



**NATIONAL SCHOOL OF TECHNOLOGY, INC.**  
*A sure thing in an unsure world.*

2001  
CATALOG

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In October 1991, National School of Technology acquired Ward Stone College, located in Kendall, Florida. Ward Stone College's name was changed in December 1996 to National School of Technology, Inc. The Kendall campus is organized as a separate corporation and is a wholly owned subsidiary of National School of Technology, Inc.

## ***STATEMENT OF OWNERSHIP***

National School of Technology, Inc. is owned and controlled by Martin Knobel, C.E.O. The corporate offices are located at 12000 Biscayne Boulevard, Suite 302, North Miami, Florida, 33181. The telephone number is (305) 893-0005.

## ***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, phlebotomy equipment, examining tables, blood cell counters, ultrasonography and echocardiography equipment as well as other types of 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. The massage therapy clinical laboratory contains massage tables and chairs with accessories, adjustable face cradles, massage stools and hydrotherapy equipment. A student lounge, equipped with vending machines for food, drinks and snacks, as well as a microwave oven, is also available. All students have access to the campus career and learning resource center which contains reference materials for student use. The campuses are located convenient to public transportation, shopping centers, restaurants and banks. The facilities are accessible to people with disabilities.

## ***LICENSURE***

The schools are licensed by the State Board of Nonpublic Career Education, Department of Education, 325 West Gaines Street, Tallahassee, FL, 32399-0400, (850) 488-9504. The campuses' license numbers are as follows: N. Miami Beach Campus holds License #599; Hialeah Campus holds License #747; and Kendall Campus holds license #1420.

National School of Technology is recognized as an approved Massage Therapy school by the Florida Board of Massage Therapy, Department of Health.



# NATIONAL SCHOOL OF TECHNOLOGY, INC.

12000 Biscayne Boulevard, Suite 302 • N. Miami, Florida 33181  
Tel: (305) 893-0005 Fax: (305) 893-9913

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

For over 23 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

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# Medical Administration Division

## MEDICAL CODING SPECIALIST

Diploma • 900 Clock Hours

### PROGRAM OBJECTIVE:

This program prepares students to analyze medical records and assign codes to medical conditions, diagnoses and procedures using a complex healthcare coding and classification system. Accurate coding is necessary for research and statistical data, as well as to determine reimbursement of healthcare services. Graduates meet the educational requirements as may be applicable to take the following credentialing examinations (see Professional/Credentialing Organizations and Examinations section of catalog): Certified Procedural Coder and Certified Procedural Coder-Hospital.

### CAREER OPPORTUNITIES:

Due to the high demand for qualified coders, graduates are offered entry-level employment in various challenging and rewarding environments. Medical coding specialists may be employed in physicians' offices, hospitals, clinics, insurance companies, medical billing companies and medical financial consulting companies.

### PROGRAM OUTLINE:

#### Block 1

MA 1110	Medical Terminology	15
MA 1112	Human Body Organization, Cells, Tissues & Organs	15
MA 1114	Integumentary Systems	15
MA 1116	Skeletal System	20
MA 1118	Muscular System	20
MA 1120	The Nervous System & Special Senses	15
MA 1122	Circulatory System	20
MA 1124	Lymphatic System	15
MA 1126	Respiratory System	15
MA 1128	Digestive System	20
MA 1130	Genitourinary & Reproductive System	15
MA 1132	Endocrine System	15
		<u>200</u>

#### Block 2

MA 1210	Medical Practices and Specialties	5
MA 1212	Psychology of Patient Care - Legal & Ethical Issues	10
MA 1214	Medical Office Management	50
MA 1216	Medical Records Coding Management	70
MA 1218	Coding Case Studies I	15
MA 1220	Practical Skills Lab	50
		<u>200</u>

#### Block 3

MC 1310	Introduction to Insurance	10
MC 1312	Coding Case Studies II	40
MC 1314	Microcomputer Fundamentals	10
MC 1316	Introduction to Hospital Billing	15
MC 1317	Hospital Billing & Claims Processing	20
MC 1318	Diagnostic Related Groups (DRG'S)	5
MC 1320	Automated Claims Processing Lab	95
MS 1114	HIV/AIDS	5
		<u>200</u>

#### Internship

MC 1410	Internship or Project	300
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**TOTAL CLOCK HOURS 900**

**9 months days/12 months evenings**

# Medical Practice Division

## MEDICAL ASSISTANT

Diploma • 900 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. Graduates meet the educational requirements as may be applicable to take the following credentialing examinations (see Professional/Credentialing Organizations and Examinations section of catalog): Registered Medical Assistant and Certified Phlebotomy Technician.

### 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.

### PROGRAM OUTLINE:

#### Block 1

MA 1110	Medical Terminology	15
MA 1112	Human Body Organization, Cells Tissues & Organs	15
MA 1114	Integumentary System	15
MA 1116	Skeletal System	20
MA 1118	Muscular System	20
MA 1120	Nervous System & Special Senses	15
MA 1122	Circulatory System	20
MA 1124	Lymphatic System	15
MA 1126	Respiratory System	15
MA 1128	Digestive System	20
MA 1130	Genitourinary & Reproductive System	15
MA 1132	Endocrine System	15
		<u>200</u>

#### Block 2

MA 1210	Medical Practices & Specialties	5
MA 1212	Psychology of Patient Care - Legal & Ethical Issues	10
MA 1214	Medical Office Management	50
MA 1216	Medical Records / Coding Management	70
MA 1218	Coding Case Studies I	15
MA 1220	Practical Skills Lab	50
		<u>200</u>

#### Block 3

MS 1114	HIV/AIDS	5
MA 1310	Organization of the Clinical Lab / Infection Control	10
MA 1312	Introduction to Electrocardiography	15
MA 1314	Pharmacology & Drug Therapy	30
MA 1316	Phlebotomy Techniques	60
MA 1318	Hematology	25
MA 1320	Basic Urinalysis	20
MA 1322	Chemistry Testing	10
MA 1324	Cardiopulmonary Resuscitation	15
MA 1326	Phlebotomy Technician Certification Exam Review	10
		<u>200</u>

#### Internship

MA 1600	Internship or Project	300
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**TOTAL CLOCK HOURS** 900  
9 months days/12 months evenings

# Medical Practice Division

## PHARMACY TECHNICIAN

Specialized Associate Degree • 1200 Clock Hours

### PROGRAM OBJECTIVE:

This program prepares students to work in a pharmacy under the direct supervision of a licensed pharmacist. Through acquisition of medical knowledge and specific pharmaceutical techniques, graduates will be able to assist the pharmacist in the preparation and dispensing of medications, maintenance of patient records, packaging and labeling of orders, and compounding and mixing of sterile products. Graduates meet the educational requirements as may be applicable to take the following credentialing examination (see Professional/Credentialing Organizations and Examinations section of catalog): Certified Pharmacy Technician.

### CAREER OPPORTUNITIES:

Graduates are eligible to assume entry-level positions assisting the pharmacist in hospitals, home infusion, clinics, and community pharmacies.

### PROGRAM OUTLINE:

#### Block 1

CV	1106	Medical Terminology	20
CV	1110	Cellular Basis of Anatomy & Physiology	20
CV	1112	Musculoskeletal System	15
CV	1114	Nervous System	20
CV	1116	Respiratory System	15
CV	1118	Gastrointestinal System	20
CV	1120	Genitourinary System	20
CV	1122	Endocrine System	15
CV	1124	Reproductive System	20
CV	1126	Cardiac Anatomy & Physiology	55
CV	1128	Vascular Anatomy & Physiology	45
MS	1114	HIV/AIDS	5
CV	1132	Cardiopulmonary Resuscitation	15
CV	1134	Basic Chemistry	15
			<u>300</u>

#### Block 2

PT	1202	Pharmacy Law	40
PT	1204	Institutional & Community Pharmacy Systems	40
PT	1206	Pharmacy Mathematics	120
PT	1208	Inventory Management & Cost Control	40
PT	1210	Computer Applications in Pharmacy Practice	60
			<u>300</u>

#### Block 3

PT	1300	Pharmacology & Drug Classification	160
PT	1302	Dosage Forms	20
PT	1304	Intravenous Admixtures & Aseptic Techniques	90
PT	1306	Interpretation of Medication Orders & Prescriptions	30
			<u>300</u>

#### Internship

PT	1400	Internship or Project	300
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**TOTAL CLOCK HOURS** 1200

12 months days/15 months evenings

# Medical Practice Division

## MASSAGE THERAPIST Diploma • 600 Clock Hours

### PROGRAM OBJECTIVE:

This program prepares graduates to take the Florida state examination to become Licensed Massage Therapists (LMT) and meets the academic requirements of the Florida Board of Massage Therapy (see Professional/Credentialing Organizations and Examinations section of catalog). Graduates are also eligible to become Nationally Certified in Therapeutic Massage and Bodywork (NCTMB) upon passing the examination. According to the American Massage Therapy Association, this certification represents the highest professional credential in the field and incorporates ethics, eligibility, practice and competency testing. The curriculum includes a strong core of theory, with emphasis on practical skills development in a supervised clinical setting. Anatomy and physiology courses are followed by instruction in therapeutic massage principles. Training in hydrotherapy and allied therapeutic modalities among other essential subjects, provides students with an excellent foundation for entry into the natural health field.

(Note: Students must successfully complete all program hours and requirements in order to receive a diploma and be eligible to apply for the state licensing examination. Graduates must be licensed to practice massage therapy in Florida and many other states.)

### CAREER OPPORTUNITIES:

Employment opportunities for entry-level licensed massage therapists exist in a broad range of settings such as: resort hotels, health spas, fitness centers, massage therapy clinics, chiropractic offices, physical therapy clinics, hospitals and wellness centers, cruise lines and sports settings. Additionally, many therapists develop their own private massage practices, and/or diversify their employment by working in a combination of these settings.

### PROGRAM OUTLINE:

#### Block 1

MS 1110	Human Anatomy & Physiology	175
MS 1112	Introduction to Clinical Pathology	20
MS 1114	HIV/AIDS	5
		<hr/> 200

#### Block 2

MS 1210	Principles of Therapeutic Massage, Assessment & Practice	100
MS 1212	Therapeutic Massage Applications- Clinical Practicum I	100
		<hr/> 200

#### Block 3

MS 1310	Theory & Practice of Hydrotherapy	15
MS 1312	Allied Therapeutic Modalities	50
MS 1314	Allied Therapeutic Modalities- Clinical Practicum II	50
MS 1316	Integrated Massage Applications- Clinical Practicum III	50
MS 1318	Florida Statutes/Rules & History of Massage	10
MS 1319	Business Principles & Ethics	10
MS 1320	Cardiopulmonary Resuscitation & First Aid	15
		<hr/> 200

**TOTAL CLOCK HOURS** 600  
6 months days/8 months evenings



# Surgical Technology Division

## SURGICAL TECHNOLOGIST Specialized Associate Degree • 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. Graduates meet the educational requirements as may be applicable to take the following credentialing examination (see Professional/Credentialing Organizations and Examinations section of catalog): Certified Surgical Technologist.

*(Note: Each block of classroom instruction is a prerequisite to the following block and must be sequentially completed as described in the program outline below).*

### 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.

### PROGRAM OUTLINE:

#### Block 1

MA 1110	Medical Terminology	15
MA 1112	Human Body Organization, Cells, Tissues & Organs	15
MA 1114	Integumentary System	15
MA 1116	Skeletal System	20
MA 1118	Muscular System	20
MA 1120	Nervous System & Special Senses	15
MA 1122	Circulatory System	20
MA 1124	Lymphatic System	15
MA 1126	Respiratory System	15
MA 1128	Digestive System	20
MA 1130	Genitourinary & Reproductive System	15
MA 1132	Endocrine System	15
		200

#### Block 2

MS 1114	HIV/AIDS	5
ST 1210	Microbiology	35
ST 1212	Patient Psychology	10
ST 1214	Legal Aspects of Medicine & Professional Ethics	10
ST 1216	Mathematics Fundamentals & Metric System	30

ST 1218	Pharmacology	30
ST 1220	Cardiopulmonary Resuscitation	15
ST 1222	Computer Concepts	20
ST 1224	Introduction to Surgical Technology	45
		200

#### Block 3

ST 1312	Surgical Techniques & Procedures	50
ST 1314	Surgical Specialties I - General, OB/GYN, Plastics & Orthopedics	50
ST 1316	Surgical Specialties II - Ophthalmology, ENT & Urology	50
ST 1318	Surgical Specialties III - Cardiovascular, Thoracic & Neuro	50
		200

#### Clinical Practicum

ST 1410	Clinical Practicum	600
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<b>TOTAL CLOCK HOURS</b>		<b>1200</b>
12 months days		

# Diagnostic Medical Technology Division

## Upper-Division Program

### ***ULTRASOUND TECHNOLOGIST***

*Specialized Associate Degree • 1200 Clock Hours*

**PROGRAM OBJECTIVE:**

This program provides students with the foundation to perform abdominal and OB/GYN diagnostic examinations through the acquisition of medical knowledge and techniques in ultrasound. Graduates meet the educational requirements as may be applicable to take the physics and instrumentation portion of the Registered Diagnostic Medical Sonographer and Registered Vascular Technologist credentialing examinations. Additional clinical experience or degrees are required to sit for the requisite specialty exams to obtain the RDMS and RVT credentials. Graduates also meet the educational requirements as may be applicable to take the Registered Vascular Specialist exam (see Professional/Credentialing Organizations and Examinations section of catalog).

**CAREER OPPORTUNITIES:**

Because of extensive training, sonographers are capable of assuming entry-level positions 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)

**PROGRAM OUTLINE:**

**Block 1**

US 1110	Physics of Ultrasound & Instrumentation	50
US 1112	Cross Sectional & Sagittal Anatomy	25
US 1114	Liver, Gall Bladder, Pancreas, Biliary System & Spleen	150
US 1116	Renal System	75
US 1118	Adrenal Gland & Retroperitoneum	25
US 1120	Vascular System	75
US 1122	Thyroid & Parathyroid Glands	15
US 1124	Mammary Gland	15
US 1126	Scrotum & Prostate Gland	20
		450

US 1218	Embryology	25
US 1220	First Trimester: Normal & Abnormal Fetal Anatomy	50
US 1222	Second Trimester: Normal & Abnormal Fetal Anatomy	50
US 1224	Third Trimester: Normal & Abnormal Fetal Anatomy	50
US 1226	Ultrasound Measurements, Biophysical Profile & Multiple Fetuses	75
US 1228	Incompetent Cervix, Placental Abnormalities & Doppler Assessment of Pregnancy	50
		450

**Block 2**

US 1210	Anatomy of the Female Pelvis & Scanning Techniques	40
US 1212	Pelvic Inflammatory Diseases	15
US 1214	Congenital Anomalies of the Female Genital Tract/Benign Diseases of the Vagina	20
US 1216	Malignant Diseases of the Uterus & Cervix/Benign Masses, Malignant Masses of the Ovaries, Fallopian Tubes & Broad Ligaments	75

**Internship**

US 1310	Internship or Project	300
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<b>TOTAL CLOCK HOURS</b>	<b>1200</b>
<b>12 months days/15 months evenings</b>	

# 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 withdrawn when absences and tardiness constitute more than 20 percent of total class hours for a block of instruction. Students enrolled in the surgical technologist program may be withdrawn when absences and tardiness constitute more than 7.5 percent of total class hours for a block of instruction (equivalent to 3 absences per block). Students must make up lost instruction time to the satisfaction of the instructor. Habitual tardiness shall be cause for termination.

A student receiving VA educational benefits will be terminated for VA pay purposes if he/she has three (3) unexcused absences in any 30-day period. The benefits may be reinstated after one grading period if the school

determines that the student's attendance problem has been resolved.

Students may request a leave of absence due to special circumstances. The following conditions must be met for an approved leave of absence to be granted:

- 1) The student must submit a written request for the leave of absence to the registrar;
- 2) a leave of absence may be granted for up to 60 days;
- 3) the leave of absence may be extended when the next scheduled class start exceeds the 60 days; however, in no event may a leave of absence exceed six months; and
- 4) leaves of absence are limited to one leave in any 12-month period of enrollment. By exception, an additional leave of absence may be granted for a maximum of 30 days providing the total of six months is not exceeded and the additional leave is for unforeseen circumstances.

A student who takes an approved leave of absence is considered enrolled and repayment of Federal student loans remains on deferred status. A student who does not return from an approved leave as scheduled, will enter repayment of any Federal student loans six-months after the last date attended prior to the start of the leave of absence.

If a student takes a leave of absence that is not approved, the student is considered to have withdrawn from the school and must apply for re-admission in accordance with the school's policies. In extreme cases, a student may be granted an approved leave of absence upon return to school for documented circumstances that prevented the submission of a written request prior to the start of the leave.

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.

# STUDENT SERVICES

## ***JOB PLACEMENT ASSISTANCE & CAREER CENTER***

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.

A career center, including computer stations with Internet access, printers, fax machines, and other resources, is available at each campus to facilitate student and graduate job search activities.

## ***TUTORING***

Tutoring services are available to assist students who may experience academic difficulties. Sessions are scheduled at mutually agreed upon hours between the students and faculty. This service is offered at no additional cost.

## ***COUNSELING***

Students may be referred to counseling resources 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 six 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 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.

## ***LEARNING RESOURCE CENTER***

A library of professional reference books and videos are 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.

## ***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.

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.

## ***REFRESHER COURSES***

Refresher courses are available to graduates for the cost of materials and textbooks if needed.

State of Florida currently accepts the national certification exam offered by the NCBTMB as the exam for state licensure. Candidates complete two applications with the NCBTMB, one for national certification and one for state licensure by the Florida Department of Health, Board of Massage Therapy. The combined costs are approximately \$345.

***Certified Surgical Technologist (CST) Exam:*** This exam is offered monthly by the Liaison Council on Certification for the Surgical Technologist. The exam is administered nationwide, including a local Miami test site.

***Certified Pharmacy Technician (CPhT) Exam:*** This exam is offered three times a year in March, July and November by the Pharmacy Technician Certification Board (PTCB). The exam is administered nationwide, including a local Miami test site.

***Nursing Assistant Certification (CNA) Exam:*** This exam is offered weekly by the National Council of State Boards of Nursing. This organization is responsible for the development and administration of the Nurses Aide Competency Evaluation Program (NACEP). This exam is administered nationwide including a local Miami test site.

***Certified Procedural Coder (CPC) Exam:*** This exam is offered annually by the American Academy of Procedural Coders (AAPC). The Certified Procedural Coder - Hospital (CPC-H) exam is also offered by AAPC. These exams are administered nationwide, including a local test site. Substantial postgraduate practical experience is advised prior to taking either credentialing examination.

***Certified Medical Transcriptionist (CMT) Exam:*** The Medical Transcriptionist Certification Program (MTCP) core certification exam is offered year-round at various local and nationwide exam sites. Schedules vary by test center. MTCP offers a voluntary two-part certification exam to individuals who wish to become certified medical transcriptionists (CMT's). The CMT credential is granted upon successful completion of both Parts I and II of the exam. Certification is valid for three years.

***Basic X-Ray Machine Operator (BXMO) Exam:*** This licensing exam is developed by the American Registry of Radiologic Technologists (ARRT) and is administered by the Florida Department of Health and Rehabilitative Services. The exam is offered in South Florida during the months of March, July and October.

### ***Registered Cardiovascular Technologist Specialty Exams:***

- ***Registered Cardiac Sonographer (RCS) Exam***
- ***Registered Vascular Specialist (RVS) Exam***

The School is a site for the registry examinations offered by Cardiovascular Credentialing International (CCI). These exams are given twice a year in March and September. (In order to be eligible for these professional credentials, examinees must also have formal education in the specialty and have passed the Basic Cardiovascular Science Exam).

### ***Registered Diagnostic Medical Sonographer (RDMS) Exam***

### ***Registered Diagnostic Cardiac Sonographer (RDCS) Exam***

### ***Registered Vascular Technologist (RVT) Exam***

These credentialing exams are offered by the American Registry of Diagnostic Medical Sonographers (ARDMS). These exams are administered locally and nationally throughout the year as computer or written exams. Prior to application for the specialty exam, educational and clinical prerequisites may need to be obtained (See examination application booklet for more information). Postgraduate practical experience is recommended prior to taking any of the specialty examinations.

## **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 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 diploma or recognized equivalent.

2. Foreign graduates applying directly to an upper-division program must provide authenticated transcripts from other colleges or universities attended. The transcript must be accompanied by a certified translation in English if necessary, and 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. 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 is included with the international enrollment application. 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. Test of English as a Second Language (ESL)
- C. Evidence of English Language proficiency course completion

5. Processing Fee - A \$150 (U.S.) processing fee must be submitted with the first application for admission. This non-refundable fee is in addition to the published program charges.

## **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, seek advisement and register into a program.

III. The school does not provide housing, however assistance is available to support and guide the students efforts. 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.

IV. Students without sufficient funds will not be permitted to register for a program until the required funds are available.

V. International students on visas 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.

Administration Educational Assistance program must complete a supervised internship. Projects may not be substituted for internship attendance. This is a requirement for graduation. All internships and clinical practica are graded by the program officials and are 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 credential.

## ***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.

## ***APPLICATION TO UPPER-DIVISION PROGRAMS***

Students desiring admission to upper division programs must submit an application to the Admissions Screening Committee. 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, which include strong academic performance, positive affective behavioral traits, and above average attendance, among others. The specific criteria are available to all students through their program coordinator or director.

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 and VA benefits terminated. 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.

A student whose VA educational benefits have been terminated for unsatisfactory progress may petition to have the benefits restored after one grading period. The school may reinstate the benefits after it determines that the student has a reasonable chance of satisfactorily completing the program within the required time frame.

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. The administration will review these applications and render a decision. Appeals regarding these decisions will follow the school's appeals procedure. Administrative decisions rendered on appeals are final.

### ***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:

- A. The student is otherwise making satisfactory progress; and
- B. 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. 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. Students who withdraw from a program and subsequently re-enter are subject to the tuition and fees in effect at the time of re-entry.

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

### ***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 time required to complete the program. Veterans must complete the program within the specified time frame of the program.

### ***REFUND POLICY***

**CANCELLATION:** If the School does not accept a student, a full refund of all monies paid will be issued. The agreement will be canceled and the School will refund all monies paid if a written notice of cancellation is received within three business days of signing the enrollment agreement. After acceptance by the School and before the start of classes, the School will refund all monies paid less an administrative fee of not more than \$150.00. Students who have not visited the School facility prior to enrollment may withdraw without penalty within three business days following either attendance at a regularly scheduled orientation or following a tour of the School facilities and inspection of the equipment.

**WITHDRAWAL:** Students who withdraw after starting classes and within the first 60% of the payment or enrollment period will have a refund made of a portion of the tuition & fees charged for the period. After the 60% point, the student is responsible for payment of 100% of the tuition & fees for the applicable period. The refund will be the difference between the tuition & fees charged for the period and the

1. Title IV SFA funds earned and disbursed, or scheduled to be disbursed,\* for the payment period during which withdrawal occurs; PLUS
2. The total of payments due under contractual arrangements with the School based upon the period of enrollment (program length).



# 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 ECHO**

**40 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**

**20 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**

**40 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**

**20 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**

**115 HOURS**

A study of cardiac diseases with emphasis on echocardiographic findings.

## **CS 1126 NON-INVASIVE LAB II**

**20 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 CLINICAL PRACTICUM**

**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. Internships are scheduled during the day.

## **CS 1250 SPECIAL PROJECTS & 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**

**20 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**

**20 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 microscopic anatomy of a muscle is discussed with a description of excitation-contraction coupling and its relationship to the nervous system.

## **CV 1114 NERVOUS SYSTEM**

**20 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 1116 RESPIRATORY SYSTEM**

**15 HOURS**

A study of the anatomical landmarks of the respiratory system, chemistry of oxygen and carbon dioxide transport, and breathing patterns.

## **CV 1118 GASTROINTESTINAL SYSTEM**

**20 HOURS**

Covers the general anatomical features of the gastrointestinal system. The anatomical and physiological characteristics of the stomach, small intestines, large intestines, liver, gall bladder and pancreas are described.

**CV 1312 AMBULATORY MONITORING****15 HOURS**

A presentation of holter scanning and its application in cardiology. Different types of recording and scanning techniques, lead placements and attachments, and sources of artifacts are discussed.

**CV 1314 STRESS & HOLTER LAB****60 HOURS**

A demonstration of the steps involved in preparing a patient for holter monitoring, stress testing and vascular studies. Proper electrode placement for artifact free recording is included. Students practice performing actual EST and Holter techniques.

**CV 1316 CARDIAC PATHOLOGY****165 HOURS**

A study of cardiovascular diseases, their etiologies, anatomical abnormalities, signs and symptoms and hemodynamic changes.

**CV 1318 INTRODUCTION TO VASCULAR****DISEASES****15 HOURS**

A review of circulatory hemodynamics followed by a study of different arterial and venous disorders, including their etiology, symptoms and physical manifestation.

**CV 1320 PSYCHOLOGY OF PATIENT CARE****15 HOURS**

A study of personality formation, the stress of illness, patient fear, and public relations in a health care setting.

**CV 1322 PROFESSIONALISM & MEDICAL****ETHICS****15 HOURS**

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

**CV 1410 INTRODUCTION TO CARDIOVASCULAR INTERVENTIONAL TECHNOLOGY****50 HOURS**

A broad study in the principles of invasive cardiology and the environment of the cardiac catheterization laboratory. The student is introduced to the theory and applications of hemodynamics and angiography designed to provide an understanding of diagnostic catheterization procedures and their applications in a clinical setting.

**CV 1422 ADVANCED CONCEPTS IN CARDIAC TECHNOLOGY****25 HOURS**

A clinical application of various diagnostic modalities including signaled averaged ECG's persantine and thallium stress testing and other related procedures, with simulated demonstrations of each.

**CV 1424 INTRODUCTION TO VASCULAR STUDIES****25 HOURS**

An introduction to the different arterial and venous diagnostic techniques, physical principles involved, testing protocols, and current diagnostic equipment.

**CV 1426 NON-INVASIVE VASCULAR LAB****60 HOURS**

Practice sessions in performing arterial and venous studies.

**CV 1450 INTERNSHIP OR SPECIAL CONCEPTS COURSE****300 HOURS**

A demonstration of ECG, holter and stress competencies in the workplace with patients, or completion of a special concepts course, inclusive 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. Internships are scheduled primarily during day hours due to limited availability of appropriate learning experiences in the evening.

**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 1107 COMPUTER FUNDAMENTALS****10 HOURS**

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

**HS 1110 WORD PROCESSING APPLICATIONS LAB****80 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 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 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.

**MA 1120 NERVOUS SYSTEM & SPECIAL SENSES 15 HOURS**  
A study of the organization and structures in the nervous system.

**MA 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.

**MA 1124 LYMPHATIC SYSTEM 15 HOURS**  
A study of the body's filtration system.

**MA 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.

**MA 1128 DIGESTIVE SYSTEM 20 HOURS**  
A complete study of the anatomy and functions of the gastrointestinal system.

**MA 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.

**MA 1132 ENDOCRINE SYSTEM 15 HOURS**  
The study of hormones, their origin and function with respect to the human body.

**MA 1210 MEDICAL PRACTICES & SPECIALTIES 5 HOURS**  
A study of the medical office practice, including different types of medical specialties.

**MA 1212 PSYCHOLOGY OF PATIENT CARE - LEGAL & ETHICAL ISSUES 10 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 1214 MEDICAL OFFICE MANAGEMENT PROCEDURES 50 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 1216 MEDICAL RECORDS/CODING MANAGEMENT 70 HOURS**  
An introduction to the patient's medical record including concepts of abstracting and posting ICD-9 and CPT-4 codes for insurance processing.

**MA 1218 CODING CASE STUDIES I 15 HOURS**  
Students will use their skills to code from a patient's medical record for insurance processing.

**MA 1220 PRACTICAL SKILLS LAB 50 HOURS**  
Students are given practical applications specific to their curriculum emphasis at the program coordinator's discretion. Examples are: in the Medical Assisting emphasis, students will learn patient examination skills; in the Medical Coding emphasis, students will code from medical record cases.

**MA 1310 ORGANIZATION OF THE CLINICAL LAB/INFECTION CONTROL 10 HOURS**  
An introduction to the various departments of the medical reference laboratory, safety guidelines, aseptic techniques, sterilization procedures, quality assurance and quality control. The student will learn principles, techniques, and equipment used in the medical office setting. Categories of isolation and universal precautions related to communicable disease transmission are presented.

**MA 1312 INTRODUCTION TO ELECTROCARDIOGRAPHY 15 HOURS**  
Introduction to basic electrocardiography skills. Students learn recording using single and multi-channel equipment.

**MA 1314 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 1316 PHLEBOTOMY TECHNIQUES 60 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 1318 HEMATOLOGY 25 HOURS**  
The study of blood composition and the formation and development of blood cells. Methods and practice in hemoglobin, hematocrit, sedimentation rate and coagulation studies are introduced including bleeding time.

**MA 1320 BASIC URINALYSIS 20 HOURS**  
A review of the anatomy and physiology of the urinary system in detail, collection of specimens, physical, and chemical examinations, and confirmatory tests, including pregnancy and ovulation. Normal values and interpretation of findings are included.

**MA 1322 CHEMISTRY TESTING 10 HOURS**  
An introduction to the various chemistry testing procedures such as cholesterol and glucose using kit methods and quality assurance controls.

**MA 1324 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.

**MS 1110 HUMAN ANATOMY & PHYSIOLOGY****175 HOURS**

A study of the structure and function of the human body and its systems. Emphasis is placed on the functional relationships of the skeletal, nervous, integumentary, circulatory and muscular systems, with added concentration on kinesiology (the study of muscles and body movement). Students also experience palpation of muscles, joints and other anatomical structures. A participative approach to instruction is emphasized.

**MS 1112 INTRODUCTION TO CLINICAL PATHOLOGY****20 HOURS**

An introduction to the most common injuries and diseases encountered by the massage therapist. Recognition of these physical conditions and their consequences on therapeutic applications are stressed.

**MS 1114 HIV/AIDS****5 HOURS**

Information about HIV and AIDS is presented in accordance with the content guidelines prepared by the U. S. Centers for Disease Control (CDC) and the Federal Occupational Safety and Health Administration (OSHA). HIV/AIDS and other common blood-borne pathogens and communicable diseases are studied with emphasis on modes of transmission, prevention, universal precautions and engineering/work practice controls. Training is also directed toward health care providers with potential for occupational exposure to blood or other potentially infectious materials in order to minimize any related exposure risks.

**MS 1210 PRINCIPLES OF THERAPEUTIC MASSAGE, ASSESSMENT & PRACTICE****100 HOURS**

A study of the basic techniques of Swedish Massage. Indications, precautions, contraindications and benefits are discussed. Students also learn about asepsis, hygiene, proper body mechanics, client draping and positioning.

**MS 1212 THERAPEUTIC MASSAGE APPLICATIONS - CLINICAL PRACTICUM I****100 HOURS**

Swedish massage applications are demonstrated and practiced in a supervised clinical setting. Examples of such techniques include: gliding strokes, kneading, direct pressure, direct friction, joint mobilization, superficial warming techniques, percussion, compression, vibration, jostling, shaking and rocking.

**MS 1310 THEORY & PRACTICE OF HYDROTHERAPY****15 HOURS**

An introduction to the theoretical basis and applications of water as a therapeutic and rehabilitative medium. Students learn about the proper use of hydrocollator units, hot packs, ice packs, steam baths, contrast baths, and other related contemporary hydro-therapeutic modalities.

**MS 1312 ALLIED THERAPEUTIC MODALITIES****50 HOURS**

An introduction to common therapeutic modalities which are often practiced as adjuncts to Swedish Massage. Examples of such modalities are: Connective Tissue Massage, Shiatsu, Craniosacral Technique, Chair Massage, Reflexology, Joint Mobilizations, Sports Massage, Deep Relaxation Techniques, Trager, Neuromuscular Therapy and Spa Therapy Techniques.

**MS 1314 ALLIED THERAPEUTIC MODALITIES-CLINICAL PRACTICUM II****50 HOURS**

Allied therapeutic modalities presented in MS 1312 are demonstrated and practiced in a supervised clinical setting.

**MS 1316 INTEGRATED MASSAGE APPLICATIONS - CLINICAL PRACTICUM III****50 HOURS**

A continuation of supervised clinical practice integrating the principles of Swedish Massage and adjunctive therapeutic modalities. Students are afforded the opportunity to practice their massage and evaluation skills on a diverse group of subjects.

**MS 1318 FLORIDA STATUTES/RULES & HISTORY OF MASSAGE****10 HOURS**

An examination of the regulatory requirements of the Florida Massage Practice Act (Chapter 480 of the Florida Statutes), governing the practice of massage within the state. The history of massage is also reviewed from its origin to the current state of the profession.

**MS 1319 BUSINESS PRINCIPLES & ETHICS****10 HOURS**

A discussion of essential business principles for developing a successful massage therapy practice. Included is a review of the ethical standards of conduct for the massage therapist as defined by the American Massage Therapy Association (AMTA).

**MS 1320 CARDIOPULMONARY RESUSCITATION & FIRST AID****15 HOURS**

A study of the emergency management of a cardiac arrest victim and first aid for an obstructed airway. Students meet national certification requirements as determined by the American Heart Association (AHA) and include resuscitation procedures for adults and infants. Appropriate first aid for commonly encountered acute injuries and illnesses is also included.

**MS 1410 BUSINESS PRACTICES & CAREER DEVELOPMENT****35 HOURS**

A course to prepare graduates to maximize their effectiveness in the massage therapy profession as an employee or as a proprietor. Included are basic life skills necessary to become competitive in the business world. Information is provided on a variety of subjects such as: insurance bookkeeping, taxes, licensing, zoning, equipment, marketing, interviewing techniques, resume writing, and other essentials for a successful massage therapy practice.

**MS 1412 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.

**MS 1414 CLINICAL ASSESSMENT, ADVANCED INJURY EVALUATION & TREATMENT****50 HOURS**

Instruction is provided on various approaches to effectively evaluate the client's physiological condition as it relates to the development of an appropriate massage treatment plan. Students learn methodologies such as postural analysis, kinesiology techniques, advanced palpation and SOAP format charting.

**MT 1510 ADVANCED MEDICAL TRANSCRIPTION****120 HOURS**

Provides advanced medical transcription skills utilizing the computer with contemporary word processing applications, a transcribing machine, and medical dictation recorded on magnetic tape in the specialty of radiology.

**MT 1515 ADVANCED KEYBOARDING 40 HOURS**

A concentration on mastering advanced keyboarding skills with high level and accuracy. Exit skill requirement is 120 lines per hour.

**MT 1600 INTERNSHIP OR PROJECT 200 HOURS**

Medical transcription experience is provided outside the classroom. Included is transcription of dictation applying varying degrees of difficulty. Interns transcribe from auto cassette tapes onto a computer using skills learned in the classroom; proofread their own transcription, and research presentation to the dictator. A special project may be completed in lieu of internship at the program coordinators' discretion.

**PC 1100 HEALTH CAREERS CORE FUNDAMENTALS****30 HOURS**

An introduction to health care and the delivery system, including a core of basic knowledge necessary for any health occupations career. Also included are such topics as: medical ethics, interpersonal skills, disease concepts, safety, basic math and science skills.

**PC 1102 BASIC NURSING ASSISTING & GERIATRIC PATIENT CARE****35 HOURS**

A variety of nursing assistant skills are provided. The student learns to perform basic nursing procedures, caring for the patients' emotional and physical needs. Principles of universal precautions, isolation and infection control are included. Geriatric care is emphasized together with restorative activities and patient care plans.

**PC 1104 INTERNSHIP - EXTENDED CARE ROTATION****40 HOURS**

Students are placed in a medical facility where there is an opportunity to observe, assist, learn and perform patient services in an extended care setting. The internship is an essential component of the program where theoretical and practical skills are integrated. Specific objectives involving cognitive, affective and psychomotor behaviors must be met for students to complete this course.

**PC 1106 HOME HEALTH CARE****75 HOURS**

Students are introduced to the role and responsibilities of the home health aid. Topics include legal and ethical responsibilities, patient safety and physical comfort, nutrition, infection control, and communication. Students also learn to follow a work plan with the patient and family.

**PC 1200 PRINCIPLES OF PATIENT CARE ASSISTING****40 HOURS**

Students learn to perform a variety of acute-care skills related to the hospital setting. The needs of adult patients with specific health problems such as diabetes, arthritis, spinal cord injuries, and seizure disorders among others, are discussed.

**PC 1202 BASIC ELECTROCARDIOGRAPHY TECHNIQUES****40 HOURS**

A study of the cardiovascular system and the application of medical instrumentation modalities. Students learn to perform a 12 lead electrocardiogram, including patient preparation, use of equipment, charting and documentation. Training is also provided in cardiac wellness and rehabilitation, as well as other related patient care techniques.

**PC 1204 PHLEBOTOMY TECHNIQUES & SPECIMEN PROCESSING****40 HOURS**

A study of phlebotomy including skin puncture procedures using the syringe and evacuated tube system. Capillary tubes microtainers, and color-coded collection tubes are introduced. Students follow universal precautions and practice accepted procedures of transporting, accessioning and processing specimens. Quality assurance and laboratory safety are emphasized.

**PC 1206 ALLIED HEALTH APPLICATIONS****40 HOURS**

Students perform diverse patient care skills involving allied health modalities within the scope of practice of unlicensed assistive personnel. Basic respiratory care modalities are introduced. Students also learn to perform colostomy care, skin and decubitus care, removal and care of peripheral intravenous catheters, as well as assisting with orthopedic appliances.

**PC 1208 COLLABORATIVE MANAGEMENT & ORGANIZATION****40 HOURS**

Students develop organizational and management skills for the clinical environment. A collaborative team approach is emphasized. Topics include managerial styles, delegation and problem-solving techniques, chain of command, and interpersonal relationships, among others. End-of-shift reports are also discussed. The role of the patient care technician as a valuable team member is included.

**PC 1300 INTERNSHIP - ACUTE CARE ROTATION****200 HOURS**

Students are placed in a medical facility where there is an opportunity to observe, assist, learn and perform patient services in an acute care setting. The internship is an essential component of the program where theoretical and practical skills are integrated. Specific objectives, involving cognitive, affective and psychomotor behaviors must be met for students to complete this course.

**PT 1202 PHARMACY LAW****40 HOURS**

Each state has established specific statutes which govern the practice of pharmacy and the legal authority and framework by which pharmacists, pharmacy interns/students, and pharmacy technicians may work. This course examines general legal issues pertaining to pharmacies, pharmacists, and pharmacy technicians as it applies in the state of Florida. Special emphasis is placed on a discussion of comprehensive practice guidelines for pharmacy technicians so that these individuals gain a full understanding and respect of the legal, moral, and ethical aspects of their position and the legal responsibilities of their pharmacist supervisor. The course also discusses the various national, state and local regulatory agencies that regulate the practice of pharmacy.

**RT 0192 RADIATION PHYSICS &****ELECTRONICS****25 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****70 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 1210 MICROBIOLOGY****35 HOURS**

An introduction to micro-organism identification and classification of bacteria. Included are procedures for specimen collection using sterile techniques. Equipment decontamination and sterilization procedures are also introduced and practiced. Emphasis is placed on maintaining a sterile field.

**ST 1212 PATIENT PSYCHOLOGY****10 HOURS**

Behavioral changes of patients are discussed with emphasis on those associated with disease. Included are the stages of adaptation to crisis and the role of the health care provider. Psychological aspects of human growth and development are also discussed.

**ST 1214 LEGAL ASPECTS OF MEDICINE &****PROFESSIONAL ETHICS****10 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****30 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 resuscitation procedures for adults, children, and infants.

**ST 1222 COMPUTER CONCEPTS****20 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 1224 INTRODUCTION TO SURGICAL****TECHNOLOGY****45 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. Also included is an introduction to surgical attire, scrubbing, gowning and gloving one's self and another, opening and maintenance of sterile fields and basic instrumentation.

**ST 1312 SURGICAL TECHNIQUES &****PROCEDURES****50 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****50 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****50 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****50 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. Rotations are scheduled primarily during day hours. Students must assist with a minimum of 125 surgical cases in various specialties and meet other experiential pre-requisites for professional credentialing eligibility as may be otherwise required.

**US 1110 PHYSICS OF ULTRASOUND &****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 1224 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 1226 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, biophysical profile and multiple fetuses.

**US 1228 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 1310 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.

## PROGRAM OFFICIALS

**ALLEN, TIMOTHY**  
Program Coordinator  
Pharmacy Technician Program  
C.P. T., US Army

**BASTIONY, PETER**  
Program Coordinator  
Health Services Administration  
Program  
N. Miami Beach Campus  
A.A., Barry University  
Miami, FL

**BATTIATA, RUSSELL**  
Program Coordinator  
Health Services  
Administration Program  
Kendall Campus  
Micro-Computer Diploma  
National School of Technology  
Miami, FL

**BLANKS, ROSEMARY**  
Administrator of  
Clinical Education  
A.R.R.T., A.S., Radiology  
Northeastern University  
Boston, MA  
M.S., Business Management  
Lesley College, Cambridge, MA  
B.A., Art History & Education  
University of Massachusetts  
Boston, MA

**COLUCCI, DONNA**  
Clinical Coordinator  
Surgical Technologist Program  
C.S.T., Jackson Memorial Hospital  
A.A., Psychology  
Broward Community College

**CONTRACTOR, NORALIS**  
Program Coordinator  
Medical Transcriptionist Program  
Kendall Campus  
A.S., Medical Transcription  
Ward Stone College  
Miami, FL

**CRUZ, FRANCES**  
Assistant Clinical Coordinator  
Surgical Technologist Program  
C.S.T., Swedish American Hospital  
Rockford, IL  
F.A., National School of First Assisting  
Bolder, CO  
E.M.I., Blackhawk Technical Institute  
Janesville, WI

**DUQUE, DIEGO**  
Program Director  
Diagnostic Cardiac Sonographer  
Program - PT  
R.D.M.S., R.D.C.S.,  
R.V.T., C.C.V.T,  
Diploma, National School of Technology  
Miami, FL

**FERNANDEZ, ENRIQUE FABIAN**  
Program Coordinator  
Massage Therapist &  
Advanced Massage Therapist Programs  
Hialeah Campus  
L.M.T. #MA0025399  
A.M.T.A. Certified  
A.S., Florida College of Natural Health

**GARCIA, ANTHONY**  
Field Coordinator  
Cardiovascular Technologist Program  
Kendall Campus  
M.D., Universidad Central del Este,  
Dominican Republic

**GRANELA, CARLOS**  
Program Coordinator  
Massage Therapist &  
Advanced Massage Therapist Programs  
L.M.T. #MA0022474  
Florida Institute of Massage Therapy

**JOHNSON, VERNEACHA ELLEN**  
Program Coordinator  
Surgical Technologist Program  
Kendall Campus  
Cert., Dade County Public Schools  
Certificate, Operating Room Technician  
UM/Jackson Memorial Hospital  
Miami, FL

**MIRO, MARIO**  
Division Coordinator  
Diagnostic Medical Technologies  
M.D., Universidad Central del Este,  
Dominican Republic

**NORRIS, KIMARI**  
Program Coordinator  
Massage Therapist &  
Advanced Massage Therapist Programs  
N. Miami Beach Campus  
L.M.T. #MA0015374  
P.T.A., A.S., Physical Therapy Assist.  
Broward Community College  
Massage Certificate  
Lindsey Hopkins Vocational School  
Miami, FL

**ORLOFF, JULIE**  
Program Coordinator  
Medical Assistant,  
Advanced Medical Assistant  
& Medical Coding  
Specialist Programs  
N. Miami Beach Campus  
R.M.A., C.M.A., C.P.C., C.P.T  
Certificate, Medical Assisting  
Broward Community College

**ROWE, VERONA**  
Program Coordinator  
Surgical Technologist Program  
Hialeah Campus  
B.S., Pace University  
Pleasantville, NY  
O.R.S., Academy of  
Health Sciences - Ft. Sam  
Houston, TX

**SANCHEZ-FEIERSTADT, ANA**  
Program Coordinator  
Patient Care Technician Program  
N. Miami Beach Campus  
BS, RN,  
Florida International University  
Miami, FL

**WILKES, JOHN**  
Program Coordinator  
Advanced Medical Assistant  
& Medical Coding  
Specialist Programs  
Kendall Campus  
B.A., Philosophy  
Rutgers University  
New Brunswick, NJ

**ZAYAS-BAZAN, MARIO**  
Program Coordinator  
Medical Assistant,  
Advanced Medical Assistant  
& Medical Coding  
Specialist Programs  
Hialeah Campus  
M.D., Universidad Mexico  
Reynosa, Mexico

**ZOIDIS, JUDITH**  
Program Coordinator  
Surgical Technologist Program  
N. Miami Beach Campus  
C.S.T., Maine Medical Center  
Portland, Maine  
B.A., University of Maine  
Orono, ME



## NORTH MIAMI BEACH CAMPUS FACULTY

### **WALTERS, JEFFREY**

Instructor-PT  
Advanced Medical Assistant Program  
R.T., Miami Dade Community College  
Miami, FL

### **VIZZARO, ROSA**

Instructor  
Patient Care Technician Program  
A.A., RN,  
Miami Dade Community College  
Miami, FL

## HIALEAH CAMPUS FACULTY

### SWEETING, DOROTHY

Instructor  
Medical Assistant & Advanced  
Medical Assistant Programs  
C.M.A.  
L.P.N., University of Wisconsin

### VAZQUEZ-BELLO, ENRIQUE

Instructor-PT  
Massage Therapist & Advanced Massage  
Therapist Programs  
B.A., Saint Thomas University  
Miami, FL  
A.S.N., Miami-Dade Community College  
Miami, FL

### WILDER, SABRINA

Instructor  
Medical Assistant, Advanced Medical  
Assistant & Medical Coding  
Specialist Programs  
Diploma, Medical Assistant  
Bauder College  
Miami, FL

## KENDALL CAMPUS FACULTY

### **SQUIABRO, ROSE**

Instructor  
Medical Coding Specialist &  
Advanced Medical Assistant Programs  
Emergency Medical Technician  
Okaloosa Walton Sr. College  
Respiratory Therapy, ATI

### **TAMARGO, CARLOS**

Instructor  
Cardiovascular Technologist &  
Pharmacy Technician Programs  
B.A., University of Miami  
M.D., Universidad Central Del Este  
Dominican Republic

### **TIMOTHEE, HARRY**

Instructor  
Cardiovascular Technologist Program  
M.A., B.A., Hunter College  
Dominican Republic

### **TRIANA, BEATRIZ**

Instructor  
Cardiovascular Technologist &  
Pharmacy Technician Programs  
A.A., Miami Dade Community College  
B.A., St. Thomas University  
M.D., Universidad Central Del Este  
Dominican Republic

### **VEGTER, MENNO**

Instructor  
Massage Therapist &  
Advanced Massage Therapist Programs  
LMT #MA0023712  
Florida Institute of Massage Therapy

# NATIONAL SCHOOL OF TECHNOLOGY

## SCHEDULE OF TUITION & FEES

PROGRAM	PROGRAM HOURS	MONTHS (D & E)	TUITION	LAB & BOOK FEES	REG. FEE	TOTAL
HEALTH SERVICES ADMINISTRATION	1,200	12-15	\$ 10,170	\$ 630	\$ 50	\$ 10,850
MEDICAL CODING SPECIALIST	900	9-12	\$ 7,760	\$ 390	\$ 50	\$ 8,200
MEDICAL TRANSCRIPTIONIST	1,200	12-15	\$ 9,055	\$ 830	\$ 50	\$ 9,935
MEDICAL ASSISTANT	900	9-12	\$ 7,340	\$ 400	\$ 50	\$ 7,790
ADVANCED MEDICAL ASSISTANT	1,200	12-15	\$ 9,895	\$ 475	\$ 50	\$ 10,420
PHARMACY TECHNICIAN	1,200	12-15	\$ 8,980	\$ 600	\$ 50	\$ 9,630
MASSAGE THERAPIST	600	6-8	\$ 5,590	\$ 350	\$ 50	\$ 5,990
ADVANCED MASSAGE THERAPIST	900	9-12	\$ 7,690	\$ 500	\$ 50	\$ 8,240
PATIENT CARE TECHNICIAN	600	6-8	\$ 5,320	\$ 230	\$ 50	\$ 5,600
SURGICAL TECHNOLOGIST	1,200	12	\$ 13,950	\$ 500	\$ 50	\$ 14,500
CARDIOVASCULAR TECHNOLOGIST	1,500	15-19	\$ 14,835	\$ 365	\$ 50	\$ 15,250
DIAGNOSTIC CARDIAC SONOGRAPHER	1,200	12	\$ 11,250	\$ 200	\$ 50	\$ 11,500
ULTRASOUND TECHNOLOGIST	1,200	12-15	\$ 12,995	\$ 685	\$ 50	\$ 13,730

# ACADEMIC CALENDAR

## HEALTH SERVICES ADMINISTRATION PROGRAM (N. Miami Beach & Kendall Campuses)

<u>Day</u>	<u>Evening</u>
01/08/01 - 01/30/02	01/02/01 - 04/15/02
03/12/01 - 04/02/02	03/19/01 - 07/08/02
05/14/01 - 06/03/02	05/29/01 - 09/24/02

## MEDICAL CODING SPECIALIST PROGRAM (All Campuses)

<u>Day</u>	<u>Evening</u>
01/08/01 - 10/16/01	01/02/01 - 12/06/01
03/12/01 - 12/20/01	03/19/01 - 03/05/02
05/14/01 - 02/28/02	05/29/01 - 05/20/02

## MEDICAL TRANSCRIPTIONIST PROGRAM (Kendall Campus)

<u>Day</u>	<u>Evening</u>
01/08/01 - 01/30/02	01/02/01 - 04/15/02
03/12/01 - 04/02/02	03/19/01 - 07/08/02
05/14/01 - 06/03/02	05/29/01 - 09/24/02

## MEDICAL ASSISTANT PROGRAM (N. Miami Beach & Hialeah Campuses)

<u>Day</u>	<u>Evening</u>
01/08/01 - 10/16/01	01/02/01 - 12/06/01
03/12/01 - 12/20/01	03/19/01 - 03/05/02
05/14/01 - 02/28/02	05/29/01 - 05/20/02

## ADVANCED MEDICAL ASSISTANT PROGRAM (All Campuses)

<u>Day</u>	<u>Evening</u>
01/08/01 - 01/28/02	01/02/01 - 04/04/02
03/12/01 - 03/28/02	03/19/01 - 06/24/02
05/14/01 - 05/28/02	05/29/01 - 09/18/02

## PHARMACY TECHNICIAN PROGRAM (Hialeah & Kendall Campuses)

<u>Day</u>	<u>Evening</u>
02/26/01 - 03/07/02	02/26/01 - 06/04/02
05/29/01 - 06/04/02	06/18/01 - 10/01/02

## MASSAGE THERAPIST PROGRAM (All Campuses)

<u>Day</u>	<u>Evening</u>
01/08/01 - 07/16/01	01/02/01 - 08/13/01
03/12/01 - 09/17/01	03/19/01 - 10/30/01
05/14/01 - 11/20/01	05/29/01 - 01/28/02