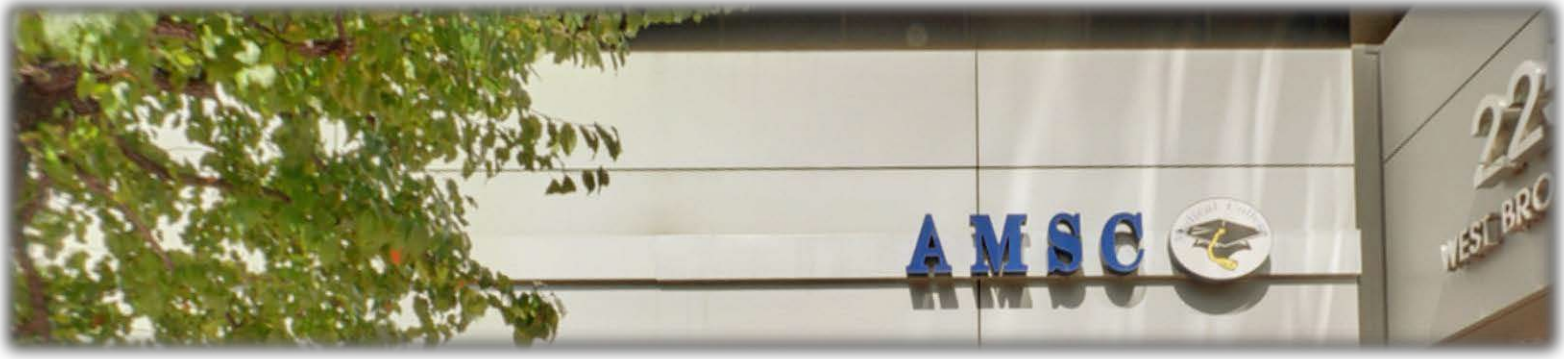

AMERICAN MEDICAL SCIENCES CENTER

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

College Catalog
2021

01/01/2021 Through 12/31/2021

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Revised 08/02/2021

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 be distributing free copies of the U.S. Constitution.

WELCOME TO
AMERICAN MEDICAL SCIENCES CENTER

It is our pleasure to introduce you to American Medical Sciences Center. Our goal is to focus on career training for an applicant's successful professional and academic future. We will always strive to present the most up-to-date learning materials in order to give our graduates the necessary tools for placement in the workforce.

STATEMENT OF HISTORY AND OWNERSHIP

American Medical Sciences Center, is a private educational California corporation, was acquired in March of 1996. Institutional approval from the Bureau for Private Postsecondary and Vocational Education was received pursuant to California educational Code 94915 and granted in May 1997. Mr. Vardan Karagezian owns the 100% of American Medical Sciences Center. The owner possesses a Master's Degree in Electronic Technology and Medical Cybernetics and has more than 20 years of experience in the field of Sonography and ultrasound.

MISSION STATEMENT

The Mission of American Medical Sciences Center is to provide innovative, quality programs that are sound in concept, implemented by a highly skilled faculty and designed to serve the needs of students to achieve their educational, professional and personal goals. Our values center on a commitment to a diverse student body and in turn the field of health care and the communities we serve. The final goal of the AMSC College is to empower its students to succeed in obtaining an entry to mid-level positions and to advance within the healthcare Industry by maintaining strong long-term employment.

OBJECTIVES

Education and training at American Medical Sciences Center are directed toward preparing students to:

Develop technical skills, knowledge and understanding of their application;
Develop professional attitudes and behaviors related to study and work habits;
Develop interpersonal communication skills, self-discipline and confidence;
Utilize modern equipment;
Provide the most reliable job placement assistance to our graduates;
Render continuous active participation in national, state, and legal professional organizations;
Continue to develop courses to meet the changes in the modern technology.

LEGAL CONTROL

American Medical Sciences Center is a private postsecondary institution. It is organized and operated as a California corporation known as the American Medical Sciences Center. The College is in compliance 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.C. Sec. 1101 et seq.)

STATEMENT OF NON-DISCRIMINATION

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

APPROVAL DISCLOSURE STATEMENT

The American Medical Sciences Center is a corporation operating in California from March 1996. The College has no pending petition in bankruptcy, is not operating as a debtor. This institution has received licensed to operate by the Bureau for Private Postsecondary Education (BPPE) pursuant to California Educational Code 94915 in 1997. An approval to operate signifies that an institution is in compliance with state standards as set forth in the Private Postsecondary Education Act. The American Medical Sciences Center is nationally accredited by the Accrediting Bureau of Health Education Schools and recognized by the United States Department of Education (USDE). This organization has received approval by the Student and Exchange Visitor Program (SEVP) authorized under Department of Homeland Security (DHS) and Department of State as an institution of higher learning for non-immigrant students visa. Students who successfully complete a course of study are awarded an appropriate diploma or degree. 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 have not been satisfactorily answered by the institution may be directed to:

THE BUREAU FOR PRIVATE POSTSECONDARY EDUCATION (LICENSED)

2535 Capital Oaks Drive, Ste. 400
Sacramento, CA 95833
Phone (916) 431-6959
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

I certify that all contents in this catalog are current, true and correct to the best of my knowledge.

Sincerely,

Vardan Karagezian

Vardan Karagezian
President/Executive Director

VOCATIONAL PROGRAMS OFFERED

DIAGNOSTIC MEDICAL SONOGRAPHY

Bachelors of Health Sciences in Diagnostic Medical Sonography (B.S.) Program
"General Learning Concentration"
"Vascular 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) Program
2,290.0 CLOCK HOURS / 84.4 WEEKS
(25.0 Hours in Class per Week)
101.0 SEMESTER CREDIT HOURS
(Residential, Blended)

MEDICAL ASSISTANT

Diploma Program
920.0 CLOCK HOURS / 33.8 WEEKS
(25.0 Hours in Class per Week)
44.50 SEMESTER CREDIT HOURS
(Residential)

AUTHORIZATION TO DISTANCE EDUCATION

State of California only

INSTRUCTIONAL FACILITIES

American Medical Sciences Center, holds all its classes at 225 West Broadway, Suite 410, Glendale, CA, near the 134 freeway and easily accessible by several surface streets. More than 5,500 square feet of classroom, laboratory and office spaces are available. Each classroom and laboratory contains sufficient equipment and supplies to meet the needs of each curriculum and student. The building is equipped with heating and air conditioning systems. Entrances and exits are conveniently located so that the building can be cleared quickly and safely in an emergency. The programs are committed to preparing students to take on the responsibilities of health care providers, who will provide quality patient care, contribute to their profession and dedicate themselves, as professionals, to life-long learning. The objectives are to provide the didactic and clinical skills needed to enable the student to perform the nationwide examination requirements published or supported by nationally recognized professional organizations. The combined lecture and lab classrooms can accommodate 12 to 24 students. Our campus is equipped with appropriate instructional equipment comparable to the labor market, job demands in their chosen fields of study. All enrolled students may access the library during the regular hours of operation. The hours of library operation are 9:00 am to 5:00 pm Monday through Friday. Also, AMSC is a part of virtual library called LIRN.

DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAMS EQUIPMENTS

The Programs has lecture classrooms and laboratory rooms equipped with 12 ultrasound machines. 4"ACUSON SEQUOIA 512", 8 "GE_ F8" with multi-frequency Transvaginal probes, and more than 24 computers TV(s), video projectors, video sceneries, books, active obstetrical phantom, anatomical charts, white board, chairs and tables. Additionally, there are a variety of models and phantoms.

MEDICAL ASSISTANT PROGRAM EQUIPMENTS

The Programs has lecture classrooms and laboratory rooms equipped Computers with pertinent software Skeleton and anatomical models, EKG unit, balance beam scale with height rod, forms used in the medical office ,sphygmomanometer and stethoscope, thermometers, blood draw supplies for venipuncture and butterfly draws with safety features, Sundry supplies (i.e. cotton balls, jars, gloves, etc.)

TUITION POLICY

Tuition is the major part of the cost of study 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. Some part of the tuition is due and payable on the first day of class unless other arrangements have been made with the Administration. It is expected that the agreed upon terms will be honored by each student; i.e. payments will be made consistently and on time.

REGULATIONS

In attempt to reduce carbon footprint, at AMSC, during the enrollment and orientation, students are guided to electronic catalog at AMSC website and encouraged to review it prior to enrollment. General rules and regulations for AMSC concerning attendance, which are applicable to all students of the college, can be found in this Catalog. Students must be aware of all college's rules and regulations; i.e. student conduct, dress code, attendance, make-up hours, etc. Students should be aware that criteria for admission and/or graduation might differ depending upon the individual program. Students are responsible for familiarizing themselves with all rules and regulations.

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, Equal Opportunity Act of 1972 (Title VII of the Civil Rights Act of 1964), Section 504, Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1993. Student information is not available to anyone without (a) a written request or release from the student, (b) a court order or appropriate government agency requirements.

STUDENT RIGHTS/GRIEVANCE PROCEDURE

Most problems or complaints that students may have with the college or its administration can be resolved through a personal meeting with the college staff. Grievances must go through chain of command; 1) college personnel, 2) Director of Programs, 3) College Associate Director/Director. The chain of command will make every reasonable effort to resolve a grievance to the satisfaction of the student. Answers to grievances will be given no more than ten days after submission of grievance. The written complaint should contain (1) the nature of the problem(s), (2) approximate date(s) that the problem(s) occurred, (3) name(s) of the individual(s) involved in the problem(s) - staff and/or other students, (4) copies of important information regarding the problem(s), (5) evidence demonstrating that the institution's complaint procedure was followed prior to this point in time.

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 Internet web site www.bppe.ca.gov

The Bureau for Private Postsecondary Education
2535 Capital Oaks Drive, Ste. 400
Sacramento, CA 95833-7859
Toll-free telephone (888)370-7589
www.bppe.ca.gov

OCCUPATIONS TO WHICH THE COURSE OF INSTRUCTION LEAD

The Students who graduate from the DMS courses are qualified to apply for positions as Ultrasound Technologists, who perform the procedures related to General Sonography, including Vascular and Echocardiographic procedures. AMSC graduates may apply for the following certification granting organizations;

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

PROGRAMS SCHEDULE

PROGRAMS	TOTAL CLOCK HOURS	METHOD DELIVERY	TOTAL CREDIT HOURS	TOTAL WEEKS
DIAGNOSTIC MEDICAL SONOGRAPHY Bachelors 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)
DIAGNOSTIC MEDICAL SONOGRAPHY Bachelors of Health Sciences in Diagnostic Medical Sonography *"Vascular 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)
DIAGNOSTIC MEDICAL SONOGRAPHY Associate of Applied Science (A.A.) Program	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
MEDICAL ASSISTANT Diploma Program	920.00	Residential	44.50 Semester	41.0 (20.0 Contact Hours Per Week) 33.8 (25.0 Contact Hours Per Week) (40.0 Clinical Hours Per Week

FEES/CHARGES AND EXPENSES

PROGRAMS	REGISTRATION (Non Refundable) FEES	INITIAL ASSESMENT FEES	TEXTBOOKS, OTHER MEDIA FEES	STRF FEES	UNIFORMS AND OTHER FEES	TUITION FEES	ESTIMATE TOTAL FEES
DIAGNOSTIC MEDICAL SONOGRAPHY * Bachelors of Health Sciences in Diagnostic Medical Sonography *"General Learning Concentration"*	$75.00	$25.00	$1,600.00	$0.00	$225.00	$46,511.00	$48,436.00
DIAGNOSTIC MEDICAL SONOGRAPHY* Bachelors of Health Sciences in Diagnostic Medical Sonography *"Vascular Learning Concentration"*	$75.00	$25.00	$1,600.00	$0.00	$225.00	$46,511.00	$48,436.00
DIAGNOSTIC MEDICAL SONOGRAPHY** Associate of Applied Sciences	$75.00	$25.00	$950.00	$0.00	$125.00	$37,675.00	$38,850.00
MEDICAL ASSISTANT Diploma Program	$75.00	$25.00	125.00	$0.00	$125.00	12,000.00	12,350.00

ENROLLMENT AGREEMENT

No student may attend class without a valid student enrollment agreement. However, all tuition and other charges for the time the student was in attendance, under a valid enrollment agreement, will be honored as due or owing. 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 with thecollege.

DESCRIPTION OF FACULTY AND QUALIFICATIONS

Each faculty member employed by the American Medical Sciences Center must be a qualified educator. The instructor must have the necessary education in the field in which she/he is conducting instruction; i.e. possess three years of education or experience or both which will qualify the candidate for hiringconsideration.

GRADUATION REQUIREMENTS

Graduation from all programs of study is accomplished by satisfactory completion of all course requirements, maintaining satisfactory attendance and a minimum grades point. Upon graduation, a student will receive a diploma in his/her program of study.

SCHOLASTIC LEVEL EXAM POLICY

The American Medical Sciences Center administers the Scholastic Level Exam (SLE) test to all its students. The test is designed to measure the student's ability to be successfully trained to perform the tasks associated with the occupations to which the program of instruction is represented to lead. All students must take and pass this test. If a prospective student fails a test, a retest will be given in seven days (only two attempts are permitted within six months). The test is administered in accordance with the test's instructions, rules and time limits.

STUDENT SERVICES

The College assists students by providing them with access to programs outside the classroom. Students are provided with tutoring, career advising and placement assistance. Additional academic advising is available to all students at the college by the instructors. Students are also referred to community professionals for personal, non- academic counseling.

CLASS SIZE

Lecture classes will not exceed a ratio of one instructor/lecture to 25 students. Laboratory classes will have a ratio of one instructor to 12 students.

SCHEDULE OF CLASSES

American Medical Sciences Center classes start frequency is based on the amount of desired students interested in them (at least 12) for all programs.

COPYRIGHT POLICY

The AMSC College will comply with United Sates copyright law (title 17, U.S. Code) including sections relating to educational and library use. Downloading or distributing copyrighted material, e.g. documents, books, programs, videos, text, etc., without permission from the rightful owner violates the United States Copyright Act. The person using the reproduction equipment is liable for any infringement. American Medical Sciences Center will respect all copyright rights including:

- The rights of students in all material they create in and for college,
- The rights instructors have in material they created prior to being employed at the college and in material created while employed at the college.

PROGRAMS DELIVERIES

Residential / Blended

HANDICAPPED FACILITIES

The American Medical Sciences Center does provide access and accommodations for the disabled.

HOURS OF OPERATION

Monday through Friday 9:00am-6:00pm Saturdays 10:00am-1:00pm

AMSC CALENDAR

AMSC observes the following holidays during which the college will be closed:

NEW YEAR DAYS	-January	01, 02, 03
MARTIN LUTHER KING DAY	-January	18
PRESIDENT'S DAY	-February	15
MEMORIAL DAY	-May	31
INDEPENDENCE DAY	-July	04, 05
LABOR DAY	-September	06
COLUMBUS DAY	-October	11
VETERANS DAY	-November	11
THANKSGIVING DAYS	-November	25 & 26
CHRISTMAS VACATION	December 23, 2021--January 03, 2022	

CLASSROOM RESPONSIBILITY

Each student is responsible for the condition of his or her classroom during the class time. Misuse of equipment will not be tolerated and may result in the student's dismissal and include billing for the damages caused on purpose. However, any accidents or breakdowns must be reported immediately. Students must understand that the condition of the classroom and equipment exists for their convenience and training; therefore, it is in the student's best interest to maintain both in good condition.

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.

CHANGE OF PERSONAL INFORMATION

Each student is responsible to notify the college of his or her new name, address, phone number, employment information (if applicable) and emergency contact person.

STUDENT RECORDS

Official records are maintained for each student from the time of enrollment. Records must be maintained for a minimum of five (5) years after the end of the institution's most recent fiscal year during which the students were last enrolled. However, student transcripts are maintained permanently.

ENGLISH AS A SECOND LANGUAGE

The American Medical Sciences Center does not provide English as a Second Language programs. No portion of a program's delivered in a language other than English.

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.

PLACEMENT SERVICES

AMSC maintains job placement assistance and will make every effort to supply employment leads to all graduates. The college receives many calls from employers requesting its 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.

PAYMENT PLANS

The following payment plans apply to all students. The non-refundable $75 registration fee is due on or before the first day of class, along with the down payment agreed to at the point of enrollment. The balance for the remaining charges of the program of study 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 has the responsibility to repay the full amount of the loan plus interest, less the amount of any refund. If any part of the tuition has been paid by the student, he/she is entitled to a refund of the moneys not paid from federal student financial aid program funds.

ADMISSIONS POLICY

As a prospective student, you are encouraged to review this catalog prior to signing an enrollment agreement. You are also encouraged to review the College Performance Fact Sheet, which must be provided to you prior to signing an enrollment agreement. All applicants are required to complete an application form, take and pass the institution's test which attempts to measure the applicant's aptitude to successfully complete the educational program for which she/he has applied and have complete an oral interview with the admission representative of the college. AMSC does not discriminate towards an applicant based on sex, religion, race, ethnic origin, age, natural origin or handicap. A handicapped applicant will be assessed according to his or ability to perform the essential functions required of a graduate of any particular program of study, with or without reasonable accommodations. AMSC reserves the right to refuse admission to any applicant who does not meet the institution's established criteria for admission. Prior to enrollment, any material circumstance that may adversely impact an applicant's ability to complete a program or gain employment in the field for which they are trained (e.g. criminal record, credentialing requirements for employment, etc.) are disclosed to a student thereby ensuring the future complications in starting the training or securing employment in the medical field. AMSC does not accept Ability-to-Benefit (ATB) students. The general provisions for admission to the AMSC in all programs as follows;

ADMISSIONS REQUIREMENTS FOR RESIDENTIAL AND DISTANCE EDUCATION

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

- Applicants must have a high school diploma or the equivalent.(presented within 90 days from start)*****
- Take and pass the standardized test.
- Must take part in mandatory school orientation.
- Interview with the program director after the essay is ready for submission.
- Pass a physical examination which indicates that the student is physically able to perform as a student.
- Willingness and ability to assimilate new knowledge. Working with various people on group tasks and meeting people with different backgrounds. Studying abroad or hosting a foreign student. Ability to collaborate, social skills and leadership ability.

The distance education admissions requirements;

- All enrollment requirements for Distance Education programs match the enrollment requirements for institutional ground programs.
- The Distance Education enrollment process is conducted exclusively online and via phone conversations.

ADMISSIONS PROCEDURES FOR RESIDENTIAL AND DISTANCE EDUCATION

The following procedures are established for admission to AMSC;

- The prospective student is encouraged to visit AMSC website for the latest catalog.
- The applicant will make an appointment with an admissions representative (Residential Delivery).**
- The applicant will make distance meeting appointment with an admissions representative (Distance Delivery)**.
- Prior to meeting with the admission representative, the applicant will;

i) Complete an admissions application.
ii) Meet financial aid officer for qualification purposes
iii) Take the admissions entrance SLE or SLEQ test. If passing score is achieved 16 or better, the student will be considered for admission.

**If in doubt, the presented high school diploma or transcripts are verified through various processes: calling to the high school to verify the validity of the document presented or searching through the list of High Schools on NCES or Federal School Code List as another source. Also, we have been working with a UNIVERSAL TRANSLATION & EVALUATION SERVICES located in Sherman Oaks CA to ensure that foreign graduated student's diplomas are properly evaluated to be equivalent to U.S. High School graduation.*

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

FINANCIAL AID ELIGIBILITY REQUIREMENTS

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

- Being an 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 being currently enrolled in high school
- Not having previously received a bachelor's degree (FSEOG AND FEDERAL Pell programs)
- Students who want receive aid from FSEOG must first be eligible for the Pell Grant, then, the amount of his/her award will be based on a 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 are based on the Colleges annual award amount.

CYBER SECURITY POLICY

The American Medical Sciences Center (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 on line data base 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 practice 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 cost-effectively reduce risks to an acceptable level;
- Regularly testing and evaluation of information security controls and techniques to ensure effective implementation and improvement of such controls and techniques.

All AMSC applicants' information is protected from access by or disclosure to unauthorized personnel and functioning under various federal and state laws 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 includes collaborating with RGM third party servicer, and utilizing the guidelines of "US- CERT" and other organization dedicated to protection of information systems and the sensitive data. AMSC maintains passwords on all of its computers and thereby minimizing the risk of unwanted access, security breach or vulnerability of the information stored. In the event of an 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 college to protect students' PII. AMSC ensures that any screens displaying PII and printouts containing PII are kept secure.

THE STUDENT TUITION RECOVERY FUND (STRF)

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 are 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 are not enrolled in a residency program."

(b) In addition to the statement required under subdivision (a) of this section, a qualifying institution shall include the following statement in its college catalog: "It is important that you keep copies of your enrollment agreement, financial aid documents, receipts, or any other information that documents the amount paid to the college. Questions regarding the STRF may be directed to the Bureau for Private Postsecondary Education, 2535 Capitol Oaks Drive, Suite 400, Sacramento, CA 95833, (916)431-6959 or (888) 370-7589. To be eligible for STRF, you must be a California resident or are enrolled in a residency program, prepaid tuition, paid or deemed to have paid the STRF assessment, and suffered an economic loss as a result of any of the following;

1. 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 day period before the closure of the institution or location of the institution, or were enrolled in an educational program within the 120 day period 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 institution has been ordered to pay a refund by the Bureau but has failed to do so.

5. 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 in excess of tuition and other costs.

6. You have been awarded restitution, a refund, or other 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 have 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 number or a taxpayer identification number."

BUREAU FOR PRIVATE POSTSECONDARY EDUCATION

2535 Capital Oaks Drive, Ste. 400
Sacramento, CA 95833
(916) 431-6959, (916) 263-1897
www.bppe.ca.gov

CAMPUS SECURITY

AMSC is concerned with the security of its students and staff. The 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 insure 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 insures that all students, faculty and staff have properly exited out of the building.

Campus training/awareness is provided to each new student and to newly hired employees 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 his or her 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 and/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 who is found in possession of, using or selling alcoholic beverages and/or illegal drugs on campus will be suspended or terminated from college.
- All students and employees are provided with information during orientation, regarding the 'Drug Free' status of the college campus.

Any criminal action or emergency situation 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 already enrolled students or faculty. The following steps will be taken in the event of a criminal action or other emergencies:

- The College Director, or designated individual in his/her absence, is the first person to be notified in case of criminal action or other types of emergencies occurring on campus. The second contact person would be the Associate Director of the college.
- 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 made available to the victim if required.

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

- Students are provided with safety instructions at the time of enrollment.
- Fire department visits on a regular basis and fire escape routes are posted.
- CALOSHA requirements are followed.

Earthquake procedures are routinely reviewed with staff and students.

2020 ANNUAL CAMPUS SECURITY REPORT

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

SEXUAL MISCONDUCT/TITLE IX POLICY AND PROCEDURE

Students who report sexual misconduct/Title IX violations will be advised of all options available to them as outlined in this policy. AMSC officials will respect the student's right to confidentiality to the extent permitted under college and legal regulations.

I. STATEMENT AND INTENT OF POLICY

Under Title IX, and as a standard for the Student Code of Conduct, American Medical Sciences Center will not tolerate and prohibits sexual assault and all forms of sexual misconduct including intimate partner violence, stalking, dating violence, sexual violence, sexual harassment, and domestic violence offenses. These acts are also against California State Law.

In publishing this policy, the College is not intending to substitute or supersede related civil and/or criminal law. It should be clearly understood that there is a fundamental difference between the nature and purpose of student discipline and criminal law. California State Law considers gross sexual assault and unlawful sexual contact to be serious crimes that are punishable by imprisonment in jail and/or probation. It also involves creation of a criminal record and may include a monetary fine. All students, faculty, and staff, as well as members of the public participating in College activities have the right to an environment free from sexual or physical intimidation that would prevent a reasonable person from attaining educational goals or living and working in a safe environment.

If there is reason to believe, that AMSC campus regulations prohibiting sexual misconduct in any form have been violated, on campus, off campus, in person, and even online, the administration will pursue disciplinary action through the appropriate College procedures. This includes any online postings or other electronic communication, including cyber-bullying, cyber-stalking, cyber-harassment, etc. occurring completely outside of the College's control (e.g. not on college networks, websites or between college email accounts). Regardless of where the violation occurred, the College discipline process will be conducted consistently, in the same manner. AMSC complies with its obligation to investigate and resolve reports of all forms of sexual misconduct regardless of whether a formal complaint is filed. This policy is intended to provide more detailed information about how AMSC handles these matters and is not intended to replace the AMSC Student Code of Conduct or AMSC Sexual Harassment Policy.

II. DEFINITION OF VARIOUS TERMS OF SEXUAL MISCONDUCT

A. Sexual Assault:

Sexual assault is a general term which covers a range of crimes. For the purposes of this statement by the College, "sexual assault" includes, but is not limited to rape, acquaintance rape, forced sodomy, forced oral copulation, rape by a foreign object, sexual battery or threat of sexual assault. Rape is generally defined as forced or nonconsensual sexual intercourse. Nonconsensual sexual intercourse may take many forms including, but not limited to, rape by a stranger, an acquaintance, while on a date; rape by multiple perpetrators (often referred to as "gang rape"), and may occur both on and off campus. Rape may be accomplished by fear, threats of harm, and/or actual physical force. Rape may also include situations in which penetration is accomplished when the victim is unable to give consent, or is prevented from resisting, due to being intoxicated, drugged, unconscious, or asleep. It also includes various types of unwanted sexual touching or penetration without consent. Sexual assault includes forced sodomy (anal intercourse), forced oral copulation (oral-genital contact), rape by a foreign object (including a finger), and sexual battery, the unwanted touching of an intimate part of another person for the purpose of sexual arousal.

B. Intimate partner violence:

This term is defined to mean any physical, sexual, or psychological harm against an individual by a current or former partner or spouse of the individual. It would include rape, acquaintance rape, stalking, dating violence, sexual violence, or domestic violence.

C. Sexual Harassment:

Sexual harassment is a form of sex discrimination and a violation of title VII of the Civil Rights Act of 1964 and Title IX of the Educational Amendments of 1972. Sexual harassment has two key categories: quid pro quo (loosely translated as "this for that") and hostile environment. Often sexual harassment involves relationships of unequal power and contains elements of coercion, as when compliance with requests for sexual favors becomes a criterion for granting work, study, or grading benefits. However, sexual harassment may also involve relationships among equals, as when repeated sexual advances or demeaning verbal behaviors have a harmful effect on a person's ability to study or work in an academic setting. In compliance with federal and state law, AMSC defines sexual harassment as follows: "Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when: Submission to such conduct is made either explicitly or implicitly as a term or condition of instruction, employment, or participation in other College activity; Submission to or rejection of such conduct by an individual is used as a basis for evaluation in making academic or personnel decisions affecting an individual; or Such conduct has the purpose or effect of unreasonably interfering with an individual's performance or creating an intimidating, hostile, or offensive College environment."

D. Sexual Exploitation:

Sexual Exploitation occurs when a person takes non-consensual, unfair, or abusive sexual advantage of another for his/her own advantage or benefit; or to benefit or advantage anyone other than the one being exploited. Examples of sexual exploitation include, but are not limited to, prostituting another student, non- consensual video or audio-taping of sexual activity, presentation or unauthorized viewing of such recordings, going beyond the boundaries of consent (such as letting your friends watch you having consensual sex without the knowledge or consent of your sexual partner), and knowingly transmitting an STD or HIV to another student.

E. Consent:

"Affirmative consent" means affirmative, conscious, and voluntary agreement to engage in sexual activity. It is given by both parties to sexual activity. Moreover, it is the responsibility of each person involved in the sexual activity to ensure that he or she has the affirmative consent of the other or others to engage in the sexual activity. Lack of protest or resistance does not mean consent, nor does silence mean consent. Affirmative consent must be ongoing throughout a sexual activity and can be revoked at any time. The existence of a dating relationship between the persons involved, or the fact of past sexual relations between them, should never by itself be assumed to be an indicator of consent. Any consent that is given is invalid when the exchange involves unwanted physical force, coercion, intimidation, and/or threats. If an individual is mentally or physically incapacitated or impaired such that one cannot understand the fact, nature or extent of the sexual situation, and the incapacitation or impairment is known or should be known to a reasonable person, there is no consent. This includes conditions resulting from alcohol or drug consumption, or being asleep or unconscious.

E. Sexual violence:

A term that is used to refer to physical sexual acts perpetrated against a person's will or where a person is incapable of giving consent due to the victim's use of drugs or alcohol. An individual also may be unable to give consent due to an intellectual or other disability.

F. Stranger rape:

Rape perpetrated by someone unknown.

G. Acquaintance rape:

The most prevalent form of sexual assault on a College campus is between two people who know each other. The acquaintance may be a date, partner, or someone known casually from a residence hall, class, club, or through mutual friends.

H. Bystander intervention:

A course of action that may be carried out by an individual to prevent harm or intervene where there is a risk or an act of violence.

III. WHAT TO DO IF YOU ARE VICTIM OF SEXUAL MISCONDUCT

Any individual who is a victim of sexual misconduct is strongly encouraged to reach out immediately to someone s/he trusts such as a family member, friend and/or campus counselor for support. Experiencing sexual misconduct is not only difficult but can be very confusing. There are resources available on and off campus to the victim to provide the support s/he needs and help cope with the difficulties. Recognizing that victim's response to the sexual misconduct may differ, if you have been physically assaulted or raped, there are other important steps you can take right away:

- Go to a safe place.
- Do not hesitate. If on campus, contact appropriate authorities and if during off hours, call911.
- Call a friend, a campus advocate, a family member or someone else you trust and ask her or him to stay with you.
- It is important for the victim to preserve the evidence if s/he intends to pursue criminal charges. Do not shower, bathe, douche, or brush his/her teeth, and save all clothing worn at the time of the assault. Put each item of clothing in a separate paper bag. Do not use plastic bags. Do not disturb anything in the area where the assault occurred.
- Go immediately to see medical personnel at the local hospital emergency department. If you suspect that you may have been given a rape drug, ask the hospital or clinic where you receive medical care to take a urine sample. The urine sample should be preserved as evidence. Rape drugs, such as Rohypnol and GHB, are more likely to be detected in urine than in blood.
- If you have not seen the medical personnel at the time of the complaint, you are immediately advised to do so. The College will provide the transportation to the hospital if needed.
- Write down as much as you can remember about the circumstances of the assault, including a description of the assailant.
- Talk with a counselor who is trained to assist rape victims about the emotional and physical impacts of the assault. You can call a hot line, a rape crisis center, or a counseling agency to find someone who understands the trauma of rape and knows how to help.

IV. REPORTING

AMSC strongly encourages individuals to report all incidents and violations of this nature to the Office of Associate Director, law enforcement officials, and/or a College official in order for these incidents to be properly addressed and for victims to avail themselves of all the services and rights to which they are entitled. Any member of the AMSC community can file a report with the Office of Associate Directory. At AMSC, all AMSC's faculty and staff*, except for the counselor, are designated as 'responsible employees'. This means that if a student or any member of AMSC community reveals potential sexual misconduct/Title IX violations to any AMSC staff or faculty, it is the responsibility of that staff or faculty to report the incident immediately to the Associate Director/Title IX Deputy Coordinator who will then take appropriate actions. If a student wishes to discuss the incident in complete confidence, s/he should report to Associate Director. In addition, it is the victim's rights to notify law enforcement and to be assisted by College officials in doing so. Thus, it is the victim's right to decide whether or not to involve law enforcement. Declining the involvement of law enforcement does not prevent the victim from receiving assistance from the College. A victim also has the right to use the College's procedures in addition to filing a criminal complaint. Regardless of whether or not a student decides to report an incident, AMSC strongly encourages students to at least meet with our campus counselor. All conversations with AMSC's Counseling Services are held strictly confidential.

*AMSC staff does not include 3rd party vendor employees such as facilities or dining services staff.

REPORTING TIMEFRAME:

Any individual may file a complaint of sexual misconduct at any time. Early reporting is encouraged to preserve evidence if necessary and provide the victim with information regarding rights, options, and resources available to them by this policy and federal/state laws. However, all complaints will be taken seriously and investigated no matter how much time has passed since the incident.

REPORTING OPTIONS:

1. Official Reporting All AMSC students are strongly encouraged to make an official report of any incident of sexual misconduct to the Office of Associate Director whether the incident occurred on or off campus.
All AMSC's staff and faculty (except for the staff of Counseling Service), including resident assistants, are required to promptly report to the Office of Associate Director information they have about possible sexual harassment or sexual misconduct, including but not limited to sexual assault, domestic or dating violence, and stalking. The complaint/report can be filed directly to Associate Director via a written statement or an appointment. Once a complaint/report has been submitted, the Associate Director will conduct intake interviews and fact-finding interviews with appropriate parties. Each complaint will be investigated promptly and appropriate corrective actions will be taken.

2. Confidential Disclosure
AMSC also offers confidential reporting through Counseling Services to

1) Weigh options and associated risks,
2) Discuss possible next steps, and
3) Obtain information about available resources and services.

No one is expected or required to pursue a specific course of action with this option.
Medical Amnesty Clause: The AMSC Administration offers immunity (Amnesty) to students who may have violated the Code of Conduct's Alcohol or Drug Policy at the same time of the incident when he or she became a victim of or is reporting of sexual misconduct. Therefore, no alcohol or drug violations are applied to a student who reports that he or she was under the influence of alcohol and/or drugs at the time of a sexual misconduct.

The purpose of this clause is to encourage reporting. Victims or bystanders (witnesses) should not let his or her use of alcohol or drugs be a deterrent to reporting an incident. When conducting the investigation, the College's primary focus will be on addressing the sexual misconduct violation and not on alcohol/drug violations that may be discovered or disclosed. However, the College may provide referrals to counseling and may require educational options, rather than disciplinary sanctions, in such cases.

Bystander Intervention: The same above mentioned reporting options are available for bystanders as well. These are safe and positive options for bystanders who intervened during an incident in order to prevent harm when there was a risk or an act of violence. AMSC strongly encourages bystanders to step up on behalf of another person's well-being and safety.
Contact Information: LA County Sex Crime Division

V. VICTIM'S RIGHTS PROVISIONS

It is AMSC's responsibility to assure students who report an incident of sexual misconduct that:

- Victims will have the opportunity to request prompt proceedings and that a fair, and impartial investigation and resolution will occur
- College officials will treat the incident seriously and that the incident will be investigated and adjudicated by appropriate College officials.
- Proceedings shall be conducted by officials trained on sexual assault and other intimate partner violence issues. And shall use preponderance of the evidence standard (which is "more likely than not" and the standard used by civil courts in the United States).
- Victims will be treated with dignity, respect, and in a non-judgmental manner.
- College officials will inform victims of their option to notify appropriate law enforcement authorities, including on-campus security and local police, and offer assistance in notifying proper authorities when an individual discloses an incident of sexual misconduct.
- College personnel will not discourage anyone from reporting, nor encourage them to underreport or report the incident as a lesser crime.
- College personnel will cooperate in obtaining, securing and maintaining evidence (including a medical examination) necessary in legal/criminal proceedings.
- College officials will prohibit retaliation and will not only take steps to prevent retaliation but also take strong responsive action if it occurs. They will also follow up with complaints to determine whether any retaliation or new incidents of harassment have occurred.
- Victims will be provided with information on available services for mental health, victim advocacy, legal assistance, and other available community resources on and off campus.
- Victims can obtain no contact/restraining orders to prevent unnecessary or unwanted contact or proximity to an alleged perpetrator when reasonably available.
- Victims will be afforded the opportunity to request immediate on-campus housing relocation or other steps to prevent unnecessary or unwanted contact or proximity to an alleged perpetrator when reasonably available.
- Victims are informed that he/she is entitled to be accompanied to any related meeting or proceeding by an advisor of their choice, knowing that the respondent also has the same opportunity to have others present during any proceeding.
- Victims are informed that he/she is entitled to receive, in writing, the final results of the Conduct & Resolution process within one business day of such outcome being reached.

VI. RIGHTS OF THE PERSON ACCUSED OF SEXUAL MISCONDUCT

The student accused of sexual misconduct (the respondent) may be assured that:

- All sexual misconduct cases will be treated seriously.
- The respondent will be treated with dignity, respect, and in a non-judgmental manner.
- The respondent will be advised of on- and off campus organizations and services that may be of assistance.
- College personnel will cooperate in investigating the case fully for legal and Student Conduct & Resolution process.
- The respondent will be informed of available counseling and psychological services.
- Respondents are informed that he/she is entitled to be accompanied to any related meeting or proceeding by an advisor of their choice, knowing that the victim also is provided with the same opportunity to have others present during any proceeding.
- Respondents are informed that he/she is entitled to receive, in writing, the final results of the Conduct & process within one business day of such outcome being reached.

VII. DISCIPLINARY PROCEDURE

It is the victim's rights to notify law enforcement and to be assisted by College officials in doing so. Thus, it is the victim's right to decide whether or not to involve law enforcement. Declining the involvement of law enforcement does not prevent the victim from receiving assistance from the College. A victim also has the right to use the College's procedures in addition to filing a criminal complaint.

A student accused of sexual misconduct may be prosecuted under the California Criminal Justice System and disciplined through AMSC Student Conduct & process. Even if the criminal justice authorities choose not to prosecute, the accused may be subject to College disciplinary action. College Student Conduct & Resolution process should be considered distinct and independent of any and all criminal procedures. Student Conduct & Resolution process may precede, occur simultaneously, or follow court action. If College's Student Conduct process follows court action, the court proceedings and/or verdict may be considered in the Student Conduct & process. Process shall be conducted by officials trained on all forms of sexual misconduct. Moreover, they shall use the preponderance of the evidence standard (which is "more likely than not" and the standard used by civil courts in the United States). When necessary, temporary action may be taken by the College by suspending or restricting the accused, or officially requesting no contact between the complainant and the respondent. Any of these measures may result in the accused student's restricted access to the College and/or participation in College events, such as attendance at classes.

A. Disciplinary Action:

Any student found by Office of Associate Director to have committed sexual misconduct may be subject to severe disciplinary sanctions, including suspension or dismissal from the College. For information regarding the range of possible sanctions that may be imposed following an institutional disciplinary procedure, please refer to the AMSC 's Student Conduct Policy found in the College Catalog, or College website. The College recognizes that violations of sexual misconduct are not the fault of the individual filing the complaint. The College intends to encourage the report of sexual misconduct and therefore the College generally does not intend to hold complainants accountable for student code of conduct violations that may have occurred along with violations of sexual misconduct. The College will use discretion to ensure the rights of the complainant are preserved.

B. Appeals: Both victim/complainant and the accused student have a right to an appeal. Please refer to the Appeal Process in AMSC's College Catalog.

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 that is generally considered unsuitable in the workplace. All students are expected to adhere to the general rules with regards to dress code, and any specific dress code regulation that a certain department may have as a result of type of training offered.

EMERGENCY PROCEDURES- An emergency is to be reported to any staff member or the front desk immediately. In the case of a fire, all students are to evacuate the building as calmly and orderly as possible since this will be the fastest way to get out of the building. 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.

GROUNDS FOR DISCIPLINARY ACTION- Unsatisfactory academic or attendance performance, frequent tardiness or early leaving, unprofessional behavior and/or conduct that disrupt 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, 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 to abide by the material written in it.

FOOD AND DRINKS- No food and drinks (with the exception of water) are allowed in the classroom unless so 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 the college phones for personal use. The front desk will only take messages for the student to whom a call is made and such message will be delivered to the student at break time unless it is an emergency. Visitors are also welcome only if a prior arrangement has been made and that 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 upon race, sex, age, color, religion, physical limitation, ethnic background, national origin or the like.

SEXUAL HARASSMENT_- The American Medical Sciences Center 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 any hostile or intimidating conduct that interferes with a healthy educational environment or work performance.

DISCIPLINARY PROCEDURES - All disciplinary matters are reviewed by the Administration. 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 with regard to academic or conduct issues, AMSC reserves the right to dismiss any student for whom the continuation of his or her attendance would be a detriment to the student himself/herself, fellow students and or the college.

Housing- Non-residential. AMSC has no dormitory facilities under its control and does not provide any 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
$1,000.00-$1,300.00	$1,500.00-$1,800.00	2-4 Miles

ATTENDANCE POLICY

Attendance is mandatory and records are maintained daily in the form of sign-in sheets. Students are expected to arrive at the classroom and clinical site precisely at the starting time. The AMSC has the following regulations governing attendance.

- Any student wishing to take a leave of absence due to unavoidable absence of more than 7 days must request 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 who has been terminated from the program for violation of the attendance policy has the right to appeal in writing to the institution per the Student Right/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 and clinical for the entire day to receive attendance credit for the day.
- At the end of a term, a student who has missed scheduled class/clinical hours will be placed on attendance probation beginning with the next term.

ABSENCES - Students not present in classroom or at clinical site at the start of class or clinical 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/clinical hours. Will be considered as excused under the following circumstances: serious illness substantiated by doctor's notes, death or birth in the immediate family. All other absences will be considered as unexcused unless solid reasons are presented in writing verifying mitigating circumstances. Students are advised to notify college officials of their absence. All absences must be made up before a student can progress to the next module, whether excused or not. 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 Director of Program and will be equal to the number of hours missed. Absences occurring in the last term must be made up before the student is eligible for graduation. Two (2) excused absences in a month - no points deducted if it is excused– Points will be deducted if not excused- a students must submit a LIRN assignment to catch up (A min. grade of C is necessary for the assignment to be valid) 3rdabsence in the same month (Excused or not) points will be deducted unless Medical Emergency- must submit a LIRN assignment to catch up (A min. grade of C is necessary for the assignment to be valid). 4thabsence in same month- Call from administration to warn about next absence putting on probation (Risk of being dropped). (A min. grade of C is necessary for the assignment to be valid)

- 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. The determination of an absence as excused is at the discretion of the Director or College Dean. The instructors must follow the above guidelines for compliance purposes. However, LIRN grades will not impact their module grades
- While on attendance probation, students may not have any unexcused absences in the term. 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.

TARDINESS/LEAVING EARLY- Tardiness are discouraged since it is disruptive to both 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 be also 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 as an unexcused absence and may cause student's grade to drop.

MAKE-UP HOURS AND/OR ASSIGNMENT - Any missed class time or assignment may require physical make-up time in campus. Students are responsible to make the necessary arrangements with the appropriate college personnel to complete make-up time or assignments. The appropriate academic department must approve make-up of assignments, tests or retests.

LEAVE OF ABSENCE (LOA) - The duration of the leave of absence may be granted for up to 90 days. Requests for leave must be submitted in writing to the Institution's Associate Director and must include an anticipated return date and be signed by the student. Students who fail to return from a LOA will be considered 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 Associate Director may grant more than one leaves of absence and/or waive interim satisfactory standards for circumstances of poor health, family crisis, or other significant occurrences outside the control of the student. It must be demonstrated by the student that the circumstances had or will have an adverse impact on 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 the calculation of a student's maximum program length.

ATTENDANCE - The college attendance policy is a minimum of 90% attendance during the course of study, which is calculated on a monthly basis. Graduates must successfully complete all courses of the program with a minimum grade of 70% and all other curriculum requirements for their course of study. Graduation is acknowledged by awarding a B.S./AAS./ degree in Diagnostic Medical Sonography. Breach of the institution's attendance policy will result in attendance probation. Students placed on attendance probation will have 30 days to bring their cumulative attendance back up to 90. Final exit interview for externship grades may differ from board SPI exam final grades. If applicable, students may receive Federal Financial Aid while on probation. If this is not achieved at the conclusion of the probationary term, the student may have his/her probationary period continued for an additional 30-day term, or may be placed on active suspension for another 30 days. If during this period, the student fails to comply with the opportunity given, he or she will then be terminated.

TUITION REFUND POLICY

The college realizes that under certain circumstances an enrolled student may not be able to continue his or her 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 refund policy of the college 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 prior to 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 upon the last date of attendance and are paid within thirty (30) days from the documented withdrawal date. Students who unofficially withdraw, the last date of attendance is taken as a date of academically related activity, which will serve as a date of 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 him/her from the program.

RETURN OF TITLE IV FUNDS - If he 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 is allowed to retain towards their educational costs. . If you obtained loan you are obligated to repay the full amount of 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 that the student was on an approved leave of absence. If this amount is greater than 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 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.

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 monies paid.

UNSATISFACTORY PROGRESS OR ACADEMIC PROBATION

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 term of the program regarding both 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. If a grade point average is unsatisfactory for an additional month or module, 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. Unless all modules are satisfactory completed, student will not be considered graduated. Should mitigating circumstances be present, the student will be placed on probation for a maximum of one month and be given a last opportunity to comply with the 70% grade point average or termination. 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 the same. 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 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 prior to graduation or prior to 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 use 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. In order for a student to be considered making academic progress, both SAP standards will be reviewed at the end of each payment period or subject completion, and the student must be progressing in accordance Satisfactory Academic Progress policy

APPEAL PROCESS-Students who are placed on a probation and or termination status 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 10 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" status for a period of 4 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 appeal is approved by the administration; i.e. the administration within five business (5) days determined that there were mitigating circumstances or valid reasons were presented by the student, then the student could re- enter in his or her program and lost time would be added to the initial scheduled graduation date.

MAXIMUM TIME FRAME - All students must complete their programs of study within one and one-half time the period specified on their enrollment agreement. To ensure quantitative progress within each program, the college wills asses such progress at midpoints of the academic year. At such time, the college will be able to determine whether the student can successfully 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 a SAP failing student, the RGM (third party servicing company) system generates an automatic warning that is emailed to the student by the FAO.

SUBJECT WITHDRAWALS - The College does not allow subject withdrawals in a program of study.

COURSE REPETITIONS - 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 course/class attempted and the higher grade will be calculated in computing the grade point average.

PROBATION - Is a status that may result due to an academic, financial or conduct problem-requiring correction. The student on probation will be permitted to attend classes. She/he must remedy the condition for probation within a specified time period. Failing to do so may result in 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 to graduates to improve their already existing skills. Students can always let the college know that they need to come back for brush-up skills.

TRANSFERRING STUDENTS

CREDIT FOR PREVIOUS EDUCATION/WORK - The institution publishes and follows a policy for transfer of credit 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 OF CREDITS AND CREDENTIALS EARNED AT OUR INSTITUTION - The transferability of credits you earn at AMSC College is at the complete discretion of an institution to which you may seek to transfer. Acceptance of the diploma or degree you earn in the educational program is also at the complete discretion of the institution to which you may seek to transfer. If diploma or degree that you earn at this institution is not accepted at the institution to which you seek to transfer, you may be required to repeat some or all of your coursework at that institution. For this reason, you should make certain that your attendance at this institution will meet your educational goals. This may include contacting an institution to which you may seek to transfer after attending AMSC College to determine if your diploma or degree will transfer. AMSC makes no guarantees of transferability of credits you earn.
Students transferring from other colleges or schools to AMSC must take a test prior to any credit transfer. A score of 70% or better is required for each such exam in order 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. 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, she/he must notify the administration with a written notice. There are no charges for a transfer based on the program of study. Transferring Students must take a test prior to any credit transfer. A score of 70% or better is required for each such exam in order 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.

TRANSFERRING 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 as proof for the equivalency for any course in question.

  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 has final authority to grant or deny any transfer credits. The student will be notified the results of an evaluation that impacts 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, if you entered our college as a freshman, you will still be a freshman if you enter another college or university at some time in the future even though you earned units here at our institution.

CANCELLATION / WITHDRAWALS POLICY

CANCELLATION:

A cancellation clause allows a student, at a minimum, to cancel within three business days of signing an enrollment agreement, with a full refund of all monies paid. Subsequent to this three-day cancellation period, an applicant requesting cancellation prior to the start of classes is entitled to a refund of all monies paid less a registration fee of 10 percent of the contract price or $100, whichever is less. Institutions may require notice of cancellation to be given by certified or registered mail provided this requirement is stated in the enrollment agreement. The institutional statement defines a student's last day of attendance as the last day a student had academically related activity and date of withdrawal. A description of the procedures a student must follow to officially withdraw.

WITHDRAWALS:

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.
- Failing any course in the program twice during the 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 him/her from the program.

REFUND:

The student is obligated to pay only for educational services rendered and for 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 in other data furnished to a student before enrollment.

IF THE AMOUNT THAT IS OWED IS MORE THAN THE AMOUNT THAT HAS ALREADY PAID, STUDENTS WILL HAVE TO MAKE ARRANGEMENTS TO SATISFY THE BALANCE.

Any controversy or claim arising out of or relating to AMSC and students Agreement, or breach thereof, not addressed by California Law or Regulation, shall be settled by arbitration in accordance with the Commercial Rules of the American Arbitration Association, and 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 which 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. No refund is due after student completes the 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 following the date of their withdrawal, the college shall refund the charge for the books or equipment paid by them. If they fail to return books or equipment in good condition within the 30-day period, the college may offset against the refund the documented cost for books or equipment exceeding the prorated refund amount. 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 and withdraws after completing 100 hours without returning the equipment he/she obtained. The pro rata refund to the student would be $1,500 based on the calculation stated below.

Tuition Paid 100%	Refund 10%	Refund 25%	Refund 50%	No refund Beyond 60%

$2,000	$200.00	$500.00	$1,000	$0.00

VISA PROCEDURES

AMSC is approved by the Student and Exchange Visitor Program (SEVP) authorized under Department of Homeland Security (DHS) and Department of State as an institution of higher learning for non-immigrant 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 filing a 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 change to an M-1 visa. Most classes of nonimmigrants 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 program of study prior to approval of their change of status. Before international students may be considered for admission, they must:

- Complete the application form; 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 least 21

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

- a TOFEL score of at least 450 or
- 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 the application process has been completed and all relevant materials have been submitted, the file is reviewed by the admissions committee. If the student fully meets the criteria for admission and has adequate funds to meet the expenses of the program of study, the AMSC obtains specific biographical and financial information about the student which will be necessary to issue a Form I-20, "Certificate of Eligibility for Nonimmigrant Student." Applicants will be notified in a timely manner and will be 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 will need to verify the student's I-20 record electronically in order to process the student visa application. The potential student must pay a SEVIS I-901 fee to the Department of Homeland Security prior to applying for a visa and may prove payment of the fee through the internet at http://www.fmjfee.com with a credit card and printed receipt as evidence that the fee has been paid. For this case you need the information from your I-20 form to fill out the Form I-901. All applicants should be prepared to provide:

- Form I-20, 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 test and documentation of English language skills;
- Program Outline with starting and ending date
- 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 at least six months beyond the applicant's intended period of stay in the United States;

BACHELORS OF HEALTH SCIENCES IN DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAMS

Total Clock Hours (3,010.00); Total Weeks (109.06); Semester Credit Hours (130.00) In Class Clock Hours per week (25.00); In Class Clock Hours per Day (5.00) D.O.T. CODE 078.364-010; CIP CODE 51-0910

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 focuses on ultrasound studies in the General Learning Concentration. The curriculum consists of classroom, laboratory, library research, and clinical practical experience. Program outcomes for a Bachelor of Health Sciences in Diagnostic Medical Sonography include;

- Competently perform 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; and acquisition of ultrasound imaging and other sonographic performance.

PROFESSIONAL DUTIEs - Graduates will function as 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 abdominopelvic, superficial structural, gynecological and echo-vascular parts.

GRADUATION REQUIREMENTS - The college attendance policy is a minimum of 90% attendance during the course of study, which is calculated on a monthly basis. Students must perform the clinical portion of their training in an approved medical facility and receive a satisfactory evaluation. Graduates must successfully complete all courses of the program with a minimum grade of 70% and all other curriculum requirements for their course of study. Graduation is acknowledged by awarding a B.S. degree in Diagnostic Medical Sonography which further allows them to take the ARDMS, ARRT, 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 Semester Credit Hour
30 Laboratory	Clock Hours	=	1 Semester Credit Hour
45 Externship	Clock Hours	=	1 Semester Credit Hour

OUTSIDE HOURS

The credit hours include outside hours regardless of recognition.
Minimum course-by-course outside hours is calculated by 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, a minimum of one (1) hours of outside preparation.

EVALUATION METHODOLOGY

COMPONENT	FORMULA
Attendance	10%
Class Participation and Professionalism	10%
Quizzes	10%
Home/Outside work	10%
Course Final Tests	60%
Totals	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	A	3.0	12.0	4.0
ULTRASOUND PHYSICS II	B	3.0	9.0	3.0
LIVER	C	4.5	9.0	2.0
DISEASE STATE IDENT……	F	2.0	0.0	0.0

ADMISSION REQUIREMENTS FOR BRIDGE STATUS

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

GRADUATED STUDENTS FROM ACCREDITED INSTITUTION

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 the 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 an Associate Degree in Sonography program from the Nationally Accredited Institutions, but do not additionally possess an associate degree from a regionally accredited institution.
- Completed at least 60.0 semester credits hours in Sonography Programs from a Nationally Accredited Institutions and minimum 5 years' 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 AMSC College Diagnostic Medical Sonography Academic Associate degree program. As Bachelors of Health Sciences in Diagnostic Medical Sonography, graduates must successfully complete following additional courses of the program with a minimum grade of 70% and all other curriculum requirements for their course of study.

PROGRAM LENGTH (736.00 TOTAL HOURS, 29.0 SEMESTER CREDITS 25.84 WEEKS,)

COURSE NUMBER	LECT. CLOCK HOURS	LECT CREDITS HOURS	LABOR. CLOCK HOURS	LABOR. CREDITS HOURS	CLINICAL CLOCK HOURS	CREDITS FOR CLINICAL	TOTAL HOURS	TOTAL CREDITS HOURS
BSDMS-1.7(b)	**32.00**	**2.13**	**00.00**	**0.00**	**00.00**	**00.00**	**32.00**	**2.00**
BSDMS-1.8	**52.00**	**3.46**	**52.00**	**1.73**	**00.00**	**00.00**	**104.00**	**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**	**64.00**	**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**

FEES/CHARGES AND EXPENSES

PROGRAMS	REGISTRATION FEE Non Refundable	INITIAL ASSESMENT	TEXTBOOKS, OTHER LEARNING MEDIA	STR F FEE	UNIFORMS AND OTHER FEE(S)	TUITION FEE	TOTAL ESTIMATED CHARGES
Associate of Applied Science To Bachelors of Sciences (B.S.)	$00.00	$25.00	$400.00	$00.00	$55.00	$10,804.95	$11,284.95

GENERAL LEARNING CONCENTRATION

Total Clock Hours (3,010.00); Total Weeks (109.06); Semester Credit Hours (130.00) In Class Clock Hours per week (25.00); In Class Clock Hours per Day (5.00) **D.O.T. CODE 078.364-010; CIP CODE 51-0910**

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 focuses on ultrasound studies in the General Learning Concentration. The curriculum consists of classroom, laboratory, library research, and clinical practical 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 include; entry–level of Ultrasound vascular Technology and Echocardiography. Graduates must successfully complete all courses of the program 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 awarding a B.S. degree in Diagnostic Medical Sonography which further allows them to take the ARDMS, ARRT, CCI, tests. Program outcomes for a Bachelors of Health Sciences in Diagnostic Medical Sonography include;

- Competently perform as an entry-level sonographer in the cognitive (knowledge), psychomotor (skills) and affective (behavior) learning domains for Diagnostic MedicalSonography.
- 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, documenting complete and accurate data.
- Demonstrate competence in performing sonographic examinations including history taking; machine adjustment and 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.

WIDE RANGING PROFILE GRID
(PROGRAM OUTLINE)

Modules	Course Number	Lecture Hours	Laboratory Hours	Clinical Hours	Total Hours	Total Weeks	Credits Hours	ABHES Standards
General Education	BSDMS-1.1-1.9	494.0	156.0	0.0	650.0	32.5	36.5	✓
General Sonography	BSDMS-2.1 2.17	708.0	564.0	0.0	1272.0	63.6	61.5	✓
Vascular Sonography	BSDMS-3.1-3.2	80.0	96.0	0.0	176.0	8.8	8.0	✓
Cardiac Sonography	BSDMS-4.1-4.4	96.0	96.0	0.0	192.0	9.6	8.0	✓
Clinical	BSDMS-5.1	0.0	0.0	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	✓

DETAIL RANGING PROFILE GRID
(PROGRAM OUTLINE)

Course Number	Course Titles	Lecture 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	0.0	96.0	0.0	144.0	3.0
BSDMS-1.2	Medical Terminology, Career ,and Professional. Development	48.0	0.0	96.0	0.0	144.0	3.0
BSDMS-1.3	General Anatomy, Physiology, Pathology	90.0	0.0	180.0	0.0	270.0	6.0
BSDMS-1.4	Medical Ethics, Medical Law, Sonographers Safety and Patient Care	48.0	0.0	96.0	0.0	144.0	3.0
BSDMS-1.5	Ultrasound Physics I (Upper Level Course)	56.0	0.0	112.0	0.0	168.0	3.5
BSDMS-1.6	Ultrasound Physics II (Upper Level Course)	48.0	0.0	96.0	0.0	144.0	3.0
BSDMS-1.7	Applied Ultrasound Sciences I (a), II(b) (Instrumentation and Modes)	52.0	52.0	156.0	0.0	260.0	5.0
BSDMS-1.8	Applied Ultrasound Sciences II (Scanning Technique and Procedures)	52.0	52.0	156.0	0.0	260.0	5.0
BSDMS-1.9	Applied Ultrasound Sciences III (Technical Image and Production)	52.0	52.0	156.0	0.0	260.0	5.0
BSDMS-2.1	Ultrasound Physics III "Doppler"	56.0	0.0	112.0	0.0	168.0	3.5
BSDMS-2.2	Ultrasound Physics IV "Instrumentation"	56.0	0.0	112.0	0.0	168.0	3.5
BSDMS-2.3	Ultrasound Physics V “Artifacts, Bio effects Quality Assurance, Safety	48.0	0.0	96.0	0.0	144.0	3.0
BSDMS-2.4	Abdominal Vasculature And Peritoneal Cavities	48.0	48.0	144.0	0.0	240.0	4.5
BSDMS-2.5	Liver	48.0	48.0	144.0	0.0	240.0	4.5
BSDMS-2.6	Gallbladder and Biliary Tree	40.0	40.0	120.0	0.0	200.0	3.5
BSDMS-2.7	Pancreas	40.0	40.0	120.0	0.0	200.0	3.5
BSDMS-2.8	Spleen	32.0	32.0	96.0	0.0	160.0	3.0
BSDMS-2.9	Urinary Tract, Adrenal Glands	48.0	48.0	144.0	0.0	240.0	4.5
BSDMS-2.10	Male Genital Structures	36.0	36.0	108.0	0.0	180.0	3.5
BSDMS-2.11	Spinal Cord and Musculoskeletal Structures	32.0	32.0	96.0	0.0	160.0	3.0
BSDMS-2.12	Neck and Surrounded Structures	32.0	32.0	96.0	0.0	160.0	3.0
BSDMS-2.13	Anterior Abdominal wall, Tissues and GET	32.0	32.0	96.0	0.0	160.0	3.0
BSDMS-2.14	Non Cardiac Chest, Pleural Cavity	32.0	32.0	96.0	0.0	160.0	3.0
BSDMS-2.15	Gynecological Sonography	48.0	48.0	144.0	0.0	240.0	4.5
BSDMS-2.16	Obstetrical Sonography	48.0	48.0	144.0	0.0	240.0	4.5
BSDMS-2.17	Breast Sonography	32.0	48.0	112.0	0.0	192.0	3.5
BSDMS-3.1	Cerebrovascular and Upper Extremity Vascular Sonography	48.0	48.0	144.0	0.0	240.0	4.5
BSDMS-3.2	Lower Extremity Vascular Sonography	32.0	48.0	112.0	0.0	192.0	3.5
BSDMS-4.1	Cardiac Fundamentals and Principles of Cardiac Pharmacology	24.0	24.0	72.0	0.0	120.0	2.0
BSDMS-4.2	Cardiac Pathological Mechanism and Non-Invasive Diagnostic Tests	24.0	24.0	72.0	0.0	120.0	2.0
BSDMS-4.3	Hemodynamics and Practical Application	24.0	24.0	72.0	0.0	120.0	2.0
BSDMS-4.4	Disease State Identification	24.0	24.0	72.0	0.0	120.0	2.0
BSDMS-5.1	Clinical Externship	0.0	0.0	0.0	720.0	720.0	16.0
TOTAL		1378.0	912.0	3668.0	720.0	6678.0	130.0

GENERAL EDUCATION COURSES (NON CORE COURSES)

General Education pre-requisite courses within a Diagnostic Medical Sonography program is 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 MEDICAL TERMINOLOGY, CAREER, AND PROFESSIONAL DEVELOPMENT
BSDMS-1.3 GENERAL ANATOMY, PHYSIOLOGY, PATHOLOGY
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 (INSTRUMENTATION AND MODES)
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 "DOPPLER"
BSDMS-2.2 ULTRASOUND PHYSICS IV "INSTRUMENTATION"
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 a 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 actual 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 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 CREDITS HOURS: 3.0

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 the basic communication concepts, purpose to inform to express feelings, to imagine/influence and to meet social expectations. This course familiarizes the students with an understanding of the types of communication (Verbal, Nonverbal/interpersonal, Formal and Informal, Written, Visual).This course is designed to provide students with an understanding of the general principles and theories underlying basic mathematics and fundamental physics. This course builds on the 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 about forces, momentum, energy, and other concepts.

COURSE TITLE: MEDICAL TERMINOLOGY, CAREER, AND PROFESSIONAL DEVELOPMENT
COURSE NUMBER: BSDMS-1.2
PREREQUISITE: NONE
LECTURE HOURS: 48.00
LABORATORY HOURS: 00.00
TOTAL IN CLASS HOURS: 48.00
OUTSIDE CLOCK HOURS: 96.00
TOTAL CREDITS HOURS: 3.0

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 health care 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 common terms and abbreviations used in health care. The course introduces concepts and application 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.

COURSE TITLE: GENERAL ANATOMY, PHYSIOLOGY, PATHOLOGY
COURSE NUMBER: BSDMS-1.3
PREREQUISITE: BSDMS-1.2
LECTURE HOURS: 90.00
LABORATORY HOURS: 00.00
TOTAL IN CLASS HOURS: 90.00
OUTSIDE CLOCK HOURS: 180.00
TOTAL CREDITS HOURS: 6.0

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

understanding 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 all human body

COURSE TITLE: MEDICAL ETHICS,MEDICAL LAW, SONOGRAPHERS SAFETY AND PATIENTSCARE

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 CREDITS HOURS: 3.0

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, principles of emotional and psychological support, patient safety practices, infection control, and universal precautions, emergency situations and procedures, patient transfer and transportation.

COURSE TITLE: ULTRASOUND PHYSICS-I

COURSE NUMBER: BSDMS-1.5
PREREQUISITE: BSDMS-1.1
LECTURE HOURS: 56.00
LABORATORY HOURS: 00.00
TOTAL CLOCK HOURS : 56.00
OUTSIDE CLOCK HOURS: 112.0
TOTAL CREDITS HOURS: 3.5

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

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: 96.0
TOTAL CREDITS HOURS: 3.0

SUBJECTS**:**

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

The course material will focus on physical principles of sound energy, transducers architecture, sound production and beam structural design. This module teaches the student the developmental concept of sonographic appearance; architectures of the 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 construction, beam former, and transducers applications.

COURSES TITLE: APPLIED ULTRASOUND SCIENCES I (INSTRUMENTATION AND MODES)
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 CREDITS 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 utilizes medical ultrasound in various settings to gather sonographic data to aid in the diagnosis of a variety of medical conditions and diseases.

COURSES TITLE: APPLIED ULTRASOUND SCIENCES II (INSTRUMENTATION AND MODES)
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 CREDITS HOURS: 2.0

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

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

COURSES TITLE: APPLIED ULTRASOUND SCIENCESII (SCANNING TECHNIQUE AND PROCEDURES)
COURSE NUMBER: BSDMS -1.8*
PREREQUISITE: BSDMS -1.7 (a),(b)
LECTURE HOURS: 52.00
LABORATORY HOURS: 52.00
TOTAL CLOCK HOURS : 104.00
OUTSIDE CLOCK HOURS: 156.0
TOTAL CREDITS 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 adjust Brightness and Motion-modes, controls to regulate Color Flow, Spectral, and Power Doppler instruments. Also, they will be able demonstrate knowledge of examination procedures for appropriate protocols includes Abdominal, OB/GYN Cardiac and Vascular examinations.

COURSE TITLE: APPLIED ULTRASOUNDSCIENCES 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 CREDITS HOURS: 5.0

SUBJECTS:

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

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

COURSE TITLE: ULTRASOUND PHYSICS- III (DOPPLER)

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 CREDITS 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 the 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 certain instrumental activities include appropriate adjustment to M-mode, color flow and spectral trace. This course provides an introduction to and an overview of the principles of Doppler shift as it applies to diagnostic medical imaging. Emphasis will be placed on physical principles of artifacts, and its categorization.

COURSE TITLE: ULTRASOUND PHYSICS- IV (INSTRUMENTATION)

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 CREDITS 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 ability to knobology, including physical principles of the Overall gain, Time gain Compensation, depth, Focusing and 2-D gray scale controls. This course will provide the student with a theoretical and concrete knowledge of all components of ultrasound machine.

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 CREDITS HOURS:	3.0

SUBJECTS:

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

This course will prepare the student to recognize the Sonographic Artifacts, Performance and Safety, Bio effects, also specific vascular physical principles, Plethysmography, Ohm's Law, methods of measuring electrical resistance, and advanced of the Hemodynamics. This course will provide the student with a theoretical and practical knowledge of the artifacts, ensure and implement quality assurance by

maintaining image documentation, performance and safety. Specific topics to be covered include diagnostic statistical profile.

(Course Description cont.)

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 CREDITS 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

Course provides students with an understanding of the peritoneal cavity and potential spaces the pelvic-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. Cross-sectional anatomy of these structures and their appearance 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 CREDITS 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, 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 findings, and differential diagnosis

COURSE TITLE: GALLBLADDER AND BILIARY TREE

COURSE NUMBER:	BSDMS-2.6
PREREQUISITE:	BSDMS-2.5
LECTURE HOURS:	40.00
LABORATORY HOURS:	40.00
TOTAL IN CLASS HOURS:	80.00
OUTSIDE CLOCK HOURS:	120.00
TOTAL CREDITS 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 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. Cross-sectional anatomy of this structure and their 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.

COURSE TITLE	PANCREAS
COURSE NUMBER:	BSDMS-2.7
PREREQUISITE:	BSDMS-2.6
LECTURE HOURS:	40.00
LABORATORY HOURS:	40.00
TOTAL CLOCK HOURS :	80.00
OUTSIDE CLOCK HOURS:	120.0
TOTAL CREDITS 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 the knowledge 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, 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.

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 CREDITS HOURS:	3.0

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 studies structures viewed in sectional anatomy and will prepare students to acquire the knowledge 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 nodes biopsy. The course teaches and demonstrates knowledge of the sonographic appearance patterns of pathologies in the Inflammatory, traumatic, infectious, and other specific pathologies.

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:	144.00
TOTAL CREDITS HOURS:	4.5

SUBJECTS:

- Anatomy, Physiology, Pathology of the Urinary Tract
- Anatomy, Physiology, Pathology of the Adrenal Glands
- Cross-Sectional Relationship Sonographic Appearances
- Clinical, lab. Findings Associated with ach Abnormality
- Imaging Techniques Clinical Indications
- Report Writing

This course will provide the student with a 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 discussion of the various exam protocols of 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, apply the appropriate scanning protocol, techniques, and measurements in correlation with the clinical information(history and physical examination)/laboratory findings, Primary or Differential Diagnosis. (Course Description cont.)

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:	108.00
TOTAL CREDITS 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 discussion of the various exam protocols of 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 be apply the appropriate scanning protocol, techniques, and measurements in correlation with the patient history, laboratory, and diagnosis information The participates will be Identify sonographic appearance patterns of the congenital, inflammatory, neoplastic pathologies, and imaging of the **M**ale **G**enital **S**tructures.

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:	96.00
TOTAL CREDITS 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 sonographicimages
- Report Writing

This course will provide the student with a theoretical and practical knowledge of the Spinal cord and Musculoskeletal system and terms used to describe it. This course teaches to evaluate the structures in the musculoskeletal system Anatomy, Physiology, Pathology and Sonographic Appearance. The course consist of 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.

COURSE TITLE: NECK AND SURROUND STRUCTURES

COURSE NUMBER:	BSDMS-2.12*
COURSE NUMBER:	BSDMS-2.11
PREREQUISITE:	NONE
LECTURE HOURS:	32.00
LABORATORY HOURS:	32.00
TOTAL CLOCK HOURS :	64.00
OUTSIDE CLOCK HOURS:	96.00
TOTAL CREDITS 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 a theoretical and practical knowledge of the Neck and Surround Structures including anatomy, normal anatomic variants, physiology and pathologic conditions. The course includes 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 the development of the student's ability to scan accurately the neck and surrounds structure including thyroid and parathyroid glands.

(Course Description cont.)

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 CREDITS 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; structure of the anterior abdominal wall tissues and 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, others). Cross-sectional anatomy of these structures and their appearance on the sonogram will also be discussed. Classroom instruction will be coordinated with practical activities.

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:	96.0
TOTAL CREDITS HOURS:	3.0

SUBJECTS:

- Anatomy, Physiology, 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 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.

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:	144.00
TOTAL CREDITS 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 to include uterine and ovarian location, size and vascular changes.

Classroom instruction will be coordinated with practical activities.

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 CREDITS 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, anatomic variants including but not limited to 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 the pathological processes. The students learn to identify the various physiological indications of the well-being or distress during appropriate stages of pregnancy to include cardiovascular gastrointestinal, skeletal, genital, urinary, and other biophysical profiles. The course demonstrates knowledge Biometrical measurements and appropriate procedures (Amniocentesis , Umbilical cord sampling / transfusion.

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 CREDITS HOURS: 3.

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 a theoretical and practical knowledge of the Breast. This course includes discussion of the various exam protocols of ultrasound evaluation, teaches normal anatomy, physiology and pathological conditions of the Organ. Graduates will be able 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 c) Primary / Differential Diagnosis. The course focuses on the development of the student's ability to scan accurately. Graduates will be able to recognize and identify the normal and abnormal sonographic appearance.

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: 144.00
TOTAL CREDITS 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

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

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:	112.00
TOTAL CREDITS 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, 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

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:	72.00
TOTAL CREDITS 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 and the metric conversions required in cardiac therapy, as well as cardiopulmonary anatomical and physiological considerations, cardiac pumping action and Echo cardiology. Student learns its systemic and pulmonary circulations, basic principles of cardiac pharmacology and specific drugs. Classroom instruction will be coordinated with certain laboratory activities.

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:	72.00
TOTAL CREDITS 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 the cardiac structural anatomy. Cross-sectional anatomy of these structures and their appearance on the sonogram will also be discussed. This course will prepare the student to recognize the 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

COURSE TITLE: HEMODYNAMICS AND PRACTICAL APPLICATION

COURSE NUMBER:	BSDMS-4.3
PREREQUISITE:	BSDMS-4.2
LECTURE HOURS:	24.00
LABORATORY HOURS:	24.00
TOTAL CLOCK HOURS :	48.00
OUTSIDE CLOCK HOURS:	72.00
TOTAL CREDITS 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 2Dimensional Echocardiography. Emphasis is placed on the ability to recognize and identify test procedures requirements and data correlation. Cross-sectional anatomy of these structures and their appearance on the sonogram will also be discussed.

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:	72.00
TOTAL CREDITS 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 in order to comprehend these advanced topics.

COURSE TITLE:	CLINICAL EXTERNSHIP
COURSE NUMBER:	BSDMS-5.1 (a), (b), (c)
PREREQUISITE:	BSDMS-1.1-4.4
CLINICAL CLOCK HOURS	720.00
TOTAL CREDITS HOURS:	16.00
PREREQUISITE: DISTANCE	BSDMS-1.1-4.4
CLINICAL CLOCK HOURS	720.00(360 Residential)
TOTAL CREDITS HOURS:	16.00
PREREQUISITE (BRIDGE*)	BSDMS-1.7-1.9 BSDMS 2.11-2.14
CLINICAL CLOCK HOURS	240.00
TOTAL CREDITS HOURS:	5.00

SUBJECTS:

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

The clinical part of program provides students with actual hand-on experience providing diagnostic care to patient of all ages, stages of disease in doctor/imaging clinics affiliated with American Medical Sciences Center. This series of courses provides students with the opportunity 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. (Course Description cont.)

VASCULAR LEARNING CONCENTRATION

Total Clock Hours (3,010.00); Total Weeks (109.06); Semester Credit Hours (130.00) In Class Clock Hours per week (25.00); In Class Clock Hours per Day (5.00) **D.O.T. CODE 078.364-010; CIP CODE 51-0910**

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 focuses on ultrasound studies in the Vascular Learning Concentration. The curriculum consists of classroom, laboratory, library research, and clinical practical experience. Core courses are categorized as Vascular Learning Concentration Tract for a bachelor of science degree in Diagnostic Medical Sonography include; entry–level of Ultrasound Vascular Technology(e.g. Cerebrovascular, Abdominal, Upper and Lower Vascular Extremities, Special Circulation).Graduates must successfully complete all courses of the program 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 awarding a B.S. degree in Diagnostic Medical Sonography which further allows them to take the ARDMS, ARRT, CCI, tests. Program outcomes for a Bachelor of Science Degree in Diagnostic Medical Sonography include;

- Competently perform 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, documenting complete and accurate data.
- Demonstrate competence in performing sonographic examinations including history taking; machine adjustment and 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.

WIDE RANGING PROFILE GRID

(PROGRAM OUTLINE)

Modules	Course Number	Lecture Hours	Laboratory Hours	Clinical Hours	Total Hours	Total Weeks	Credits Hours	ABHES Standards
General Education	BSDMS-1.1--1.9	494.0	156.0	0.0	650.0	32.5	36.5	✓
General Sonography	BSDMS-2.4-2.19	300.0	156.0	0.0	456.0	22.8	11.5	✓
Vascular Sonography	BSDMS-2.1--2.3 BSDMS-3.1--3.5	520.0	520	0.0	1040.0	52.0	60.0	✓
Cardiac Sonography	BSDMS-4.1-4.4	64.0	80.0	0.0	144.0	7.2	6.0	✓
Clinical	BSDMS-5.1	0.0	0.0	720.0	720.0	18.0	16.0	✓
TOTALS	BSDMS-1.1--4.4	1378.0	912.0	720.0	3,010.0	132.5	130.0	✓

DETAIL RANGING PROFILE GRID

(PROGRAM OUTLINE)

Course Number	Course Titles	Lect. Clock Hours	Lab. 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	0.0	96.0	0.0	144.0	3.0
BSDMS-1.2	Medical Terminology, Career and Professional. Development	48.0	0.0	96.0	0.0	144.0	3.0
BSDMS-1.3	General Anatomy, Physiology, Pathology	90.0	0.0	180.0	0.0	270.0	6.0
BSDMS-1.4	Medical Ethics, Medical Law, Sonographers Safety and Patient Care	48.0	0.0	96.0	0.0	144.0	3.0
BSDMS-1.5	Ultrasound Physics I (Upper Level Course)	56.0	0.0	112.0	0.0	168.0	3.5
BSDMS-1.6	Ultrasound Physics II (Upper Level Course)	48.0	0.0	96.0	0.0	144.0	3.0
BSDMS-1.7	Applied Ultrasound Sciences I (Instrumentation and Modes)	52.0	52.0	156.0	0.0	260.0	5.0
BSDMS-1.8	Applied Ultrasound Sciences II (Scanning Technique and Procedures)	52.0	52.0	156.0	0.0	260.0	5.0
BSDMS-1.9	Applied Ultrasound Sciences III (Technical Image and Production)	52.0	52.0	156.0	0.0	260.0	5.0
BSDMS-2.1	Ultrasound Physics III "Doppler"	56.0	0.0	112.0	0.0	168.0	3.5
BSDMS-2.2	Ultrasound Physics IV "Instrumentation"	56.0	0.0	112.0	0.0	168.0	3.5
BSDMS-2.3	Ultrasound Physics V “Artifacts, Bio effects Quality Assurance, Safety	48.0	0.0	96.0	0.0	144.0	3.0
BSDMS-2.4	Abdominal Vasculature And Peritoneal Cavities	16.0	20.0	52.0	0.0	88.0	1.5
BSDMS-2.5	Liver	16.0	20.0	52.0	0.0	88.0	1.5
BSDMS-2.6	Gallbladder and Biliary Tree	8.0	8.0	24.0	0.0	40.0	0.5
BSDMS-2.7	Pancreas and Spleen	8.0	8.0	24.0	0.0	40.0	0.5
BSDMS-2.8	Urinary Tract , Adrenal Glands	16.0	20.0	52.0	0.0	88.0	1.5
BSDMS-2.9	Male Genital Structures	8.0	8.0	24.0	0.0	40.0	0.5
BSDMS-2.10	Spinal Cord and Musculoskeletal Structures	4.0	8.0	16.0	0.0	28.0	0.5
BSDMS-2.11	Neck and Surrounded Structures	8.0	8.0	24.0	0.0	40.0	0.5
BSDMS-2.12	Anterior Abdominal Wall, Tissues, and GIT	8.0	8.0	24.0	0.0	40.0	0.5
BSDMS-2.13	Non Cardiac Chest, Pleural cavity,	8.0	8.0	24.0	0.0	40.0	0.5
BSDMS-2.14	Gynecological Sonography	16.0	16.0	48.0	0.0	80.0	1.5
BSDMS-2.15	Obstetrical Sonography	16.0	16.0	48.0	0.0	80.0	1.5
BSDMS-2.16	Breast Sonography	8.0	8.0	24.0	0.0	40.0	0.5
BSDMS-3.1	Cerebrovascular Extracranial and Intracranial Sonography	104.0	104	312.0	0.0	520.0	10.0
BSDMS-3.2	Upper Extremity Vascular Sonography	104.0	104	312.0	0.0	520.0	10.0
BSDMS-3.3	Abdominal Vascular Sonography	104.0	104	312.0	0.0	520.0	10.0
BSDMS-3.4	Lower Extremity Vascular Sonography	104.0	104	312.0	0.0	520.0	10.0
BSDMS-3.5	Arterial and Venous Special Circulation	104.0	104	312.0	0.0	520.0	10.0
BSDMS-4.1	Cardiac Fundamentals and Principles of Cardiac Pharmacology	16.0	20.0	52.0	0.0	88.0	1.5
BSDMS-4.2	Cardiac Pathological Mechanism and Non-Invasive Diagnostic Tests	16.0	20.0	52.0	0.0	88.0	1.5
BSDMS-4.3	Hemodynamics and Practical Application	16.0	20.0	52.0	0.0	88.0	1.5
BSDMS-4.4	Disease State Identification	16.0	20.0	52.0	0.0	88.0	1.5
BSDMS-5.1	Clinical Externship	0.0	0.0	0.0	720.0	720.0	16.0
TOTAL		1378.0	912.0	3668.0	720.0	6678.0	130.0

GENERAL EDUCATION COURSES (NON CORE COURSES)

General Education pre-requisite courses within a Diagnostic Medical Sonography diploma program is 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 MEDICAL TERMINOLOGY, CAREER, AND PROFESSIONAL DEVELOPMENT
BSDMS-1.3 GENERAL ANATOMY, PHYSIOLOGY, PATHOLOGY
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 (INSTRUMENTATION AND MODES)
BSDMS-1.8 APPLIED ULTRASOUND SCIENCES II (SCANNING TECHNIQUE AND PROCEDURES)
BSDMS-1.9 APPLIED ULTRASOUND SCIENCES III (TECHNICAL IMAGE AND PRODUCTION)

GENERAL SONOGRAPHY MINOR COURSES (CORE COURSES)

General Sonography courses students will gain an understanding of the anatomy, 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-2.4 ABDOMINAL VASCULATURE AND PERITONEAL CAVITIES
BSDMS-2.5 LIVER
BSDMS-2.6 GALLBLADDER AND BILIARY TREE
BSDMS-2.7 PANCREAS AND SPLEEN
BSDMS-2.8 URINARY TRACT, ADRENAL GLANDS
BSDMS-2.9 MALE GENITAL STRUCTURES
BSDMS-2.10 SPINAL CORD AND MUSCULOSKELETAL STRUCTURES
BSDMS-2.11 NECK AND SURROUNDED STRUCTURES
BSDMS-2.12 ANTERIOR ABDOMINAL WALL, TISSUES, AND GASTROINTESTINAL TRACT
BSDMS-2.13 NON CARDIAC CHEST, PLEURAL CAVITY,
BSDMS-2.14 GYNECOLOGICAL SONOGRAPHY
BSDMS-2.15 OBSTETRICAL SONOGRAPHY
BSDMS-2.16 BREAST SONOGRAPHY

VASCULAR SONOGRAPHY LEARNING CONCENTRATION COURSES (CORE COURSES)

Vascular Sonography courses students will gain an understanding of the anatomy, physiology and pathological conditions of the organs of the human vascular systems. At American Medical Sciences Center, the vascular Sonography component is made up of the following courses:

BSDMS-2.1 ULTRASOUND PHYSICS III "DOPPLER"
BSDMS-2.2 ULTRASOUND PHYSICS IV "INSTRUMENTATION"
BSDMS-2.3 ULTRASOUND PHYSICS V "ARTIFACTS, BIOEFFECTS, QUALITY ASSURANCE, SAFETY"
BSDMS-3.1 CEREBROVASCULAR EXTRACRANIAL AND INTRACRANIAL SONOGRAPHY
BSDMS-3.2 UPPER EXTREMITY VASCULAR SONOGRAPHY
BSDMS-3.3 ABDOMINAL VASCULAR SONOGRAPHY BSDMS-
3.4 LOWER EXTREMITY VASCULAR SONOGRAPHY
BSDMS-3.5 ARTERIAL AND VENOUS SPECIAL CIRCULATION

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 HEMODYNAMICS 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 actual 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

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 CREDITS HOURS:	3.0

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 the basic communication concepts, purpose to inform to express feelings, to imagine/influence and to meet social expectations. This course familiarizes the students with an understanding of the types of communication (Verbal, Nonverbal/interpersonal, Formal and Informal, Written, Visual).This course is designed to provide students with an understanding of the general principles and theories underlying basic mathematics and fundamental physics. This course builds on the arithmetic c 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 about forces, momentum, energy, and other concepts..

COURSE TITLE: MEDICAL TERMINOLOGY, CAREER, AND PROFESSIONAL DEVELOPMENT

COURSE NUMBER:	BSDMS-1.2
PREREQUISITE:	NONE
LECTURE HOURS:	48.00
LABORATORY HOURS:	00.00
TOTAL IN CLASS HOURS:	48.00
OUTSIDE CLOCK HOURS:	96.00
TOTAL CREDITS HOURS:	3.0

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 health care 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 common terms and abbreviations used in health care. The course introduces concepts and application 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.

COURSE TITLE: GENERAL ANATOMY, PHYSIOLOGY, PATHOLOGY

COURSE NUMBER:	BSDMS-1.3
PREREQUISITE:	BSDMS-1.2
LECTURE HOURS:	90.00
LABORATORY HOURS:	00.00
TOTAL IN CLASS HOURS:	90.00
OUTSIDE CLOCK HOURS:	180.0
TOTAL CREDITS HOURS:	6.0

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 understanding 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 all human body

COURSE TITLE: MEDICAL ETHICS,MEDICAL LAW, SONOGRAPHERS SAFETY AND PATIENTS 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 CREDITS HOURS: 3.0

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, principles of emotional and psychological support, patient safety practices, infection control, and universal precautions, emergency situations and procedures, patient transfer and transportation.

COURSE TITLE: ULTRASOUND PHYSICS-I

COURSE NUMBER: BSDMS-1.5
PREREQUISITE: BSDMS-1.1
LECTURE HOURS: 56.00
LABORATORY HOURS: 00.00
TOTAL CLOCK HOURS : 56.00
OUTSIDE CLOCK HOURS: 112.0
TOTAL CREDITS HOURS: 3.5

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

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: 96.0
TOTAL CREDITS HOURS: 3.0

SUBJECTS**:**

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

The course material will focus on physical principles of sound energy, transducers architecture, sound production and beam structural design. This module teaches the student the developmental concept of sonographic appearance; architectures of the 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 construction, beam former, and transducers applications.

COURSES TITLE: APPLIED ULTRASOUND SCIENCES I (INSTRUMENTATION AND MODES)

COURSE NUMBER:	BSDMS -1.7
PREREQUISITE:	NONE
LECTURE HOURS:	52.00
LABORATORY HOURS:	52.00
TOTAL CLOCK HOURS :	104.00
OUTSIDE CLOCK HOURS:	156.00
TOTAL CREDITS HOURS:	5.0

SUBJECTS:

- 2D-Modes
- M-Modes
- Doppler-Modes (Spectral, Color, Power)
- Duplex Imaging
- Harmonic Imaging
- Image Optimization Techniques (Strain, Elastography)

The course demonstrates knowledge of the careers in sonography as healthcare professionals who utilizes medical ultrasound in various settings to gather sonographic data to aid in the diagnosis of a variety of medical conditions and diseases. This course will prepare the student to recognize ultrasound equipment's proper function and apply scanning techniques. The course teaches appropriate selection transducers for specific applications.

COURSES TITLE: APPLIED ULTRASOUND SCIENCES II (SCANNING TECHNIQUE AND PROCEDURES)

COURSE NUMBER:	BSDMS -1.8
PREREQUISITE:	BSDMS -1.7
LECTURE HOURS:	52.00
LABORATORY HOURS:	52.00
TOTAL CLOCK HOURS :	104.00
OUTSIDE CLOCK HOURS:	156.0
TOTAL CREDITS 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)

This course will formulate the student to select scanning methods and planes, select appropriate transducer for specific applications, select proper function suitable to particular procedures. The students will be able adjust Brightness and Motion-modes, controls to regulate Color Flow, Spectral, and Power Doppler instruments. Also, they will be able demonstrate knowledge of examination procedures for appropriate protocols includes Abdominal, Gynecological, Obstetrical, Cardiac and Vascular examinations.

COURSE TITLE: APPLIED ULTRASOUNDSCIENCES 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 CREDITS HOURS:	5.0

SUBJECTS:

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

The students will be able adjust and Controls Brightness Motion- Doppler modes, regulate color flow, Spectral, and Power Doppler instruments. This course familiarizes the students with an understanding of the measurements and calculations, protocols and examination documentation, also, quality assurance, system maintenance, and Imaging Limitations.

COURSE TITLE: ULTRASOUND PHYSICS- III (DOPPLER)

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 CREDITS 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 the 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 certain instrumental activities include appropriate adjustment to M-mode, color flow and spectral trace. This course provides an introduction to and an overview of the principles of Doppler shift as it applies to diagnostic medical imaging. Emphasis will be placed on physical principles of artifacts, and its categorization.

COURSE TITLE: ULTRASOUND PHYSICS- IV (INSTRUMENTATION)

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 CREDITS 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 ability to knobology, including physical principles of the Overall gain, Time gain Compensation, depth, Focusing and 2-D gray scale controls. This course will provide the student with a theoretical and concrete knowledge of all components of ultrasound machine.

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 CREDITS HOURS:	3.0

SUBJECTS:

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

This course will prepare the student to recognize the Sonographic Artifacts, Performance and Safety, Bio effects, also specific vascular physical principles, Plethysmography, Ohm's Law, methods of measuring electrical resistance, and advanced of the Hemodynamics. This course will provide the student with a theoretical and

practical knowledge of the artifacts, ensure and implement quality assurance by maintaining, image documentation, performance and safety

(Course Description cont.)

COURSE TITLE ABDOMINAL VASCULATURE, AND PERITONEAL CAVITIES

COURSE NUMBER:	BSDMS -2.4
PREREQUISITE:	BSDMS -1.3
LECTURE HOURS:	16.00
LABORATORY HOURS:	20.00
TOTAL CLOCK HOURS :	36.00
OUTSIDE CLOCK HOURS:	52.00
TOTAL CREDITS HOURS:	1.5

SUBJECTS:

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

Course provides students with an understanding anatomy, physiology pathology of the peritoneal cavity and potential spaces where fluid collections and pathologies may be located. This course will introduce the student to ultrasound imaging of the abdominal vascular system and peritoneal cavities. It includes a comprehensive anatomical review of the systemic arteries, systemic veins, and portal veins. Graduates will be able to recognize and identify the normal and abnormal sonographic appearances, understand theoretical findings in performing invasive,(Lymph nodes biopsy), interventional and therapeutic procedures. In this course, the students learn apply the appropriate scanning protocol, techniques, and measurements.

COURSE TITLE: LIVER

COURSE NUMBER:	BSDMS -2.5
PREREQUISITE:	BSDMS -2.4
LECTURE HOURS:	16.00
LABORATORY HOURS:	20.00
TOTAL CLOCK HOURS :	36.00
OUTSIDE CLOCK HOURS:	52.0
TOTAL CREDITS HOURS:	1.5

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
- 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, 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. Graduates will be able to identify imaging, laboratory findings, and primary/differential diagnosis(degenerative, infectious, inflammatory, neoplastic).

COURSE TITLE: GALLBLADDER AND BILIARY TREE

COURSE NUMBER:	BSDMS-2.6
PREREQUISITE:	BSDMS-2.5
LECTURE HOURS:	8.00
LABORATORY HOURS:	8.00
TOTAL IN CLASS HOURS:	16.00
OUTSIDE CLOCK HOURS:	24.00
TOTAL CREDITS HOURS:	0.5

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 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. Cross-sectional anatomy of this structure and their 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.

COURSE TITLE: PANCREAS AND SPLEEN

COURSE NUMBER:	BSDMS-2.7
PREREQUISITE:	BSDMS-2.6
LECTURE HOURS:	8.00
LABORATORY HOURS:	8.00
TOTAL CLOCK HOURS :	16.00
OUTSIDE CLOCK HOURS:	24.0
TOTAL CREDITS HOURS:	0.5

SUBJECTS:

- Anatomy of the Pancreas and Spleen
- Cross-Sectional Relationship of the Pancreas, Spleen
- Physiology and Pathology
- 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 the knowledge the location, anatomy, physiology and pathology of the Pancreas and 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 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, 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.

COURSE TITLE: URINARY TRACT, ADRENAL GLANDS

COURSE NUMBER:	BSDMS-2.8
PREREQUISITE:	BSDMS-2.7
LECTURE HOURS:	16.00
LABORATORY HOURS:	20.00
TOTAL IN CLASS HOURS:	36.00
OUTSIDE CLOCK HOURS:	52.00
TOTAL CREDITS HOURS:	1.5

SUBJECTS:

- Anatomy, Physiology, Pathology of the Urinary Tract
- Anatomy, Physiology, Pathology of the Adrenal Glands
- Cross-Sectional Relationship Sonographic Appearances
- Clinical, lab. Findings Associated with ach Abnormality
- Imaging Techniques Clinical Indications
- Report Writing

This course will provide the student with a 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 discussion of the various exam protocols of 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, apply the appropriate scanning protocol, techniques, and measurements in correlation with the clinical information(history and physical examination)/laboratory findings, Primary or Differential diagnosis).

COURSE TITLE: MALE GENITAL STRUCTURES

COURSE NUMBER:	BSDMS-2.9
PREREQUISITE:	BSDMS-2.8
LECTURE HOURS:	8.00
LABORATORY HOURS:	8.00
TOTAL CLOCK HOURS :	16.00
OUTSIDE CLOCK HOURS:	24.00
TOTAL CREDITS HOURS:	0.5

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 discussion of the various exam protocols of 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 be apply the appropriate scanning protocol, techniques, and measurements in correlation with the patient history, laboratory, and diagnosis information The participates will be Identify sonographic appearance patterns of the congenital, inflammatory, neoplastic pathologies, and imaging of the **M**ale **G**enital **S**tructures.

COURSE TITLE: SPINAL CORD AND MUSCULOSKELETAL STRUCTURES

COURSE NUMBER:	BSDMS-2.10
PREREQUISITE:	NONE
LECTURE HOURS:	4.00
LABORATORY HOURS:	8.00
TOTAL CLOCK HOURS :	12.00
OUTSIDE CLOCK HOURS:	16.00
TOTAL CREDITS HOURS:	0.5

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 sonographicimages
- Report Writing

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

COURSE TITLE: NECK AND SURROUND STRUCTURES

COURSE NUMBER:	BSDMS-2.11
PREREQUISITE:	BSDMS-2.10
LECTURE HOURS:	8.00
LABORATORY HOURS:	8.00
TOTAL CLOCK HOURS :	16.00
OUTSIDE CLOCK HOURS:	24.00
TOTAL CREDITS HOURS:	0.5

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 a theoretical and practical knowledge of the Neck and Surround Structures including anatomy, normal anatomic variants, physiology and pathologic conditions. The course includes 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 the development of the student's ability to scan accurately the neck and surrounds structure including thyroid and parathyroid glands.

COURSE TITLE:ANTERIOR ABDOMINAL WALL, TISSUES, AND GASTROINTESTINAL TRACT

COURSE NUMBER:	BSDMS-2.12
PREREQUISITE:	BSDMS-2.11
LECTURE HOURS:	8.00
LABORATORY HOURS:	8.00
TOTAL CLOCK HOURS :	16.00
OUTSIDE CLOCK HOURS:	24.00
TOTAL CREDITS HOURS:	0.5

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; structure of the anterior abdominal wall tissues and 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,

others). Cross-sectional anatomy of these structures and their appearance on the sonogram will also be discussed. Classroom instruction will be coordinated with practical activities. (Course Description cont.)

COURSE TITLE: NON- CARDIAC CHEST,PLEURAL CAVITY **COURSE NUMBER:** BSDMS-2.13
PREREQUISITE: BSDMS-2.12
LECTURE HOURS: 8.00
LABORATORY HOURS: 8.00
TOTAL CLOCK HOURS : 16.00
OUTSIDE CLOCK HOURS: 24.0
TOTAL CREDITS HOURS: 0.5

SUBJECTS:
- Anatomy, Physiology, Pathology of the Pleural Cavity
- Cross-Sectional Relationship of the Pleural Cavity
- Anatomy, Physiology, Pathology of the Gastrointestinal tract includes Appendix
- 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. This course will give the student a complete understanding of the pathological processes that may affect the Chest, Pleural Cavity, and Gastrointestinal organs. The lessons provides students with an understanding of the cross-sectional anatomy of these structures and their sonographic appearances, and findings in performing invasive /interventional, (Thoracentesis, Paracentesis) procedures.

COURSE TITLE: GYNECOLOGICAL SONOGRAPHY
COURSE NUMBER: BSDMS-2.14
PREREQUISITE: NONE
LECTURE HOURS: 16.00
LABORATORY HOURS: 16.00
TOTAL IN CLASS HOURS: 32.00
OUTSIDE CLOCK HOURS: 48.00
TOTAL CREDITS HOURS: 1.5

SUBJECTS:
- Anatomy and Physiology of the Female Pelvis
  Uterus ,Vagina, Ovaries, Adnexa
  Pelvic Musculature, Peritoneal Spaces, Pelvic Vasculature
- Pathology of the Female Pelvis
- Clinical, lab. 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 to include uterine and ovarian location, size and vascular changes. Classroom instruction will be coordinated with practical activities.

COURSE TITLE: OBSTETRICAL SONOGRAPHY
COURSE NUMBER: BSDMS-2.15
PREREQUISITE: BSDMS-2.14
LECTURE HOURS: 16.00
LABORATORY HOURS: 16.00
TOTAL IN CLASS HOURS: 32.00
OUTSIDE CLOCK HOURS: 48.00
TOTAL CREDITS HOURS: 1.5

SUBJECTS:
- Normal Trimesters, Placenta, Amniotic Fluid
- Fetal Anatomy, Physiology and Fetal Circulation
- Clinical and Laboratory Findings
- Pertinent assessment,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, anatomic variants including but not limited to 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 the pathological processes. The students learn to identify the various physiological indications of the well-being or distress during appropriate stages of pregnancy to include cardiovascular gastrointestinal, skeletal, genital, urinary, and other biophysical profiles. The course demonstrates knowledge Biometrical measurements and appropriate procedures (Amniocentesis , Umbilical cord sampling / transfusion.

COURSE TITLE: BREAST SONOGRAPHY

COURSE NUMBER:	BSDMS-2.16
PREREQUISITE:	NONE
LECTURE HOURS:	8.00
LABORATORY HOURS:	8.00
TOTAL CLOCK HOURS :	16.00
OUTSIDE CLOCK HOURS:	24.0
TOTAL CREDITS HOURS:	0.5

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 a theoretical and practical knowledge of the Breast. This course includes discussion of the various exam protocols of ultrasound evaluation, teaches normal anatomy, physiology and pathological conditions of the Organ. Graduates will be able 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 c) Primary / Differential Diagnosis. Graduates will be able to recognize and identify the normal and abnormal sonographic appearance. The students during outside clinical practice findings in performing invasive and interventional procedures.

COURSE TITLE: CEREBROVASCULAR EXTRACRANIAL AND INTRACRANIAL SONOGRAPHY

COURSE NUMBER:	BSDMS-3.1
PREREQUISITE:	NONE
LECTURE HOURS:	104.00
LABORATORY HOURS:	104.00
TOTAL IN CLASS HOURS:	208.00
OUTSIDE CLOCK HOURS:	312.00
TOTAL CREDITS HOURS:	10.0

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

Course familiarizes the students with an understanding of the transcranial cerebrovascular Systems. This course will prepare the student to recognize the pathological processes of the cerebrovascular vascular system. Accent is placed on the ability to recognize and identify Cervical/Neck scanning techniques. The student learns to identify and perform extra cranial carotid and vertebral artery exams using duplex imaging, Duplex PW Doppler and Color Doppler with spectral analysis. Students learn to perform calculation measurements include ICA/CCA, Peak systolic/End Diastolic Velocities and Middle Cerebral, Anterior Cerebral, Posterior Cerebral, Vertebral Basilar Arteries.

COURSE TITLE: UPPER EXTREMITY VASCULAR SONOGRAPHY

COURSE NUMBER:	BSDMS-3.2
PREREQUISITE:	BSDMS-3.1
LECTURE HOURS:	104.00
LABORATORY HOURS:	104.00
TOTAL IN CLASS HOURS:	208.00
OUTSIDE CLOCK HOURS:	312.00
TOTAL CREDITS HOURS:	10.0

SUBJECTS:

- Anatomy , Normal and Abnormal Conditions
- Arterial, Venous, Upper Extremity Circulation
- History and Vital Signs Assessment
- Vascular Assessment, Rhythm and Respiration
- Edema, Cyanosis, Erythema, Diaphoresis
- Pulse Oximetry and Level of Consciousness
- Imaging Techniques including Doppler Flow Pattern
- Report Writing

Emphasis is placed on the ability to recognize and identify upper extremities vascular systems. It includes a brief anatomical review of the systemic arteries and systemic veins. Cross-sectional anatomy of these structures and their appearance on the sonogram will also be discussed. This course will prepare the student to recognize the pathological processes of the upper vascular system. Students learn to perform Segmental Pressure, Segmental Plethysmography, Duplex scanning of native arteries and veins of the upper extremities, including but not

limited to false aneurysm and arteriovenous fistula identification.

COURSE TITLE: ABDOMINAL VASCULAR SONOGRAPHY

COURSE NUMBER:	BSDMS-3.3
PREREQUISITE:	BSDMS-3.2
LECTURE HOURS:	104.00
LABORATORY HOURS:	104.00
TOTAL IN CLASS HOURS:	208.00
OUTSIDE CLOCK HOURS:	312.00
TOTAL CREDITS HOURS:	10.0

SUBJECTS:

- Structural and Cross-Sectional Anatomy
- Normal and Abnormal Conditions
- Clinical Indications of the Sonographic Appearance
- Imaging Techniques including Doppler Flow Pattern
- Preliminary Interpretation, Summary of findings
- Treatment options
- Report Writing

This course will introduce the student to ultrasound imaging of the abdominal and pelvic vascular system. It includes a brief anatomical review of the systemic arteries, systemic veins, and portal veins. Emphasis is placed on the ability to recognize and identify abdominal arterial and venous vascular branches. It includes a brief anatomical review of the systemic arteries and systemic veins. Cross-sectional anatomy of these structures and their appearance on the sonogram will also be discussed. This course will prepare the student to recognize the pathological processes of the abdominal and pelvic vascularity.

COURSE TITLE: LOWER EXTREMITY VASCULAR SONOGRAPHY

COURSE NUMBER:	BSDMS-3.4
PREREQUISITE:	BSDMS-3.3
LECTURE HOURS:	104.00
LABORATORY HOURS:	104.00
TOTAL IN CLASS HOURS:	208.00
OUTSIDE CLOCK HOURS:	312.00
TOTAL CREDITS HOURS:	10.0

SUBJECTS:

- Cross-Sectional Relationship of the Lower extremity
- Physiology and Pathophysiology
- Sonographic Anatomical Structures
- Clinical Indications of the Sonographic Appearance
- Specific Disease Processes of the Lower extremity
- 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, 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.

COURSE TITLE: ARTERIAL AND VENOUS SPECIAL CIRCULATION

COURSE NUMBER:	BSDMS-3.5
PREREQUISITE:	BSDMS-3.4
LECTURE HOURS:	104.00
LABORATORY HOURS:	104.00
TOTAL IN CLASS HOURS:	208.00
OUTSIDE CLOCK HOURS:	312.00
TOTAL CREDITS HOURS:	10.0

SUBJECTS:

- Hemodynamic Effects of an Cardiac Cycles
- Hemodynamic Effects of an ArterialObstruction
- Hemodynamic Effects of an RespiratoryChanges
- Hemodynamic Effects of an VenousObstruction
- Hemodynamic Effects of an Valvular incompetence
- Segmental Pressure and Plethysmographies (Displacement ,Photo, Impedance ,Strain Gauge)
- Clinical Indications and Techniques
- Report Writing

Emphasis will be placed on theoretical methodology of vascular structures and hemodynamics. This course will introduce the student to recognize and identify vascular arterial, venous and portal systems. The course teaches and demonstrates knowledge of physical principles of the arterial and venous system, effect of gravity, respiratory and cardiac cycles. This course familiarizes the students with an understanding of resistance measurements (e.g. displacement, photo, impedance, strain gauge, plethysmographs). The students will apply

the appropriate scanning protocol, techniques, and measurements in correlation with history and physical examination.

(Course Description cont.)

COURSE TITLE: CARDIAC FUNDAMENTALS AND PRINCIPLES OF CARDIAC PHARMACOLOGY

COURSE NUMBER: BSDMS-4.1
PREREQUISITE: NONE
LECTURE HOURS: 16.00
LABORATORY HOURS: 20.00
TOTAL CLOCK HOURS : 36.00
OUTSIDE CLOCK HOURS: 52.00
TOTAL CREDITS HOURS: 1.5

SUBJECTS:
- Medical Cardiac Terminology
- Cardiac Anatomy and Physiology
- Echocardiology and Imaging Techniques
- Principles of Cardiac pharmacology
- ADME of 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 and the metric conversions required in cardiac therapy, as well as cardiopulmonary anatomical and physiological considerations, cardiac pumping action and Echo cardiology. Student learns its systemic and pulmonary circulations, basic principles of cardiac pharmacology and specific drugs. Classroom instruction will be coordinated with certain laboratory activities.

COURSE TITLE: CARDIAC PATHOLOGICAL MECHANISM, AND NON-INVASIVE DIAGNOSTIC TESTS

COURSE NUMBER: BSDMS-4.2
PREREQUISITE: BSDMS-4.1
LECTURE HOURS: 16.00
LABORATORY HOURS: 20.00
TOTAL CLOCK HOURS : 36.00
OUTSIDE CLOCK HOURS: 52.00
TOTAL CREDITS HOURS: 1.5

SUBJECTS:
- Structural Anatomy
- Sonographic Cross-Sectional Anatomy
- 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 the cardiac structural anatomy. Cross-sectional anatomy of these structures and their appearance on the sonogram will also be discussed. This course will prepare the student to recognize the 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.

COURSE TITLE: HEMODYNAMICS AND PRACTICAL APPLICATION

COURSE NUMBER: BSDMS-4.3
PREREQUISITE: BSDMS-4.2
LECTURE HOURS: 16.00
LABORATORY HOURS: 20.00
TOTAL CLOCK HOURS : 36.00
OUTSIDE CLOCK HOURS: 52.00
TOTAL CREDITS HOURS: 1.5

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 2Dimensional Echocardiography. Emphasis is placed on the ability to recognize and identify test procedures requirements and data correlation. Cross-sectional anatomy of these structures and their appearance on the

sonogram will also be discussed.

COURSE TITLE: DISEASE STATE IDENTIFICATION

COURSE NUMBER:	BSDMS-4.4
PREREQUISITE:	BSDMS-4.3
LECTURE HOURS:	16.00
LABORATORY HOURS:	20.00
TOTAL CLOCK HOURS :	36.00
OUTSIDE CLOCK HOURS:	52.00
TOTAL CREDITS HOURS:	1.5

SUBJECTS:

- Fundamental of Pathological Processes
- Clinical and Laboratory Findings
- Ischemic Heart and Coronary Artery Diseases
- Myocardial and Pericardial Diseases,
- Infective Endocarditis, Rheumatic Diseases,
- 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 in order to comprehend these advanced topics.

COURSE TITLE: CLINICAL EXTERNSHIP

COURSE NUMBER:	BSDMS-5.1
PREREQUISITE:	BSDMS-1.1-4.4
LECTURE HOURS:	00.00
LABORATORY HOURS:	00.00
TOTAL IN CLASS HOURS:	00.00
OUTSIDE CLOCK HOURS:	00.00
CLINICAL CLOCK HOURS	720.00
TOTAL CREDITS HOURS:	16.0

SUBJECTS:

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

Students participate in a clinical Externship where they will gain hands on training. The clinical part of program provides students with actual hand-on experience providing diagnostic care to patient of all ages, stages of disease in doctor/imaging clinics affiliated with American Medical Sciences Center. This series of courses provides students with the opportunity 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 Abdominal and OB/GYN Vascular, Echocardiographic Studies. We have made available to our students clinical training in stationary, mobile and hospital based imaging facilities.

ASSOCIATE OF APPLIED SCIENCE IN DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM

Total Clock Hours (2,290.00); Total Weeks (104.00); Semester Credit Hours (101.00) In Class Clock Hours per week (20.00); In Class Clock Hours per Day (4.00) **D.O.T. CODE 078.364-010; CIP CODE 51-0910**

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 graduated may apply for following certification granting organizations; American Registry of Radiologic Technologists (ARRT), American Registry for Diagnostic Medical Sonography (ARDMS), and Cardiovascular Credentialing International (CCI). Candidates should consult the ARRT website (www.ARRT.ORG) for downloadable copy of their handbook and application. Program outcomes for a Associate of applied sciences in Diagnostic Medical Sonography include;

- Competently perform 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; and acquisition of ultrasound imaging and other sonographic performance.

PROFESSIONAL DUTIEs - Graduates will function as 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 abdominopelvic, superficial structural, gynecological and echo-vascular parts.

GRADUATION REQUIREMENTS - The college attendance policy is a minimum of 90% attendance during the course of study, which is calculated on a monthly basis. Students must perform the clinical portion of their training in an approved medical facility and receive a satisfactory evaluation. Graduates must successfully complete all courses of the program 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 Semester Credit Hour
30 Laboratory	Clock Hours	=	1 Semester Credit Hour
45 Externship	Clock Hours	=	1 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 home works as well as reading and additional review materials to be completed on a weekly basis. 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%
Totals	100%

SAMPLE OF GRADING SYSTEM

GRADES AND SCALES		
LETTER GRADES	PERCENTS	SCALES
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	GRADES	CREDITS	GRADE POINTS	G.P.A.
SPLEEN	A	3.0	12.0	4.0
ULTRASOUND PHYSICS II	B	3.0	9.0	3.0
LIVER	C	4.5	9.0	2.0
DISEASE STATE IDENT……	F	2.0	0.0	0.0

DETAIL RANGING PROGRAM PROFILE GRID

PROGRAM OUTLINE

MODULES	MODULES NAME	COURSES NAME	COURSE TITLE	LECT. CLOCK HOURS	LAB. CLOCK HOURS	CLINIC CLOCK HOURS	TOTAL IN CLASS HOURS	OUTSIDE CLOCK HOURS	TOTAL CREDITS HOURS
I	GENERAL EDUCATION PRE-REQUISITE COURSES	Medical Terminology/ composition	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	0.0	00.00	90.00	45.00	6.0
II	ABDOMINAL ULTRASOUND	Ultrasound Physics-I	DMS-2.1	56.00	0.0	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
III	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	Ultrasound Physics-IV	DMS-4.1	56.00	00.00	00.00	56.00	28.00	3.5
		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 Physics-V	DMS-5.1	48.00	00.00	00.00	48.00	24.00	3.0
		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
VI	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	0.00	0.00	480.0	00.00	00.00	10.5
TOTAL				1110.00	700.00	480.00	2290.00	731.00	101.00

PROGRAM PERFORMANCE FACT SHEET

Graduation Rates

Calendar Year	Number of Students Who Began Program	Students Available for Graduation	Number of On-Time Graduates	On- Time Completion Rate
2018	24	24	12	50%
2019	40	40	3	8%

Placement Rates

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
2018	24	24	17	12	70%

2019	**40**	**30**	**30**	**16**	**55%**

GENERAL EDUCATION PRE-REQUISITE COURSES (NON CORE COURSES)

General Education pre-requisite courses within a Diagnostic Medical Sonography diploma program is 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, module focuses on the development of the student's ability to scan accurately the Thyroid and Parathyroid glands. 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 includes 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 ups:

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 gain knowledge in ultrasound imaging of the upper and lower extremity. It includes a brief anatomical review of the systemic arteries and systemic veins. The students will be able to identify of extra and intra cranial Cerebra-Vascular systems. Cross-sectional anatomy of these structures and their appearance 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

The purpose of this module is to explore in detail the construction and dynamics of the cardiovascular system. Topics include anatomical and physiological considerations, cardiac pumping action and its 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 actual hands-on experience in diagnostic care to patients of all ages and stages of disease in doctor/imaging clinics.

DMS-7.1 EXTERNSHIPS

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:	22.50
TOTAL CREDITS 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 health care careers. It Includes Greek and Latin word roots, prefixes, suffixes, combining forms, special endings, plural forms, abbreviations and symbols. The course introduces concepts and application 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.

COURSE TITLE: MEDICAL ETHICS, MEDICAL LAW, COMMUNICATIONS SKILLS, SONOGRAPHICSAFETY, PATIENT CARE

COURSE NUMBER:	DMS-1.2
PREREQUISITE:	NONE
LECTURE HOURS:	48.00
LABORATORY HOURS:	00.00
TOTAL IN CLASS HOURS:	48.00
OUTSIDE CLOCK HOURS:	22.50
TOTAL CREDITS HOURS:	3.0

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 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. Emphasis is placed upon the basic elements of workplace effectiveness. The students demonstrate knowledge 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 and universal precautions, principles of emotional and psychological support, patient transfer and transportation.

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:	22.50
TOTAL CREDITS HOURS:	3.0

SUBJECTS ;

- Basic Algebra, calculations, metric conversions
- Linear equation 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 provide students with an understanding of 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 provide students with an understanding of 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 CREDITS 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 understanding the primary physiological reactions of the human body.

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:	26.25
TOTAL CREDITS HOURS:	3.5

SUBJECTS:

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

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

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:	33.75
TOTAL CREDITS 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 ultrasound imaging of the abdominal vascular system. It includes a brief anatomical review of the systemic arteries, systemic veins, and portal veins.
The course provides students with an understanding of the peritoneal cavity and potential spaces the pelvic-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. Cross-sectional anatomy of these structures and their appearance on the sonogram will also be discussed.

Classroom instruction will be coordinated with practical activities.

(Course Description cont.)

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: 33.75
TOTAL CREDITS HOURS: 4.5

SUBJECTS:
- Gastrointestinal Organs
- Anatomy of the Liver
- Physiology and Pathophysiology
- 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, 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.

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: 22.50
TOTAL CREDITS HOURS: 3.0

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

The course material will focus on physical principles of sound energy, transducers architecture, sound production and beam structural design. This module teaches the student the developmental concept of sonographic appearance; architectures of the 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 construction, beam former, and transducers application.

COURSES 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: 26.25
TOTAL CREDITS 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

his 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. Cross-sectional anatomy of this structure and their

appearance on the sonogram will also be discussed. Instruction will be coordinated with practical activities.

(Course Description cont.)

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:	26.25
TOTAL CREDITS 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 acquire the knowledge 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 module also provides development of skills in scanning technique. This course will prepare the student to recognize the pathological processes of the endocrine system.

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:	22.50
TOTAL CREDITS 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 the knowledge 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 development of skills in scanning technique. 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.

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:	26.25
TOTAL CREDITS 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 the 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 certain instrumental activities include appropriate adjustment

to M-mode, color flow and spectral trace. This course provides an introduction to and an overview of the principles of Doppler shift as it applies to diagnostic medical imaging. Emphasis will be placed on physical principles of artifacts, and its categorization.

(Course Description Ponit)

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:	33.75
TOTAL CREDITS HOURS:	4.5

SUBJECTS:

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

This course will provide the student with a 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 discussion of the various exam protocols of ultrasound evaluation of the urinary organs. Classroom instruction will be coordinated with practical activities.

COURSE TITLE: MALE GENITAL AND SUPERFICIAL STRUCTURE

COURSE NUMBER:	DMS-3.3
PREREQUISITE:	DMS-3.2
LECTURE HOURS:	36.00
LABORATORY HOURS:	36.00
TOTAL CLOCK HOURS :	72.00
OUTSIDE CLOCK HOURS:	26.25
TOTAL CREDITS HOURS:	3.5

SUBJECTS:

- Organ's 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 the superficial structures. The course focuses on the development of the student's ability to scan accurately 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).

COURSE TITLE: ULTRASOUNDPHYSICS-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:	26.25
TOTAL CREDITS 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 ability to knobology, including physical principles of the Overall gain, Time gain Compensation, depth, Focusing and 2-D gray scale controls. This course will provide the student with a theoretical and concrete knowledge of all components of ultrasound machine.

(Course Description with)

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:	33.75
TOTAL CREDITS 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 to include uterine and ovarian location, size and vascular changes. Classroom instruction will be coordinated with practical activities.

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:	33.75
TOTAL CREDITS 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, anatomic variants including but not limited to 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 the 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 various physiological indications of the well-being or distress during appropriate stages of pregnancy to include cardiovascular gastrointestinal, skeletal, genital, urinary, and other biophysical profiles.

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:	26.25
TOTAL CREDITS 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, abnormal anatomy and physiological indications of the Breast. Course teaches and demonstrates knowledge of the normal structures and cross-sectional anatomy and their appearance on the display. The students learn to identify the various physiological indications during appropriate stages of pregnancy Classroom instruction will be coordinated

with laboratory activities.

Course Description cont.)

COURSE TITLE: ULTRASOUNDPHYSICS-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:	22.50
TOTAL CREDITS HOURS:	3.0

SUBJECTS:

- Physical Principles of the Vascular System
- Plethysmographies
- 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 of the Hemodynamics. This course will provide the student with a theoretical and practical knowledge of the Artifacts, Performance and Safety. Specific topics to be covered include diagnostic statistical profile.

COURSES 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:	33.75
TOTAL CREDITS HOURS:	4.5

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

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:	11.25
TOTAL CREDITS 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 ultrasound imaging of the abdominal vascular system. It includes a brief anatomical review of the arteries, veins, and portal system. Cross-sectional anatomy of these structures and their appearance on the sonogram will also be discussed. This course will prepare the student to recognize the 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, Color Doppler instruments with spectral analysis.

(Course Description cont.)

COURSE TITLE: LOWER EXTREMITYVESSELS

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:	26.25
TOTAL CREDITS 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 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, Plethysmography, 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.

COURSE TITLE: CARDIACFUNDAMENTALS, 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:	18.75
TOTAL CREDITS 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,

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

COURSE TITLE: PATHOLOGICALMECHANISM 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:	18.75
TOTAL CREDITS 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 the cardiac structural anatomy. Cross-sectional anatomy of these structures and their appearance on the sonogram will also be discussed. This course will prepare the student to recognize the 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.

(Course Description cont.)

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:	18.75
TOTAL CREDITS 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

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.

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:	18.75
TOTAL CREDITS 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. A thorough understanding of normal cardiovascular anatomy and physiology is mandatory in order to comprehend these advanced topics.

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 CREDITS 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 clinical part of program provides students with actual hand-on experience providing diagnostic care to patient of all ages, stages of disease in doctor/imaging clinics affiliated with American Medical Sciences Center.

MEDICAL ASSISTANT PROGRAM

Total Clock Hours (920.00);Total Weeks (41.00); Semester Credit Hours (44.50) In Class Clock Hours per week(20.00) In Class Clock Hours per Day (4.00) (4.00**)** CIP CODE 51-0801, 43-6013.00, SOC. CODE 31-9092.00

PROGRAM OBJECTIVES - This program is designed to provide graduates with the basic front office (basic administrative) and back office (basic clinical assisting) skills necessary to qualify for entry-level positions in a variety of out-patient medical facilities. Students will learn Computer Basics, Medical Terminology, Anatomy and Physiology, Phlebotomy, Medical Office Procedures, assisting with diagnostic procedures and administration of medications. Worksite learning in a medical facility is a component of this program. Medical Assistants work in various types of positions such as: Medical Assistant, Phlebotomist, Out-patient Admitting Clerk, Podiatric Assistant, EKG Technician, Medical Record Clerk, and Blood Donor Unit Assistant.

PROFESSIONAL DUTIES - This program is designed to prepare you through lecture and hands-on training to prepare you for entry-level job as a medical assistant. The training is provided as a residency program only. Outside work is assigned and is part of your overall grade for all of the modules so you must allocate time for outside work. You will be given a syllabus at the beginning of every module that explains everything you would need to know about the module including how much time you should allocate for outside work. Except for externship that is pass or fail, all of the other modules are graded using A through F grades with GPA being calculated to show you are progressing successfully through the program

GRADUATION REQUIREMENTS - The school attendance policy is a minimum of 90% attendance during the course of study, which is calculated on a monthly basis. Students must perform the clinical portion of their training in an approved medical facility and receive a satisfactory evaluation. Graduates must successfully complete all courses of the program with a minimum grade of 70% and all other curriculum requirements for their course of study.

CREDIT/CLOCK HOUR CONVERSIONS

For Medical Assistant program of study, the conversion from clock hours to credit hours is as follows:

15 Lecture	Clock Hours	=	1 Semester Credit Hour
30 Laboratory	Clock Hours	=	1 Semester Credit Hour
45 Externship	Clock Hours	=	1 Semester Credit Hour

OUTSIDE HOURS

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 home works as well as reading and additional review materials to be completed on a weekly basis. 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%
Totals	100%

SAMPLE OF GRADING SYSTEM

GRADES AND SCALES		
LETTER GRADES	PERCENTS	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	GRADES	CREDITS	GRADE POINTS	G.P.A.
Administrative Procedures	A	3.0	12.0	4.0
Medical Terminology	B	3.0	9.0	3.0
Anatomy, Physiology, Pathology 1	C	4.5	9.0	2.0
Medical Laboratory Procedures	F	2.0	0.0	0.0

INDIVIDUAL COURSE DESCRIPTIONS

The Medical Assistant program is comprised of nine (9) modules plus externship. You must successfully complete modules one through eight to qualify for the ninth module and all ninths modules must be successfully completed before you can enter externship. Each module is four weeks in length that culminates with an exam and a grade will be given at the end.

COURSE NUMBER	MODULE TITLES	LECTURE HOURS	LABOR. HOURS	CLINICAL EXTERNSHIP	OUTSIDE CLOCK HOURS	ACADEMIC CLOCK HOURS
MA 100	Introduction to the Health Care and Medical Terminology	64.00	16.00	00.00	33.75	4.5
MA 200	Administrative Medical Assisting	64.00	16.00	00.00	33.75	4.5
MA 300	Anatomy, Physiology, Pathology	64.00	16.00	00.00	33.75	4.5
MA 400	Clinical Medical Assisting I	64.00	16.00	00.00	33.75	4.5
MA 500	Clinical Medical Assisting II	64.00	16.00	00.00	33.75	4.5
MA 600	Clinical Medical Assisting III	64.00	16.00	00.00	33.75	4.5
MA 700	Clinical Medical Assisting IV	64.00	16.00	00.00	33.75	4.5
MA 800	Emergency Assisting, Professionalism	64.00	16.00	00.00	33.75	4.5
MA 900	Human Relations	64.00	16.00	00.00	33.75	4.5
MA EXT	Externship	00.00	00.00	200.00	00.00	4.0

PROGRAM PERFORMANCE FACT SHEET

Graduation Rates

Calendar Year	Number of Students Who Began Program	Students Available for Graduation	Number of On-Time Graduates	On- Time Completion Rate
2019	**0**	**0**	**0**	**0%**
2020	**0**	**0**	**0**	**0%**

Placement Rates

Calendar Year	Number of Students Who Began Program	Students Available for Graduation	Number of On-Time Graduates	On- Time Completion Rate
2019	**0**	**0**	**0**	**0%**
2020	**0**	**0**	**0**	**0%**

DETAIL RANGING PROGRAM PROFILE GRID

PROGRAM OUTLINE

Course Number	Course Titles	Lecture Clock Hours	Labor. Clock Hours	Extern Clock Hours	Total Clock Hours	Total Credits Hours
MA 110	Medical Assisting: The Profession Medical Sciences: History and Practice	16.00	4.00	00.00	20.00	
MA 120	Medical Terminology 1	16.00	4.00	00.00	20.00	4.5
MA 130	Medical Terminology 2	16.00	4.00	00.00	20.00	
MA 140	Medical Terminology 3	16.00	4.00	00.00	20.00	
MA 210	The office environment Administrative medical assisting	16.00	4.00	00.00	20.00	
MA 220	Written Communication, Computers in the Medical Office, Medical Record Insurance	16.00	4.00	00.00	20.00	4.5
MA 230	Diagnosis Coding, Procedure Coding Patient Billing and Collection,	16.00	4.00	00.00	20.00	
MA 240	Medical Office Management	16.00	4.00	00.00	20.00	
MA 310	Anatomy, Physiology, Pathology 1	16.00	4.00	00.00	20.00	
MA 320	Anatomy, Physiology, Pathology 2	16.00	4.00	00.00	20.00	
MA 330	Anatomy, Physiology, Pathology 3	16.00	4.00	00.00	20.00	4.5
MA 340	Anatomy, Physiology, Pathology 4	16.00	4.00	00.00	20.00	
MA 410	Infection Control	16.00	4.00	00.00	20.00	
MA 420	Vital Signs	16.00	4.00	00.00	20.00	
MA 430	Assisting With Physical Examinations 1	16.00	4.00	00.00	20.00	4.5
MA 440	Assisting With Physical Examinations 2	16.00	4.00	00.00	20.00	
MA 510	The Role of the Laboratory in Patient Care	16.00	4.00	00.00	20.00	
MA 520	Phlebotomy 1	16.00	4.00	00.00	20.00	4.5
MA 530	Phlebotomy 2	16.00	4.00	00.00	20.00	
MA 540	Radiologic and Electrocardiography Tests	16.00	4.00	00.00	20.00	
MA 610	Pulmonary Fun. Physical Therapy, Rehab.	16.00	4.00	00.00	20.00	
MA 620	Math for Pharmacology	16.00	4.00	00.00	20.00	
MA 630	Pharmacology	16.00	4.00	00.00	20.00	4.5
MA 640	Administering Medications	16.00	4.00	00.00	20.00	
MA 710	Patient Education	16.00	4.00	00.00	20.00	
MA 720	Nutrition	16.00	4.00	00.00	20.00	
MA 730	Mental Health	16.00	4.00	00.00	20.00	4.5
MA 740	Patient Care	16.00	4.00	00.00	20.00	
MA 810	Assisting With Medical Emergencies	16.00	4.00	00.00	20.00	
MA 820	Professionalism	16.00	4.00	00.00	20.00	
MA 830	Common Medical Abbreviations	16.00	4.00	00.00	20.00	4.5
MA 840	Common Medical Lexicon	16.00	4.00	00.00	20.00	
MA 910	Communications	16.00	4.00	00.00	20.00	
MA 920	Medical Ethics	16.00	4.00	00.00	20.00	
MA 930	Cultural Environment, Ethnic Relationship	16.00	4.00	00.00	20.00	4.5
MA 940	Inter professional Assisting	16.00	4.00	00.00	20.00	
MA EXT	Clinical	00.00	00.00	200.0	200,0	4.0

PROGRAM AGENDA

INTRODUCTION TO THE HEALTH CARE AND MEDICAL TERMINOLOGY

This course begins by studying the medical assisting field in areas like employment conditions, credentialing, and the scope of practice in this state for a medical assistant. This course identifies healthcare trends and their relationship to the practice of Medical Assisting.

MA 110 MEDICAL ASSISTING: THE PROFESSION MEDICAL SCIENCES: HISTORY AND PRACTICE
MA 120 MEDICAL TERMINOLOGY 1
MA 130 MEDICAL TERMINOLOGY 2
MA 140 MEDICAL TERMINOLOGY 3

ADMINISTRATIVE MEDICAL ASSISTING

This course introduces the list of design items to be considered when setting up a reception area. The course material will focus on physical principles of telecommunications equipment used in the office. Explains the purpose of telecommunications equipment used in the office. This course identifies common types of computers.

MA 210 THE OFFICE ENVIRONMENT, ADMINISTRATIVE MEDICAL ASSISTING
MA 220 WRITTEN COMMUNICATION, COMPUTERS IN THE MEDICAL OFFICE, MEDICAL RECORD INSURANCE
MA 230 DIAGNOSIS CODING, PROCEDURE CODING PATIENT BILLING AND COLLECTION,
MA 240 MEDICAL OFFICE MANAGEMENT

ANATOMY, PHYSIOLOGY, PATHOLOGY

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 understanding the primary physiological reactions of the human body.

MA 310 ANATOMY, PHYSIOLOGY, PATHOLOGY 1
MA 320 ANATOMY, PHYSIOLOGY, PATHOLOGY 2
MA 330 ANATOMY, PHYSIOLOGY, PATHOLOGY 3
MA 340 ANATOMY, PHYSIOLOGY, PATHOLOGY 4

CLINICAL MEDICAL ASSISTING I

This module begins by studying the responsibilities of the medical assisting in the back office. Students will learn about infection and should learn the role and functions of a medical assistant. The most important component of the physical examination is accurate and complete patient history taking.

MA 410 INFECTION CONTROL
MA 420 VITAL SIGNS
MA 430 ASSISTING WITH PHYSICAL EXAMINATIONS 1
MA 440 ASSISTING WITH PHYSICAL EXAMINATIONS 2

CLINICAL MEDICAL ASSISTING II

The student should learn the common tests and procedures performed in a medical office. Clinical laboratory tests provide part of the framework on which physicians base their diagnoses and monitor patients' health. This course prepares students for laboratory procedures, how to prepare patients for collection process.

MA 510 THE ROLE OF THE LABORATORY IN PATIENT CARE
MA 520 PHLEBOTOMY 1
MA 530 PHLEBOTOMY 2
MA 540 RADIOLOGIC AND ELECTROCARDIOGRAPHY TESTS

CLINICAL MEDICAL ASSISTING III

This course identifies the principles of physical therapy; relates various cold and heat therapies to their benefits and contraindications. Names several methods of exercise therapy; describes the types of massage used in rehabilitation therapy. This course presents and explains the Medical Assistant's role in Pharmacology.

MA 610 PULMONARY FUNCTIONS, PHYSICAL THERAPY AND REHABILITATION
MA 620 MATH FOR PHARMACOLOGY
MA 630 PHARMACOLOGY
MA 640 ADMINISTERING MEDICATIONS

CLINICAL MEDICAL ASSISTING IV

This course classifies the benefits of patient education; describes factors that affect learning and teaching; implements teaching techniques. Explains how patient education can promote good health habits. Describes the information contained in a patient information packet. Describes how the properly apply a matrix to an appointment schedule

MA 710 PATIENT EDUCATIONS
MA 720 NUTRITION
MA 730 MENTAL HEALTHS
MA 740 PATIENT CARES

EMERGENCY ASSISTING AND CAREER DEVELOPMENT

This course will introduce the student to First Aid and how it can help within the medical field. The student will be able to assist patients throughout a hospital, clinic, or facility. This course will provide an opportunity for the student to develop the following skills: To demonstrate ability to respond to emergencies, the initiation of emergency medical system, demonstrate how to call 911 and what information a person should have in order to make the call.

MA 810 ASSISTING WITH MEDICAL EMERGENCIES
MA 820 PROFESSIONALISM
MA 830 COMMON MEDICAL ABBREVIATIONS
MA 840 COMMON MEDICAL LEXICON

HUMAN RELATIONS

This course identifies elements and types of communication. Relates communication to human behavior and needs; categorizes positive and negative communication, uses effective communication strategies; differentiates between laws and ethics; identifies responsibilities of both the patient and physician regarding the patient-physician contract. This sequence will provide the student with a Medical assistant – Patient interaction, Patient safety practices, psychological support, and Strategies for dealing with difficult patients and Interaction with other health care providers.

MA 910 COMMUNICATIONS
MA 920 MEDICAL ETHICS
MA 930 CULTURAL ENVIRONMENT AND ETHNIC RELATIONSHIP
MA 940 INTER PROFESSIONAL ASSISTING

EXTERNSHIP

The students will be assigned a work site appropriate to their training. Upon successful completion of all modules, Medical Assistant students will participate in a 200-hour externship at an approved facility. This will provide the student with the opportunity to apply principles and practices learned in the program and utilize entry-level medical assisting skills in a real-world environment. Clinical externships are supervised work experience activities.

MA EXT

COURSE NAME: INTRODUCTION TO THE HEALTH CARE AND MEDICAL TERMINOLOGY

COURSE TITLE:	MA-100
PREREQUISITE:	NONE
LECTURE HOURS:	64.00
LABORATORY HOURS:	16.00
TOTAL IN CLASS HOURS:	80.00
OUTSIDE CLOCK HOURS:	33.75
TOTAL CREDITS HOURS:	4.5

SUBJECTS:

- Current employment outlook for Medical Assistant
- List professional qualities of a medical Assistant
- Medical Assistant as health care professionals
- Educational opportunities for Medical Assistant
- Benefits of obtaining a medical assisting credential
- Structure of medical words (roots, prefixes, suffixes)
- Medical abbreviations, signs, symbols
- Specific terminology

This course begins by studying the medical assisting field in areas like employment conditions, credentialing, and the scope of practice in this state for a medical assistant. This course identifies healthcare trends and their relationship to the practice of Medical Assisting. This sequence will provide a comprehensive foundation for basic medical terminology to be used in health care careers. It Includes Greek and Latin word roots, prefixes, suffixes, combining forms, special endings, plural forms, abbreviations and symbols. The course introduces concepts and application of reading, writing and interpreting common medical formats.

COURSE NAME: ADMINISTRATIVEMEDICAL ASSISTING

COURSE TITLE:	MA-200
PREREQUISITE:	NONE
LECTURE HOURS:	64.00
LABORATORY HOURS:	16.00
TOTAL IN CLASS HOURS:	80.00
OUTSIDE CLOCK HOURS:	33.75
TOTAL CREDITS HOURS:	4.5

SUBJECTS:

- Patient Reception
- Appointment Scheduling
- Office Facilities, Equipment and Supplies
- Medical Record Insurance
- Diagnosis Coding
- Procedure Coding
- Patient Billing and Collection
- Medical Office Management

This course introduces the list of design items to be considered when setting up a reception area. Explains the purpose of telecommunications equipment used in the office. Describes effective types of document and outlines general guidelines for effective writing. This course is designed to know the ways that ICD codes are used; summarizes the ICD and CPT coding guidelines. This course is an introduction of the straightforward structural design of the medical office and the relationship of the healthcare team. This course provides computer proper keyboarding technique.

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COURSE NAME: ANATOMY,PHYSIOLOGY, PATHOLOGY

COURSE TITLE:	MA-300
PREREQUISITE:	NONE
LECTURE HOURS:	64.00
LABORATORY HOURS:	16.00
TOTAL IN CLASS HOURS:	80.00
OUTSIDE CLOCK HOURS:	33.75
TOTAL CREDITS HOURS:	4.5

SUBJECTS ;

- Digestive system
- Urinary system
- Reproductive systems, including embryology and
- Cardiovascular and Respiratory system
- Reticuloendothelial system
- Nervous and Muscular Skeletal system
- Endocrine 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 understanding 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 all human body. The course classifies body cavities and the organ within them relates a basic understanding of chemistry and its

importance in studying the body. The course provides advance keyboarding technique, software packages in word processing, and integrated software.

COURSE NAME: CLINICAL MEDICAL ASSISTING I

COURSE TITLE:	MA-400
PREREQUISITE:	NONE
LECTURE HOURS:	64.00
LABORATORY HOURS:	16.00
TOTAL IN CLASS HOURS:	80.00
OUTSIDE CLOCK HOURS:	33.75
TOTAL CREDITS HOURS:	4.5

SUBJECTS:

- Infection Control
- Vital Signs
- Assisting With Physical Examinations
- Assisting With Reproductive Specialties
- Assisting With Medical Specialties
- Assisting With Care of the Eye, Ear, Nose, Throat
- Assisting With Life Span Specialties (Pediatrics)
- Assisting With Span Specialties (Geriatrics)

This module begins by studying the responsibilities of the medical assisting in the back office. This course identifies the duties and responsibilities of a medical assisting in special examinations and procedures related to the specific body systems are commonly performed to the specific body systems are commonly performed in the medical office. Identifies various methods of taking temperature; describes the process of taking pulse and respirations. Carries out blood pressure measurements; summarizes orthostatic vital signs. The role of medical assistant is to assist the physician during special examinations.

COURSE NAME: CLINICAL MEDICAL ASSISTING II

COURSE TITLE:	MA-500
PREREQUISITE:	MA-400
LECTURE HOURS:	64.00
LABORATORY HOURS:	16.00
TOTAL IN CLASS HOURS:	80.00
OUTSIDE CLOCK HOURS:	33.75
TOTAL CREDITS HOURS:	4.5

SUBJECTS:

- The role of the clinical laboratory
- The role of the 3 types of clinical laboratory
- Criteria for classifying microorganisms
- Guidelines for specimen collection
- Considerations related to the collecting a urine specimen
- Methods of venipuncture, List consideration
- The role of the Electrocardiography Tests
- The role of the Radiologic Tests

The student should learn the common tests and procedures performed in a medical office. Clinical laboratory tests provide part of the framework on which physicians base their diagnoses and monitor patients' health. This course prepares students for laboratory procedures, how to prepare patients for collection process. Students should learn how to collect blood in proper collection tubes and send it to outside labs, collect urine samples and prepare them for labs. Students learn how to inform patients on glucose machines and how to collect blood for the machines. The course should learn the roles of three types of clinical laboratories.

COURSE NAME: CLINICAL MEDICAL ASSISTING III

COURSE TITLE:	MA-600
PREREQUISITE:	MA-500
LECTURE HOURS:	64.00
LABORATORY HOURS:	16.00
TOTAL IN CLASS HOURS:	80.00
OUTSIDE CLOCK HOURS:	33.75
TOTAL CREDITS HOURS:	4.5

SUBJECTS:

- Identify the symptoms of pulmonary disorders
- Describe respiratory volumes
- The role of the medical assistant in Spirometry testing
- Mathematics for Pharmacology
- The Medical Assistant's role in Pharmacology
- Administering Medications

This course identifies the principles of physical therapy; relates various cold and heat therapies to their benefits and contraindications. Names several methods of exercise therapy; describes the types of massage used in rehabilitation therapy. This course presents and explains the Medical Assistant's role in Pharmacology. The course recognizes the five categories of Pharmacology and their importance in medication administration. Carries out the procedure for registering or renewing a physician with the Drug Enforcement Agency (DEA) for permission to administer, dispense, and prescribe controlled drugs.

COURSE NAME: CLINICAL MEDICAL ASSISTING IV

COURSE TITLE:	MA-700
PREREQUISITE:	MA-600
LECTURE HOURS:	64.00
LABORATORY HOURS:	16.00
TOTAL IN CLASS HOURS:	80.00
OUTSIDE CLOCK HOURS:	33.75
TOTAL CREDITS HOURS:	4.5

SUBJECTS:

- The Patient coaching and health maintenance
- The medical assistant's role in the nutrition
- The dietary needs for various health conditions
- The Erikson's theory and stages of life
- The major diagnostic categories of mental disorders
- The Maslow's hierarchy
- The Fundamentals of patient care

This course classifies the benefits of patient education; describes factors that affect learning and teaching; implements teaching techniques. Explains how patient education can promote good health habits. Describes the information contained in a patient information packet. This course identifies and explains nutrients and their role in health. This sequence will offer instruction related to transporting and transferring patients, as well as caring for patients who may have special medical needs in the medical Assistant section.

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COURSE NAME: EMERGENCY ASSISTING AND CAREER DEVELOPMENT

COURSE TITLE:	MA-800
PREREQUISITE:	NONE
LECTURE HOURS:	64.00
LABORATORY HOURS:	16.00
TOTAL IN CLASS HOURS:	80.00
OUTSIDE CLOCK HOURS:	33.75
TOTAL CREDITS HOURS:	4.5

SUBJECTS**:**

- The types of resources related to emergency care
- The principles of cardiopulmonary resuscitation
- The first aid to a person with an obstructed airway
- The first aid to a person with diabetic emergency,
- The first aid to a person with bleeding
- The first aid to a person having a seizure, syncope
- The principles of Common Medical Abbreviations
- The principles of Common Medical Lexicon

This course will introduce the student to First Aid and how it can help within the medical field. This course will provide an opportunity for the student to develop the following skills: To demonstrate ability to respond to emergencies, the initiation of emergency medical system, demonstrate how to call 911 and what information a person should have in order to make the call. This sequence will provide the student with a Common Medical Abbreviations and Lexicons.

COURSES NAME: GALLBLADDER AND BILIARY TREE

COURSE TITLE:	MA-900
PREREQUISITE:	NONE
LECTURE HOURS:	64.00
LABORATORY HOURS:	16.00
TOTAL IN CLASS HOURS:	80.00
OUTSIDE CLOCK HOURS:	33.75
TOTAL CREDITS HOURS:	4.5

SUBJECTS:

- Staff communications, telecommunications
- Patient communications
- Legal issues of patient confidentiality
- Ethical decision-making
- Principles of emotional and psychological support

Students should be prepared to communicate with a variety of patient and other health care professional using proper listening techniques, body language and verbal skills. This course identifies elements and types of communication. Relates communication to human behavior and needs; categorizes positive and negative communication, uses effective communication strategies; differentiates between laws and ethics; identifies responsibilities of both the patient and physician regarding the patient-physician contract. This sequence will provide the student with a Medical assistant

– Patient interaction, Patient safety practices, psychological support, and Strategies for dealing with difficult patients and Interaction with other health care providers.

DESCRIPTION OF POSITIONS AND RESPONSIBILITIES

NAME	TITLES	POSITIONS	JOB DUTIES AND RESPONSIBILITIES
VARDAN KARAGEZIAN	Director	The Director of the college is the chief executive officer of the company.	➢ Establishes system for all administrative functions of the college. Secures proper staffing of administrative personnel. Maintains liaison with accrediting and approval agencies. Meets regularly with management personnelincluding
HAIK ANTONYAN	Associate Director	The Associate Director (AD) of the college is the enforcement officer of the company. All matters of the day-to-day operations of the college fall within the scope of the AD	➢ Coordinates and supervises all staff to ensure effective and efficient processing of students through the learning process. Oversees administrative and management functions related to all departments. Maintains liaison with all accrediting and approval agencies.
NORMA CERANO	Financial Aid Officer	The Financial Aid Officer reports to the College Director and performs duties focused on college's financial Aid tasks.	➢ Assists in the processes the documentation of new enrollments and the satisfactory progress of current students; engages in student's financial aidand offers administrative assistance when needed and/or requested.
GLORIA ASSATRIAN	Registrar, Student Services	Students Registrar is responsible for coordinating student services as well as institution's SAP related educational/administrative services.	➢ Synchronizes and administers all academic progress to ensure effective and efficient handling of students through the learning process. Helps the students and administration have the flawless processing of the student paperwork and coordinates the timely receipt of funding related documentation with FA officer.
ANNA NAZARIAN	Student Services	The Administrative Assistant is responsible for variety of administrative tasks needed to assist the college administration in providing educational services.	➢ Assists in the execution of duties and responsibilities of the clerk; also processes the documentation of new enrolled students, explains the college policies and procedures and takes phone calls and messages from the prospective students as well as vendors.
LUSINE GORDILYAN	Job Placement officer	To look after the training and placement activities of students	➢ Placement refers to the process of connecting the selected person and the employer in order to establish an ongoing employment relationship. A roles and responsibilities template is a document that outlines the job description, duties and requirements of a specific position.
CYNTHIA L GLICK	DMS Program Director, Instructor	The Program Director is the chief program development officer of the Program. The Director is also responsible for conducting one or more classes or components of the institution's educational services.	➢ Establishes academic system for all professional functions of the college. Recommendation of Resources to support the program, Curriculum development and periodic revision, selection, supervision, assignment and evaluation of faculty Demonstrate evidence of professional growth and periodic assessment and recommendation for modification of faculties and equipment, Contributes to the college community by participation in service activities.
DEZIRE KHOSRAVI	DMS Program Clinical Coordinator, Instructor	The clinical coordinator and Instructor are responsible for coordinating clinical services and serves as a liaison between the externship sites and students. Assisting students to gain and keep employment.	➢ Clinical Coordinator coordinates and supervises and monitors allexternships efficient processing of students through the learning process. ➢Instructors are required to engage in activities, which demonstrate a patternof academic, professional, and/or technical achievement. H/she must maintain the enforcement of all curriculum related activities as required by College policies.
DIAZ ARELI??????	Distance delivery administrator	The administrator responsible for development of the instructional design of the distance delivery model being used by the institution or program.	➢ Distance delivery administrator provided regular communication with the campus enrolling students in distance education is evidenced.This individual will have regular interaction with students and faculty who are engaged in distance education.
SMBAT MIKAELIAN	DMS Program; Instructor	The Instructor is responsible for conducting one or more classes or components of the institution's educational services	➢ Instructors are required to engage in activities, which demonstrate a pattern of academic, professional, and/or technical achievement. She must maintain the enforcement of all curriculum related activities as required by College policies.
LIANA HAKOBYAN	DMS Program; Instructor	The Instructor is responsible for conducting one or more classes or components of the institution's educational services.	➢ Instructors are required to engage in activities, which demonstrate a pattern of academic, professional, and/or technical achievement. He must maintain the enforcement of all curriculum related activities as required by College policies.
VIET T. LE	DMS Program; Instructor	The Instructor is responsible for conducting one or more classes or components of the institution's educational services.	➢ Instructors are required to engage in activities, which demonstrate a pattern of academic, professional, and/or technical achievement. He must maintain the enforcement of all curriculum related activities as required by College policies.
GRIGOR GALADZHYAN	DMS Program; Instructor	The Instructor is responsible for conducting one or more classes or components of the institution's educational services.	➢ Instructors are required to engage in activities, which demonstrate a pattern of academic, professional, and/or technical achievement. He must maintain the enforcement of all curriculum related activities as required by College policies.
SAMANTHA MILLER	DMS Program; Instructor	The Instructor is responsible for conducting one or more classes or components of the institution's educational services	➢ Instructors are required to engage in activities, which demonstrate a pattern of academic, professional, and/or technical achievement. She must maintain the enforcement of all curriculum related activities as required by College policies.
GOR SHAMIRYAN	DMS Program; Instructor,	The Instructor is responsible for conducting one or more classes or components of the educational services	➢ Instructors are required to engage in activities, which demonstrate a pattern of academic, professional, and/or technical achievement. He must maintain the enforcement of all curriculum related activities as required by College policies.
JONAS JOAQUIN	General Education Instructor	The Instructor is responsible for teaching one or more classes or components of the general educational services.	➢ Instructors are required to engage in activities, which demonstrate a pattern of academic, professional, and/or technical achievement. He must maintain the enforcement of all curriculum related activities as required by College policies.
JENNIFER ELLSWORTH	General Education Instructor	The Instructor is responsible for teaching one or more classes or components of the general educational modules.	➢ Instructors are required to engage in activities, which demonstrate a pattern of academic, professional, and/or technical achievement. He must maintain the enforcement of all curriculum related activities as required by College policies.
ANNA MARTIROSYAN	Librarian, General Education Instructor	Librarian and instructor: The Instructor is responsible for conducting one or more classes or components of the institution's educational services	➢ The Librarian is dedicated to assisting students in gaining the knowledge and skills needed to locate high quality, relevant information.

AMSC FACULTY/STAFF

NAME	INSTITUTION	F.T. P.T.	DEGREES DIPLOMAS	CREDENTIALS
VARDAN KARAGEZIAN	State University Republic of Armenia California School of Medical Sciences, Los Angeles, Ca;	**F.T.**	M.S.	Master Degree. Medical Cybernetics, Sonographer
HAIK ANTONYAN	University of Phoenix, La Mirada, CA Rio-Hondo Community College, Whittier, CA	**F.T.**	AA/B.S.	Human Services Business Management
NORMA CERANO	Roosevelt High School La, Ca East Los Angeles College	**F.T.**	AA	Financial Aid Officer
GLORIA ASSATRIAN	College Andre Chenier, France	**F.T.**	AA	AA Degree, Pursuing BA
ANNA NAZARIAN	Montebello High School	**F.T.**	Diploma	GE
LUSINE GORDILYAN	State University Republic of Armenia AMSC College, Glendale Ca.	**P.T.**	B.A.	Registered Sonographer
CYNTHIA L GLICK	????	**F.T.**	M.S.	Registered Sonographer
DEZIRE KHOSRAVI	?????	**F.T.**	B.S.	Registered Sonographer
DIAZ ARELI	?????	**F.T.**		
SMBAT MIKAELIAN	State University Republic of Armenia Republic of Armenia.	F/T	M.S.	Doctor of Medicine (Foreign Graduate) Registered Sonographer
LIANA HAKOBYAN	State University Republic of Armenia Republic of Armenia.	F/T	M.S.	Doctor of Medicine (Foreign Graduate) Registered Sonographer
VIET T. LE	?????			
GRIGOR GALADZHYAN	Los Angeles City College AMSC College LA., CA.	F/T	A.A.	Registered Sonographer
SAMANTHA MILLER	?????			
GOR SHAMIRYAN	AMSC College Glendale CA.	P/T	Diploma	Registered Sonographer
JONAS JOAQUIN	De La Salle Health Science Institute Dasarinas, Philippines	P/T	B.S.	B.S. Degree Pursuing Doctorate
JENNIFER ELLSWORTH	????			
ANNA MARTIROSYAN	Grand Canyon University Phoenix, AZ	F/T	M.A.	Master of Education Special Education/ Information Systems

MEMBERS OF ADVISORY BOARD OF DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAMS

DMS PROGRAM DIRECTOR *Ms. Cynthia L Glick M.s, ARDMS*
DMS MEDICAL ADVISOR *-????----------*

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VIGEN VIRABYAN RDMS, RVT, RDCS
HOUSNI HARIRI ARRT

AMSC Members

VARDAN KARAGEZIAN, Director
HAIK ANTONYAN, Associate Director
GLORIA ASSATRIAN, Student Services
DEZIRE KHOSRAVI Clinical Coordinator
LUSINE GORDILYAN Job Placement officer
LIANA HAKOBYAN: Instructor
GRIGOR GALADZHYAN Instructor

CATALOG EFFECTIVE DATES

This catalog is updated annually and is in effect from January 01, 2021 to December 31, 2021. Special care is given to ensure information in our catalog publication is an accurate description of programs, policies, procedures, facilities, personnel, and other matters relevant to the operation of American Medical Sciences Center (AMSC). There are times that the catalog requirements may be updated/change. However, students' education plans will not change and will adhere to the catalog which was in effect at the time the student began his/her education at the Institution. American Medical Sciences Center will authorize substitutions for discontinued courses where appropriate (course update or updates due to Federal/State Regulations).

ACCURACY STATEMENT

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

CATALOG REVISED DATES

COVER DATES	UPDATED 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 Addendum)
2021(01/01/2021-12/31/2021)	08/02/2021