ULTRASOUND PHYSICS-III

Course Number: DMS-3.1

Prerequisite: DMS-2.4

Lecture Hours: 56.00

Laboratory Hours: 00.00

Total Clock Hours: 56.00

Outside Clock Hours: 28.00

Total Credit Hours: 3.5

#### **Subjects:**

- System's Construction
- System's Vital Components
- Receiver Functions
- Pre and Post Processing
- Image Storage and Monitors
- Display Modes

This course familiarizes the students with an understanding of fundamental instrumentations, including but not limited to receiver functions, pre and post-processing, and imaging modes. This course is designed to develop the student's knobology, including physical principles of Overall gain, Time gain, Compensation, depth, Focusing, and 2-D grayscale controls. This course will provide the student with a theoretical and concrete knowledge of all components of an ultrasound machine.

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Course Title: URINARY TRACT
Course Number: DMS-3.2
Prerequisite: DMS-2.7
Lecture Hours: 48.00
Laboratory Hours: 48.00
Total Clock Hours: 96.00
Outside Clock Hours: 4.5

## Subjects:

- Organs Anatomy
- Physiology and Pathophysiology

- Cross-Sectional Anatomy
- Clinical Indications
- Normal and Abnormal Conditions
- Imaging Techniques
- Report Writing

This course will provide the student with theoretical and practical knowledge of the urinary tract, including anatomy, normal anatomic variants, physiology, and pathologic conditions of the Kidney(s), Adrenal Glands, and Urinary Bladder. This course includes a discussion of the various exam protocols for ultrasound evaluation of the urinary organs. Classroom instruction will be coordinated with practical activities.

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Course Title: MALE GENITAL AND SUPERFICIAL STRUCTURE

Course Number: DMS-3.3 Prerequisite: DMS-3.2 Lecture Hours: 36.0 Laboratory Hours: 36.00 Total Clock Hours: 72.00 Outside Clock Hours: 28.00 Total Credit Hours: 3.5

#### Subjects:

- Organs Anatomy
- Physiology and Pathophysiology
- Cross-Sectional Anatomy
- Clinical Indications
- Normal and Abnormal Conditions
- Imaging Techniques
- Report Writing

This course teaches normal anatomy, anatomic variants, normal physiology, and pathological conditions of superficial structures. The course focuses on developing the student's ability to accurately scan the Thyroid and Parathyroid glands. Classroom instruction will be coordinated with laboratory activities. This course will provide the student with a theoretical and practical knowledge of the genital and superficial organs, including anatomy, normal anatomic variants, physiology, and pathologic conditions of the Reproductive organs (Scrotum, Prostate).

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Course Title: ULTRASOUND PHYSICS-IV

Course Number: DMS-4.1
Prerequisite: DMS-3.1
Lecture Hours: 56.00
Laboratory Hours: 00.00
Total Clock Hours: 56.00
Outside Clock Hours: 28.00
Total Credit Hours: 3.5

#### Subjects:

- Doppler Effect
- Doppler Equations and Hemodynamics
- Circulatory System
- Critical Stenosis
- Energy, Pressure, Flow Resistance
- Spectral Instruments

In this course, the students learn the fundamentals of Doppler physics. This course teaches the student the developmental concept of Sonographic appearance, including spectral and color Doppler instruments. Classroom instruction will be coordinated with instrumental activities, including appropriate adjustments to M-mode, color flow, and spectral trace. This course provides an introduction and an overview of the principles of the Doppler shift as it applies to diagnostic medical imaging. Emphasis will be placed on the physical principles of artifacts and their categorization.

**Course Title:** GYNECOLOGY **Course Number:** DMS-4.2

Prerequisite: NONE
Lecture Hours: 48.00
Laboratory Hours: 48.00
Total Clock Hours: 96.00
Outside Clock Hours: 36.00
Total Credit Hours: 4.5

#### Subjects:

- Anatomy of the Female Pelvis
- Physiology and Pathology of the Female Pelvis
- Cross-Sectional Anatomy,
- Clinical Indications
- Normal and Abnormal Conditions
- Imaging Techniques, Doppler Flow Pattern
- Report Writing

The course teaches and demonstrates knowledge of the normal anatomy, anatomic variants, normal physiology, and pathological conditions of the female pelvis. This course will prepare the students to perform sonograms of the female pelvis. It includes a comprehensive anatomical review of the female reproductive organs. This course is designed to provide students with an understanding of the potential complicating conditions of the gravid female pelvis, including uterine and ovarian location, size, and vascular changes. Classroom instruction will be coordinated with practical activities.

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Course Title: OBSTETRICS
Course Number: DMS-4.3

Prerequisite: DMS-4.2 Lecture Hours: 48.00 Laboratory Hours: 48.00 Total Clock Hours: 96.00 Outside Clock Hours: 36.00 Total Credit Hours: 4.5

## Subjects:

- Normal Trimesters, Placenta, Amniotic Fluid,
- Fetal Anatomy
- Fetal Circulation
- Clinical Indications (Gestational Age, Well-Being)
- Complications-Maternal and fetal
- Fetal Abnormalities
- Imaging Techniques, Doppler Flow Pattern
- Report Writing

The course teaches and demonstrates knowledge of the normal trimesters and anatomic variants, including but not limited to the Placenta, Amniotic Fluid, and Fetal Circulation. It includes a comprehensive anatomical review of the clinical indications. This course will give the student a complete understanding of pathological processes. Vascular Changes, associated cysts of early pregnancy, fluid collections, and their appearance on the sonogram will also be discussed. The students learn to identify the physiological indications of well-being or distress during appropriate stages of pregnancy, including cardiovascular, gastrointestinal, skeletal, genital, urinary, and other biophysical profiles.

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Course Title: BREAST
Course Number: DMS-4.4
Prerequisite: DMS-4.3
Lecture Hours: 32.00
Laboratory Hours: 48.00
Total Clock Hours: 96.00
Outside Clock Hours: 36.00
Total Credit Hours: 3.5

#### **Subjects:**

- Structures and Cross-Sectional Anatomy
- Clinical Indications
- Normal and Abnormal Conditions
- Imaging Techniques,
- Doppler Flow Pattern
- Report Writing

This course will introduce the student to ultrasound imaging of the normal and abnormal anatomy and physiological indications of the Breast. The course teaches and demonstrates knowledge of normal structures, cross-sectional

anatomy, and their appearance on display. The students learn to identify the various physiological indications during the appropriate stages of pregnancy. Classroom instruction will be coordinated with laboratory activities.

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Course Title: ULTRASOUND PHYSICS V

Course Number: DMS-5.1
Prerequisite: DMS-4.1
Lecture Hours: 48.00
Laboratory Hours: 00.00
Total Clock Hours: 48.00
Outside Clock Hours: 24.00
Total Credit Hours: 3.0

## **Subjects:**

- Physical Principles of the Vascular System
- Plethysmography
- Ohm's Law
- Doppler Flow Pattern
- Artifacts
- Performance and Safety
- Statistical profile

This course will prepare the student to recognize the specific vascular physical principles, Plethysmography, Ohm's Law, methods of measuring electrical resistance, and advanced Hemodynamics. This course will provide the student with theoretical and practical knowledge of Artifacts, Performance, and Safety. Specific topics to be covered include a diagnostic statistical profile.

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Course Title: CEREBRAL AND UPPER EXTREMITY VESSELS

Course Number: DMS-5.2
Prerequisite: NONE
Lecture Hours: 48.00
Laboratory Hours: 48.00
Total Clock Hours: 80.00
Outside Clock Hours: 28.00
Total Credit Hours: 3.5

## Subjects:

- Structural Anatomy
- Cross-Sectional Anatomy
- Clinical Indications
- Normal and Abnormal Conditions
- Imaging Techniques,
- Doppler Flow Pattern
- Report Writing

This course familiarizes the students with an understanding of Transcranial Cerebrovascular Systems. This course will prepare the student to recognize the pathological processes of the cerebrovascular vascular system. Emphasis is placed on recognizing and identifying Cervical/Neck scanning techniques. The student learns to identify and perform extracranial carotid and vertebral artery exams using duplex imaging, Duplex PW Doppler, and Color Doppler with spectral analysis. Emphasis is placed on recognizing and identifying the vascular systems of the upper extremities. It includes a brief anatomical review of the systemic arteries and systemic veins.

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Course Title: ABDOMINAL VESSELS

Course Number: DMS-5.3
Prerequisite: DMS-5.2
Lecture Hours: 16.00
Laboratory Hours: 24.00
Total Clock Hours: 40.00
Outside Clock Hours: 14.00
Total Credit Hours: 1.5

#### **Subjects:**

- Structural Anatomy
- Cross-Sectional Anatomy
- Clinical Indications
- Normal and Abnormal Conditions
- Imaging Techniques, Doppler Flow Pattern
- Report Writing

This course will introduce the student to abdominal vascular system ultrasound imaging. It includes a brief anatomical review of the arteries, veins, and portal system. The cross-sectional anatomy and appearance of these structures on the sonogram will also be discussed. This course will prepare the student to recognize pathological processes. Students learn to perform duplex scanning of native arteries and veins of the abdominal vessels. Emphasis will be placed on visceral vessels using PW, CW, and Color Doppler instruments with spectral analysis.

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**Course Title: LOWER EXTREMITY VESSELS** 

Course Number: DMS-5.4
Prerequisite: DMS-5.3
Lecture Hours: 32.00
Laboratory Hours: 48.00
Total Clock Hours: 80.00
Outside Clock Hours: 28.00
Total Credit Hours: 3.5

## Subjects:

- Structural Anatomy
- Cross-Sectional Anatomy

- Clinical Indications
- Normal and Abnormal Conditions
- Imaging Techniques,
- Doppler Flow Pattern
- Report Writing

This course is designed for students to learn about ultrasound imaging of the lower extremity. It includes a brief anatomical review of the systemic arteries and systemic veins. Students learn to perform Segmental Pressure, Plethysmography, and Duplex scanning of native arteries and veins of the lower extremities, including but not limited to false aneurysm and arteriovenous fistula identification. This course will prepare the student to recognize the pathological processes of the lower vascular system.

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Course Title: CARDIAC FUNDAMENTALS, PRINCIPLES OF CARDIAC PHARMACOLOGY

Course Number: DMS-6.1
Prerequisite: NONE
Lecture Hours: 24.00
Laboratory Hours: 36.00
Total Clock Hours: 60.00
Outside Clock Hours: 21.00
Total Credit Hours: 2.5

## Subjects:

- Medical Terminology
- Cardiac Anatomy and Physiology
- Electro cardiology
- Principles of Cardiac Pharmacology
- ADME of Cardiac-Specific Drugs
- Drugs used for Cardiac Emergency
- Imaging Techniques

This course aims to explore in detail the construction and dynamics of the cardiovascular system. Topics include cardiac medical terminology, the metric conversions required in cardiac therapy, cardiopulmonary anatomical and physiological considerations, cardiac pumping action, and electrocardiography. Students learn its systemic and pulmonary circulations, basic principles of cardiac pharmacology, and specific drugs. Classroom instruction will be coordinated with certain laboratory activities.

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Course Title: PATHOLOGICAL MECHANISM AND NON-INVASIVE DIAGNOSTIC TESTS

Course Number: DMS-6.2 Prerequisite: DMS-6.1 Lecture Hours: 24.00 Laboratory Hours: 36.00 Total Clock Hours: 60.00 Outside Clock Hours: 21.00

**Total Credit Hours: 2.5** 

#### **Subjects:**

- Structural Anatomy
- Sonographic Cross-Sectional Anatomy
- Pathology/Pathophysiology
- Clinical Indications and Therapeutic Measures
- Abnormal Conditions and Congenital Diseases
- Imaging Techniques,
- Doppler Flow Pattern
- Test Procedures and Data Correlation

The course teaches and demonstrates knowledge of cardiac structural anatomy. The cross-sectional anatomy of these structures and their appearance on the sonogram will also be discussed. This course will prepare the student to recognize pathological processes and therapeutic measures. The student learns to identify and perform exams using duplex imaging, Duplex PW Doppler, and Color Doppler with spectral analysis. The class teaches the student the basic concept of Sonographic appearance, patient position during Sonographic examinations, and interpretation of Sonographic characteristics.

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Course Title: HEMODYNAMICS AND PRACTICAL APPLICATION

Course Number: DMS-6.3
Prerequisite: DMS-6.2
Lecture Hours: 24.00
Laboratory Hours: 36.00
Total Clock Hours: 60.00
Outside Clock Hours: 21.00
Total Credit Hours: 2.5

## Subjects:

- Principles of Flow
- Measurements and Normal Values
- Physical Considerations
- M-mode and 2-D Echocardiography
- Assessment Techniques (Objective, Subjective)
- Imaging Techniques, Doppler Flow Pattern
- Test Procedures and Data Correlation
- Report Writing

This course aims to explore in detail the construction and dynamics of the cardiovascular system. The student learns to identify and perform Cardiac Atrial and Ventricular Hemodynamics using duplex imaging, Duplex PW Doppler, and Color Doppler with spectral analysis. Students learn to perform M-mode and 2-Dimensional Echocardiography.

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Course Title: DISEASE STATE IDENTIFICATION

Course Number: DMS-6.4
Prerequisite: DMS-6.3
Lecture Hours: 24.00
Laboratory Hours: 36.00
Total Clock Hours: 60.00
Outside Clock Hours: 21.00
Total Credit Hours: 2.5

## **Subjects:**

- Ischemic Heart and Coronary Artery Diseases
- Diseases of the Myocardium
- Acquired Valvular Disease
- Thrombi and Aneurysms
- Congenital Heart Disease
- Prosthetics Valve

This course will prepare the student to recognize the pathological processes of the cardiovascular system. The following topics will be discussed: Ischemic Heart and Coronary Artery, Myocardial and Pericardial, Valvular, and other Heart Diseases. Understanding normal cardiovascular anatomy and physiology is mandatory to comprehend these advanced topics.

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Course Title: EXTERNSHIPS Course Number: DMS-7.1

Prerequisite: ALL Lecture Hours: 00.00

Residential Practical Hours: 480.00 Distance Practical Hours: 480.00

Distance: 240.0 Residential: 240.0 Total Credit Hours: 10.5

### Subjects:

- Hands-on Training
- Manual Analyses
- Automated Analyses,
- Monitoring and Control Procedures
- Evaluation and Reporting

Students participate in a clinical externship where they will gain hands-on training. The program's clinical part provides students with hands-on experience providing diagnostic care to patients of all ages and stages of disease in doctor/imaging clinics affiliated with the American Medical Sciences Center.

## STAFF AND ADMINISTRATION

The staff and administration at AMSC play a pivotal role in fostering the growth and achievements of our students. They guide them from admissions through graduation and into employment.

Name	Titles
Haik Antonyan	Director/CEO
Gloria Assatrian	Student Services Supervisor/Chief Operating Officer
Liana Hakobyan	DMS Program Director DMS (DE/RES) Instructor
Anahit Nazarian	Registrar/Admin staff
Yeva Ohanjanyan	Job Placement Coordinator
Alisa Antonyan	DMS Program Externship Coordinator, Instructor
Annie Isagholian	Admission Specialist (DE)
Lilit Ghazaryan	Librarian
Sarah Crawford	Student Services
Norma Cerano	Financial Aid Officer
Irena Pashinyan	Financial Aid Assistant

# **FACULTY**

We take pride in our faculty and recognize them as instrumental contributors to the development and success of our students. To be considered for hiring, instructors must have at least three years of education, experience, or both in their respective fields of instruction.

Name	Education	Subjects Taught
Pavel Glukhovskiy MS	Doctor of Philosophy and Chemistry, Texas A&M University	GE Classes
Smbat Mikaelian MS	Foreign Doctor, Master of Science in Diagnostic Medical Sonography, The State University of the Republic of Armenia	Core Classes, GE Classes
Liana Hakobyan MS	Foreign Doctor, Master of Science in Diagnostic Medical Sonography, The State University of the Republic of Armenia	Core Classes, GE Classes

Viet T. Le MS	Foreign Doctor, Master of Science in Diagnostic Medical Sonography, The University of Medicine and Pharmacy	Core Classes
Grigor Galadzhyan BHS	Bachelor of Health Science in Diagnostic Medical Sonography, Los Angeles City College AMSC College	Core Classes
Alisa Antonyan BHS	Bachelor of Health Science in Diagnostic Medical Sonography, AMSC College	Core Classes
Gor Shamiryan BHS	Bachelor of Health Science in Diagnostic Medical Sonography, AMSC College	Core Classes
Jonas Joaquin Buenafe MS	<b>Doctor of Medicine and Master of Science,</b> De La Salle Health Science Institute	GE Classes
Heidi Wang BS	Bachelor of Science in Human Biology and Diagnostic Medical Sonography, University of California, San Diego	Core Classes
Hedy Reichard BS	Bachelor of Science in Diagnostic  Medical Sonography, Manhattan College	Core Classes
Kristy Gazda MS	Master of Science in Medical Imaging and Diagnostic Medical Sonography, Misericordia University	Core Classes
Jessica Bories MS	Master of Science in Diagnostic Medical Sonography, University of Florida	Core Classes, GE Classes
Anahit Karoglanyan BS	Bachelor of Science in Music Education and Diagnostic Medical Sonography, Yerevan State Music College	Core Classes
Alisia Cridge BS	Bachelor of Science in Health Sciences and Diagnostic Medical Sonography, Southern New Hampshire University	Core Classes
Loreal Wisor BS	Bachelor of Applied Sciences in Medical Imaging, Mount Aloysius College	Core Classes
Susan Thrasher BS	Bachelor of Science in Health Sciences and Diagnostic Medical Sonography, ECPI University-School of Health Science Medical Careers Institute	Core Classes

# STUDENT TUITION RECOVERY FUND (STRF) DISCLOSURES

A qualifying institution shall include the following statement on both its enrollment agreement and institution catalog: "The State of California established the Student Tuition Recovery Fund (STRF) to relieve or mitigate economic loss suffered by a student in an educational program at a qualifying institution, who is or was a California resident while enrolled or was enrolled in a residency program, if the student enrolled in the institution, prepaid tuition, and suffered an economic loss. Unless relieved of the obligation to do so, you must pay the state-imposed assessment for the STRF, or it must be paid on your behalf if you are a student in an educational program, who is a California resident, or enrolled in a residency program, and prepay all or part of your tuition. You are not eligible for protection from the STRF, and you are not required to pay the STRF assessment if you are not a California resident or not enrolled in a residency program." You must keep copies of your enrollment agreement, financial aid documents, receipts, or any other information about the amount paid to the college.

Questions regarding the STRF may be directed to the Bureau for Private Postsecondary Education, 1747 North Market Blvd., Suite 225, Sacramento, CA 95834, or (916) 574-8900.

To be eligible for STRF, you must be a California resident or be enrolled in a residency program, prepaid tuition, paid or deemed to have paid the STRF assessment, and suffered an economic loss due to any of the following:

- The institution, a location of the institution, or an educational program offered by the institution was closed
  or discontinued, and you did not choose to participate in a teach-out plan approved by the Bureau or did
  not complete a chosen teach-out plan approved by the Bureau.
- 2. You were enrolled at an institution or a location of the institution within the 120 days before the closure of the institution or the location of the institution or were enrolled in an educational program within the 120 days before the program was discontinued.
- 3. You were enrolled at an institution or a location of the institution more than 120 days before the closure of the institution or location of the institution in an educational program offered by the institution as to which the Bureau determined there was a significant decline in the quality or value of the program more than 120 days before closure.
- 4. The Bureau has ordered the institution to pay a refund but has failed to do so.
- The institution has failed to pay or reimburse loan proceeds under a federal student loan program as
  required by law or has failed to pay or reimburse proceeds received by the institution over tuition and other
  costs.
- 6. You have been awarded restitution, a refund, or another monetary award by an arbitrator or court based on a violation of this chapter by an institution or representative of an institution but have been unable to collect the award from the institution.
- 7. You sought legal counsel that resulted in the cancellation of one or more of your student loans and had an invoice for services rendered and evidence of the cancellation of the student loan or loans. To qualify for STRF reimbursement, the application must be received within four (4) years from the date of the action or event that made the student eligible for recovery from STRF. A student whose loan is revived by a loan holder or debt collector after a period of non-collecting may, at any time, file a written application for recovery from STRF for the debt that would have otherwise been eligible for recovery. If it has been more than four (4) years since the action or event that made the student eligible, the student must have filed a

written application for recovery within the original four (4) year period unless the period has been extended by another act of law. However, no claim can be paid to any student without a social security or taxpayer identification number.

## **BUREAU FOR PRIVATE POSTSECONDARY EDUCATION**

1747 North Market Blvd., Suite 225 Sacramento, CA 95834 (916) 574-8900 www.bppe.ca.gov

## REGULATORY COMPLIANCE

## **Unanswered Questions**

Any questions a student may have regarding this catalog that the institution has not satisfactorily answered may be directed to:

## THE BUREAU FOR PRIVATE POSTSECONDARY EDUCATION

(LICENSED) 1747 N. Market Blvd Ste. 225, Sacramento CA 95834 Phone (916) 574-8900 www.bppe.ca.gov

# Self-Monitoring Policy

American Medical Sciences Center will comply with the current BPPE laws and regulations by subscribing to BPPE's email alerts. Also, the CEO will be attending the BPPE Compliance Workshop and meeting with the Bureau for Private Postsecondary Education staff.