



NATIONAL SCHOOL OF TECHNOLOGY, INC.
"Celebrating 18 years of Excellence in Education"

1995 CATALOG

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MISSION STATEMENT

Our mission is to fulfill the professional and educational needs of growth-oriented individuals who are prepared to change their careers and lives for the better. A supportive staff and innovative faculty are open to helping students reach their goals.

In a warm, friendly, and professional setting, students realize their strengths in a team approach with staff and faculty.

With a future in mind, and the wealth and welfare of students continuously considered, a winning spirit which promotes self esteem and viable career alternatives becomes the goal of everyone involved with National School of Technology.

INSTITUTIONAL PHILOSOPHY

The purpose of the school is to provide quality education to students seeking careers in medical and computer related fields.

In an effort to fill the critical needs of these professions for trained personnel, and to provide meaningful and fulfilling careers to capable individuals, the school maintains the highest level of professional dedication.

The school is constantly updating its curricula, recognizing its obligation to the students and the professions they serve. National School of Technology continues to provide quality training for allied health and business professionals.

HISTORY

The school was founded in January 1977, as National School of Health Technology, Inc. of Florida. Classes began in February 1977, in North Miami Beach.

In 1982, the school changed its name to National School of Technology, Inc. and moved to the present North Miami Beach location, which was built for the school.

In January 1985, classes began at a campus in Hialeah, Florida, which was designated as an additional classroom facility. In June 1989, the Hialeah Campus was awarded branch status.

In October 1991, National School of Technology acquired Ward Stone College, located in Kendall, Florida. Ward Stone College is officially recognized as a candidate for junior college accreditation by the Accrediting Council for Independent Colleges and Schools (ACICS).

FACILITIES

National School of Technology consists of classrooms, medical and computer laboratories, school offices and financial aid offices. The medical classrooms and labs contain equipment commonly found in the medical environment, such as ECG machines, microscopes, examining tables, blood cell counters, ultrasonography and echocardiography equipment as well as other types of cardiovascular diagnostic equipment. The microcomputer labs are equipped with IBM compatible computers to allow students to receive hands-on training. The surgical laboratories contain surgical instruments, trays, scrub stations, anatomical mannequins, drapes, etc. for practicing techniques. A student lounge, equipped with vending machines for food, drinks and snacks, as well as a microwave oven, is also available. The facilities are accessible to people with disabilities.

ACCREDITATION

National School of Technology, Inc. is institutionally accredited by the Accrediting Commission of Career Schools and Colleges of Technology (ACCSC). The Medical Assistant Program is accredited by the Accrediting Bureau of Health Education Schools (ABHES).

MEMBERSHIPS

- Career College Association (CCA)
- Florida Association of Postsecondary Schools and Colleges (FAPSC)
- Florida Association of Student Financial Aid Administrators (FASFAA)
- National Association of Student Financial Aid Administrators (NASFAA)
- Better Business Bureau (BBB)

LICENSURE

The school is licensed by the Florida Board of Independent Postsecondary Vocational, Technical, Trade and Business Schools, Department of Education, Florida Education Center, Tallahassee, FL, 32399-0400, (904) 488-9504. The North Miami Beach campus holds License #599 and the Hialeah campus holds License #747.

STATEMENT OF OWNERSHIP

National School of Technology, Inc. is owned and controlled by Martin Knobel, C.E.O., Rickie Knobel, Treasurer, Mark Knobel, President and David Knobel. The corporate offices are located at 1590 N.E. 162nd Street, Suite 300, North Miami Beach, Florida, 33162. The telephone number is (305) 945-2929.

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NATIONAL SCHOOL OF TECHNOLOGY, INC.

16150 N.E. 17th Avenue • North Miami Beach, Florida 33162
Tel: (305) 949-9500 • Fax: (305) 956-5758

Congratulations for the decision you have made to start career training at National School of Technology!

For over 18 years, National School of Technology has been providing quality education to students seeking careers in the medical and computer fields. Our programs are geared to provide you with the skills necessary to meet the demands of today's fast paced, competitive and technological job market.

National School's faculty consists of professionals with extensive experience in each specialized field - our instructors practice what they teach. A supportive classroom environment allows for personalized instruction and individual attention. Classrooms house the high-tech equipment, creating a realistic work environment for practical hands-on training. Our curriculum is career-oriented, and is enhanced by special projects or internship programs designed to prepare you for work in your chosen field.

Our objective is to offer you the training necessary to realize your career goals. We look forward to making your plan to enter National School of Technology one of the best decisions of your life.

Sincerely,

NATIONAL SCHOOL OF TECHNOLOGY

Martin Knobel
Chief Executive Officer

Medical Practice & Administration Division

MEDICAL ASSISTANT

Diploma
900 Clock Hours

MEDICAL ASSISTANT TECHNICIAN

Diploma
1200 Clock Hours

PROGRAM OBJECTIVE:

This contemporary training program is designed to teach students the skills necessary for employment in the modern medical facility. A qualified medical assistant is capable of performing a wide range of duties, with a variety of technical detail; thus helping the physician in many administrative and clinical situations. Training in medical ethics and professional etiquette, as well as basic office procedures, are taught as required elements of the program.

CAREER OPPORTUNITIES:

Medical Assistants enjoy secure, prestigious positions. Graduates work in entry-level positions with one or more physicians in private practices, clinics, hospitals, laboratories and other health facilities. Medical Assistant Technicians may be qualified for enhanced employment opportunities with the addition of computer operations and basic x-ray training to their core curriculum.

Medical Assistant-Program Outline

Block 1

MA 110	Human Bio-organization	15
MA 112	Body Structure, Movement and Function	75
MA 114	Specialized Sense Organs	10
MA 120	The Cardiovascular System- Electrocardiography	60
MA 122	The Respiratory System	15
MA 124	The Nervous System	15
MA 126	CPR Certification - Emergency Cardiac Care	10

Block 2

MA 130	Psychology of Patient Care- Legal & Ethical Issues	25
MA 132	Medical Office Management Procedures	115
MA 162	Clinical Assisting Skills	50
MA 166	Nutrition and Diet Therapy	10

Block 3

MA 168	Infection Control and Sterilization	10
MA 170	Organization of the Clinical Laboratory	15
MA 171	Pharmacology and Drug Therapy	30
MA 172	Phlebotomy Techniques	35
MA 174	Hematology	35
MA 180	Clinical Chemistry	25
MA 182	Basic Urinalysis	25
MA 184	Serology Testing	5
MA 186	Microbiology	20

Block 4 (For Medical Assistant Technicians Only)

MA 140	Computer Fundamentals	30
MA 142	Medical Office Management Software	10
MA 144	Computer Applications for Office Practice	60
MA 150	Keyboarding Skills/Data Entry	35
MA 152	Rules for Medical Word Processing and Terminology	20
MA 154	Basic Medical Reports	15
MA 156	Medical Word Processing Lab	30

Block 5 (For Medical Assistant Technicians Only)

RT 190	Fundamentals of Radiology, Terminology, and Mathematics	35
RT 192	Radiation Physics & Electronics	20
RT 194	Radiographic Technique and Production	35
RT 196	Basic X-Ray Machine Operator Certification Exam Review	10

Internship

MA 208	Internship or Project	300
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MEDICAL ASSISTANT
TOTAL CLOCK HOURS 900
 9 months days/12 months evenings

MEDICAL ASSISTANT TECHNICIAN
TOTAL CLOCK HOURS 1200
 12 months days/15 months evenings

Medical Practice & Administration Division

HEALTH SERVICES ADMINISTRATION

Diploma
1200 Clock Hours

PROGRAM OBJECTIVE:

This program prepares individuals for business office positions in a broad variety of medically-related settings. Students become proficient in accounting and medical insurance claim processing. Emphasis is placed on developing competencies in the computer laboratory and field settings using contemporary applications in word processing, spreadsheets, computerized accounting and automated insurance processing.

CAREER OPPORTUNITIES:

Graduates are eligible to assume entry-level positions as medical insurance claims processors, medical claims examiners & service representatives, patient billing & collections personnel, medical business office personnel, assistant bookkeepers, accounts payable/receivable clerks, payroll processors, administrative assistants, etc. These positions may be found in private physicians' offices, medical equipment supply companies, hospitals and medical centers, clinics, insurance companies, and other similar businesses.

Health Services Administration-Program Outline

Block 1 Foundation Skills

HS 1100	Keyboarding Lab	50
HS 1105	Applied Business Math	50
HS 1110	English Usage & Business Communications	90
HS 1115	Practical Office Skills Lab	10

Block 2 Computer Applications

HS 1200	Principles of Management	50
HS 1205	Computer Fundamentals	10
HS 1210	Spreadsheet Applications Lab	70
HS 1215	Word Processing Applications Lab	70

Block 3 Accounting

HS 1300	Principles of Accounting	100
HS 1305	Payroll Processing	25
HS 1310	Payroll & Sales Tax Reporting	25
HS 1315	Automated Accounting Lab	50

Block 4 Insurance & Claims Processing

HS 1400	Medical Terminology & Gross Human Anatomy	25
HS 1405	Business Trends in Medicine	10
HS 1410	Medical Claims Processing, Coding & Billing	100
HS 1415	Automated Claims Processing Lab	65

Internship

HS 1500	Internship	400
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TOTAL CLOCK HOURS **1200**
 12 months days/15 months evenings

Surgical Technology Division

SURGICAL TECHNOLOGIST

Diploma
1200 Clock Hours

PROGRAM OBJECTIVE:

This program prepares individuals to perform the services of a surgical technologist which includes such duties as passing instruments to surgeons during surgical procedures, checking supplies and equipment required for surgical procedures, setting up sterile tables with instruments and other equipment needed for procedures, draping sterile fields, and other similar activities.

CAREER OPPORTUNITIES:

Graduates are eligible for employment in entry-level positions as surgical technologists, assisting surgeons in hospital surgical suites, out-patient surgical centers, private physicians' offices and other clinical areas. The surgical technologist may be assigned other functions as permitted by the hospital and/or employer policy.

Surgical Technologist-Program Outline

Block 1

ST 1110	Medical Terminology	15
ST 1112	Human Body Organization, Cells Tissues & Organs	15
ST 1114	Integumentary System	15
ST 1116	Skeletal System	20
ST 1118	Muscular System	20
ST 1120	Nervous System & Special Senses	15
ST 1122	Circulatory System	20
ST 1124	Lymphatic System	15
ST 1126	Respiratory System	15
ST 1128	Digestive System	20
ST 1130	Genitourinary & Reproductive System	15
ST 1132	Endocrine System	15

Block 2

ST 1210	Microbiology	40
ST 1212	Patient Psychology	15
ST 1214	Legal Aspects of Medicine & Professional Ethics	20
ST 1216	Mathematics Fundamentals & Metric System	30
ST 1218	Pharmacology	40
ST 1220	Cardiopulmonary Resuscitation	15
ST 1222	Computer Concepts	40

Block 3

ST 1310	Introduction to Surgical Technology	40
ST 1312	Surgical Techniques & Procedures	40
ST 1314	Surgical Specialties I - General, OB/GYN, Plastics & Orthopedics	40
ST 1316	Surgical Specialties II - Ophthalmology, ENT & Urology	40
ST 1318	Surgical Specialties III - Cardiovascular, Thoracic & Neuro	40

Clinical Practicum

ST 1410	Clinical Practicum	600
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TOTAL CLOCK HOURS	1200
12 months days	

Cardiology Division

CARDIOVASCULAR TECHNOLOGIST

Diploma
1500 Clock Hours

PROGRAM OBJECTIVE:

This program will enable students to perform electrocardiograms (ECG), ambulatory monitoring and graded exercise diagnostic examinations, as well as basic x-ray and cardiovascular laboratory procedures through the acquisition of medical knowledge and techniques in the field of cardiology. This program also prepares students with the foundation for advanced study in cardiovascular technology and diagnostic imaging.

CAREER OPPORTUNITIES:

Cardiovascular Technologists are employed in hospitals, cardiologists' offices, cardiology mobile units and many other health facilities.

Cardiovascular Technologist-Program Outline

Block 1

CV	1106	Medical Terminology	15
CV	1110	Cellular Basis of Anatomy and Physiology	15
CV	1112	Musculoskeletal System	15
CV	1114	Nervous System	30
CV	1116	Respiratory System	15
CV	1118	Gastrointestinal System	45
CV	1120	Genitourinary System	15
CV	1122	Endocrine System	15
CV	1124	Reproductive System	15
CV	1126	Cardiac Anatomy and Physiology	60
CV	1128	Vascular Anatomy and Physiology	45
CV	1130	Cardiopulmonary Resuscitation	15

Block 2

CV	1210	Computational Science	15
CV	1212	Medical Physics	15
CV	1213	Clinical Laboratory Procedures	60
CV	1214	Normal ECG and Normal Variants	45
CV	1216	Vectorial Analysis	15
CV	1218	Hypertrophies and Interventricular Conduction Disturbances	15
CV	1220	Ischemia, Injury, & Infarction	15
CV	1224	Arrhythmia Recognition and Management	75
CV	1226	Pacemaker Rhythms	15
CV	1228	Cardiovascular Pharmacology	15
CV	1230	Basic Medical Skills	15

Block 3

CV	1310	Graded Exercise Testing	15
CV	1312	Ambulatory Monitoring	15
CV	1314	Stress and Holter Lab	30
CV	1316	Cardiac Pathology	180
CV	1318	Introduction to Vascular Diseases	30
CV	1320	Psychology of Patient Care	15
CV	1322	Professionalism & Medical Ethics	15

Block 4

CV	1410	Business and Medicine	10
CV	1412	Records Management Systems & Procedures	50
CV	1414	Sterilization & Infection Control	15
CV	1422	Advanced Concepts in Cardiac Technology	35
CV	1424	Introduction to Vascular Studies	30
CV	1426	Non-Invasive Vascular Lab	30
CV	1428	Physics of Ultrasound	30
RT	0190	Fundamentals of Radiology, Terminology, and Mathematics	35
RT	0192	Radiation Physics & Electronics	20
RT	0194	Radiographic Technique and Production	35
RT	0196	Basic X-Ray Machine Operator Certification Exam Review	10

Internship

CV	1450	Internship or Project	300
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TOTAL CLOCK HOURS 1500
15 months days/19 months evenings

Cardiology Division

INVASIVE CARDIOVASCULAR TECHNOLOGIST

Diploma
1200 Clock Hours

PROGRAM OBJECTIVE:

This program will prepare students to function effectively in cardiac catheterization laboratories as Invasive Cardiovascular Technologists.

CAREER OPPORTUNITIES:

Due to the highly specialized nature of their training, graduates are afforded entry-level employment opportunities in various challenging and rewarding clinical environments. Invasive Cardiovascular Technologists may be employed in hospitals, stand-alone medical centers and mobile cardiac catheterization services.

Invasive Cardiovascular Technologist-Program Outline

Block 1

IC	1110	Orientation to the Cardiac Catheterization Lab	25
IC	1112	Introduction to Cardiovascular Lab Procedures I	60
IC	1114	Concepts of Hemodynamic Monitoring	75
IC	1116	Hemodynamic Monitoring Lab I	50
IC	1118	Adult Cardiac Pathophysiology	10
IC	1120	Cardiovascular Pharmacology	20
IC	1122	Acid-Base Physiology & Techniques	25
IC	1124	Angiography Cine Review	25
IC	1126	Case Presentations in Cardiovascular Technology I	10

Block 2

IC	1210	Special Diagnostic Procedures	15
IC	1212	Interventional Cardiac Procedures	60
IC	1214	Applied Electrophysiologic Studies (EPS)	25
IC	1216	Introduction to Pacemakers & Automatic Implantable Cardiac Defibrillators (AICD)	10
IC	1218	Orientation to Neonatal & Pediatric Cardiovascular Procedures	10
IC	1220	Cardiovascular Lab Procedures II	45
IC	1222	Hemodynamics & Cardiovascular Pathophysiology	75
IC	1224	Hemodynamic Monitoring Lab II	50
IC	1226	Case Presentations in Cardiovascular Technology II	10

Clinical Practicum

IC	1310	Clinical Practicum, Special Projects & Seminars	600
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TOTAL CLOCK HOURS **1200**
12 months days

***Note:** Applicants without acceptable radiography credentials may take these prerequisites at NST at no additional cost (students must purchase texts).*

Diagnostic Medical Technology Division

ULTRASOUND TECHNOLOGIST Diploma - 1200 Clock Hours

PROGRAM OBJECTIVE:

This program will provide students with the foundation leading to the performance of abdominal and OB/GYN diagnostic examinations through the acquisition of medical knowledge and techniques in ultrasound.

CAREER OPPORTUNITIES:

Because of their extensive training, sonographers are capable of working in a variety of clinical environments including physicians' private practices, clinics, diagnostic centers, and mobile diagnostic units.

Pre-requisite: Cardiovascular Technologist Program or equivalent (see Statement of Application to Upper Division Programs)

DIAGNOSTIC CARDIAC SONOGRAPHER Diploma - 1200 Clock Hours

PROGRAM OBJECTIVE:

This program will enable students to perform diagnostic examinations through the acquisition of medical knowledge and techniques in diagnostic cardiac and vascular sonography.

CAREER OPPORTUNITIES:

Diagnostic Cardiac Sonographers are employed in hospitals, cardiologists' offices, cardiology mobile units and many other health facilities.

Pre-requisite: Cardiovascular Technologist Program (see Statement of Application to Upper Division Programs)

DIAGNOSTIC MEDICAL SONOGRAPHER Diploma - 1200 Clock Hours

PROGRAM OBJECTIVE:

Upon completion of both the Ultrasound Technologist and Diagnostic Cardiac Sonographer programs, graduates are able to perform abdominal and OB/GYN diagnostic ultrasound examinations, as well as diagnostic cardiac and vascular sonography.

CAREER OPPORTUNITIES:

Diagnostic Medical Sonographers possess diverse skills in ultrasonography and are prepared for employment in entry-level positions at hospitals, diagnostic centers, mobile diagnostic services and private physicians' offices.

Pre-requisite: Applicants to this program must first be enrolled in either the Ultrasound Technologist or Diagnostic Cardiac Sonographer program and be within 90 days of program completion. Applicants must also excel academically and professionally, and be formally recommended to the program by their respective program director.

Ultrasound Technologist-Program Outline

Block 1			Block 3		
US 1110	Physics of Ultrasound and Instrumentation	50	US 1310	Embryology	25
US 1112	Cross Sectional and Sagittal Anatomy	25	US 1312	First Trimester: Normal and Abnormal Fetal Anatomy	50
US 1114	Liver, Gall Bladder, Pancreas, Biliary System, and Spleen	150	US 1314	Second Trimester: Normal and Abnormal Fetal Anatomy	50
US 1116	Renal System	75	US 1316	Third Trimester: Normal and Abnormal Fetal Anatomy	50
Block 2			US 1318	Ultrasound Measurements, Biophysical Profile, and Multiple Fetuses	75
US 1210	Adrenal Gland and Retroperitoneum	25	US 1320	Incompetent Cervix, Placental Abnormalities, Doppler Assessment of Pregnancy	50
US 1212	Vascular System	75	Internship		
US 1214	Thyroid and Parathyroid Glands	15	US 1430	Internship	300
US 1216	Mammary Gland	15	TOTAL CLOCK HOURS 1200		
US 1218	Scrotum and Prostate Gland	30	12 months days/15 months evenings		
US 1220	Anatomy of the Female Pelvis and Scanning Techniques	30			
US 1222	Pelvic Inflammatory Diseases	15			
US 1224	Congenital Anomalies of the Female Genital Tract/Benign Diseases of the Vagina	20			
US 1226	Malignant Diseases of the Uterus and Cervix/Benign Masses, Malignant Masses of the Ovaries and Fallopian Tubes and Broad Ligaments	75			

Diagnostic Cardiac Sonographer-Program Outline

Block 1			Clinical Practicum		
CS 1110	Introduction to Cross-Sectional Echo Anatomy	15	CS 1220	Sonography Clinicals	810
CS 1112	Introduction to Normal 2-Dimensional Lab	15	CS 1250	Special Projects and Seminars	90
CS 1114	Two-Dimensional Lab	45	TOTAL CLOCK HOURS 1200		
CS 1116	Introduction to Normal M-mode	15	12 months days		
CS 1118	Introduction to Conventional Doppler Exam	15			
CS 1120	Conventional Doppler Lab	45			
CS 1122	Introduction to Color Flow Mapping and Principles	15			
CS 1124	Echocardiographic Pathology	75			
CS 1126	Non-Invasive Lab II	60			

GENERAL INFORMATION

CLASS SIZE

Class size averages between 15 and 30 students. Medical laboratory class size usually will not exceed 20 students, allowing for personal attention and individualized instruction.

EQUAL OPPORTUNITY STATEMENT

National School does not discriminate in the admission or recruitment of its students. The financial aid program is administered free from discrimination as specified by federal laws. National School of Technology is an equal opportunity employer.

HOURS OF OPERATION

The school is open from 8:00 a.m. to 11:00 p.m., Monday through Thursday; and from 8:00 a.m. to 4:00 p.m. on Friday.

RULES AND REGULATIONS

Students must attend all classes regularly and arrive punctually. In the event of illness or inability to attend, the student must notify the school in writing, presenting a valid and verifiable excuse. Students must arrive to class at the scheduled times and return to class immediately after all breaks and lunch periods, or be considered tardy. Tardiness is defined as arrival to class 15 minutes after the scheduled class time. Three tardies are considered as one absence. Students may be suspended when absences and tardiness constitute more than 20 percent of total class hours. Upon readmission to class, the student must make up lost instruction time to the satisfaction

of the instructor. Habitual tardiness shall be cause for termination.

The student lounge is open for use during specified lunch and break periods. This is the only area in which students may have food or beverages. Smoking is not permitted in the facility.

Public telephones are located in the student lounge. Telephones within the school offices are for school use only. Incoming calls for students will be accepted only in cases of extreme emergency.

Firearms, drugs, alcoholic beverages and weapons are strictly prohibited.

Students are prohibited from playing games of chance, using offensive language, making unnecessary noise or engaging in behavior unbecoming a professional.

Children are not allowed in classrooms.

Students will be responsible for and pay for all property they have destroyed or damaged. Vandalism will result in immediate expulsion and contract termination without recourse or appeal.

Students must conduct themselves in class with proper decorum, respect and attention to the instructors. They must behave with courtesy and regard for other persons and school property.

Students are expected to attend class in professional attire. All students enrolled in medical programs are required to wear white uniforms, including white shoes. Students are expected to maintain a high standard of personal cleanliness and grooming. All clothing must be clean and neat. Male students must be clean shaven and maintain beards and mustaches neatly trimmed.

Students are expected to dress in clothing that they would wear to their jobs. Shorts, jeans, t-shirts and hats may not be worn in the classrooms.

General Information Continued

All students must keep work areas clean. Classes will be dismissed only after the room has been inspected.

Failure to cooperate with school rules and regulations will result in student suspension or expulsion. Students may appeal expulsion in writing within 72 hours to the Chief Executive Officer of the school. In the absence of an appeal, the student shall be considered terminated.

STUDENT COMPLAINTS/ GRIEVANCE PROCEDURE

National School of Technology endeavors to be responsive to the needs of its students. In the event that a complaint arises, students are expected to resolve such grievances in a constructive and appropriate manner. Most complaints are resolved on an informal basis, however, if necessary, students may pursue more formal channels. Students may contact the Campus Director to obtain information on National School's complaint policy and procedures.

Schools accredited by the Accrediting Commission of Career Schools and Colleges of Technology must have a procedure and operational plan for handling student complaints. If a student does not feel that NST has adequately addressed a complaint or concern, the student may consider contacting the Accrediting Commission. All complaints considered by the Commission must be in written form, with permission from the complainant(s) for the Commission to forward a copy of the complaint to the school for a response. The complainant(s) will be kept informed as to the status of the complaint as well as the final resolution by the Commission. Please direct all inquiries to:

Accrediting Commission of Career Schools and
Colleges of Technology
2101 Wilson Boulevard
Suite 302
Arlington, Virginia 22201
(703) 247-4212

A copy of the Commission's Complaint Form is available at the school and may be obtained by contacting Mr. Ortiz, NMB Campus Director, or Mr. Wurst, Hialeah Campus Director.

DISCLOSURE STATEMENT

Courses are not necessarily taught in the same order that they appear on the curriculum outline. The school reserves the right to change the program outline, start dates, tuition, or to cancel programs. Currently enrolled students will not be affected by tuition increases. All program cancellations shall be in accordance with the Department of Education and State of Florida rules and regulations.

Certain programs, blocks of instruction or courses may be offered at either the main campus in North Miami Beach or the branch campus in Hialeah. This may require students to attend classes at another campus in order to complete their studies. Administrative circumstances such as enrollment levels, availability of specialized equipment or facilities, or other limitations of resources may warrant such offerings.

A block of instruction may occasionally not be offered due to insufficient enrollment levels. Under these circumstances, students will experience a delay in the completion of their program.

SCHOOL HOLIDAYS

New Year's Day - Martin Luther King, Jr. Day -
President's Day - Good Friday - Memorial Day -
Independence Day - Labor Day - Thanksgiving
Weekend - Christmas Vacation.

There are two one week recesses, normally the first week in July and the week of Christmas through New Year's Day. These recess periods apply only to classroom instruction and not to internships or clinical practica. Exact vacation dates are announced and additional holidays may be declared by the Director, when warranted.

STUDENT SERVICES

JOB PLACEMENT ASSISTANCE

The Career Development Department helps graduates find employment in the fields for which they have been trained. Employment advisement, including resume preparation and interviewing tips, is available. By assisting students with part-time employment, internships and job placement services for graduates, the career development staff makes every effort to secure positions for graduates. National School is not permitted by law to guarantee employment. All programs are designed to prepare graduates for entry-level positions.

COUNSELING

Students may be referred to counseling opportunities in the community by faculty or staff of the school.

CPR/FIRST AID CLASSES

Cardiopulmonary-Resuscitation (CPR) and first aid classes are held three to four times a year at the school for medically-related programs. CPR certification is awarded upon completion.

GRADUATION

Upon successful completion of all prescribed subjects of instruction with a cumulative grade average of 77 percent or better, demonstrating the ability to perform all required competencies, satisfaction of all financial obligations to the school and an exit interview, the student will be awarded a diploma credential as stated in the catalog program information. Students may participate in the graduation ceremony and will be eligible for placement assistance, providing all graduation requirements have been met.

INSURANCE

Each medical student is provided professional liability insurance at no extra charge, while on approved internships, practica and during classroom training exercises.

LIBRARY

A library of professional reference books is available for student use.

PHOTO IDENTIFICATION BADGES

For security purposes, all students are required to wear a photo identification badge. This badge is issued by the school and is free of charge. Lost badges must be replaced and cost \$5.

PROFESSIONAL AND CREDENTIALING ORGANIZATIONS

Students are encouraged to associate themselves with the professional and credentialing organizations in their respective career fields for the purpose of continuing education, licensing, certification, employment opportunities and awareness of industry trends.

- Registered Medical Assistant by the American Medical Technologists (RMA/AMT)
- Certified Medical Assistant by the American Association of Medical Assistants (CMA/AAMA)
- Basic X-ray Machine Operator, license necessary to take x-rays in the doctor's office, issued by the State of Florida.
- American Society of Phlebotomy Technicians (ASPT)
- American Society of Cardiovascular Professionals (ASCP)
- Cardiovascular Credentialing International (CCI)
- Greater Miami Society of Echocardiography
- Society of Diagnostic Medical Sonographers (SDMS)
- Association of Surgical Technologists, Inc. (AST)

COMMUNITY SERVICE AND AWARDS

National School of Technology recognizes the importance of community service. As a part of the technical training, NST will endeavor to instill a feeling of responsibility towards the community in its students and encourage them to participate as volunteers in various community projects.

Student Services Continued

National School participates in health fairs and sponsors blood drives in conjunction with the American Red Cross several times a year. In recognition of its efforts and accomplishments in service to the community, National School has received several awards and citations. Mayors of Metro-Dade County, the City of Miami, the City of North Miami Beach and the City of Hialeah have all issued proclamations honoring National School for its community service.

REGISTERED MEDICAL ASSISTANT (RMA) EXAM

The school is a site for the Registered Medical Assistant Examination. This exam is given four times a year. Students are notified of examination dates as they are scheduled.

CERTIFIED PHLEBOTOMY TECHNICIAN (ASPT) EXAM

The school is a site for the American Society of Phlebotomy Technician Examination. This exam is given six times a year. Students are notified of examination dates as they are scheduled.

CERTIFIED RADIOGRAPHIC TECHNICIAN (CCT) EXAM

The school is a site for the Certified Radiographic Technician Examination offered by Cardiovascular Credentialing International (CCI). This exam is given three times a year in March, June and September.

BASIC CARDIOVASCULAR SCIENCE EXAM (Component)

The school is a site for the Basic Cardiovascular Science Examination offered by Cardiovascular Credentialing International (CCI). This exam is given three times a year in March, June and September. In order to be eligible for a professional credential, examinees must also pass one or more of the following registry exams in addition to this Basic Science exam:

- Registered Cardiovascular Technologist (RCVT) Non-invasive Registry Exam
- Registered Cardiovascular Technologist (RCVT) Invasive Registry Exam
- Registered Cardiovascular Technologist (RCVT) Vascular Registry Exam

CERTIFIED SURGICAL TECHNOLOGIST (CST) EXAM

This exam is offered semi-annually in March and September by the Liaison Council on Certification for the Surgical Technologist. The exam is administered nationwide, including a local Miami test site.

TUTORING

Tutoring is available by appointment with instructors at no additional cost to the student.

REFRESHER COURSES

Refresher courses are available to graduates for the cost of materials only which generally do not exceed \$150. Costs of textbooks and supplies are extra.

STUDENT RECORDS

Student records are maintained indefinitely. Students may examine their academic records by scheduling an appointment with the registrar.

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT

National School of Technology is committed to the protection of students' rights and privacy of information. In accordance with Public Law 93-380, Family Educational Rights and Privacy Act, Florida Statute 5.229.782, the school allows students access to their educational records, to challenge records they believe to be inaccurate, incomplete or misleading, and to limit the release of such information. Records will not be released without the written consent of the student. The parent(s) of a dependent student (as defined in Title 26 U.S.C.S. 152 Internal Revenue Code) has the right to inspect records which are maintained by the school on behalf of the student.

TRANSCRIPTS

Copies of transcripts may be obtained by submitting a written request to the school. A fee of \$1 per copy is charged. Please allow 10 days for processing time.

Copies of diplomas may also be obtained by submitting a written request to the school. A fee of \$5 is charged. Please allow 30 days for processing time.

ACADEMIC INFORMATION

ADMISSIONS PROCEDURES AND REQUIREMENTS

Applicants are interviewed on campus by an admissions representative who discusses the programs of study, including the applicant's individual motivation and potential for success in training and subsequent employment.

Each applicant must successfully complete the Thurstone Test of Mental Alertness at the level required for the particular program. This general aptitude test is a part of the admissions interview, and guides the admissions representative in determining the student's ability to meet the requirements of the school's programs.

Applicants for admission must have a high school diploma or G.E.D.

Prospective students complete an application for enrollment which is reviewed by the Director. Applicants are notified whether they have been accepted within two weeks prior to the start date of the program and must sign an enrollment agreement with the school.

All students are required to submit their social security number for identification purposes.

All allied health students are required to submit a current certificate of good health.

No person shall be excluded from participation in National School of Technology or be subjected to any form of discrimination because of age, race, religion, sex, handicap or national origin.

Students are expected to maintain the standards of the school in academic, professional and personal achievement.

Students who desire to become applicants for the most advanced education programs of the school are required to meet additional admissions requirements.

CREDIT FOR PREVIOUS TRAINING

Credit for previous training may be granted upon receipt of an official transcript from an approved training facility. The amount of credit accepted will be determined by the Director and any necessary adjustments in the student's program will be made.

TRANSFER OF COURSE CREDITS

Decisions concerning the acceptance of credits by any institution other than the granting institution are made at the sole discretion of the receiving institution. No representation is made whatsoever concerning the transferability of any credits to any institution.

Students considering continuing their education at, or transferring to, other institutions must not assume that any credits earned at another school will be accepted by the National School of Technology. An institution's accreditation does not guarantee that credits earned at that institution will be accepted for transfer by any other institution. Students must contact the registrar at National School of Technology to determine what credits, if any, will be accepted.

ADMISSIONS REPRESENTATIVE

Each student will be assigned a representative to aid the student during his or her professional and educational experience.

APPLICATION PROCEDURES FOR INTERNATIONAL STUDENTS

National School of Technology is authorized by the Immigration and Naturalization Service (INS) to issue the I-20 form. When students apply to

Academic Information Continued

NST from outside the United States, they must, in addition to submitting a School Application, submit the following material before an I-20 form can be issued.

1. Evidence of High School Graduation - Transcript must be authentic and accompanied by a certified translation in English if necessary.

2. Authenticated transcripts from other colleges or universities attended. The transcript must contain the following:

- A. Subjects studied
- B. Dates attended
- C. Grades awarded
- D. Explanation of the grading scale
- E. A statement at the end of each year stating that the student was promoted to the next level

3. Evidence of Financial Support -

The international student is required by the Immigration and Naturalization Service to satisfy the local U.S. Consulate that he or she will not need to seek employment while attending school in the United States. The student must submit a current bank statement (within the last 6 months) or government sponsorship letter guaranteeing payment for tuition, fees, books, housing, personal expenses and, where appropriate, medical expenses. The amount of money guaranteed should be for a minimum equivalent of one year. If the applicant is not considered financially independent, he or she is required to have a financially independent individual fill out an Affidavit of Support Form. This form can be obtained at the local immigration office or local consulate.

4. Evidence of English Proficiency -

NST requires satisfactory evidence of mastery and command of the English language from all international students whose native language is not English. Such evidence may be one of the following:

A. Test of English as a Foreign Language (TOEFL)

B. Notarized evaluation by an appropriate functionary of a U.S. Binational Cultural Center which evaluates the candidate's ability to undertake a college program of study taught entirely in English

C. National School of Technology Entrance Placement Examination

5. Passport - If applying from outside the U.S., an international applicant must submit a copy of the front page of a valid passport showing applicant's picture and pertinent information. The passport must be valid for one year as of date of entry into the United States.

6. Registration Fee - A \$150 (U.S.) registration fee must be submitted with the first application for admission.

IMPORTANT INTERNATIONAL STUDENT VISA INFORMATION

I. International applicants are required to comply with all admissions requirements as stated in the catalog before they will be admitted to National School of Technology.

II. Admitted students should arrive in the United States and Miami community approximately two weeks prior to the first term of enrollment. An academic calendar gives specific dates and activities. Early arrival is necessary so that the student may locate housing, provide a local address to the school, participate in a new student orientation, test for English language reconfirmation, seek advisement and counseling assessment and register into a program.

Academic Information Continued

III. The school does not provide or recommend housing. Two to three months rent in advance may be required for housing in the community. Students must have sufficient funds to cover all expenses while in the United States. Students without sufficient funds will not be permitted to register for a program until the required funds are available.

See the Academic Calendar for start and completion date information.

An hour of instruction is equal to 50 minutes.

GRADING SYSTEM

A	93-100	Outstanding
B	85-92	Above Average
C	77-84	Satisfactory
D	70-76	Below Average
F	Below 70	Unacceptable

CHANGES IN PROGRAMS AND TUITION CHARGES

The school reserves the right to teach subject areas in order it deems necessary, to add to or delete from certain courses, programs, or areas of study as circumstances may require, and to make faculty changes. Changes in training curriculum shall not involve additional cost to currently enrolled students unless a new enrollment agreement is executed for an expanded program. Students are permitted to make one change at no additional charge. A change is defined as a withdrawal, a change of program of study, a leave of absence, a transfer from day to evening or evening to day class. Students making more than one change will be assessed a \$150 processing fee. This policy will not apply to any change made during the first two weeks of school.

IV. International students on visa are normally admitted to the United States for the entire time estimated by the school for the student to complete his or her approved program of study. International visa students must fulfill the following conditions:

- a) Pursue a full course of study at the educational institution they are authorized to attend.
- b) File an alien address report with the Immigration Service each January and immediately whenever the student changes his or her address.
- c) Not to transfer schools or work off campus without Immigration and Naturalization Service's permission.
- d) Keep a current passport that is valid for at least six months into the future.

V. All National School of Technology students are required to abide by the policies, regulations, and rules of the school, and the United States Department of Justice, Immigration and Naturalization Service.

CLASS HOURS AND START DATES

Day class hours range from 8:00 a.m. to 1:00 p.m., Monday through Friday.

Afternoon class hours range from 1:00 p.m. to 6:00 p.m., on scheduled class days.

Evening class hours range from 6:00 p.m. to 11:00 p.m., Monday through Thursday.

WITHDRAWAL AND TERMINATION

Students shall have the option to withdraw from the school at any time by giving notice of intent to terminate enrollment to the school office. If the student is under 18 years of age, notification must be accompanied by a letter from

Academic Information Continued

the parent or guardian consenting to the withdrawal. NST reserves the right to discontinue the enrollment of any student whose academic performance, attendance, or conduct is, for any reason, unsatisfactory. Any student who is absent for a period of one week, without notification to the school and good cause, may be subject to termination at the Director's discretion. Any student found guilty of academic dishonesty will receive an immediate zero for that subject and will be expelled. Academic dishonesty includes, but is not limited to, cheating, copying, plagiarism or failure to report the same. In the case of a student's prolonged illness, accident, death in the family, or other circumstance that makes it impractical to complete the course, the student may withdraw without damage to status and the school shall make a settlement which is reasonable and fair to both parties. One leave of absence may be granted to the student at the Director's discretion. A financial aid exit interview is required.

INTERNSHIP OR PROJECT

An internship or practicum is required as part of all programs of study. Internship is on-the-job training, under the supervision of a skilled professional. Internship sites are arranged by the Academic Affairs Department. Completion of a project may be required instead of an internship in certain programs. This is a requirement for graduation. All internships and practica are graded by the Department of Academic Affairs and are a part of the student's final average. Each student is required to demonstrate the ability to correctly perform all required competencies in order to graduate and receive a diploma.

APPLICATION TO UPPER DIVISION PROGRAMS

Students desiring admission to upper division programs must submit an application to the Admissions Screening Committee. The Admissions Screening Committee is comprised of a faculty member, the Campus Director, the Program Coordinator and/or Program Director/Clinical Coordinator of the program to which the student is making application. In order for the application to be favorably considered, the student must be recommended by the faculty and Program Coordinator and/or Director. These recommendations are based upon consideration of student performance in meeting the established criteria. These criteria are available to all students through their Program Coordinator or Director.

DIAGNOSTIC CARDIAC SONOGRAPHER PROGRAM ADVANCEMENT CONDITIONS & CONSIDERATIONS

Students enrolled in the Diagnostic Cardiac Sonographer Program must satisfactorily complete academic, behavioral and practical requirements of the first block of didactic instruction prior to advancing to the clinical practicum. Sonography clinical assignments are subject to the availability of sufficient clinical sites to accommodate the number of entering students. Priorities for determining clinical assignments are at the sole discretion of the program administration after considering any special circumstances and the availability of appropriate clinical resources. Students may occasionally be required to take a brief administrative leave while awaiting the availability of a clinical opening. Students requiring remediation must successfully complete a remediation plan based upon a schedule prepared by the program administration.

FINANCIAL INFORMATION

FINANCIAL AID PROGRAMS

To make training affordable, National School offers a variety of financial aid programs. Eligible students may apply for federal grants and loans including: Federal Pell Grants, Federal Supplemental Educational Opportunity Grants (FSEOG), Federal Subsidized and Unsubsidized Stafford Loans, and Federal Perkins Loans. Federal Parent Loans for Undergraduate Students (PLUS) may be available to parents of dependent students. Federal and State regulations determine if a student is eligible and the amount of financial aid for which he or she may be eligible.

APPLYING FOR FINANCIAL ASSISTANCE

Students wishing to apply for financial aid through National School of Technology must submit the following forms:

- NST Financial Aid Application
- Free Application for Federal Student Aid (FAFSA)
- Copies of the student's and/or spouse's and/or parent's tax return(s) for the previous tax year
- Documentation of citizenship
- Any other additional documents to complete their financial aid application(s)

The Student Financial Services Office will notify the student if further documentation is needed. Financial aid will not be awarded to any student who has not formally enrolled in the school.

SCHOLARSHIP PROGRAM

To further assist students financially, National School has developed the Martin Knobel Scholarship program designed to help qualifying students. Awards are determined by the administration and granted throughout the academic year. To qualify, students must meet the following criteria:

- (1) Demonstration of above average academic achievement at NST;
- (2) Completion of a minimum of 75% of the enrolled program; and
- (3) Demonstration of financial need as defined by the school administration.

STUDENT FINANCIAL SERVICES HOURS OF OPERATION

To make training affordable, National School students may apply for financial assistance in the Student Financial Services Offices.

Office hours are as follows:

Monday through Thursday 8:00 a.m. to 8:00 p.m.

Friday 8:00 a.m. to 4:00 p.m.

TUITION AND FEES

Tuition and fees vary according to the length of the program. For a listing of specific tuition charges, refer to the schedule in the back section of the catalog. Tuition and fees are the responsibility of each student, and arrangements for payment must be made before the first day of class.

Financial Information Continued

TEXTBOOKS, UNIFORMS AND SUPPLIES

All textbooks and handout materials are included in the fees. Medical students, with the exception of Surgical Technologists, are issued stethoscopes. Supplies, diskettes, coding forms, uniforms, hose and shoes are not included, and cost approximately \$25 to \$50.

VETERANS ADMINISTRATION

Veterans planning to attend National School of Technology should contact the VA Certifying Official at the Student Financial Services Office prior to beginning the program. VA students must apply for federal student aid and/or make payment arrangements with the Business Office. National School of Technology is not responsible for any VA benefits and cannot approve or guarantee any amount that veterans will receive.

Some programs may not qualify for veterans benefits due to recent updates of curriculum.

SATISFACTORY PROGRESS STATEMENT

Satisfactory progress is necessary in order to maintain eligibility for Title IV financial assistance programs, as well as to remain in school. Satisfactory progress is defined by the following criteria:

- (1) A grade average of 77%;
- (2) An attendance average of 80% per block;
- (3) Satisfactory performance of all required competencies; and
- (4) Meeting the specified conditions for incompletes, withdrawals, repetitions and remedial work.

If a student falls below the criteria listed above, consultation with a school official will be scheduled. The student will also receive written notice, placing the student on probationary status for one block of instruction, during which the Title IV funds may be disbursed. At the end of the probationary period, if the student has not satisfied the specified requirements, financial assistance checks will be withheld. The student will be provided the opportunity to repeat failed courses prior to termination from the program. Students meeting the specified requirement at the end of the probationary period will be removed from probationary status.

Students may appeal probation decisions to the Campus Director, in writing, within three days.

Students whose training has been interrupted for academic reasons may be reinstated with the following class by making application directly to the registrar. Students who have been administratively withdrawn from a program may apply for reinstatement by making written application to the Campus Director in accordance with the appeals process described in the catalog section entitled Rules and Regulations. The administration will review these applications and render a final decision.

INCOMPLETES, WITHDRAWALS, REPETITIONS, REMEDIAL WORK

Students with course incompletes, withdrawals, repetitions, and those doing remedial work are eligible to continue receiving financial aid if the following criteria are met:

- (1) The student is otherwise making satisfactory progress; and
- (2) The time required to make up and complete course work is within the program time frame.

Students with incomplete courses will receive written notice and are required to make up any incomplete assignments or examinations within one week of such notice in order to receive credit.

Financial Information Continued

Students withdrawing from a course prior to the midpoint of an instructional block will not receive a grade for the course. Grades assigned for repeated courses will replace the unsatisfactory grades for the same courses previously attempted.

MAXIMUM TIME FRAME

To remain eligible for federal funds, financial aid students must complete their program within a specified time frame. All programs must be completed within 1.5 times the normal duration of clock hours.

Evaluation for satisfactory progress will take place at the end of each block of instruction.

REFUND POLICY

1. All monies paid by an applicant will be refunded if requested within three business days after signing an enrollment agreement and making an initial payment.
2. Each student is accepted with the understanding that he or she has registered for an entire program of study. If a student is not accepted, all advance monies will be refunded.
3. If a student is accepted and then withdraws from the program for any reason before the class convenes, all monies shall be refunded, except as prescribed by school policy and in no case shall more than \$150 be retained by the school.
4. Students who have not visited NST prior to enrollment will have the opportunity to withdraw without penalty within three days following either attendance at a regularly scheduled orientation or following a tour of the school facilities and inspection of the equipment.

5. **Refunds to the students attending National School for the first time, or for subsequent periods of enrollment.** The school shall make a pro rata refund of tuition, fees, and other charges to a student who withdraws or otherwise fails to complete the period of enrollment.

A pro rata refund is required if the student has completed 60% or less of the program. The pro rata refund is equal to the portion of the period of enrollment for which the student has been charged that remains on the last day of attendance by the student. The refund is rounded downward to the nearest 10% of that period, less any unpaid charges, less a withdrawal fee of \$100.

The "portion of the period of enrollment for which the student has been charged that remains" shall be determined as follows: By dividing the total number of clock hours comprising the period of enrollment for which the student has been charged by the number of hours remaining to be completed as of the last day of recorded attendance.

6. If the student completes more than 60% of the program, the student shall not receive any refund, and is obligated for the full tuition, fees, and other charges.
7. Refunds are made within sixty (60) days of the date that the student cancels or fails to appear on or before the first day of class. Any monies due the student shall be refunded within sixty (60) days from the last date of attendance.

Termination Date. The termination date for refund computation purposes is the last date of actual attendance by the student. The school will refund all monies due whether or not the student provided notice of cancellation or withdrawal.

Special Cases. In case of prolonged illness or accident, death in the family, or other circumstances that make it impractical to complete the program, the school shall make a settlement which is reasonable and fair to both parties.

COURSE DESCRIPTIONS

CS 1110 INTRODUCTION TO CROSS-SECTIONAL ECHO ANATOMY 15 HOURS

A study of the parts of the heart as seen in different echocardiographic views using parasternal, apical, subcostal, and suprasternal windows.

CS 1112 INTRODUCTION TO NORMAL 2-DIMENSIONAL EXAMINATION 15 HOURS

A discussion of the technique for obtaining the different echocardiographic views of the heart with emphasis on getting the appropriate plane, achieving transducer control, and eliminating artifacts.

CS 1114 TWO DIMENSIONAL LAB 45 HOURS

Practice on normal 2-dimensional examination.

CS 1116 INTRODUCTION TO NORMAL M-MODE EXAMINATION 15 HOURS

An orientation to M-mode recording with emphasis on the motion pattern of the different parts of the heart which can be seen. Discussion of the technique of performing the exam and the M-mode measurements. Lab time to practice on M-mode examination is included.

CS 1118 INTRODUCTION TO CONVENTIONAL DOPPLER EXAMINATION 15 HOURS

A review of blood flow across the different valves of the heart as seen from different echo views. An explanation of the doppler technique of examination and the uses of the different doppler modes and interpretation of the doppler spectral display.

CS 1120 CONVENTIONAL DOPPLER LAB 45 HOURS

Practice on Conventional Doppler examination.

CS 1122 INTRODUCTION TO COLOR FLOW MAPPING & PRINCIPLES 15 HOURS

A review of color flow physics. A demonstration of the technique and uses of color flow doppler. Included are interpretations of the color flow display. Lab time to practice on color flow examinations is included.

CS 1124 ECHOCARDIOGRAPHIC PATHOLOGY 75 HOURS

A study of cardiac diseases with emphasis on echocardiographic findings.

CS 1126 NON-INVASIVE LAB II 60 HOURS

An orientation to the echocardiographic controls. A demonstration of the technique of performing a complete echocardiographic examination including 2D, M-mode, doppler and color flow. Case studies in echo pathology are also discussed.

CS 1220 SONOGRAPHY CLINICALS 810 HOURS

After successful completion of the Echocardiographic block, students will rotate through various cardiac ultrasound laboratory settings. The clinical rotation consists of two to three levels, ranging from mobile labs, diagnostic centers to high profile offices.

CS 1250 SPECIAL PROJECTS AND SEMINARS 90 HOURS

Weekly evening seminars are conducted to review and enhance the weekly echo experience received in the clinical site. Various instructional techniques and group discussions are applied during the seminars. Weekly attendance is mandatory for successful completion of the DCS Program.

CV 1106 MEDICAL TERMINOLOGY 15 HOURS

The use of abbreviations and symbols used in typical medical reports. Prefixes, suffixes and root words that make up the structure of medical language are also studied.

CV 1110 CELLULAR BASIS OF ANATOMY & PHYSIOLOGY 15 HOURS

An introduction to the medical field with a review of the responsibilities of a cardiovascular technologist, including ethical considerations. Study of the cell, its organelles and functions. Detailed discussion of cell membrane structure and its transport systems, and the role it plays in the generation of action potential.

CV 1112 MUSCULOSKELETAL SYSTEM 15 HOURS

A presentation of the overall skeletal plan with particular attention to anatomical landmarks relevant to echocardiographic and vascular studies. Ultramicroscopic anatomy of a muscle is discussed with a description of excitation-contraction coupling and its relationship to the nervous system.

CV 1114 NERVOUS SYSTEM 30 HOURS

A study of the organization and structures in the nervous system, the function of each component, and its blood supply. Includes discussion of the most common derangement involving the system.

CV 1450 INTERNSHIP OR PROJECT
300 HOURS

A demonstration of ECG, Holter and Stress competencies in the workplace with patients, or completion of an assigned project. Practical field experience is required of all graduates exiting the cardiovascular technologist program who are not advancing to upper division programs.

HS 1100 KEYBOARDING LAB **50 HOURS**

Students are taught by touch, the location of all of the alphabetic keys on the keyboard, proper posture and reaching techniques, and practice rhythm for more accurate and faster keyboarding. NOTE: Students must achieve minimum keyboarding speed of 35 wpm to graduate.

HS 1105 APPLIED BUSINESS MATH
50 HOURS

Students learn to use their math abilities in business related fields such as bank reconciliations, payroll computation, sales commissions, markup, simple interest, promissory notes and taxes.

HS 1110 ENGLISH USAGE & BUSINESS COMMUNICATIONS **90 HOURS**

Students prepare letters, memos, reports and other business documents using original thought. A study of communication, both oral and written. Organization of material, logical thought, and effective presentation are stressed.

HS 1115 PRACTICAL OFFICE SKILLS LAB
10 HOURS

A seminar placing emphasis on communication and office organization, including proper use of office equipment such as the telephones, copier and facsimile machines.

HS 1200 PRINCIPLES OF MANAGEMENT
50 HOURS

Emphasis is placed on aspects of management such as planning, organization, staffing, leading and controlling. The needs for sound management philosophy are identified.

HS 1205 COMPUTER FUNDAMENTALS
10 HOURS

An introduction to computer hardware and software and their use in a business environment.

HS 1210 SPREADSHEET APPLICATIONS LAB
70 HOURS

In this laboratory course, students learn contemporary spreadsheet applications. Students become proficient in various functions such as entering labels, values, formulas, formatting, aligning, and other important spreadsheet commands.

HS 1215 WORD PROCESSING APPLICATIONS LAB **70 HOURS**

In this laboratory course, students learn contemporary word processing applications. Students also learn to create and manage documents on the microcomputer, as well as word processing commands that permit them to become power users.

HS 1300 PRINCIPLES OF ACCOUNTING
100 HOURS

This course includes the basic structure of accounting, opening a set of books, journal entries, trial balances, financial statements, and closing the books of a business. The student learns about receivable and payable accounts, as well as collections.

HS 1305 PAYROLL PROCESSING **25 HOURS**

Students learn how to process the payroll of a simulated business.

HS 1310 PAYROLL & SALES TAX REPORTING
25 HOURS

Students become proficient in calculating payroll and sales taxes, including the filing of required reports.

HS 1315 AUTOMATED ACCOUNTING LAB
50 HOURS

Students learn how to process the general ledger, accounts payable and receivable ledgers, and prepare financial statements on a microcomputer.

HS 1400 MEDICAL TERMINOLOGY & GROSS HUMAN ANATOMY **25 HOURS**

The use of abbreviations and symbols used in typical medical reports. Prefixes, suffixes and root words that make up the structure of medical language are also studied. An introduction to the major anatomical structures of the human body to serve as a reference when performing medically-related business functions.

HS 1405 BUSINESS TRENDS IN MEDICINE
10 HOURS

A study of the impact of economics on health care, including the history of medical economics and current trends in health care delivery. Included are discussions on specialized versus multi-skilled health care. Students contrast various funding programs such as Medicare, Medicaid, managed care, and private indemnity insurance.

HS 1410 MEDICAL CLAIMS PROCESSING, CODING & BILLING **100 HOURS**

The study of medical office business practices, including types of practices and specialties, telephone techniques, appointment scheduling, maintaining medical records, filing systems, medical reports, correspondence, coding and processing health insurance claim forms.

**HS 1415 AUTOMATED CLAIMS PROCESSING
LAB 65 HOURS**

A series of projects designed to train the student to use medical software to create patient files, schedule appointments, generate ledgers and billing statements, collection notices, insurance claim forms, and practice analysis reports.

HS 1500 INTERNSHIP 400 HOURS

Students are assigned to a medically-related business where there is an opportunity to observe and participate in an on-the-job setting. Participation in seminars and other special activities may be required. Internships are a mandatory component of the program and must be satisfactorily completed before a diploma is issued.

**IC 1110 ORIENTATION TO THE CARDIAC
CATHETERIZATION LAB 25 HOURS**

A broad introduction to the principles of the field of invasive cardiology and the environment of the cardiac catheterization laboratory which will be reinforced and reviewed throughout the entire program. A description of the role of the cardiac cath lab and its personnel and an overview of the purpose and function of the equipment. This course also includes assessment of the cardiac patient, general patient care skills, as well as further study in the methods of quality patient care including communication skills, critical thinking, aseptic techniques, drug administration, vascular access and patient emergencies. Includes pre and post cath care, prevention of potential complications associated with vascular interventions, universal precautions and other occupational safety guidelines, operating room procedures role clarification. Also includes care and handling of equipment, a study of calibration, proper operations, troubleshooting and maintenance of cath lab equipment. Legal aspects of documentation and the need for complete and accurate notations are emphasized.

**IC 1112 INTRODUCTION TO
CARDIOVASCULAR LAB PROCEDURES I
60 HOURS**

A survey of the theory and applications of hemodynamics and angiography designed to give students an understanding of diagnostic catheterization procedures and their medical and surgical applications. An overview of adult and pediatric procedures and techniques, cardiovascular catheters, and the differences in their sizing design, construction and the resulting changes in handling characteristics including pushability, flexibility, torque and tractability. An introduction to the responsibilities of the technologist in aseptic techniques including the scrub and circulating environment. The monitoring techniques required to safely perform cardiac catheterization.

**IC 1114 CONCEPTS OF HEMODYNAMIC
MONITORING 75 HOURS**

A study of the principles and theory of cardiovascular hemodynamics, the acquisitions of accurate hemodynamic data, and the performance of hemodynamic calculation. A thorough understanding of pressure pulses including jugular venous pulse pressures, cardiac isovolume, portions, phonocardiographic listening posts and heart sounds, in relation to the regulation of blood flow through the cardiac, systemic, and pulmonary circulatory systems.

**IC 1116 HEMODYNAMIC MONITORING LAB I
50 HOURS**

This course provides students with an opportunity to acquire a limited classroom orientation to hemodynamic monitoring equipment as well as its use in relationship to cardiac catheterization procedures. The role of the computer in the monitoring of the intracardiac and hemodynamic parameters during catheterization is presented.

**IC 1118 ADULT CARDIAC PATHOPHYSIOLOGY
10 HOURS**

A study of the adult cardiac disease process and related pathology and physiology. Ischemic heart disease, hypertensive heart disease, pulmonary physiology, cardiovascular repercussions of diabetes mellitus, pulmonary hypertension as it relates to various disease processes and left ventricular and aortic aneurysms, arteriosclerosis, and congestive heart failure, will be studied from the perspective of the cardiac invasive laboratory.

**IC 1120 CARDIOVASCULAR PHARMACOLOGY
20 HOURS**

A clinical approach to the classification of the most common therapeutic agents employed in the invasive cardiovascular setting. Included is the pathophysiologic basis for the use of specific medications, their generic and trade names, indications, contraindications, precautions, adverse reactions, dosage and administration. Mechanism of drug actions are reviewed. Selected drug groups and dosage calculations are presented in relation to IV therapy, anti-arrhythmics, betablockers, calcium channel blockers, vasopressors, vasodilators, thrombolytics, analgesics, local anesthetics, anticoagulants, and contrast media.

**IC 1122 ACID-BASE PHYSIOLOGY &
TECHNIQUES 25 HOURS**

A review of acid-base theory, including the chemistry of acid-base balance, metabolic and respiratory acid-base balance. Guidelines and the clinical approach to interpretation of normal and abnormal blood gasses, gas laws and quality control utilized in the blood gas laboratory.

IC 1124 ANGIOGRAPHY CINE REVIEW**25 HOURS**

A study of how x-rays are utilized in the cardiovascular suite, including a review of cardiovascular radiographic anatomy, leading to a critique of cine-angiograms. A survey of special equipment employed in the Angiographic suite including fluoro, cine-filming, cut-film changers, digital subtractions and video recorders. In addition, identification of major abnormalities from chest x-rays, which might impact on the completion of a cardiac catheterization procedure.

**IC 1126 CASE PRESENTATIONS IN
CARDIOVASCULAR TECHNOLOGY I****10 HOURS**

Students are expected to research a subject in the medical literature and write a paper with an annotated bibliography. The subject research must be connected with the cardiovascular system and cardiac catheterization procedures.

IC 1210 SPECIAL DIAGNOSTIC PROCEDURES**15 HOURS**

A continuation of the investigation of special invasive diagnostic and imaging procedures consisting of cerebral angiography, vascular angiography, cardiovascular imaging, digital vascular imaging and basic principles of M.R.I.

**IC 1212 INTERVENTIONAL CARDIAC
PROCEDURES****60 HOURS**

Percutaneous Transluminal Coronary Angioplasty - An in depth study of coronary angioplasty. After completion of these studies, the student will have a comprehensive working knowledge of products, techniques, and equipment currently used in this field. Class schedule includes teacher lecture, discussion, guest lectures, video tapes, and observation.

**IC 1214 APPLIED ELECTROPHYSIOLOGIC
STUDIES (EPS)****25 HOURS**

Cardiac arrhythmias, including slow rhythms, rapid rhythms, Wolff Parkinson White, conduction delays, bundle branch blocks, AV node block, R.F. Ablations, leading towards a comprehensive working knowledge of products, techniques, and equipment currently used. Included are basic measurements and how they relate to physiology.

**IC 1216 INTRODUCTION TO PACEMAKERS &
AUTOMATIC IMPLANTABLE CARDIAC
DEFIBRILLATORS (AICD)****10 HOURS**

A review of the electrophysiological properties of the heart as applied to patient monitoring and pacemakers. Automatic, implantables and cardiac defibrillators are covered as well.

**IC 1218 ORIENTATION TO NEONATAL &
PEDIATRIC CARDIOVASCULAR****PROCEDURES****10 HOURS**

An overview of anatomy, physiology, and pharmacology of embryonic circulation as they apply to the neonatal and pediatric patient population. Embryology of the heart, formation of congenital defects, associated physiologic abnormalities and their diagnostic implications are also presented. Special techniques utilized during pediatric catheterization are discussed including: Umbilical vessels, catheterization transeptal techniques, valvulotomies and septostomies. Care of pediatric patients with cardiovascular diseases of neonatal, infants, and children are discussed including Tetralogy of Fallot, palliative and surgical corrective procedures, PDA, shunts, and shunt flow directions for normals and anomalies. Equipment and therapeutic techniques used in treating these diseases are covered as well as catheterization procedures for the neonatal and pediatric populations.

**IC 1220 CARDIOVASCULAR LAB
PROCEDURES II****45 HOURS**

A study of the disease process in relation to Intravascular Ultrasound, valvuloplasties, angioplasties, stents, foils, circulatory assist devices, L Vat and R Vat, Judkins techniques vs. Sones, lasers, open heart surgery procedures, atherectomy and insertion of pacemakers.

**IC 1222 HEMODYNAMICS &
CARDIOVASCULAR PATHOPHYSIOLOGY****75 HOURS**

Anatomical findings of the cardiovascular system and human pathophysiology in relation to hemodynamics and ECG. Understanding arterial and venous blood gasses and blood as it relates to cardiac catheterization. Pressure wave form analysis and measurement, and hemodynamic calculations of Fick cardiac outputs, valves areas, ejection fractions, shunts and resistances. Identification of abnormal values and their implications integrated with the further acquisition and analysis of hemodynamic data via arterial and venous blood gasses, acid-base balances, electrocardiograms, pressures and saturation in the cardiovascular system and during cardiac catheterization. Correlation of pathologic results of acquired heart disease with the associated physiologic changes and hemodynamic consequences commonly seen during cardiac catheterization.

IC 1224 HEMODYNAMIC MONITORING LAB II**50 HOURS**

Through limited practical classroom experience, students learn insertion and monitoring techniques of the Intra-Aortic Balloon Pump, as well as issues of pathologies and the hemodynamics of shock and as intervention with various circulatory assist devices. Topics included are: Right and left hemodynamics, shunts, pressures, waveforms (i.e., A wave, R. Ventricular pressure waveform) and simultaneous pressure recordings as utilized to evaluate mitral stenosis [simultaneous left atrial (LA) or pulmonary capillary wedge pressure (PCWP) and left ventricular pressure] and aortic stenosis [simultaneous left ventricular (LV) and left atrial (LA) pressures].

**IC 1226 CASE PRESENTATIONS IN
CARDIOVASCULAR TECHNOLOGY II
10 HOURS**

Students are expected to research a subject in the medical literature and write a paper with an annotated bibliography. The subject research must be connected with the cardiovascular system and cardiac catheterization procedures. Students are expected to include advanced subjects studied during the term in their case presentation.

**IC 1310 CLINICAL PRACTICUM, SPECIAL
PROJECTS & SEMINARS 600 HOURS**

Students are placed in a medical facility where there is an opportunity to observe, assist, learn and perform in a practical setting. Special related projects are assigned and seminars are scheduled on a regular basis.

**MA 110 HUMAN BIO-ORGANIZATION
15 HOURS**

A general overview of human development including cells, tissues, organs, body systems and homeostasis. Anatomical position, planes, and orientation terminology is introduced.

**MA 112 BODY STRUCTURE, MOVEMENT &
FUNCTION 75 HOURS**

A description and practice discussion of the musculoskeletal, digestive, urogenital, and endocrine systems. Gross anatomy and related physiology of each system including medical and surgical terminology is included.

**MA 114 SPECIALIZED SENSE ORGANS
10 HOURS**

A study of the five primary senses and related organs including the skin, eye, ear, olfactory and gustatory cells.

**MA 120 THE CARDIOVASCULAR SYSTEM-
ELECTROCARDIOGRAPHY 60 HOURS**

A study of the heart, blood vessels, and the composition of blood, including the cardiac cycle, pulmonary and systemic circulation, the lymphatic system and related pathology. An introduction to the basic skills of recording the ECG using single and multi-channel electrocardiographs.

**MA 122 THE RESPIRATORY SYSTEM
15 HOURS**

A study of the respiratory system including the nose, pharynx, larynx, trachea, bronchi, lungs, and thorax. The chemistry of oxygen and carbon dioxide transport, respiratory control, and normal versus abnormal breathing is included.

MA 124 THE NERVOUS SYSTEM 15 HOURS

The study of neurons, nerve impulse, reflexes, spinal cord, brain, meninges, autonomic nervous system, and diseases of the nervous system.

**MA 126 CPR CERTIFICATION - EMERGENCY
CARDIAC CARE 10 HOURS**

A study of emergency management for the sudden death victim and first aid for choking. Certification requirements are determined by the American Heart Association and include procedures for adults, children, and infants.

**MA 130 PSYCHOLOGY OF PATIENT CARE -
LEGAL & ETHICAL ISSUES 25 HOURS**

A study of personality formation, the stress of illness, patient fear, and public relations in the medical office, including standards of conduct and medical practice acts. The Code of Ethics of the Registered Medical Assistant is discussed.

**MA 132 MEDICAL OFFICE MANAGEMENT
PROCEDURES 115 HOURS**

A study of front office duties including types of medical practices and specialties, telephone techniques, appointment scheduling, pegboard accounting, maintaining medical records, filing systems, medical reports, correspondence, and coding health insurance claims.

**MA 140 COMPUTER FUNDAMENTALS
30 HOURS**

An overview of the history and concepts of computers. The central processing unit, input-output devices, floppy disks, hard disks, disk operating systems, and elements of word processing are introduced.

**MA 142 MEDICAL OFFICE MANAGEMENT
SOFTWARE 10 HOURS**

An introduction to the operation of multi-faceted programs designed to create and maintain an electronic office environment for medical office practices.

**MA 144 COMPUTER APPLICATIONS FOR
OFFICE PRACTICE 60 HOURS**

A series of projects designed to train the student to use medical software to create patient files, schedule appointments, generate ledgers and billing statements, collection notices, insurance claim forms, and practice analysis reports.

**MA 150 KEYBOARDING SKILLS/DATA ENTRY
35 HOURS**

Additional training to upgrade keyboarding skills; understanding the role of data entry within a medical practice; and speed and accuracy exercises with periodic evaluations to develop acceptable performance standards for future employment.

**MA 152 RULES FOR MEDICAL WORD
PROCESSING & TERMINOLOGY 20 HOURS**

A review of capitalization, use of numbers, punctuation, abbreviations and symbols used in typical medical reports. Prefixes, combining forms, and suffixes which make up the structure of medical language are also studied. Fundamentals of medical word processing are introduced.

MA 154 BASIC MEDICAL REPORTS 15 HOURS

An examination of the seven basic reports, including the History and Physical, Radiology Report, Operative Report, Pathology Report, Request for Consultation, and Discharge Summary.

MA 156 MEDICAL WORD PROCESSING LAB 30 HOURS

A series of projects designed to develop experience in processing medical reports from progress notes and other medical records.

MA 162 CLINICAL ASSISTING SKILLS 50 HOURS

Practical discussions and the performance of patient care procedures including vital signs and physical measurements, medical instruments, examination trays, patient preparation, positioning and draping, and the complete physical examination sequence.

MA 166 NUTRITION & DIET THERAPY 10 HOURS

A study of food groups, complete and simple nutrients, special diet programs and modifications used in the treatment of common disorders.

MA 168 INFECTION CONTROL & STERILIZATION 10 HOURS

A study of the classifications of microorganism (bacteria, viruses, fungi, rickettsiae). An introduction to principles, techniques, and equipment used for sterilization in a medical office. Categories of isolation and universal precautions related to HIV (AIDS) transmission are presented.

MA 170 ORGANIZATION OF THE CLINICAL LABORATORY 15 HOURS

An introduction into the various departments of the medical reference laboratory, safety guidelines, use of the microscope, quality assurance, and an identification of various pieces of standard equipment, glassware and supplies, and the metric system.

MA 171 PHARMACOLOGY & DRUG THERAPY 30 HOURS

The study of injections, use of syringes and needles, the study of drugs and solutions, toxic effects of drug abuse, legal regulations and standard inventory, dosage, prescriptions, and emergency drugs.

MA 172 PHLEBOTOMY TECHNIQUES 35 HOURS

A study of skin puncture procedures, injection, and venipuncture using the syringe and evacuated tube system. Capillary tubes, microtainers, and color-coded collection tubes are introduced.

MA 174 HEMATOLOGY 35 HOURS

The study of blood composition and the formation and development of blood cells. Methods and practice in the complete blood count (CBC), differential, sedimentation rate, blood typing, and coagulation studies are introduced.

MA 180 CLINICAL CHEMISTRY 25 HOURS

Routine blood tests (serum cholesterol, glucose, uric acid) are introduced, including findings and interpretation, normal values and reference to the periodic table.

MA 182 URINALYSIS 25 HOURS

A review of the anatomy and physiology of the urinary system in detail, collection of specimens, physical, chemical, and microscopic examinations; confirmatory tests, urine culture, normal values and interpretation of findings.

MA 184 SEROLOGY TESTING 5 HOURS

A study of Group A Strep screening using kit methods with quality assurance controls. Further detail on specific serological tests including infectious mononucleosus and serological pregnancy testing.

MA 186 MICROBIOLOGY 20 HOURS

Micro-organism identification and classification of bacteria specimen collection using sterile techniques, culture plating, sensitivity plating, sensitivity testing, urine uricheck, streaking agar plates, collection of throat cultures, wet mount chemical fixatives, and request forms for cytology and histology.

MA 208 INTERNSHIP OR PROJECT 300 HOURS

Students are placed in a medical facility where there is an opportunity to observe, assist, learn and perform in an on-the-job setting. Internship is mandatory and must be completed satisfactorily before a diploma is issued. The student's supervisor confirms the student's attendance and submits evaluations of performance to the Program Coordinator. A special project may be completed in lieu of internship at the Program Coordinator's discretion.

RT 0190 FUNDAMENTALS OF RADIOLOGY, TERMINOLOGY & MATHEMATICS 35 HOURS

An introduction to radiant energy, the properties of x-ray radiation and the clinical language of x-ray technology; formulas and calculations for problem solving and the biological effects of radiation on patients.

RT 0192 RADIATION PHYSICS & ELECTRONICS 20 HOURS

A study of exposure factors, the circuitry of x-ray machines, and related accessories used to maintain patient and operator safety and to improve the quality of the radiograph.

RT 0194 RADIOGRAPHIC TECHNIQUE & PRODUCTION 35 HOURS

A practical discussion and demonstration of patient positioning, film processing, quality assurance procedures, and basic pathology related to diagnostic radiography in the physician's office.

RT 0196 BASIC X-RAY MACHINE OPERATOR CERTIFICATION EXAMINATION REVIEW 10 HOURS

A comprehensive outline of testing procedures, technical information, and a critique of the student's skills related to correct patient preparation, and trouble-shooting during radiographic procedures.

ST 1110 MEDICAL TERMINOLOGY 15 HOURS

The use of abbreviations and symbols used in typical medical reports. Prefixes, suffixes and root words that make up the structure of medical language are also studied.

ST 1112 HUMAN BODY ORGANIZATION, CELLS, TISSUES & ORGANS 15 HOURS

A study of the cell, its organelles and functions. Detailed discussion of cell membrane structure and its transport systems, and the role it plays in the generation of action potential.

ST 1114 INTEGUMENTARY SYSTEM 15 HOURS

A study of the body's first line of defense and its structures to ward off disease and infections.

ST 1116 SKELETAL SYSTEM 20 HOURS

A study of the body's framework and its functions.

ST 1118 MUSCULAR SYSTEM 20 HOURS

A study of the different muscles of the body and their functions.

ST 1120 NERVOUS SYSTEM & SPECIAL SENSES 15 HOURS

A study of the organization and structures in the nervous system.

ST 1122 CIRCULATORY SYSTEM 20 HOURS

A study of the arteries and veins with a comprehensive understanding of the different changes that take place throughout the system.

ST 1124 LYMPHATIC SYSTEM 15 HOURS

A study of the body's filtration system.

ST 1126 RESPIRATORY SYSTEM 15 HOURS

A study of different parts of the respiratory system with understanding of the chemistry of oxygen and carbon dioxide transport and breathing patterns.

ST 1128 DIGESTIVE SYSTEM 20 HOURS

A complete study of the anatomy and functions of the gastrointestinal system.

ST 1130 GENITOURINARY & REPRODUCTIVE SYSTEM 15 HOURS

A study of the gross anatomy and histological organization of the urinary system, and the male and female reproductive systems.

ST 1132 ENDOCRINE SYSTEM 15 HOURS

The study of hormones, their origin and function with respect to the human body.

ST 1210 MICROBIOLOGY 40 HOURS

An introduction to micro-organism identification and classification of bacteria. Also included are procedures for specimen collection using sterile techniques, culture plating, sensitivity plating, sensitivity testing, urine urichek, streaking agar plates, collection of throat cultures, and wet mount chemical fixatives.

ST 1212 PATIENT PSYCHOLOGY 15 HOURS

Behavioral changes are discussed with emphasis on those associated with disease and addictions.

ST 1214 LEGAL ASPECTS OF MEDICINE & PROFESSIONAL ETHICS 20 HOURS

An insight into the morality and ethics that direct today's medical professionals. Beginning with the Hippocratic Oath, students will discuss the AMA principles on medical ethics, and understand the conduct and professionalism that is expected and required in the medical community.

ST 1216 MATHEMATICS FUNDAMENTALS & METRIC SYSTEM 30 HOURS

Basic mathematics applications are reviewed with calculations of dosages to include conversion from standard to metric systems and visa versa.

ST 1218 PHARMACOLOGY 40 HOURS

The study of injections, use of syringes and needles, drugs and solutions, toxic effects of drugs, legal regulations and standard inventory, dosage, prescriptions and emergency drugs.

ST 1220 CARDIOPULMONARY RESUSCITATION 15 HOURS

A study of emergency management for the sudden death victim and first aid for choking. Certification requirements are determined by the American Heart Association and include procedures for adults, children, and infants.

ST 1222 COMPUTER CONCEPTS 40 HOURS

An overview of the history and concepts of computers. The central processing unit, input-output devices, floppy disks, hard disks, disk operating systems, and elements of word processing are introduced.

ST 1310 INTRODUCTION TO SURGICAL TECHNOLOGY 40 HOURS

A study of the organization and management of different health care facilities with emphasis on the job descriptions, communication and work environment, including equipment that is standard in each operating room suite.

ST 1312 SURGICAL TECHNIQUES & PROCEDURES 40 HOURS

A study of basic instrumentation used in surgery. Proper techniques are presented in such areas as scrubbing, gowning, gloving, as well as sterile techniques such as prepping, basic set-ups and invasive procedures.

ST 1314 SURGICAL SPECIALTIES I - GENERAL, OB/GYN, PLASTICS & ORTHOPEDICS 40 HOURS

A study of the different procedures pertaining to each specialty including additional instrumentation and equipment for each procedure.

ST 1316 SURGICAL SPECIALTIES II - OPHTHALMOLOGY, ENT & UROLOGY 40 HOURS

A study of the different procedures pertaining to each specialty including additional instrumentation and equipment for each procedure.

ST 1318 SURGICAL SPECIALTIES III - CARDIOVASCULAR, THORACIC & NEURO 40 HOURS

A study of the different procedures pertaining to each specialty including additional instrumentation and equipment for each procedure.

ST 1410 CLINICAL PRACTICUM 600 HOURS

Students are placed in a medical facility where there is an opportunity to observe, assist, learn and perform in a practical setting. The clinical practicum is an essential component of the program where theoretical and practical skills are integrated.

US 1110 PHYSICS OF ULTRASOUND AND INSTRUMENTATION 50 HOURS

An introduction to the fundamental physical principles and instrumentation of ultrasound. Topics include units, measurement and formulas used in diagnostic ultrasound and how production of ultrasound waves interact with tissues and organs in the human anatomy to create a diagnostic image. Imaging instrumentation of static and real time modes, as well as doppler instrumentation with continuous wave pulsed and duplex with color flow, are used to produce the image. Quality control is taught for the safety consideration of the ultrasound exam. This course prepares the student to take the ARDMS Physics Registry Examination.

US 1112 CROSS SECTIONAL & SAGITAL ANATOMY 25 HOURS

An introduction to cross sectional and sagital anatomy for the purpose of understanding the ultrasound image. Major emphasis is on the detailed review of sectional anatomy and ultrasound image correlation. Other correlative imaging modalities to cross section anatomy as CT and MRI are described.

US 1114 LIVER, GALL BLADDER, PANCREAS, BILIARY SYSTEM & SPLEEN 150 HOURS

Includes a study of the liver, gall bladder, pancreas, biliary system and spleen. Emphasis is placed on normal as well as abnormal anatomy, physiology, laboratory tests, pathology, congenital abnormalities and embryonic development. The student will learn ultrasound techniques, patient preparation and position, and understand clinical problems.

US 1116 RENAL SYSTEM 75 HOURS

A study of the renal system with emphasis on normal anatomy, physiology, laboratory data, embryology, pathology, structure and congenital anomalies. The student will learn patient positioning and understand the normal texture and patterns through ultrasound techniques, as well as develop an understanding of clinical problems.

US 1210 ADRENAL GLAND AND RETROPERITONEUM 25 HOURS

A study of the adrenal glands as well as retroperitoneal anatomy. Emphasis is on normal anatomy, physiology, laboratory data, embryology, pathology, structure and congenital anomalies. The student will learn patient positioning and understand the normal texture and patterns through ultrasound techniques, as well as develop an understanding of clinical problems.

US 1212 VASCULAR SYSTEM 75 HOURS

A study of vascular system functions, anatomical composition and construction of the major vessels to include aorta, thoracic and abdominal aorta, inferior vena cava, arteries, celiac trunk, dorsal and lateral aortic branches, minor vessels, veins, lateral and anterior tributaries, portal vein and splenic vein, inferior and superior mesenteric vein, disease processes, possible carotid artery plaque, possible popliteal aneurysm, arterial and venous disease, other linear structures, ultrasound techniques and clinical problems.

US 1214 THYROID & PARATHYROID GLANDS 15 HOURS

A study of the anatomy and function of the thyroid and parathyroid glands under both normal and abnormal conditions. Topics of investigation include anatomy, physiology, and pathologies of thyroid and parathyroid glands. Emphasis is placed on the ultrasonographic findings and interpretations of the study.

US 1216 MAMMARY GLAND 15 HOURS

A study of mammary gland anatomy and physiology under both normal and abnormal conditions. Topics of investigation include cross-sectional anatomy, physiology and pathology of the mammary gland. Emphasis is placed on ultrasound evaluation and interpretation of the mammary gland.

US 1218 SCROTUM & PROSTATE GLAND 30 HOURS

A study of the scrotum and prostate gland anatomy and physiology under both normal and abnormal conditions. Topics of investigation include cross-sectional anatomy, physiology and pathology of the scrotum and prostate gland. Emphasis is placed on interpretation of ultrasonographic evaluation of the scrotum and prostate gland.

US 1220 ANATOMY OF THE FEMALE PELVIS & SCANNING TECHNIQUES 30 HOURS

A study of anatomy of the female pelvis and scanning techniques. Topics of investigation include gross anatomy of the female pelvis and reproductive physiology with emphasis on scanning techniques and protocols.

US 1222 PELVIC INFLAMMATORY DISEASES 15 HOURS

A study of pelvic inflammatory diseases. Topics of investigation include environmental factors, pathogens and complications, with emphasis on ultrasound findings.

US 1224 CONGENITAL ANOMALIES OF THE FEMALE GENITAL TRACT/BENIGN DISEASES OF THE VAGINA 20 HOURS

A study of congenital anomalies of the female genital tract and benign diseases of the vagina. Topics of investigation include the embryology disease process.

US 1226 MALIGNANT DISEASES OF THE UTERUS & CERVIX/BENIGN MASSES, MALIGNANT MASSES OF THE OVARIES, FALLOPIAN TUBES & BROAD LIGAMENTS 75 HOURS

A study of malignant diseases of the uterus and cervix as well as benign masses of the ovaries, fallopian tubes and broad ligaments. Topics of investigation include pathologies of the uterus, cervix, fallopian tubes, ovaries and broad ligaments, with emphasis on ultrasound findings.

US 1310 EMBRYOLOGY 50 HOURS

A study of fetal development. Topics of investigation include embryology, anatomy, fetal circulation, with emphasis on cardiopathologies.

US 1312 FIRST TRIMESTER: NORMAL AND ABNORMAL FETAL ANATOMY 50 HOURS

A study of normal and abnormal fetal growth and measurements, as well as biophysical profiles. Also covers fetal anatomy including chest and abdomen, urogenital tract, fetal heart, abdominal wall defects, chromosome abnormalities and fetal death during the first trimester.

US 1314 SECOND TRIMESTER: NORMAL AND ABNORMAL FETAL ANATOMY 50 HOURS

A study of normal and abnormal fetal growth and measurements, as well as biophysical profiles. Also covers fetal anatomy including chest and abdomen, urogenital tract, fetal heart, abdominal wall defects, chromosome abnormalities and fetal death during the second trimester.

US 1316 THIRD TRIMESTER: NORMAL AND ABNORMAL FETAL ANATOMY 50 HOURS

A study of normal and abnormal fetal growth and measurements, as well as biophysical profiles. Also covers fetal anatomy including chest and abdomen, urogenital tract, fetal heart, abdominal wall defects, chromosome abnormalities and fetal death during the third trimester.

US 1318 ULTRASOUND MEASUREMENTS, BIOPHYSICAL PROFILE & MULTIPLE FETUSES 75 HOURS

An overview of obstetric ultrasound measurements, biophysical profile and multiple fetuses. Topics of investigation include proper techniques used in measurements, biophysical profile, multiple gestations with emphasis on ultrasound physics.

US 1320 INCOMPETENT CERVIX, PLACENTAL ABNORMALITIES AND DOPPLER ASSESSMENT OF PREGNANCY 50 HOURS

A study of the incompetent cervix, placental abnormalities and doppler assessment in pregnancy.

US 1430 INTERNSHIP 300 HOURS

Students are placed in a medical facility where there is an opportunity to observe, assist, learn and perform in an on-the-job setting. Internship is mandatory and must be completed satisfactorily before a diploma is issued. The student's supervisor confirms the student's attendance and submits evaluations to the Program Director.

NATIONAL SCHOOL OF TECHNOLOGY

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Giani Anzelotti Admissions Manager
Valerie Auriemma Student Financial Services Manager
Robert Callahan, B.A. Career Development Manager
Kookie Dowling Senior Registrar
Tarcia Hepburn Business Office Manager

BRANCH CAMPUS - HIALEAH

Administration

Robert Wurst, B.S. Campus Director
Giani Anzelotti Admissions Manager
Xiomara Campos Student Financial Services Manager
Diana Morales Career Development - Asst. Manager
Gladys Willis Registrar
Lorna Holden Business Office Manager

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Diagnostic Cardiac Sonographer Program
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Carlos Diaz, M.D. Associate Program Coordinator - Cardiovascular Technologist Program
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Mario Miro, M.D.
Stewart Sockol, B.S., R.D.M.S. (Asst. Lab Instructor)
Mohamed Saryeldin, M.D.
Luis Santamaria, M.D.
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NATIONAL SCHOOL OF TECHNOLOGY

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 Hortensia DeLaFe Assistant Corporate Director, Loan Management
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 Giani Anzelotti Corporate Director of Admissions

TUITION & FEES

PROGRAM	ENTRANCE EXAM SCORE	PROGRAM HOURS	MONTHS (D & E)	TUITION	LAB & BOOKS FEE	REG. FEE	TOTAL
SURGICAL TECHNOLOGIST	47	1,200	12	9,300	500	150	9,950
CARDIOVASCULAR TECHNOLOGIST	47	1,500	15-19	12,785	265	150	13,200
INVASIVE CARDIOVASCULAR TECHNOLOGIST	57	1,200	12	8,400	400	150	8,950
DIAGNOSTIC CARDIAC SONOGRAPHER	57	1,200	12	7,600	200	150	7,950
ULTRASOUND TECHNOLOGIST	57	1,200	12-15	9,135	685	150	9,970
DIAGNOSTIC MEDICAL SONOGRAPHER	57	2,400	24-27	12,915	885	150	13,950
MEDICAL ASSISTANT	28	900	9-12	5,145	190	150	5,485
MEDICAL ASSISTANT TECHNICIAN	28	1,200	12-15	7,815	265	150	8,230
HEALTH SERVICES ADMINISTRATION	32	1,200	12-15	8,200	550	150	8,900

Note: Comparable program information related to tuition, fees and program length is available by contacting the Accrediting Commission of Career Schools and Colleges of Technology at: 2101 Wilson Boulevard, Suite 302, Arlington, Virginia 22201, or by calling (703) 247-4212.

ACADEMIC CALENDAR

MEDICAL ASSISTANT PROGRAM

(N. Miami Beach & Hialeah Campuses)

Day

08/28/95 - 05/24/96
10/23/95 - 07/26/96
01/02/96 - 09/23/96

Evening

09/05/95 - 08/01/96
11/13/95 - 10/10/96
02/05/96 - 12/23/96

MEDICAL ASSISTANT TECHNICIAN PROGRAM

(N. Miami Beach & Hialeah Campuses)

Day

08/28/95 - 08/26/96
10/23/95 - 10/21/96
01/02/96 - 12/16/96

Evening

09/05/95 - 11/18/96
11/13/95 - 02/10/97
02/05/96 - 04/21/97

SURGICAL TECHNOLOGIST PROGRAM

(N. Miami Beach & Hialeah Campuses)

Day

08/28/95 - 08/26/96
10/23/95 - 10/21/96
01/02/96 - 12/16/96

CARDIOVASCULAR TECHNOLOGIST PROGRAM

(N. Miami Beach & Hialeah Campuses)

Day

10/09/95 - 01/13/97
01/16/96 - 04/14/97

Evening

11/06/95 - 05/19/97
03/04/96 - 09/08/97

INVASIVE CARDIOVASCULAR TECHNOLOGIST PROGRAM

(Hialeah Campus)

Day

10/09/95 - 10/07/96

DIAGNOSTIC CARDIAC SONOGRAPHER PROGRAM

(Hialeah Campus)

Day

10/09/95 - 10/07/96
01/16/96 - 01/13/97

ULTRASOUND TECHNOLOGIST PROGRAM

(Hialeah Campus)

Day

10/09/95 - 10/07/96
01/16/96 - 04/14/97

Evening

11/06/95 - 02/03/97
03/04/96 - 09/08/97

HEALTH SERVICES ADMINISTRATION PROGRAM

(N. Miami Beach Campus)

Day

10/23/95 - 10/21/96
01/02/96 - 12/16/96

Evening

11/13/95 - 02/10/97
02/05/96 - 04/21/97