

November 1991



NATIONAL SCHOOL OF TECHNOLOGY, INC.

Career Catalog

1991-92

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 equipment, curricula and facilities, recognizing our obligation to the students and the professions they serve. National School of Technology continues to provide quality training for health paraprofessionals and computer personnel.

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.

FACILITIES

National School 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 EKG machines, microscopes, examining tables, blood cell counters, echocardiography equipment and cardiovascular diagnostic equipment.

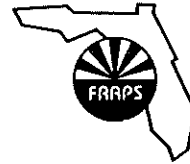
Our microcomputer labs are equipped with IBM compatible computers to allow students to receive hands on training.

A student lounge, equipped with vending machines for food, drinks and snacks, as well as a microwave, is available. Both campuses have handicapped facilities.

ACCREDITATION

National School of Technology, Inc is institutionally accredited by the Career College Association formerly the National Association of Trade and Technical Schools (NATTS).

The Medical Assistant Program is accredited by the Accrediting Bureau of Health Education School (ABHES).



LICENSURE

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

National School is a member of the Florida Association of Accredited Private Schools (FAAPS).

MEMBERSHIPS

Florida Association of Accredited Private Schools (FAAPS)
Florida Association of Students Financial Aid Administrators (FASFAA)
National Association of Students Financial Aid Administrators (NASFAA)
U.S. Department of Education Region IV Coordinating Council
The Better Business Bureau (BBB)

STATEMENT OF OWNERSHIP

National School of Technology, Inc. is owned and controlled by Martin Knobel, President, Rickie Knobel, Secretary/Treasurer, Mark Knobel, Vice President and David Knobel, Vice President.

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NATIONAL SCHOOL OF TECHNOLOGY, INC.

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

For over 14 years, National School 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 job market.

National School's faculty consists of professionals, with extensive experience in each specialized field - our instructors practice what they teach. Classes are kept small, to allow for personalized instruction and individual attention. Classrooms house the latest high-tech equipment, creating a realistic work environment for practical hands-on training. Our curriculum is career oriented and is enhanced by an internship program, 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
President

MEDICAL ASSISTANT

Diploma – 900 Clock Hours

*Associate of Specialized Technology –
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 clinical situations. Training in medical ethics and professional etiquette, as well as basic office procedures are taught as required elements of the course.

CAREER OPPORTUNITIES:

Medical Assistants enjoy secure, prestigious positions. They work with one or more physicians in private practices, clinics, hospitals, laboratories and other health facilities.

Courses are not necessarily taught in the same order they appear on the curriculum outline. The school reserves the right to change the curriculum outline, start dates and tuition. Currently enrolled students will not be affected by tuition increases.

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	75
MA 160	Infection Control and Sterilization	10
MA 162	Clinical Assisting Skills	50
MA 164	Pharmacology and Drug Therapy	30
MA 166	Nutrition and Diet Therapy	10

Block 3

MA 170	Organization of the Clinical Laboratory	15
MA 172	Phlebotomy Techniques	35
MA 174	Hematology	50
MA 180	Clinical Chemistry	25
MA 182	Basic Urinalysis	35
MA 184	Serology Testing	20
MA 186	Microbiology	20

Block 4 (For Associate Degree 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 Transcription and Terminology	20
MA 154	Transcribing Basic Medical Reports	15
MA 156	Medical Transcription Lab	30

Block 5 (For Associate Degree Only)

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

Internship

MA 208	Career Development/Internship or Project	300
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TOTAL CLOCK HOURS - Diploma 900

9 months day / 12 months evening

TOTAL CLOCK HOURS - Associate of Specialized Technology 1200

12 months day / 15 months evening

CARDIOVASCULAR TECHNOLOGIST

Associate of Specialized Technology
1500 Clock Hours

PROGRAM OBJECTIVE:

The Cardiovascular Technologist program is a comprehensive study of cardiovascular anatomy and related sciences leading to the understanding of cardiographic diagnostic procedures and technologies. The latest cardiovascular equipment and theory is thoroughly explained through lecture and hands on training.

Graduates will be able to sit for the certification exam offered by the National Society for Cardiovascular Technology.

CAREER OPPORTUNITIES:

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

Courses are not necessarily taught in the same order they appear on the curriculum outline. The school reserves the right to change the curriculum outline, start dates and tuition. Currently enrolled students will not be affected by tuition increases.

CARDIOVASCULAR TECHNOLOGIST - PROGRAM OUTLINE

Block 1

AV 110	Orientation	5
AV 111	Cellular Basis of Anatomy and Physiology	30
AV 112	Musculoskeletal System	25
AV 114	Gastrointestinal System	25
AV 115	Genitourinary System	35
AV 116	Cardiac Anatomy and Physiology	60
AV 117	Vascular Anatomy and Physiology	60
AV 118	Cardiopulmonary Resuscitation	10
AV 119	Basic Medical Skills	50

Block 2

AV 120	Normal EKG and Normal Variants	80
AV 121	Vectorcardiography	15
AV 122	Ischemia, Infarction, Conduction Delays	30
AV 123	Arrhythmia Recognition and Management	90
AV 124	Cardiovascular Pharmacology	25

Block 3

AV 130	Ambulatory Monitoring/ Cardiac Pacing	30
AV 131	Graded Exercise Testing	30
AV 132	Embryology and Congenital Heart Disease	30
AV 133	Valvular Heart Disease	25
AV 134	Cardiomyopathies and Myocarditis	25
AV 135	Diseases of the Pericardium, Trauma and Tumors	25
AV 136	Atherosclerosis and Ischemic Heart Disease	25
AV 137	CHF, Hypertension, Shock and Syncope	30
AV 138	Pulmonary Heart Disease, Respiratory System	30
AV 139	Peripheral Vascular/Cerebro Vascular Disease and Studies	50

Block 4

AV 140	Physics of Ultrasound, Instrumentation and Scanning Principles	60
AV 141	Echocardiographic Cross Sectional Anatomy	25
AV 142	Principles of M-Mode	5
AV 143	Cardiac Doppler and Color Flow Principles	30
AV 144	Echocardiographic Pathology of the Heart	30
AV 145	Echocardiographic Congenital Pathology	30
AV 146	Orientation to Echo Equipment	15
AV 147	Examination of the Normal Heart	165

Internship

AV 208	Career Development/Internship or Project	300
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TOTAL CLOCK HOURS 1500
15 months day/ 20 months evening

DIAGNOSTIC MEDICAL SONOGRAPHER

Associate of Specialized Technology
1200 Clock Hours

PROGRAM OBJECTIVE:

This program will enable the student to perform diagnostic examinations through the acquisition of necessary medical knowledge and sonographic ultrasound techniques.

CAREER OPPORTUNITIES:

Because of their extensive training, sonographers are capable of working in a variety of clinical environments including a physician's private practice, diagnostic clinics, and hospitals when considered registry eligible.

ULTRASOUND TECHNICIAN

Diploma 900 Clock Hours

PROGRAM OBJECTIVE:

This program will enable the student to perform diagnostic examinations through the acquisition of necessary medical knowledge and techniques in ultrasound.

CAREER OPPORTUNITIES:

Ultrasound technicians find employment with physicians in private practice, diagnostic clinics, mobile services, and even hospitals when considered registry eligible.

Courses are not necessarily taught in the same order they appear on the curriculum outline. The school reserves the right to change the curriculum outline, start dates and tuition. Currently enrolled students will not be affected by tuition increases.

DIAGNOSTIC MEDICAL SONOGRAPHER - PROGRAM OUTLINE

Block 1

UT 110	Physics of Ultrasound, Instrumentation and Scanning principles	50
UT 112	Cross Sectional and Sagittal Anatomy	30
UT 114	Liver, Gall Bladder, Pancreas, Biliary System, Spleen	120
UT 116	Renal System	100

Block 2

UT 120	Vascular System	25
UT 122	Gynecology; Anatomy, Physiology, Pathology, Diagnostic Procedures	100
UT 124	Obstetrics; Anatomy, Physiology, Pathology, Diagnostic Procedures, Fetal Developments	150
UT 126	Small Parts & Special Procedures	25

Block 3

UT 130	Clinical Practicum	240
DS 135	Echocardiography Seminar	60

Block 4

DS 140	Echocardiographic Cross Sectional Anatomy	25
DS 141	Principles of M-Mode	5
DS 142	Cardiac Doppler and Color Flow Principles	30
DS 144	Echocardiographic Pathology of the Heart	30
DS 145	Echocardiographic Congenital Pathology	30
DS 146	Orientation to Echo Equipment	15
DS 148	Examination of the Normal Heart	165

TOTAL CLOCK HOURS 1200
12 months day / 15 months evening

ULTRASOUND TECHNICIAN - PROGRAM OUTLINE

Block 1

UT 110	Physics of Ultrasound, Instrumentation and Scanning principles	50
UT 112	Cross Sectional and Sagittal Anatomy	30
UT 114	Liver, Gall Bladder, Pancreas, Biliary System, Spleen	120
UT 116	Renal System	100

Block 2

UT 120	Vascular System	25
UT 122	Gynecology; Anatomy, Physiology, Pathology, Diagnostic Procedures	100

UT 124	Obstetrics; Anatomy, Physiology, Pathology, Diagnostic Procedures, Fetal Development	150
UT 126	Small Parts & Special Procedures	25

Block 3

UT 130	Clinical Practicum	300
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TOTAL CLOCK HOURS 900
9 months day / 12 months evening

MICROCOMPUTER SPECIALIST

Diploma – 800 Clock Hours

Associate of Specialized Technology - 1200 Clock Hours

PROGRAM OBJECTIVE:

The objective of this program is to train the student in all aspects of microcomputer use so that he/she may obtain employment in business.

Hands-on techniques covered include operating a computer, loading and running a program, using data entry and word processing capabilities, manipulating data, handling electronic files, printing, calculating, using a computer language and software.

CAREER OPPORTUNITIES:

In order to keep pace with today's technology, knowledge of microcomputers is vital. Microcomputer operators are employed by banks, hospitals, retailing firms, schools, medical offices, marketing firms and a variety of other businesses.

Courses are not necessarily taught in the same order they appear on the curriculum outline. The school reserves the right to change the curriculum outline, start dates and tuition. Currently enrolled students will not be affected by tuition increases.

MICROCOMPUTER SPECIALIST - PROGRAM OUTLINE

Block 1

MS 110	Keyboarding I	30
MS 112	MS/DOS	40
MS 114	Computer Fundamentals	30
MS 120	Lotus 123	70
MS 122	Personal Finance	30

Block 2

MS 130	WordPerfect	70
MS 132	Business Writing	40
MS 140	Business English	40
MS 142	Keyboarding II	40
MS 144	Printshop Graphics	10

Block 3

MS 150	dBase III Plus	70
MS 152	Office Procedure	30
MS 160	Publishing	45
MS 162	Bookkeeping	55

Block 4 (For Associate Degree Only)

MS 170	Advanced WordPerfect	60
MS 172	Computer Communications	40
MS 180	Computerized Business Functions	50
MS 182	Bookkeeping II	50

Block 5 (For Associate Degree Only)

MS 190	dBase Programming	75
MS 192	Career Development	25
MS 200	Advanced Lotus 123	60
MS 202	Novell Networking	40

Internship

MS 208	Career Development/ Internship or Project	200
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TOTAL CLOCK HOURS - Diploma 800

9 months day / 12 months evening

TOTAL CLOCK HOURS - Associate of Specialized Technology 1200

12 months day / 15 months evening

ESOL/MEDICAL OFFICE CLERK

Diploma - 920 Clock Hours

PROGRAM OBJECTIVE:

This entry level training program will prepare students for initial entry into a related medical field, while promoting the development of all four disciplines of the English language acquisition: structure, reading, writing, and conversation. The program serves as a foundation for more advanced study and experience in other allied health occupations.

CAREER OPPORTUNITIES:

Graduates of this program may apply for entry-level positions in private medical offices and clinics where bi-lingual skills are necessary. Additionally the business-related training will assist graduates in securing employment in other areas as well.

Courses are not necessarily taught in the same order they appear on the curriculum outline. The school reserves the right to change the curriculum outline, start dates and tuition. Currently enrolled students will not be affected by tuition increases.

ESOL/MEDICAL OFFICE CLERK - PROGRAM OUTLINE

Block 1

EM 110	Basic English Diction and Survival Conversation Skills	70
EM 115	Body Systems and Related Anatomical Terminology	30
EM 120	English Language Arts I and Personal Conversation	70
EM 125	Medical Specialties and Clinical Terminology	30

Block 2

EM 130	English Language Arts II and Social Conversation	70
EM 135	Legal and Ethical Issues in Patient Care	30
EM 140	English Language Arts III and Occupational Conversation	70
EM 145	Vital Signs and CPR Certification	30

Block 3

EM 150	English Language Arts IV and Primary Interactive Skills	70
EM 155	Front Office Procedures	30
EM 160	English Language Arts V and Intermediate Interactive Skills	70
EM 165	Billing, Collection Procedures, and Health Insurance Claims	30

Block 4

EM 170	English Language Arts VI and Advanced Interactive Skills	70
EM 175	Keyboarding Skills/Data Entry	30
EM 180	Group Dynamics in English Conversation and Comprehension	70
EM 185	Computer Applications for the Medical Office	30

Internship

EM 208	Career Development/ Internship or Project	120
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TOTAL HOURS 920

9 months day / 11 months evening

COURT REPORTING

Associate of Specialized Technology - 1350 Clock Hours

PROGRAM OBJECTIVE:

This program prepares the student for a career as a Court Reporter. A professional Court Reporter is the key information manager of the judicial system, and is responsible for the documentation of legal record.

CAREER OPPORTUNITIES:

Official court reporters are employed on a full time basis and generally receive a base salary, plus transcript fees for their work. Court Systems, Government, Civil Service, Business and Commerce are all areas in which the expert skills and professional judgement of the reporter are required.

Courses are not necessarily taught in the same order they appear on the curriculum outline. The school reserves the right to change the curriculum outline, start dates and tuition. Currently enrolled students will not be affected by tuition increases.

COURT REPORTING PROGRAM OUTLINE

Block

STM 301	Stenotype I: StenEd Computer Conflict Free Theory (Beginning)	90
ENG 101	English Composition	45
SCI 101	Human Anatomy and Physiology	45
TEC 110	Word Processing Concepts and Applications	30
SCI 202	Health for Office Professionals	15
STM 302	Stenotype II: StenEd Computer Conflict Free Theory (Advanced 80 wpm)	90
ENG 210	Technical Writing	45
MED 102	Medical Terminology	45
RTE 101	Rapid Input Text Entry	30
STM 303	Stenotype III: Rapid Text Entry (90-100 wpm)	90
MED 103	Disease Processes	45
MED 202	Medical Transcription Applications	45
PHI 201	Ethics	45
STM 404	Stenotype IV: Court Reporting Methods (130 - 150) wpm)	90

ENG 303	English for Court Reporters	45
LIS 202	Research Methods	15
POL 101	Law and Its Language I	45
COM 203	Speech	45
STM 405	Stenotype V: Court Reporting Computer Aided Transcription (CAT): (160 - 180 wpm)	120
CRP 401	Court Reporting Procedures and Litigation Support	45
POL 201	Law and Its Language II	45
CAT 410	Computer - Aided Transcription	30
STM 406	Stenotype VI: Advanced Court Reporting (CAT): (to 225 wpm)	120
CRP 403	RPR/CSR Test Preparation	15
COM 201	Professional Development	15
MGT 401	Entrepreneurial Management Seminar	15

Internship

INT 404	Court Reporting Internship	45
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TOTAL CLOCK HOURS 1350

13 months day - 18 months evenings

MEDICAL OFFICE TRANSCRIPTION

Diploma - 945 Clock Hours

PROGRAM OBJECTIVE:

This program prepares individuals for entry level medical transcription positions. Emphasis is placed upon mastering medical concepts and terminology necessary to produce quality medical records in cooperation with physicians.

CAREER OPPORTUNITIES:

Medical Transcriptionists are employed by doctors, hospitals, and medical transcription service bureaus. Many own their own businesses and work from home.

Courses are not necessarily taught in the same order they appear on the curriculum outline. The school reserves the right to change the curriculum outline, start dates and tuition. Currently enrolled students will not be affected by tuition increases.

MEDICAL OFFICE TRANSCRIPTION - PROGRAM OUTLINE

Block

SEC 101/102	Keyboarding/Typing Intermediate	90	MED 103	Disease Processes	45
ENG 101	English Composition	45	MED 104	Advanced Medical Topics	45
TEC 110	Word Processing Concepts w/Applications	30	MED 203	Advanced Medical Transcription	45
SCI 202	Health for Office Professionals	30	MGT 401	Entrepreneurial Management Seminar	15
SEC 201	Administrative Office Systems	15	LIS 202	Research Methods	15
COM201	Professional Development	15	PHI 201	Ethics	45
SCI 101	Human Anatomy and Physiology	45			
SEC 102/103	Keyboarding/Typing Advanced	90			
ENG 210	Technical Writing	45			
SEC 202	Electronic Transcription and Dictation	30			
MED 102	Medical Terminology	45			
MED 202	Medical Transcription Applications	45			
MMG 301	Medical Office Procedures	45			
MMG 504	Medical Billing and Collection	30			

Internship

INT Internship 120

TOTAL CLOCK HOURS 945

9 months day - 12 months evenings

GENERAL INFORMATION

CLASS SIZE

Class size averages between 15 and 30 students. Medical laboratory class size 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 law. National School is an equal opportunity employer.

HOURS OF OPERATION

The schools open from 8:00 a.m. to 11:00 p.m., Monday thru Thursday; and from 8:00 a.m. to 5:00 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 be back in class punctually after all breaks and lunch periods. 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 of the student. 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. Students who wish to smoke may do so only in designated areas. 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 will not play games of chance, use offensive language, make unnecessary noise or engage in behavior unbecoming a professional. Children are not allowed in classrooms. Students will be responsible and pay for all

property 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 will 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 training as health paraprofessionals 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 are not permitted in the classrooms. All students must keep work areas clean. Class will be dismissed only after the room has been inspected. Failure to cooperate with school rules and regulations will be considered reason for student suspension or expulsion. Students may appeal expulsion in writing within 72 hours to the director of the campus. In the absence of an appeal, the student shall be considered terminated.

DISCLOSURE STATEMENT

Courses are not necessarily taught in the same order they appear on the curriculum outline. The school reserves the right to change the curriculum outline, start dates and tuition. Currently enrolled students will not be affected by tuition increases.

SCHOOL HOLIDAYS

New Year's Day - Martin Luther King Day - Washington's Birthday - 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 thru New Year's. Exact vacation dates are announced and additional holidays may be declared by the Director, when warranted.

STUDENT SERVICES

JOB PLACEMENT ASSISTANCE

Our Career Development Department helps graduates find employment in the fields for which they have been trained. Employment counseling, 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 Department makes every effort to secure positions for graduates. We are not permitted by law, to guarantee employment.

COUNSELING

Counseling is available to students by request.

CPR/FIRST AID CLASSES

Cardiopulmonary-Resuscitation (CPR) and first aid classes are held 3 to 4 times a year at the school.

ENGLISH AS A SECOND LANGUAGE (HIALEAH CAMPUS)

This special course is designed to provide the student with the basic foundations of English grammar, pronunciation, reading and writing skills. Students will receive instruction in spelling, vocabulary enrichment, sentence structure and conventional punctuation.

INGLES COMO SEGUNDO IDIOMA (HIALEAH)

Este curso especial esta disenado para enseñarle al alumno los conocimientos basicos de la gramatica, la pronunciacion, la lectura y la escritura del idioma Ingles. Los alumnos reciben conocimientos de la ortografia, del vocabulario y de las estructura gramaticales.

GRADUATION

Upon successful completion of all prescribed subjects of instruction with a cumulative grade average of 70 percent or better; satisfaction of all financial obligations to the school and an Exit Interview, the student will be awarded a diploma.

Graduates of the Micro-Computer Specialist, Medical Assistant A.S.T., Cardiovascular Technology and Diagnostic Ultrasound programs earn an Associate of Specialized Technology credential.

Students may participate in the graduation ceremony and will be eligible for placement assistance, providing that all graduation requirements have been met.

INSURANCE

Each medical student is covered by \$1 million of professional liability insurance at no extra charge.

LIBRARY

A library of professional books is available for student use.

PHOTO IDENTIFICATION BADGES

For security purposes, all students are required to wear a photo identification. This badge is issued by the school and is free of charge. Lost badges must be replaced and cost \$5.00.

PROFESSIONAL ORGANIZATIONS

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

Certified Medical Assistant by the American Association of Medical Assistants (CMA/AAMA)

CRT-Basic Certified Radiologic Technologist-Basic, license necessary to take X-rays in the doctor's office, issued by the State of Florida.

Data Processors Management Association for Computer Programmers, sponsors certification after three years experience (DPMA)

Greater Miami Society of Echocardiography

National Association of Pulmonary Technicians/National Association of Cardiovascular Technologists (NAPT/NACT)

Registered Medical Assistant by the American Medical Technologists (RMA/AMT)

Society of Diagnostic Medical Sonographers (SDMS)

American Association for Medical Transcription (AAMT)

National Court Reporting Association (NCRA)

technical training, we try to instill a feeling of responsibility towards the community in our students and we 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.

REGISTERED MEDICAL ASSISTANT (RMA) EXAM

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

AMERICAN SOCIETY OF PHLEBOTOMY TECHNICIAN (ASPT) EXAM

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

TUTORING

Tutoring is available by appointment with instructors.

COMMUNITY SERVICE AND AWARDS

National School of Technology recognizes the importance of community service. As a part of our

ACADEMIC INFORMATION

ADMISSIONS PROCEDURES AND REQUIREMENTS

Applicants will be interviewed by an admissions advisor or admissions representative, who will discuss the program 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. This general aptitude test is a part of the admissions interview, and guides the admissions advisor in determining the student's ability to meet the requirements of the school's study programs.

Applicants for admissions must have a High School Diploma or G.E.D.

Prospective students complete an application for enrollment which is reviewed by the Director. Applicants will be notified whether they have been accepted within seven days. Applicants not accepted will be refunded any fees paid with the application.

All students are required to submit his/her 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 race, sex, handicap or national origin.

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

Any student found cheating in any capacity will receive an immediate "zero"

for that subject and will be suspended.

Students may make up missed work by arrangement with the instructor.

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 received will be determined by the Director and any necessary adjustments in the student's program will be made.

CLASS HOURS AND START DATES

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

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

Medical Assistant and Computer day classes begin every month. Evening classes start at six week intervals.

Cardiovascular Technologist and Ultrasound classes begin every three months during the day and every five months in the evenings

An hour of instruction is equal to 50 minutes.

Academic Information Continued

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 any 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. Any change made during the first two weeks of school will not apply to this policy.

WITHDRAWAL AND TERMINATION

The 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.

Should the student be under 18 years of age, notification must be accompanied by a letter from the parent or guardian consenting to the withdrawal.

The school 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.

In the case of a student's prolonged illness, accident, death in the family, or other circumstances that make 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. 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 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 Career Development Director. Completion of a project may be required instead of an internship. This project is undertaken after completion of classroom studies, and is a requirement for graduation.

REFRESHER COURSES

Refresher courses are available to graduates at the cost of materials only. Courses generally do not exceed \$150.00.

STUDENT RECORDS

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

TRANSCRIPTS

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

FINANCIAL INFORMATION

FINANCIAL AID PROGRAMS

To make training affordable, National School offers a number of financial aid programs. Eligible students may apply for federal grants and loans including: Pell Grants, Supplemental Educational Opportunity Grants (SEOG), Stafford Loan (GSL), Perkins Loans (formerly NDSL) and Supplemental Loans for Students (SLS). Parent Loans for Undergraduate Students (PLUS) may be available to parents of dependent students.

STUDENT FINANCIAL SERVICES HOURS OF OPERATION

Students may apply for financial assistance in the Student Financial Services Offices.

Office hours are as follows:

Monday thru Thursday	9:00 a.m. to 8:00 p.m.
Friday	9:00 a.m. to 5:00 p.m.

TUITION AND FEES

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

TEXTBOOKS, UNIFORMS AND SUPPLIES

All textbooks and handout materials are included in the tuition fees. Each medical student is issued a stethoscope. Supplies, diskettes, coding forms, uniforms, hose and shoes are not included, and cost between \$25.00 to \$50.00.

VETERANS ADMINISTRATION

VA provides educational benefits under the Montgomery GI Bill Active Duty Educational Assistance Program. The program provides education and training opportunities to eligible students.

Veterans who are planning to attend our institution, should contact the Office of VA prior to the date of entry in order to be counselled and to expedite the processing of paperwork required to obtain educational allowances from the Veteran's Administration.

SATISFACTORY PROGRESS STATEMENT

Satisfactory progress is necessary in order to maintain eligibility for Title IV financial assistance programs.

Satisfactory progress is defined by the following criteria:

- (1) A grade average of 70 percent
- (2) An attendance average of 80 percent per block
- (3) Meeting the specified conditions for incomplete, withdrawals, repetitions and remedial work

If a student falls below the criteria listed above, consultation with a school official will be scheduled. At that time, the student will be placed on a one block probation during which 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.

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

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 conditions are met:

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

MAXIMUM TIME FRAME

To remain eligible for federal funds, financial aid students must complete their programs within a specified time frame.

PROGRAM TIME FRAMES MAXIMUM TIME

PROGRAM	FULL TIME (Days)	PART TIME (Eve)
ESOL	13 1/2 months	16 1/2 months
Medical - Diploma	13 1/2 months	18 months
Ultrasound Technician	13 1/2 months	18 months
Microcomputer - Diploma	13 1/2 months	18 months
Medical Transcription	13 1/2 months	18 months
Medical - Associate	18 months	22 1/2 months
Diagnostic Medical Sonographer	18 months	22 1/2 months
Micro - Associate	18 months	22 1/2 months
Court Reporting	19 1/2 months	25 1/2 months
Cardiovascular Technologist	22 1/2 months	30 months

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

REFUND POLICY

All moneys paid by an applicant will be refunded if requested in writing within three business days after signing an enrollment agreement and making an initial payment.

- 1. 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.
- 2. 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.

- 3. If the student terminates training within the first week of the program, the school may retain the sum of 10% of the tuition for the program plus \$150, but in no event more than \$350.
- 4. If the student terminates training after one week, but within the first 25% of the program, the school may retain the sum of 25% of the tuition for the program plus \$150.
- 5. If the student terminates training after completing more than 25%, but before completing 50% of the program, the school may retain the sum of 50% of the tuition for the program plus \$150.
- 6. If the student terminates training after completing 50% of the program but before completing 75% of the program, the school may retain 75% of the tuition plus \$150.00
- 7. If the student completes 75% or more of the program, the student shall not receive any refund as a matter of right and is obligated for the full tuition.
- 8. Registration, Book and Laboratory Fees are non-refundable. A FULL REFUND WILL BE MADE IF APPLICANT CANCELS THE ENROLLMENT AGREEMENT WITHIN (3) BUSINESS DAYS AFTER SIGNING.
- 9. REFUNDS ARE MADE WITHIN 30 DAYS OF THE DATE THAT THE STUDENT OFFICIALLY WITHDRAWS.
- 10. Any student who withdraws or graduates from any program is required to complete an Exit Interview.

COURSE DESCRIPTIONS

AV 110 ORIENTATION 5 HOURS

Introduction to the field of cardiovascular technology with a review of the most current diagnostic procedures. General survey of the responsibilities of the CVT including patient management, human relations, history and an overview of medical trends.

AV 111 CELLULAR BASIS OF ANATOMY AND PHYSIOLOGY 30 HOURS

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

AV 112 MUSCULOSKELETAL SYSTEM 25 HOURS

A brief description of overall skeletal plan with particular attention to the rib cage. The ultramicroscopic anatomy and physiology of the muscular system is discussed with emphasis on its relationship with the nervous system.

AV 114 GASTROINTESTINAL SYSTEM 25 HOURS

A presentation of the gross anatomy and histological organization of organs and auxiliary structure related to physical and chemical digestion. Discussions include the processing and absorption of nutrients, water, electrolytes and vitamins critical to life support.

AV 115 GENITOURINARY SYSTEM 35 HOURS

A presentation of the gross anatomy and histological organization of the urinary system, and the male and female reproduction system. Renal physiology, sexuality and function and related pathology are included in the lectures.

AV 116 CARDIAC ANATOMY AND PHYSIOLOGY 60 HOURS

Studies the gross and microscopic anatomy of the heart, its position in the body, the propagation of electrical impulses. Covers the cardiac cycle and the forces that bring it about.

AV 117 VASCULAR ANATOMY AND PHYSIOLOGY 60 HOURS

Focuses on the anatomy of the different blood vessels and their distribution in the body; the physical principles behind their function as a transport system.

AV 118 CARDIOPULMONARY RESUSCITATION 10 HOURS

A study of emergency management for the sudden death victim and first aid for an obstructed airway.

Certification requirements are determined by the American Heart Association and include procedures for adults, children, and infants.

AV 119 BASIC MEDICAL SKILLS 50 HOURS

A variety of clinical skills are presented and practiced during this component of the program including vital signs and physical measurements, skin puncture and venipuncture, taking the medical history, the routine physical examination, and an introduction to medical records.

AV 120 NORMAL EKG AND NORMAL VARIANTS 80 HOURS

Covers the physical principles behind the electrical activity of the heart. These are correlated with the findings in EKG. Introduction to portable EKG recorders, their different parts and functions. Preparation of the electrodes, patient preparation, proper placement of electrodes and differentiating artifacts from arrhythmia. Also covers proper equipment care and maintenance. Actual EKG recording.

AV 121 VECTORCARDIOGRAPHY 15 HOURS

Includes discussion of the principles of vectorcardiography, its similarities and differences from EKG, and different lead placements. Normal and abnormal VCG results are also covered.

AV 122 ISCHEMIA, INFARCTION, CONDUCTION DELAYS 30 HOURS

An overview of the clinical presentation related to common electro-mechanical dysfunctions of the heart and its conduction system. Discussion include hemodynamic effects on coronary circulation, pre and post heart attack syndromes and degrees of heart block.

AV 123 ARRHYTHMIA RECOGNITION AND MANAGEMENT 90 HOURS

Study of the different arrhythmias and the mechanism of generation. Includes daily practice reading of EKGs and discussion on management of the cardiac arrest patient.

AV 124 CARDIOVASCULAR PHARMACOLOGY 25 HOURS

Review of the most commonly used drugs in arrhythmia management, their action, side effects and effects on EKG. Other cardiovascular drugs are also discussed.

AV 130 AMBULATORY MONITORING/CARDIAC PACING 30 HOURS

Deals with the uses of pacemakers, the different types and their applications. Includes practice reading of EKGs from pacemaker patients and recognition of pacing malfunctions. Technique of Holter scanning application in cardiology. Discussion of the different types of monitoring and scanning techniques, lead placements and hook-ups, and sources of artifacts.

AV 131 GRADED EXERCISE TESTING 30 HOURS

Review of exercise physiology and normal EKG changes during exercises. Discussion of the different mortalities and protocols used in exercise testing, reasons for termination of test and contraindications.

AV 132 EMBRYOLOGY AND CONGENITAL HEART DISEASE 30 HOURS

Deals with the origin and development of the primitive heart and its differentiation into adult structures. Understanding of the structural and functional changes accompanying congenital heart diseases. These are correlated to the diagnostic findings.

AV 133 VALVULAR HEART DISEASE 25 HOURS

Brief discussion of Rheumatic Fever and its possible cardiac complications. Study of the structural and functional abnormalities accompanying different valvular diseases of the heart.

AV 134 CARDIOMYOPATHIES AND MYOCARDITIS 25 HOURS

Covers the different types of cardiac muscles diseases, their various etiologies, and hemodynamic consequences.

AV 135 DISEASES OF THE PERICARDIUM, TRAUMA AND TUMORS 25 HOURS

Deals with the different pathologies involving the outer covering of the heart and its accompanying hemodynamic changes. Studies the mechanism of the different cardiac traumas and their complications. Different types of cardiac tumors and their presentations are also discussed.

AV 136 ATHEROSCLEROSIS AND ISCHEMIC HEART DISEASE 25 HOURS

Focuses on the pathogenesis of atherosclerosis and how it causes ischemic injury to the heart. Different clinical presentations of IHD are thoroughly discussed and are correlated to the diagnostic findings.

AV 137 CHF, HYPERTENSION, SHOCK, AND SYNCOPE 30 HOURS

Discussion on the pathophysiology of a failing heart, the cardiovascular effects of hypertension, compensatory mechanisms in shock, and how all these disease states can be differentiated from different types of syncope.

AV 138 PULMONARY HEART DISEASE, RESPIRATORY SYSTEM 30 HOURS

Review of the respiratory system and its role in the maintenance of acid-based balance. Discussion of the respiratory conditions that have adverse influences on the heart.

AV 139 PERIPHERAL VASCULAR/CEREBRO VASCULAR DISEASE AND STUDIES 50 HOURS

Review of circulatory hemodynamics followed by study of different arterial and venous disorders. Introduction to the different arterial and venous diagnostic techniques, the physical principles involved, testing protocols, current diagnostic equipment.

AV 140 PHYSICS OF ULTRASOUND, INSTRUMENTATION & SCANNING PRINCIPLES 60 HOURS

Introduction to fundamental concepts of sound wave physics and mathematics; transducer types and focal zones, ultrasonic fields, and imaging, pulse echo principle.

AV 141 ECHOCARDIOGRAPHIC CROSS SECTIONAL ANATOMY 25 HOURS

Cross sectional anatomy in relation to Echocardiographic planes; transducer locations; parasternal views including long axis, short axis, right ventricular inflow tract, right ventricular outflow tract, apical views, apical 2,3,4, and 5 chamber views, subcostal views, subcostal 4 and 5 chamber views, subcostal short axis; Suprasternal views, long axis, short axis.

AV 142 PRINCIPLES OF M-MODE 5 HOURS

Aortic Mitral valve, M-Mode at the level of the chordae tendineae and M-Mode at the level of the papillary muscle; description of structure, M-Mode measurements.

AV 143 CARDIAC DOPPLER AND COLOR FLOW PRINCIPLES 30 HOURS

Differentiations between Doppler and Color Flow Doppler; Frame Rate; Auto Corralator; Fast Fourier Transform; Aliasing; Color Maps; Turbulence; Laminar Flow.

AV 144 ECHOCARDIOGRAPHIC PATHOLOGY OF THE HEART 30 HOURS

Diseases of the heart; mitral valve prolapse, bacterial endocarditis, cardiac tumors, spontaneous valve disruption, calcified mitral annulus, ischemic heart diseases, cardiac valvular diseases, echocardiographic changes in arrhythmias, echocardiography in the post-operative patient.

AV 145 ECHOCARDIOGRAPHIC CONGENITAL PATHOLOGY 30 HOURS

Hereditary diseases, hypertrophic diseases, arterial septal defect, ventricular septal defect, Tetralogy of Fallot, truncus arteriosus, transposition of great arteries, corrected transposition, Ebstein's Anomaly, congenial aortic and pulmonic stenosis, congenial aneurysm, and Eisenmenger's Syndrome.

AV 146 ORIENTATION OF ECHO EQUIPMENT 15 HOURS

Safety precautions in using Echo machines; operational guidelines; special function keys; the computer keyboard; Doppler panel; mounting of transducers; switching transducers.

AV 147 EXAMINATION OF THE NORMAL HEART 165 HOURS

Clinical application of transducer technique and positions; echocardiographic windows for standard cardiac imaging systems: parasternal views, subcostal views, M-mode, two dimensional, Doppler; imaging planes and echocardiographic findings, echocardiographic anatomy, normal and abnormal flow characteristics: continuous wave, pulsed Doppler and color flow mapping; measurements and quantative analysis, differentiation, complete study with interpretation and critique relative to cardiopulmonic views, special procedures.

AV 208 CAREER DEVELOPMENT/ INTERNSHIP OR PROJECT 300 HOURS

Student is 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 student is issued a diploma. The student's supervisor will confirm the student's attendance and will submit evaluations of performance to the school.

DS 135 ECHOCARDIOGRAPHY SEMINAR 60 HOURS

An intensive and rapid review of cardiac anatomy and physiology; pharmacology related to cardiology and conditions effecting diagnostic echocardiography; electrocardiography; cardiac pathology.

DS 140 ECHOCARDIOGRAPHIC CROSS SECTIONAL ANATOMY 25 HOURS

Cross sectional anatomy in relation to Echocardiographic planes; transducer locations, parasternal views including long axis, short axis, right ventricular inflow tract, right ventricular outflow tract, apical views, apical 2,3,4, and 5 chamber views, sub-coastal views, sub-coastal 4 and 5 chamber views, sub-coastal short axis; soprasternal views, long axis, short axis.

DS 141 PRINCIPLES OF M-MODE 5 HOURS

Aortic Mitral valve, M-Mode at the level of the chordae tendineae and M-Mode at the level of the papillary muscle; description of structure, M-Mode measurements.

DS 142 CARDIAC DOPPLER AND COLOR FLOW PRINCIPLES 30 HOURS

Differentiations between Doppler and Color Flow Doppler; Frame Rate; Auto Corralator; Fast Fourier Transform; Aliasing; Color Maps; Turbulence; Laminar Flow.

DS 144 ECHOCARDIOGRAPHIC PATHOLOGY OF THE HEART 30 HOURS

Diseases of the heart; mitral valve prolapse, bacterial endocarditis, cardiac tumors, spontaneous valve disruption, calcified mitral annulus, ischemic heart diseases, cardiac valvular diseases, echocardiographic changes in arrhythmias, echocardiography in the post-operative patient.

DS 145 ECHOCARDIOGRAPHIC CONGENITAL PATHOLOGY 30 HOURS

Hereditary diseases, hypertrophic diseases, arterial septal defect, ventricular septal defect, Tetralogy of Fallot, truncus arteriosus, transposition of great arteries, corrected transposition, Ebstein's Anomaly, congenial aortic and pulmonic stenosis, congenial aneurysm, and Eisenmenger's Syndrome.

DS 146 ORIENTATION OF ECHO EQUIPMENT 15 HOURS

Safety precautions in using Echo machines; operational guideline; special function keys; the computer keyboard; Doppler panel; mounting of transducers; switching transducers.

DS 148 EXAMINATION OF THE NORMAL HEART 165 HOURS

Clinical application of transducer technique and positions; echocardiographic windows for standard cardiac imaging systems: parasternal views, subcostal views, M-mode, two dimensional, Doppler; imaging planes and echocardiographic findings,

echocardiographic anatomy, normal and abnormal flow characteristics: continuous wave, pulsed Doppler and color flow mapping; measurements and quantitative analysis, differentiation, complete study with interpretation and critique relative to cardiopulmonic views, special procedures.

EM 110 ESOL 1 70 HOURS

The student will learn to use the simple present in affirmative and negative statements, simple present in yes/no questions and answers, most commonly used prepositions and the different kinds of nouns. Question words with auxiliaries in present form and personal pronouns. Students will describe situations, ask about problems, suggest solutions to problems, tell about places and times.

EM 115 BODY SYSTEMS AND RELATED ANATOMICAL TERMINOLOGY 30 HOURS

A general overview of human development including cells, tissues, organs, and a profile of body systems. Relevant information about anatomical position, body planes, and orientation terminology.

EM 120 ESOL 2 70 HOURS

The student will learn to use the simple present with the "s" ending in statements, yes/no questions, questions and answers. Students will also learn to use infinitives after verbs, frequency words, present progressive, the use of can/can't, demonstrative and possessive adjectives (singular and plural) articles and objective pronouns. Students will describe and tell about people, ask about families, use of the telephone, give and follow directions, make requests.

EM 125 MEDICAL SPECIALTIES AND CLINICAL TERMINOLOGY 30 HOURS

A discussion of well-known areas of specialization in medical practice and an introduction to commonly used prefixes, suffixes, and word roots used in the construction of medical terms.

EM 130 ESOL 3 70 HOURS

The student will learn the simple regular and irregular past, form of most commonly used verbs (in contrast with past and progressive form.) The student will practice expressions such as: be, going to, has/have/had to, tag questions and an introduction to clauses (and, but, so, if...) practice includes describing health habits, knowing ways to find jobs, telling about work experience and an introduction to job applications.

EM 135 LEGAL AND ETHICAL ISSUES IN PATIENT CARE 30 HOURS

The student learns the fundamental concepts of the

physician-patient relationship. These include a discussion of malpractice, termination of care, medical practice acts, and standards of conduct. Code of ethics of professional medical assistant organizations.

EM 140 ESOL 4 70 HOURS

The student will learn comparatives, superlatives, using conjunctions and restating sentences, activities include; giving advice, making comparisons, reading store ads, asking about and describing weather and distances, making travel plans and telling reasons. Filling out job applications, filling out medical information and insurance forms.

EM 145 VITAL SIGNS AND CPR CERTIFICATION 30 HOURS

Performance skills related to the measurement of body temperature, pulse, respiration, and blood pressure. Emergency management for the sudden death victim and first aid for choking. Certification by the American Heart Association.

EM 150 ESOL 5 70 HOURS

The student will learn to use all modal auxiliary verbs (would, could, should, might, may, can...) and commonly used American idioms. Students will practice the functions by expressing likes, dislikes, making requests, getting help, asking for or giving permission.

EM 155 FRONT OFFICE PROCEDURES 30 HOURS

Clerical and management duties including telephone techniques, appointment scheduling, maintaining medical records, filing systems, and basic medical reports.

EM 160 ESOL 6 70 HOURS

Students will learn functional skills through guided conversation focusing on health care, consumer information and job retention techniques. Students will ask and answer questions, give opinions and discuss the functions in structured conversations.

EM 165 BILLING, COLLECTION PROCEDURES, AND HEALTH INSURANCE CLAIMS 30 HOURS

An introduction to the pegboard system for processing patient payments and other receivables, aging of accounts and letters of collection, and the Universal Health Insurance Claim Form (HCFA - 1500).

EM 170 ESOL 7 70 HOURS

The student will practice functional skills through guided conversation and group exercises. Emphasis

on housing, employment and transportation. Student will role play and discuss U.S. customs compared to native country customs.

**EM 175 KEYBOARDING SKILLS/DATA ENTRY
30 HOURS**

Understanding the role of data entry within a medical practice; speed and accuracy exercises with periodic evaluations to develop acceptable employment standards.

EM 180 ESOL 8 70 HOURS

The student will work on projects aimed at attaining employment. Projects will include writing a resume and cover letter. Interviewing techniques (and mock interviews.) Focus will be on communicative competence through speeches and interviews.

EM 185 COMPUTER APPLICATIONS FOR THE MEDICAL OFFICE 30 HOURS

a series of data entry exercises designed to train students to use medical software to create patient files, schedule appointments, generate ledgers and billing statements, collection notices, and insurance claim forms.

EM 208 CAREER DEVELOPMENT/INTERNSHIP OR PROJECT 120 HOURS

Student is 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 will confirm the student's attendance and will submit evaluations of performance to the school.

**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.

MA 112 BODY STRUCTURE, MOVEMENT AND FUNCTION 75 HOURS

A description and practice discussion of the musculoskeletal, digestive, urogenital, and endocrine systems; the gross anatomy and related physiology of each system, medical and surgical terminology.

**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 EKG using single and multi-channel electrocardiographs.

**MA 122 THE RESPIRATORY SYSTEM
15 HOURS**

Study includes the nose, pharynx, larynx, trachea, bronchi, lungs, thorax. Chemistry of oxygen and carbon dioxide transport. Respiratory control, normal and abnormal breathing.

MA 124 THE NERVOUS SYSTEM 15 HOURS

The study of neurons, the 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 THE 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. Code of Ethics of the Registered Medical Assistant.

**MA 132 MEDICAL OFFICE MANAGEMENT
PROCEDURES 75 HOURS**

The 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 processing health insurance claims.

**MA 140 COMPUTER FUNDAMENTALS
30 HOURS**

An overview of the history and concepts of computers. Central processing unit, input-output devices, floppy disks, hard disks, disks operating systems, and elements of data processing.

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 keyboard skills; understanding the role of data entry within a medical practice; speed and accuracy exercises with periodic evaluations to develop acceptable employment standards.

MA 152 RULES OF TRANSCRIPTION AND 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.

MA 154 TRANSCRIBING BASIC MEDICAL REPORTS 15 HOURS

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

MA 156 MEDICAL TRANSCRIPTION LAB 30 HOURS

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

MA 160 INFECTION CONTROL AND STERILIZATION 10 HOURS

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

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 164 PHARMACOLOGY AND DRUG THERAPY 30 HOURS

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

MA 166 NUTRITION AND 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 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.

MA 172 PHLEBOTOMY TECHNIQUES 35 HOURS

Skin puncture procedures and venipuncture using the syringe and evacuated tube system. Capillary tubes, microtainers, and color-coded collection tubes

MA 174 HEMATOLOGY 50 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.

MA 180 CLINICAL CHEMISTRY 25 HOURS

Routine blood tests (serum cholesterol, glucose, uric acid) findings and interpretation, normal values.

MA 182 BASIC URINALYSIS 35 HOURS

Reviews 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 20 HOURS

Principles of antigen-antibody reactions, blood group specimen collection using sterile techniques; culture plating, sensitivity testing, and Group A Strep screening using "kit methods" with quality assurance controls.

MA 186 MICROBIOLOGY 20 HOURS
Microorganism identification, classification of bacteria specimen collection using sterile technique; culture plating, sensitivity testing, and Group A Strep screening using "kit methods" with quality assurance controls.

MA 190 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.

MA 192 RADIATION PHYSICS AND 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.

MA 194 RADIOGRAPHIC TECHNIQUE AND 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.

MA 196 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.

MA 208 CAREER DEVELOPMENT/ INTERNSHIP OR PROJECT 300 HOURS
Student is 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 will confirm the student's attendance and will submit evaluations of performance to the school.

MS 110 KEYBOARDING I 30 HOURS
In this course students will be taught by touch, the location of all of the alphabetic keys on the keyboard, proper posture and reaching techniques, and will practice rhythm for more accurate and faster keyboarding.

MS 112 MS/DOS 40 HOURS
In this lab/lecture course students will learn the basics of the Disk Operating System for IBM compatible computers. File and disk management will be the focus of this course.

MS 114 COMPUTER FUNDAMENTALS 30 HOURS
This course introduces students to computers and data processing. It provides an explanation of the history of computers, defines what a computer is, how it works, defines hardware and software, and how computers are utilized in today's business office.

MS 120 LOTUS 123 70 HOURS
In this lab/lecture course students will learn to create and manage spreadsheets on the microcomputer. The course will use Lotus 123, an integrated software package. Students will also learn to create graphs and basic database management.

MS 122 PERSONAL FINANCE 30 HOURS
A practically oriented math course that teaches the types of useful computation skills that are needed by everyone in daily life. Personal budgeting, checkbook balancing, credit applications, and taxes are some of the topics that will be covered.

MS 130 WORDPERFECT 70 HOURS
This lab/lecture class will teach the fundamentals of word processing. All essential formatting commands that will enable a student to use WordPerfect in a business office will be taught.

MS 132 BUSINESS WRITING 40 HOURS
In this communications course we will concentrate on the practice of clear, grammatical and persuasive writing. We shall also learn the various letter and memo format styles that are used by business today.

MS 140 BUSINESS ENGLISH 40 HOURS
The introductory "communications" class will cover basic sentence and paragraph construction and spelling practice. Students will review the elementary rules of grammar as they practice writing cohesive, persuasive and grammatically correct prose.

MS 142 KEYBOARDING II 40 HOURS
This keyboarding course continues the development of basic typing skills with emphasis on building accuracy and speed. Students must type 35 gross words per minute to pass this class.

MS 144 PRINTSHOP GRAPHICS 10 HOURS
This lab course will introduce students to graphics. Students will create posters, banners, greeting cards, and calendars.

- MS 150 DBASE III PLUS 70 HOURS**
 This lab/lecture course will teach students to develop a variety of data base applications and successfully manage them. The most commonly used dBase III Plus commands will be covered. Students will be able to manipulate, retrieve and report on information.
- MS 152 OFFICE PROCEDURES 30 HOURS**
 This course will introduce students to standard filing and data entry practices used in business today. Students will use a variety of practice sets and source documents as they develop an understanding of data entry and filing procedures.
- MS 160 PUBLISHING 45 HOURS**
 This formal desktop publishing lab/lecture course will allow students to cover some of the advanced desktop publishing features. Business documents will be designed, edited, and printed.
- MA 162 BOOKKEEPING 55 HOURS**
 In this lab/lecture course students will learn how to maintain simple bookkeeping records for a small service business. By the end of the course, students will know how to set up and maintain journals, ledgers and create the necessary financial statements.
- MS 170 ADVANCED WORDPERFECT 60 HOURS**
 In this advanced lab/lecture class, students will learn some of the more complicated word processing commands that will permit them to become a "power user". Macros, Sorting, Style Sheets, and Graphics will be some of the topics covered.
- MS 172 COMPUTER COMMUNICATIONS 40 HOURS**
 This lab/lecture course will include an introduction to Data Communications, Communications Hardware, Communications Software, and MODEMS.
- MS 180 COMPUTERIZED BUSINESS FUNCTIONS 50 HOURS**
 In this lab/lecture course, the theory learned in the previous bookkeeping class will be applied to an accounting software package used in contemporary businesses.
- MS 182 BOOKKEEPING II 50 HOURS**
 A continuation of MS 162 with primary emphasis on maintaining journals, ledgers and creating the necessary financial statements.
- MS 190 DBASE PROGRAMMING 75 HOURS**
 This lab/lecture course will introduce students to programming logic using dBase III Plus. Students will design and write various application programs.
- MS 192 CAREER DEVELOPMENT 25 HOURS**
 This course will help prepare students to enter into the work force.
- MS 200 ADVANCED LOTUS 123 60 HOURS**
 In this lab/lecture course students will use advanced spreadsheet processing. Students will learn various Lotus functions, macros, and advanced graphing and database techniques.
- MS 202 NOVELL NETWORKING 40 HOURS**
 In this lab/lecture class students will learn the basics of Local Area Networks. Students will design a network from scratch and get practical application maintaining a system using Novell software.
- MS 208 CAREER DEVELOPMENT/INTERNSHIP OR PROJECT 200 HOURS**
 The student will complete a 200 hour internship/specialization project in a specific computer application by working at a computer facility or by completing an additional project in the computer lab.
- UT 110 PHYSICS OF ULTRASOUND, INSTRUMENTATION & SCANNING PRINCIPLES 50 HOURS**
 Introduction to fundamental concepts of sound wave physics and mathematics; transducer types and focal zones, ultrasonic fields, and imaging, pulse echo principle. Patient preparation, scanning protocols, basic examination, transducer, patient history, pelvic sonographic data of the bladder, uterus, uterine adnexal areas, posterior cul-de-sac area, abnormal pelvic structure, and ascites.
- UT 112 CROSS SECTIONAL AND SAGITTAL ANATOMY 30 HOURS**
 Introduction to anatomic terms; the abdomen in general and regions, quadrants, horizontal and vertical planes of the abdomen, the anterior abdominal wall and the pelvis; introduction to scanning techniques and protocols, patient positioning, scanning planes and general scanning protocols for specific organs.
- UT 114 LIVER, GALLBLADDER, PANCREAS, BILIARY SYSTEM, SPLEEN 120 HOURS**
 Normal anatomy, physiology, mid-abdominal mass, abdominal wall problems, right and left upper quadrant pain and mass, segmental anatomy, function, metabolism, laboratory tests, pathology; masses, cystic, solid, complex, diffuse abnormalities, possible metastasis to liver, congenital abnormalities, jaundice, epigastric pain, pancreatitis, relational

anatomy, embryonic development, ultrasound techniques, echographic patterns, pediatric mass, patient preparation and positioning, clinical problems. Normal structure, cytologic function, pathology; tumors, lymphomas, non-Hodgkin's, metastatic, application of diagnostic ultrasound techniques, echographic patterns, clinical problems.

UT 116 RENAL SYSTEM 100 HOURS

Normal anatomy, physiology, laboratory data, embryology, pathology; renal failure, transplant and vascular problems, possible renal mass, small end-stage kidney, cystic disease, unexplained hematocrit drop, adrenal cyst, structural and congenital anomalies, acute and chronic cystitis, hematuria, prostate size, tumors, prostatitis. echographic patterns, patient position, equipment, normal texture and patterns, ultrasound techniques, patterns of disease, clinical problems.

UT 120 VASCULAR SYSTEM 25 HOURS

Function, anatomical composition and construction: major vessels; 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, superior mesenteric vein, disease processes, possible carotid artery plaque, possible popliteal aneurysm, arterial and venous disease, other linear structures, ultrasound techniques and clinical problems.

UT 122 GYNECOLOGY; ANATOMY, PHYSIOLOGY, PATHOLOGY, DIAGNOSTIC PROCEDURES 100 HOURS

Pelvic anatomy, pubic symphysis, peritoneum, anterior and posterior cul-de-sac, broad ligament, pelvic musculature, pelvic vessels, uterus, ovaries, fallopian tubes, reproductive physiology, menstrual cycle, basic phases, cyclic stimulation and control, hormone stimulation, pituitary production, and ovulation. Cervix, pelvic mass; polyps, adenocarcinoma, uterus, nonmalignant tumors, malignant uterine tumors, congenital anomalies of the uterus, acute pelvic pain, abnormal vaginal bleeding, intrauterine contraceptive devices, ovarian pathology, neoplastic ovarian cysts, ovarian tumors, dysontogenic ovarian cysts, tubal pathology, pelvic inflammatory diseases, and endometriosis. Smears, vaginal and cervical "Pap Smear", biopsies, culdocentesis, colposcopy, pregnancy tests, endocrine investigation, tubal tests, x-ray examinations, and sonography.

UT 124 OBSTETRICS; ANATOMY, PHYSIOLOGY, PATHOLOGY, DIAGNOSTIC PROCEDURES, FETAL DEVELOPMENT 150 HOURS

Maternal anatomy, fundal height, normal maternal physiology of pregnancy, normal amniotic fluid, embryology and fetal development, labor and delivery, fetal movement patterns, and fetal position. Maternal complications, diabetes, maternal hypertension, Rh sensitization, abnormal maternal anatomy, placental and fetal complications, fetal growth complications; intrauterine growth retardation and hydramnios, multiple pregnancy, congenital abnormalities, gynecologic diseases related to pregnancy, and labor complications. Pregnancy tests, genetic amniocentesis, culdocentesis, estrogen and creatinine determination, amniotic fluid analysis oxytocin challenge test, fetal heart rate monitoring and sonography. Patient preparation, scanning protocol and basic examination, transducer, patient history, first trimester; normal patterns, measurements and data, second and third trimester; bleeding, fetal growth rate, unknown fetal lie, placenta previa, measurements and data; pregnancy dating, elective cesarian section, fetal death, fetal anomalies, fetal well-being, suspicion of congenital abnormality, amniocentesis, pelvic mass and fetus.

UT 126 SMALL PARTS & SPECIAL PROCEDURES 25 HOURS

Breast; cyst, fibroadenomas, ductal carcinoma, possible testicular mass, thyroid mass, rule out pleural effusion and chest mass, neo-natal intracranial problems, puncture procedures with ultrasound, localization with radiotherapy, patients in isolation, emergencies and portable studies, fever of unknown origin, rule out abscesses or occult mass.

UT 130 CLINICAL PRACTICUM 300 HOURS-UT 240 HOURS-DS

NATIONAL SCHOOL OF TECHNOLOGY

ADMINISTRATION

Martin Knobel, B.Ed., M.S.	President
Rickie Knobel	Treasurer
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Dennis Kriston, B.S., M.P.A.	Controller
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Rosa M. Iverson	Director of Career Development
Luis Estrada, A.S.T.	Data Processing Manager

TUITION AND FEES

PROGRAM	COURSE HOURS	MONTHS DAY & EVE	TUITION & FEES
Cardiovascular Technologist, A.S.T.	1500	15 - 20	12,785
Diagnostic Medical Sonographer, A.S.T.	1200	12 - 15	11,970
Medical Assistant, A.S.T.	1200	12 - 15	8,230
Microcomputer Specialist, A.S.T.	1200	12 - 15	9,075
Ultrasound Technician	900	9 - 12	8,570
Medical Assistant, Diploma	900	9 - 12	5,485
Microcomputer Operator	800	9 - 12	5,445
Medical Office Clerk ESOL	920	9 - 11	7,225
Court Reporting	1350	13 - 18	9,125
Medical Office Transcription	945	9 - 12	7,375