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ABSTRACT

According to the U.S. Bureau of Labor Statistics, the growing population of elderly citizens will result in an increased demand for healthcare services that will rise for a full 50 years. This study assesses the need for healthcare sector workers in the Washington, D.C. metropolitan area. Information on the skills, education, and experience that are required for obtaining jobs in this sector wee collected and analyzed. In addition, jobs that were advertised in "The Washington Post" on February 13, 2000; April 16, 2000; and February 2, 2001 were used to assess employer demand for healthcare positions. This report divides advertised healthcare positions into 11 categories: (1) medical assistant; (2) radiology; (3) nursing; (4) rehabilitation; (5) billing clerks; (6) medical receptionist; (7) mental health; (8) pharmacist; (9) social worker; (10) clinical laboratory services; and (11) "other." One result indicated that on February 2, 2001, 27% of the healthcare jobs advertised in "The Washington Post" were for nursing positions, while 12% were for positions in the rehabilitation category, and 10% for medical assistants. The paper analyzes job categories according to education and experience required, income range, and employment outlook through the year 2006. A list of Healthcare Degrees Offered by Northern Virginia Community College, Acronym Identification, and Health care Educational Requirements are appended. (NB)



NEEDS ASSESSMENT OF THE HEALTHCARE SECTOR IN THE WASHINGTON, D.C. METROPOLITAN AREA



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Office of Institutional Research Northern Virginia Community College

March 2001

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NORTHERN VIRGINIA COMMUNITY COLLEGE OFFICE OF INSTITUTIONAL RESEARCH

The purpose of the Office of Institutional Research is to conduct analytical studies and provide information in support of institutional planning, policy formulation and decision making. In addition, the office provides leadership and support in research related activities to members of the NVCC community engaged in planning and evaluating the institution's success in accomplishing its mission.

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NEEDS ASSESSMENT OF THE HEALTHCARE SECTOR IN THE WASHINGTON, D.C. METROPOLITAN AREA

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NEEDS ASSESSMENT OF THE HEALTHCARE SECTOR IN THE WASHINGTON, D.C. METROPOLITAN AREA

Executive Summary

The Office of Institutional Research (OIR) at Northern Virginia Community College collected and analyzed information on the skills, education, and experience that are required for obtaining jobs in the healthcare sector in the Washington, D.C. metropolitan area. Jobs that were advertised in the Washington Post on February 13, 2000, April 16, 2000 and February 2, 2001 were used to assess employer demand for healthcare positions. Information that was gathered included the nature of healthcare jobs, necessary education, and skill requirements. The number and diversity of healthcare jobs appearing in the Washington Post are indicative of the availability and diversity of healthcare positions offered in this area. A review of the healthcare degrees and programs currently offered by NVCC indicates that the College is well positioned to respond to student and employer needs in this area.

The following is a brief summary of the findings:

<u>Healthcare Positions Requiring High School Graduation</u>: Occupations that generally required a high school diploma included Medical Secretary, Pharmacy Aide, Medical Record Clerk, Dental Assistant, Occupational and Physical Therapy Aide, Medical Receptionist, Billing Clerk, Home Health Aide, Nursing Aide, Nutrition Assistant, Medical Insurance Assistant, Activities Aide and related occupations. These jobs generally required minimal experience of 1 year or less in a healthcare setting. Several employers offered to train individuals on the job.

Knowledge of dental computer software was indicated for some positions as well as familiarity with Windows 98, WP 6.1 and Access for Medical Secretary and Medical Receptionist positions. Billing Clerks and Medical Insurance Assistant positions required candidates to have knowledge of the insurance billing process and insurance billing codes. For those positions with heavy exposure to the public, friendliness and good communication skills were required. Other frequently mentioned attributes that employers were seeking in candidates included reliability, team player, motivation, and organizational skills.

Healthcare Positions Requiring Post-Secondary Training: Occupations that generally required post secondary training such as an Associate Degree, Baccalaureate, or more extensive employee training included Radiologic Technologist, Respiratory Therapist, Nurse, Surgical Technician, Medical Assistant, Corrective Therapy Assistant, Physical Therapy Assistant, Medical Records Technician, Licensed Practical Nurse, Dental Hygienist, Speech Therapist, Phlebotomist, Optician, Certified Nurse Aide, Pharmacy Technician, Emergency Medical Technician, and related occupations.

These positions typically required two years of experience or more, certification, and licensure in the area where employed. Several ads indicated candidates should have experience working with people with physical or mental disabilities. Competency in the field, reliability, and self-motivation were the most frequently mentioned attributes that candidates should possess.



Healthcare Positions Requiring Bachelor's Degree or Higher: Occupations that required a Bachelor's Degree or advanced degree included Physical Therapist, Nurse, Audiologist, Psychologist, Chiropractor, Speech Language Pathologist, Medical Doctor, Psychiatrist, Nutritionist, Pharmacist, Dental Surgeon, Provider of Services Coordinator, Counselor, Nurse Manager, Psychotherapist, Clinical Director, Diabetes Educator, Chief Nursing Officer, Staff Development Officer, Optometrist, Marketing Administrator, Director of Medical Management and related occupations.

In general, 2 to 6 years of experience was required in highly specialized clinical areas within a healthcare setting and management experience background was required for supervisory positions. The most frequently desired personal attribute was for candidates to have professional mannerisms when working with clients/patients.



NEEDS ASSESSMENT OF THE HEALTHCARE SECTOR IN THE WASHINGTON D.C. METROPOLITAN AREA

Introduction

The national healthcare sector is a multi-trillion dollar industry and will account for approximately one-fifth of all job growth through the year 2005. It can be reasonably assumed that the Washington, D.C. metropolitan area, characterized by its level of population density and robust economy, will mirror the national trend both as a user and supplier of healthcare. Healthcare growth will be mainly attributable to an aging population and advances in technology.

This assessment was conducted in order to learn more about the skills, education, training, and experience required by healthcare employers in the Washington, D.C. metropolitan area. An awareness of this information will permit NVCC to better evaluate whether it is meeting the needs of its students and the local healthcare sector. The February 13, 2000, April 16, 2000 and February 2, 2001 healthcare employment sections of the *Washington Post* newspaper were used to assess the needs of the local economy.

Methodology

The first sample of advertised healthcare positions was taken from the February 13, 2000 edition of the *Washington Post*. Every fifth healthcare position that was advertised was selected for this analysis. The information that was gathered from the advertisements included the position title, required skills, required education, necessary work experience, and computer hardware/software skills necessary for candidates to possess. The healthcare positions were placed into six major job categories. These six major job categories were the following: dental, medical assistant/specialist, mental health/social work, nursing, radiology, and other. The information is presented in table format in Section 3 of this report.

The second sample of advertised healthcare positions was gathered from the April 16, 2000 edition of the *Washington Post*. Similar to the first sample, every fifth healthcare position that was advertised was selected for the analysis. Again, the information that was gathered included position title and required skills, education, work experience, and computer knowledge necessary for candidates to possess. The positions from the second sample were also grouped into six major job categories and are presented in Section 3 of this report.

The third sample of advertised healthcare positions was taken from the February 2, 2001 employment section of the *Washington Post*. Unlike the other two samples, every advertised healthcare position was analyzed in order to determine the major characteristics of jobs in the local labor market. This information is presented in Section 1 of this report, with a total of 376 analyzed healthcare advertisements. Advertised healthcare positions were grouped into ten major categories as follows:

¹ A copy of the Washington Post employment section can be viewed at OIR.



- A. Medical Assistant
- B. Radiology
- C. Nursing
- D. Rehabilitation
- E. Billing Clerks
- F. Medical Receptionist
- G. Mental Health
- H. Pharmacist
- I. Social Worker
- J. Clinical Laboratory Services
- K. Other

In many instances advertised job titles alone were listed, education and training were omitted, and work experience was either omitted or not specifically quantified. An attempt has been made to provide a more comprehensive understanding of job requirements by utilizing the *Occupational Outlook Handbook, 2000-01 Edition*, published by the U.S. Department of Labor Statistics, Bulletin 2520. This publication was also used as a source in providing supplementary information on job descriptions, employment outlook and earnings to the extent that the information was available.

Table 1 and Figure 1 present the number and proportion of healthcare positions, advertised in *the Washington Post* on February 2, 2001, in the ten job categories. As shown, the largest proportion of advertised healthcare positions were in the nursing category (27%).

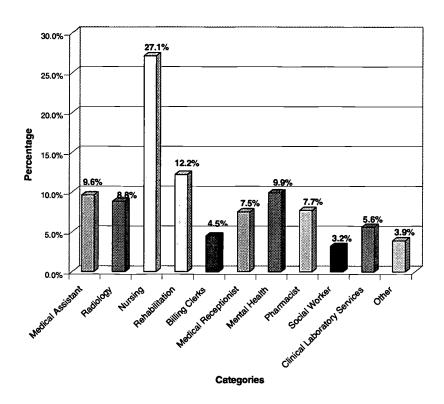
Table 1: Advertised Healthcare Jobs, By Category *

Categories	Posi	tions
- Categories	#	%
Medical Assistant	36	9.6
Radiology	33	8.8
Nursing	102	27.1
Rehabilitation	46	12.2
Billing Clerks	17	4.5
Medical Receptionist	28	7.5
Mental Health	37	9.9
Pharmacist	29	7.7
Social Worker	12	3.2
Clinical Laboratory Services	21	5.6
Other	15	3.9
Total	376	100.0

^{*} The Washington Post, 2/2/01



Figure 1: Healthcare Jobs Advertised, By Category





Section 1: Skill Requirements for Healthcare Positions

A. Medical Assistant

<u>Jobs Advertised</u>: Job titles included in this category were listed as Medical Assistants.

<u>Job Description</u>: Medical Assistants perform a variety of routine administrative and clinical tasks in offices and clinics. Administrative duties may include updating and filing patient medical records, completing insurance forms, handling correspondence, arranging for hospital admission and laboratory services, and conducting billing and bookkeeping tasks. Clinical duties may include taking medical histories, recording vital signs, explaining treatment procedures to patients, and assisting physicians in various ways.

Education/Training/Experience: Two agencies are recognized by the U.S. Department of Education Accreditation programs in medical assisting: the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and the Accrediting Bureau of Health Education Schools (ABHES).² Both organizations provide certification as American Medical Technologist (AMT) and American Association of Medical Assistants (AAMA). Advertised positions required either licensure as a LPN, certification, or no formal training. The preferred background for job candidates to have was one to three years of experience in a health care setting with computer skills, insurance billing, and knowledge of health maintenance organizations (HMOs). Frequently mentioned personal attributes that candidates should possess included friendliness, communication skills, and being a team player. On the job training appeared to be common practice.

<u>Employment Outlook:</u> Medical assistants are expected to be one of the ten fastest growing occupations through the year 2008. Job prospects should be best for medical assistants with formal training.

<u>Earnings</u>: The range of annual earnings in 1997 for medical assistants was \$18,500 to \$20,800.

B. Radiology

<u>Jobs Advertised</u>: Position titles in this category included Radiology Supervisor, Radiology Manager, Radiographer, Radiology Technician, Radiology Assistant, Radiology Administrator, and Radiology Technician Aide.

<u>Job Description</u>: Employees in these specialized fields perform a variety of diagnostic and therapeutic procedures in a wide array of radiology and biotechnical modalities.

Education/Training/Work Experience: All positions, with the exception of the Radiology Technician Aide, required an Associate degree, certification, or eligibility for certification within a specialty. Most of the advertisements identified areas of specialty within radiology to include computer tomography, scanning, magnetic resonance imaging

² A list of acronyms and their meanings, included in this report, is presented in Appendix B.



6 -

(MRI) diagnostics, sonography, mammography, ultrasound, bone density, nuclear medicine, electroencephalograph (EEG), and electrocardiograph (EKG). Generally, a minimum of 1 to 2 years of experience was required. Managerial and supervisory positions required supervisory and training experience.

A partial certification listing includes Accreditation (CAHEA), American Registry of Radiologic Technologists (ARRT), Nuclear Medicine Technology Certification Board (NMTCB), and American Registry of Diagnostic Medical Sonographers (ARDMS).

Employment Outlook: Although employment opportunities will increase, the pace may be lessened by productivity gains caused by increasingly sophisticated equipment and cross-trained employees.

Earnings: Median annual earnings in 1998 were \$32,070 for this job category.

C. Nursing

<u>Jobs Advertised</u>: Position titles listed under this category included Registered Nurse (RN), Licensed Practical Nurse (LPN), Certified Nursing Aide (CNA), Certified Medical Aide (CMA), and Nurse Manager or Administrator.

<u>Job Description</u>: RN's have a wide variety of duties in many different healthcare settings, ranging from direct patient care to administration and supervision. LPN, CNA, and CMA positions work under the supervision and direction of physicians and nurses, providing basic patient care.

Education/Training/Experience: All advertisements for nurse positions required licensure and state certification plus 1-3 years of experience. Education for nursing could be at three levels: (1) hospital diploma (2) Associate's degree from a community college or (3) Bachelor's in Science degree from a four-year college or university. A Master's degree was required for the Nurse Manager/Administrator positions plus 3-5 years supervisory experience. Completion of an accredited program was required for LPN, CNA, and CMA positions, with 1 to 2 years of work experience.

<u>Employment Outlook</u>: Employment prospects are considered excellent for nurses, particularly for individuals with knowledge and experience in specialized clinical areas. Flextime positions are becoming increasingly available. Employment of LPN positions is expected to rapidly grow in response to long-term care needs of an aging population and to the general growth of the healthcare sector.

<u>Earnings</u>: The range of annual earnings in 1997 for nurses was \$36,300 to \$43,000. The range of annual earnings for LPN positions in the same year was \$24,500 to \$30,200.

D. Rehabilitation

<u>Jobs Advertised</u>: The advertised positions within this category included Physical Therapist, Speech Therapist, Respiratory Therapist, Occupational Therapist, and Recreational Therapist.



Job Descriptions: Occupational Therapists assist patients in improving their ability to perform tasks in their daily living and working environments. Recreational Therapists provide treatment services and recreational activities to individuals with disabilities or illnesses. Speech Therapists assess and treat speech, language, cognitive, communication, voice, swallowing, and fluency disorders. Respiratory Therapists evaluate, treat, and care for patients with breathing disorders.

Education/Training/Experience: All positions in rehabilitation required a Bachelor's degree and successful completion of a certification examination. Certifications in specialized areas included: Certified Respiratory Therapist (CRT), Recreational Therapist (Certified Therapeutic Recreation Specialist (CTRS)), Certification of Clinical Competency in Speech Language Pathology (CCC-SLP), Speech Pathologist, and Clinical Competency in Speech Language Audiology (CCC-A). Most advertisements required work experience of 1 to 3 years.

<u>Employment Outlook</u>: Employment growth is projected to grow through the 1998-2008 period. The heaviest expected employment growth is expected to occur during the second half of the projection period.

Earnings: Ranges in annual earnings during 1997:

Occupational Therapists \$38,200-\$57,000
Physical Therapists \$50,100-\$65,600
Recreational Therapists \$27,760-\$35,000
Speech Therapists \$34,580-\$43,080
Respiratory Therapists \$30,040-\$39,830

E. Billing Clerks

<u>Jobs Advertised</u>: Positions in this category were listed as Billing Clerks and predominantly work in hospitals, clinics, and medical offices.

<u>Job Description:</u> Duties consist of billing for rendered medical services and follow-up collection activity.

<u>Education/Training/Experience</u>: No formal training was required. Experience of 1 to 2 years and knowledge of Medicare/Medicaid and private insurance billing procedures was indicated as required.

F. Medical Receptionist

<u>Jobs Advertised</u>: Advertised positions in this category were listed as Medical Receptionist.

<u>Job Description</u>: Individuals who work in this capacity are employed in a variety of healthcare settings. Duties generally include front desk activity, phone coverage, appointment setting and follow-up, data entry, correspondence, supplies, travel arrangements, and record maintenance.

Education/Training/Experience: No formal training was required. One to two years of experience was generally required and some advertisements indicated that training



would be provided. Several of the ads required experience in specific clinical areas. Personal attributes most frequently mentioned included being well organized, extroverted and reliable. Computer literacy was also indicated as a desirable skill for candidates to possess.

G. Mental Health

Jobs Advertised: This category included a broad array of job titles, which were usually indicative of the area of clinical work. Job titles included Mental Health Therapist, Psychiatric Technician, Mental Health Counselor, Rehabilitation Director, Crisis Response Technician, Mental Health Clinician, Rehabilitation Specialist, Counselor, Chemical Dependency Therapist, Residential Counselor, Employment Counselor, Clinical Director, Program Director, Psychiatric Rehabilitation Counselor, Outreach Program Director, Employment Specialist Coordinator, Child and Adolescent Therapist, Direct Care Aide, Crisis Intervention Manager, and Case Management Director.

<u>Job Description</u>: Work in this area involves caring for mentally and emotionally disturbed individuals.

Education/Training/Work Experience: An Associate's degree and 1 to 2 years of experience were required at the technician and aide levels. Other positions required a Bachelor's degree, 2 to 4 years of experience, and licensure. A Master's degree and 3 to 5 years of experience, which included supervisory experience, were required for the position of Director and Manager. A Bachelor's degree in human resources was required for work in the employment clinical area.

H. Pharmacist

<u>Jobs Advertised</u>: Advertised positions in this job category included Pharmacist and Pharmacist Technician.

<u>Job Description:</u> Pharmacists dispense drugs that physicians, dentists, and other health professional practitioners prescribe for patients. Pharmacy Technicians work under the supervision and direction of registered pharmacists.

Education/Training/Work Experience: All pharmacist positions required a degree in pharmacy, registration in the state in which they are employed, and generally at least one year of experience. None of the pharmacist technician positions, which were listed, required formal training. However, up to two years of experience was required in a pharmacy retail setting.

<u>Employment Outlook:</u> Employment for both the pharmacist and pharmacist technician positions is considered good through the year 2006, due to projected increases in the pharmaceutical needs of an increasingly older population.

Earnings: Annual salary range in 1998 for pharmacist positions was \$43,000-\$61,700. Annual salary range in 1998 for pharmacy technician positions was \$19,000-\$28,000.



I. Social Worker

<u>Jobs Advertised</u>: Advertised positions listed in this category included Social Worker, Family Activities Coordinator, Child Services Coordinator, Case Manager, and Drug Dependency Manager.

<u>Job Description</u>: Social workers assist individuals with emotional and physical illness, behavior management, substance abuse, child/spouse abuse, and other issues.

<u>Education/Training/Work Experience</u>: All positions required a Bachelor's or Master's degree, licensure in the state where employed, and 1 to 3 years of experience. Coordinator and manager positions required candidates to have supervisory experience.

Employment Outlook: Employment of social workers is expected to increase rapidly through the year 2006. In addition to increased numbers of older people who need social services, growing concern about crime, juvenile delinquency, mental illness, AIDS patients, and families in crisis is expected to spur demand for social workers.

Earnings: Annual income range in 1997 for social workers was \$32,300 to \$38,700.

J. Clinical Laboratory Services

<u>Jobs Advertised</u>: Positions, advertised under the Clinical Laboratory Services category, included Lab Technician, Laboratory Aide, Histotechnician, Histology Supervisor, Cytogenetic Technician, Phlebotomist, and Quality Laboratory Specialist.

<u>Job Description:</u> Medical laboratory technicians collect, receive, separate, and store specimens from medical tests. Clinical laboratory technicians perform chemical, biological, hematological, microscopic, immunologic and bacteriological tests. Medical technologists perform chemical, bacteriologic and microscopic tests on various cell and tissue specimens. Phlebotomists collect blood specimens from patients at the request of physicians.

Education/Training/Experience: The lab technician positions required no formal training beyond 1 to 2 years of medical lab experience. The histology supervisors and quality laboratory specialist positions required an Associate's degree and two or more years of experience. All other job titles in this category had a minimum requirement of certification with an appropriate association, good communication, and good computer skills.

Employment Outlook: Employment growth through the year 2008 is considered very good. Individuals with an Associate's degree or higher will be more marketable.

<u>Earnings</u>: The range of annual earnings in 1997 for medical laboratory positions was \$24,000-\$36,000 and for clinical laboratory technologist positions it was \$23,000-\$43,000. In addition, medical technologist positions had an annual earnings range in 1997 of \$25,000-\$41,000 and phlebotomist positions ranged from \$19,000-\$28,000 in 1997.



K. Other

There were several other advertised positions in the healthcare sector. Included in the "Other" category were positions relating to vision care, nutrition, Director of Medical Information Services, Medical Office Manager, Psychologist, Physician, Psychiatrist, Psychotherapist, Medical Research Manager, Orthodontist and Practice Administrator. Although these positions were advertised less frequently than others, this should not be interpreted as a reflection of marginal interest for these types of jobs by the medical community.

Education/Training/Experience: The range of education/training/experience was extremely broad due to the wide diversity of job titles. All professional positions required at minimum a Master's, Ph.D. or medical degree, board certification in a medical specialty, licensure, and multi-year experience. The Director of Medical Information Service required a Master's degree in computer science or business management. Medical office manager positions required a Bachelor's degree in business administration, medical office background, computer literacy, and multi-year experience.



Section 2: Projected Employment Increases in Healthcare, 1996-2006

Occupations in the healthcare field are expected to increase at twice the rate as the U.S. economy as a whole. Healthcare services will account for almost one-fifth of all job growth from 1996-2006. By the year 2006, health services employment is projected to increase to 12,600,000 positions. The increased demand for healthcare services, fed in part by the growing proportion of elderly citizen, is expected to continue for a full 50 years.³

Table 2: Projected Employment Increases in Healthcare, 1996-2006

Occupation	Increase	% Change
Dental Assistants	77,000	38
Dental Hygienists	64,000	48
Emergency Medical Technicians	67,000	45
Home Health Aides	378,000	76
Human Services Workers	98,000	55
Medical Assistants	166,000	74
Medical Records Technicians	44,000	51
Nursing Aides, Orderlies, & Attendants	333,000	25
Occupational Therapists	38,000	66
Occupational Therapy Assistants & Aides	11,000	69
Personal and Home Care Aides	171,000	85
Physical Therapists	81,000	71
Physical Therapy Assistants & Aides	66,000	79
Physician Assistants	30,000	47
Registered Nurses	411,000	21
Respiratory Therapists	37,000	46
Speech Language Pathologists	44,000	51



³ Source: U.S. Bureau of Labor Statistics, Occupational Employment Projections to 2006, *Monthly Labor Review*, November, 1997.

Section 3: Employer Needs - Expected Skills, Education, and Expertise Sample 1 - The Washington Post 2/13/00

Position	SK	Skills	Education/ Certification	Experience (Number of Years)	Hardware/ Software	Notes
			Positions: Denta)ental		
Dental Assistant	,,			Experience is helpful		
Dental Assistant	CompetentDedicatedTeam player	ent ed ayer	• CDA • XR Certification	Experience is helpful		
Orthodontics Assistant				Experience is helpful		
Dental Assistant	MatureDependable	able		Have some Experience		
Assistant Manager	 General office duties 	office				
Dental Assistant	 Communication skills Technical abilitie Reliable Customer servic 	Communication skills Technical abilities Reliable Customer service				
Chairside Assistant	Self-motivatedTeam playerSolid work ethic	ivated ayer rk ethic		Restorative experience		
Dental Hygienist	EnthusiasticSoft tissuemanagement	ıstic Je nent				
Dental Hygienist	 Aesthetic Care 	Aesthetic/Cosmetic Care				



Position		Skills	Education/ Certification	Experience (Number of Years)	Hardware/ Software	Notes
Dental Hygienist	• •	Highly motivated Team player		Experience is helpful		
Dental Manager/Assistant				X-ray experience		
Dental Assistant	• •	Enthusiasm Self-motivated		Experience is helpful		
Dental Receptionist/Assistant	•	Dental procedures and terminology			 Dental computer software 	
Dental Surgical Assistant	•	Knowledge of implants	 X-ray certificate 	Experience is helpful		
Dentist	•	Great people person skills				
Provider Services Analysis	•	Strong	BA/BS preferred	2 years in care/ dental care		
			Positions: Medical Ass	Assistant/Specialist		
				Medical office		
Insurance/Accounts				and insurance		
				experience		
Medical Assistant	• • •	Venipuncture skills Responsible Punctual		 Prior medical office experience with front and back duties. 		
Medical Office Manager	• • •	HR Coding Financial		Background in billing		
Medical Receptionist	• •	Phone skills Office skills				
Medical Assistant	•	Self-motivation		Prior medical experience		



Position	Skills	Education/ Certification	Experience (Number of Years)	Hardware/ Software	Notes
Medical Billing	HardworkingMotivated		• Billing		
Medical Assistant			CBSI and medical experience are helpful		
Medical Insurance Assistant	Customer service		1 – 2 years in insurance billing, A/R posting, HMO referrals and collection	Medical manager computer system	
Medical Office Assistant	 Pleasant, clear articulation Knowledge of insurance CPT-4/ICO-9 medical billing codes 		• 2 years in front office	CBSI Version 8	
Billing and Front Desk			Experience is helpful	CBSI preferred	
Billing Manager			Strong billing experience		
Business Office Manager	 Knowledge of Medicaid and Medicare 		• 2 – 3 years experience		
Business Manager	 Managing dental or medical accounts 				
Business Office Coordinator	Dental experienceDetail oriented		Experience in client-oriented business	Computer skills	



Position	Skills	Education/ Certification	Experience (Number of Years)	Hardware/ Software	Notes
Front Office Coordinator	Managed care CPR/ICO 9 codes	A.A. or 2 years college			
	 Patient cashiering 	experience			
Billing and Collection Specialist	VersyssMRI radiology		3 years		
Sr Receptionist	•		• 5 – 10 years		
	 Highly motivated 				
Staffing Coordinator	Self starterPeople skills				
Receptionist			Previous medical Office experience		
			מבוסו הסלים המונה		
Receptionist			Experience is		
-			nelptul		
Receptionist	• Typing		Previous		
-			experience		
Medical Receptionist	ICO-9/CPT coding				
Receptionist			Experience is		_
			helpful		
Medical Research			Experience is		
			helpful		
Office Manager			Computer billing		
		Positions: Mental Health/Social Work	th/Social Work		
Vocational Counselor	 Job coach 	 BA/BS in human 			
	 Autistic adults 	services			
	 Good driving record 				
	 Ability to juggle 				
	multiple tasks				
Mental Health	 Case management 	• BA			
	 Job coaching 				
	 Written, verbal, 				
	computer skills				



Position		Skills		Education/ Certification	٤	Experience (Number of Years)	Hardware/ Software	Notes
Child Therapist	•	Children in therapy for HIV/AIDS		LGSW		Control of the Contro		
Addictions Counselor			•	BA/BS in related field or education plus experience Eligible for certification as addictions				
					•	Experience with		
						seriously		_
Mental Health	•	Case management	•	Masters In psychology,		mentally ill and dually diagnosed		
Counselor	•	Crisis intervention		social work or	•	Clinical		
				related field.		supervisor		
						experience preferred		
			•	BA in		Saidrow C		
Senior Counselor				psychology,	•	z years working with beople with		
				sociology or related field		disabilities		
Substance Abuse	•	Parenting training	•	LGSW				
Psychotherapist	•	Adult substance abuse	• •	LICSW				
		Substance abuse		U-W0U-	•	4 years clinical		
Social Worker	•	Mental illness	•	ASL preferred	•	2 years supervisory		



Position	Skills	Education/ Certification	Experience (Number of Years)	Hardware/ Software	Notes
Director of Social Work	Strong communication and leadership skills Legal and regulatory knowledge Recruit, train, assign staff	LCSW, LGSW or MSW MD license	 2 years in direct management 5 years in health care delivery system 		
Social Worker	 Excellent verbal, written, communication skills Knowledge of D.C. and federal licensure and certification requirements 	• D.C. license	• 2 years in long- term care setting		
Child Psychiatrist	 Youth with emotional/ behavioral issues 	MD license Board certified Bureau of Narcotics Dangerous Drugs registration			
Social Worker		• Licensed	 IOU and HIV/AIDS prevention Outreach education Substance abuse issues 		

Position	Skills	Education/ Certification	Experience (Number of Years)	Hardware/ Software	Notes
		Positions: Nursing	ırsing		
CNA Coordinator	Program/staff oversightMedical administration	CNAMedicationcertificate	• 2 – 3 years in Alzheimer's		
Clinical Research Coordinator	 Recruit, screen, manage clinical study 	BSN D.C. license	1 year study coordination		
LPN Charge Nurse		• LPN	 Hospital/nursing home experience 		
Nurse Practitioner		D.C. license			
Clinical Director	 Energetic Flexible Strong documentation skills Knowledge of Oasis 	• BS • D.C. license	• Experience in home care	Familiar with computers	
CNA		CPRFirst AidCNA certification	 Long-term care Leading activities 		
RN/LPN	Energetic		Experience is helpful		
RN Charge Nurse		• RN	 Hospital or nursing home 		
RN	Strong pediatric clinical skills				
N N		 Certification in audiometry, spirometry, and ohn preferred 			2



Position	Skills	Education/ Certification	Experience (Number of Years)	Hardware/ Software	Notes
Admissions Director	 Screening, interviewing, & monitoring Manage admissions 		Nursing background preferred		
Nursing		RN or LPN	Cardiology or arrhythmia		
PACU			PACU or critical care experience		
OB Technician			1-2 years of OB scrub experience		
	Strong written & verbal skills	- NA			
Diabetes Educator	Strong presentation Strong presentation	VA license Certified	3 years in diabetes	Strong computer	
	Team plaver	diabetes	education	SKIIIS	
	Independent worker	educator			
		D.C. license	L		
		Bachelor's In	S years in management		*****
Chief Nursing Officer	Communication ckills	Master's in	 2 years at vice 		
		nursing, admin., business, or	president or chief nursing level	_	
Director	Self-directedMotivated	• RN or LPN			
RN			• 2 years		
	Knowledge and familiarity of clinical	• DC License	2 years in OB/GYN office		
Hegistered Nurse	practices and	• RN	hospital, or		
	procedures		ambulatory care		

Staff Development Coordinator Infection Control Manager	Plan, develop, implement, & evaluate education/training Conduct in-service programs Maintain records Provide guidance to personnel	Bachelor's in			
• • •	uluate ucation/training nduct in-service grams intain records wide guidance to	• Bachelor's in			
• • •	ucation/training nduct in-service grams intain records wide guidance to				
• • •	grams intain records wide guidance to	nursing	Experience in		
Control	intain records wide guidance to sonnel	• Master's	long term care		
Control	wide guidance to	D.C. license			
Control					
Infection Control Manager		RN CPR			
Manager		D.C. license	3 years in		
		nursing or related field	infection control		
		preferred			
				•	Willing to
		,			Sporison
Z		• Any state RN	• 1 vear		אַריבּר
		license			H-10
					(work
					visa)
and the state of t		Positions: Other	ther		
• Kno	Knowledge of nutrition preferred	HS degree			
Nutrition Assistant • Qua	Quality food	Some college			
brep	preparation	preferred			
• Cus	stomer service				
Opthamolgic Tech			Experience is helpful		



Position	Skills	Education/ Certification	Experience (Number of Years)	Hardware/ Software	Notes
Optician	 Customer oriented 				
Optometrist	•				
Patient Coordinator	 Highly organized 				
Pharmacy Technician	KnowledgeableEmpathetic				
Physician		 BE/BC in peds or family practice 			
	 Develop and conduct training 				
	courses				
	 Coordinate pre- 		 2 years 		
Plato Support	sales, sales, &		radiotherapy,	 Radiotherapy 	•
Specialist	post-sales		dosimetrist, or	treatment software	
	 Deliver technical 		physicist		
	presentations				
	 Provide telephone 				
	& on-site support				
Psychology/Snecial	 Excellent 				T S
Folloation	communication &				Vobiclo
Eddeailor	academic skills				ט ט י י
	 Reliable 				
	 Dependable 				
	 Pleasant telephone 		Typorizonal distribution		
	manners		torminal diait		
Film Librarian	 Effective 		filing and v-ray		
	communication		iackete		
	skills		Jackets		
	 Computer 				
	knowledge				

Position	Skills	Education/ Certification	Experience (Number of Years)	Hardware/ Software	Notes
Recreation/Volunteer Assistant	 Creating recreation calendars & activities Customer service attitude Positive attitude 		Recreation/ activity department	Good computer skills	
Occupational Therapist		VA license			
Respiratory Therapist	Interpersonal skillsCaring personalityProvide high levelof patient care	• CRTT			
Project Manager	 Knowledge of current industry standards Coding systems for health care encounters 	 Bachelor's in business, management, science, industrial engineering or related field Master's preferred 	 5 years in broad based management environment 		
Business Analyst	 People & writing skills Programming Healthcare, statistics, & data analysis 	• BA/BS	2 years as functional analyst	ExcelSQL preferredDatabases	
Home Health Care Aides		Certification	 Experience with developmental, disabled clients 		



Position	Skills	Education/ Certification	Experience (Number of Years)	Hardware/ Software	Notes
Blood Bank		• MT (ASCP)	5 years supervisory		
Coordinator		SBB preferred	experience at		
			blood bank		
Medical Research			Clinical trial		
Coordinator		:	experience		
		• MD			
		Board certified in	in • Internal		
	findings reports	occupational or	r medicine, family		-
Medical Officer	oto	internal medicine	ne practice,		oitizopobin
	Working with others	License to	emergency, or		diusiisiin
		practice	public health		
		throughout U.S.			
Medical Supervisor		• MT (ASCP)	6 years in hematology		
Driver/Activities	Working with	CDL license			
Assistant	Good driving skills	•			
	Activities	College degree			
Pharmacy Technician		• Certified	Hospital experience		
Childcare			 Experience with kids 		
	Verbal skills Communication				
Total Total	skills	• A.A. in	2 years in long-		
	Knowledge of	nutrition/dieteti			
	rederal & D.C. licensing				



Position	Skills	Education/ Certification	Experience (Number of Years)	Hardware/ Software	Notes
Director of Medical Management	 Managed care environment 	 Master's in nursing Licensed in VA/MD/D.C. 	6 years clinical nursing3 years of supervisory experience		
EMT					
Marketing Administrator	 Establish, direct, & coordinate marketing 	Bachelor's	2-4 years marketing health related products	Computer skills	
	Strong				
Reimbursement	communication	Degree in	• 2-3 years in		
Specialist	SKIIIS	healthcare or	healthcare field		
	 Customer service Analytical skills 	experience			
	Superior				
	communication		Health care		
Staffing Specialist	skilis • Organizational		industry		
	skills		Knowledge		
	Customer service		preierred		
	 Administrative skills 				
		Positions: Radiology	diology		
X-ray Technician		• AART	A CONTRACTOR OF THE CONTRACTOR		
		ARRT			
		certification			
MRI		 MRI certification 			
		or eligible for			
		MRI certification			



		Education/	Experience	Hardware/	
TOSHIOL	SKIIIS	Certification	(Number of Years)	Software	Notes
		ARDMS			
Diagnostic		certification • ARRT	• 1 year		
Sonographer		 Completion of 			
		approved school			
		 Graduated from 			
		AMA approved			
Radiology		program			
		MD state board certification			
Radiologic Technician			• 2 years		
	Dependable	Tavv	Mammography		
Radiologic Technician	Reliable Work independently	• MD license	experience		
	The machanian		2000		
Nuclear Medicine Technologists		MD license CNMT/AART RS	 2 years clinical experience 		
		•			
			 2 years vascular 		
			ultrasound &		
			arterial flow		
			procedures		
Vascular Technologist			 Experience with 		
			vascular		
			accreditation		
			process		
			preferred		



Sample 2 - The Washington Post 4/16/00

Position	Skills	Education/ Certification	Experience (Number of Years)	Hardware/ Software	Notes
		Positions: Dental	Dental		
Dental Assistant			• 1 year		
Dental Assistant	Organizational skills preferred	X-ray certification	Dentrix experience preferred		
Dental Assistant			2 years		
Dental Assistant			Experience is helpful		
Dental Hygienist					
Dental Hygienist	StableHardworkingDedicatedTeam player				
	-	ositions: Medical Assistant/Specialist	istant/Specialist		
Accounting Clerk			• 2 years	Ceridian preferredPeopleSoftpreferred	
Administrative Assistant	 Detail oriented Accurate Self-motivated Flexible Good interpersonal & communication skills 		Experience with minimum data sets & electronic transmission	• Windows	



Position	Skills	Education/ Certification	Experience (Number of Years)	Hardware/ Software	Notes
Medical Secretary			Rx processingSchedulingStaffcommunication	Windows 95WordPerfect 6.1Spreadsheets	
Billing Clerk	Strong interpersonal skills		Insurance billingMedical assistance billingAccount analysis		
Claims Adjuster		 HS diploma 	 1 year claims processing Experience in ICD-9-CM CPT coding 	• PC	
Medical Assistant Medical Bookkeeper AA	Spanish speaking preferred		1 year A/P experience	Computer skills	
Medical Receptionist			• 1 year		Good references needed
Billing Manager	Aggressive F	Positions: Mental Health/Social Work	Ith/Social Work		
LCSW			 2 years in mental health case management 		

Position	Skills	Education/ Certification	Experience (Number of Years)	Hardware/ Software	Notes
	100 A		Experience		
			working with		
Mental Health		BS/BA in	persons with		
Associates		psychology	psychiatric		
			disorders		
			preferred		
LCSW		 VA license 			
-		BSW or MSW	Experience in		
Social Worker		MD license	acute care hospital		
		Positions: Nursing	ursing		
Nireina			OB experience		
			preferred		
		Registered nurse	Experience in		
Professional Nurse		clinician	mental health		
			preferred	_	-
	 Strong supervisory 		02.00		
	skills		• 3-3 years nursing		
	Strong		nome experience		
	communication		• nands-on		
RN Nurse Manager	 Handle multiple 		experience with		
	tasks in progressive		MIDS, MIMIDS,		
	environment		care planning,		
	Customer service		and staff		
	oriented			_	
			• 3-5 years		
			management		
Director of Nursing			with clinical	_	
			experience in		
	1000		gerontology		



Position	Skills	Education/ Certification	Experience (Number of Years)	Hardware/ Software	Notes
			Home health or	The state of the s	
Nurse			i.v. experience		
			preferred		
PN Nirse			Experience in		
			doctor's office		
RN/LPN			 IV experience 		
BNI			 Experience is 		
			helpful		
4			 Experience is 		
			helpful		
20			 Experience is 		
			helpful		
Na/Na		VA or D.C.	Home nursing		
		license	experience		
		Positions: Other)ther		
			 Elderly 		
			population		
Activities Assistant			 Experience in 		• Weekerid
			planning &		ropilou:
_			implementing		ווכוממבים
			group activities		
Controller		• CPA	 5 years in hospital setting 		
	Empathic Tolonkono		Prior customer		
	allolldala		service		
Information Specialist	marriers Organized	BS in science or	experience	Ottoba DO pagas	
0	Research skills	health education	preferred		
	Spanish fluency		 2 years tuil-time work 		
	preterred				

Doeition	Chille		Education/	Experience	Hardware/	
	ONIIIS		Certification	(Number of Years)	Software	Notes
Healthcare Financial		•	Accounting or		• Excel	
Analyst			finance degree		Access	
			Positions: Radiology	iology		
		•	Graduate of			
			accredited			
Ultrasonographer			diagnostic	1 year		
			sonography			
			program			
Radiology Technologist		•	AART	• 1 year		
	Dependable Dependable	•	MRI certification			
MRI Technologist	• reliable Ability to work	•	AART	• 2 years		
	independently	•	MD license	`		
		•	AART			
Radiologic		•	MD license			
Technologists		•	Graduation from			
			AMA program			
		•	AART			
Radiation Therapist		•	MD license	• Experience is		
		•	CPR certification	rielpiui		

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Summary

The healthcare industry is one of the fastest-growing areas of the economy. It is projected that healthcare services will account for almost one-fifth of all employment growth through the year 2006. There are a variety of reasons for this, including the growth of the elderly population and the use of advanced medical technology. Planning appropriate curricula for the healthcare profession, in order to support a dynamic industry, provides both challenges and opportunities for NVCC.

Healthcare job advertisements appearing in the February 13, 2000 and April 16, 2000 editions of the Washington Post were collected, analyzed and used in the development of two tables. These tables listed the positions, skills, education and experience requirements that candidates should possess in order to qualify for positions advertised in the local labor market.

Job advertisements for healthcare positions, listed in the February 2, 2001 edition of the Washington Post, were also collected and analyzed. Profiles were developed providing a brief description of job responsibilities, education, training, experience requirements, employment outlook, earnings, and any prerequisite necessary for job candidates to possess. Skill sets required for the advertised positions varied greatly from one job to another.

Occupations that generally required high school graduation included Medical Secretary, Pharmacy Helper, Medical Record Clerk, Dental Assistant, Occupational and Physical Therapy Aide, Medical Receptionist, Billing Clerk, Home Health Aide, Nursing Aide, Nutrition Assistant, Medical Insurance Assistant, Activities Aide and related occupations. These jobs generally required minimal experience of one year or less in a healthcare setting. Certification was also required for some positions. Required computer skills included Windows 98, WordPerfect 6.1, and Access for Medical Secretary and Medical Receptionist advertisements as well as knowledge of insurance billing codes/procedures for some other positions. For those advertised jobs with heavy exposure to the public, friendliness and good communication skills were required.

There were many advertised jobs, which generally required post-secondary education such as an Associate degree, a Bachelor's degree, and/or extensive employee training. These advertisements included such job positions as Radiologic Technologist, Radiologic Technician, Nurse, Respiratory Therapist, Surgical Technician, Medical Assistant, Corrective Therapy Assistant, Physical Therapy Assistant, Medical Records Technician, Licensed Practical Nurse, Dental Hygienist, Speech Therapist, Phlebotomists, Optician, Certified Nurse Aide, Pharmacy Technician, Emergency Medical Technician, and related occupations. These positions typically require two or more years of experience, certification, and licensure in the area where employed. Competency in field, reliability and self-motivation were the most frequently mentioned personal attributes sought in candidates.

Several advertisements required a minimum of a Bachelor's degree, with many requiring an advanced degree. These advertisements included such positions as Physical Therapist, Audiologist, Psychologist, Chiropractor, Speech Language Pathologist, Medical Doctor, Psychiatrist, Nutritionist, Pharmacist, Dental Surgeon, Provider of Services Coordinator, Counselor, Nurse Manager, Psychotherapist, Clinical Director,



₃₂ 54

Diabetes Educator, Chief Nursing Officer, Staff Development Officer, Optometrist, Marketing Administrator, Director of Medical Management, and others. Many of these senior level positions are recruited from internal announcements and professional journals rather than newspaper advertisements. These positions have limited relevance at the community college level. For those positions citing experience requirements, 2 to 6 years of experience was generally required in highly specialized clinical areas within a healthcare setting and management experience background was required for supervisory positions.

The number and diversity of jobs appearing in all three editions of the Washington Post are indicative of the extensive availability and wide diversity of healthcare positions currently offered in this area. NVCC appears to be well positioned to respond to student needs and workforce requirements as is evidenced by the broad array of available healthcare programs currently being offered.



APPENDIX A

HEALTHCARE DEGREES OFFERED BY NORTHERN VIRGINIA COMMUNITY COLLEGE

Associate in Applied Sciences:

Dental Hygiene

Emergency Medical Services Technology

EMS Management

Gerontology

Health Information Technology

Human Services Associate

Medical Laboratory Technology

Nursing

Physical Therapist Assistant

Radiography

Respiratory Therapy

Certificate:

Clinical Medical Assistant Substance Abuse Rehabilitation Counselor Surgical Technology

Career Studies Certificate:

Basic EMT

Breast Diagnostic Imaging

Cardiac Care Technician

Care of the Aging

Clinical Data Coding

Computed Tomography

Limited Radiography

Magnetic Resonance Imaging

Medical Point-of-Care Testing

Medical Practice Management

Medical Transcription

Optician

Optometric Assistant

Optometric Technician

Pharmacy Technician

Phlebotomy

Rescue Squad Management



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APPENDIX B

ACRONYM IDENTIFICATION

CAAHEP Commission on Accreditation of Allied Health Education Programs

ABHES Accrediting Bureau of Health Education Schools

AMT American Medical Technologist

AAMA American Association of Medical Assistant

HMO Health Maintenance Organization

MRI Magnetic Resonance Imaging

EKG Electrocardiograph

EEG Electroencephalograph

AART American Registry of Radiologic Technologists

NMTCB Nuclear Medicine Technology Certification Board

ARDM American Registry of Diagnostic Medical Sonographers

RN Registered Nurse

LPN Licensed Practical Nurse

CNA Certified Nurse Aide

RRT Registered Respiratory Therapist

CRT Certified Respiratory Therapist

CTRS Certified Therapeutic Recreation Specialist

CCC-SLP Certificate of Clinical Competence in Speech-Language Pathology

CCC-A Certificate of Clinical Competence in Speech-Audiology

MSW Master's Degree in Social Work

ACSW Academy of Certified Social Workers

NASW National Association of Certified Social Workers

DCSW Diplomat in Clinical Social Work



APPENDIX C

HEALTHCARE EDUCATIONAL REQUIREMENTS*

Gerontologist Physician Assistant Nurse Practitioner Nurse Midwife Nurse Anesthetist Clinical Nurse Specialist Audiologist Creative Arts Therapist Orthotist Prosthetist Speech/Language Pathologist Health Services Administrator ician tor chnician cchnician cchnician	HS Diploma/GED and up to 2 years additional education and/or on-the-job training	Two to four years of college Associate/Bachelor's Degree	Master's Degree	Doctoral or Professional Degree
Dental Laboratory Technician Counselor Counselor Counselor Genetic Counselor Genetic Counselor Genetic Counselor Genetic Counselor Genetic Counselor Genetic Counselor Social Worker Cocupational Therapist Occupational Therapist Physicial Therapist Cocupational Therapist Cocup	Nursing Assistant/Aide	Registered Nurse	Gerontologist	Chiropractor
chnician Counselor Genetic Counselor Social Worker Counselor Pharmacy Technician Physical Therapist Occupational Therapist Cytotechnologist Therapeutic Recreation Specialist Cytotechnologist Therapeutic Recreation Specialist Cytotechnologist Histotechnologist Gytotechnologist Histotechnologist Health Services Administrator Gytotechnologist Health Specialist Gytotechnologist Health Specialist Gytotechnologist Gentician Medical Technician Registered Dietician Nursing Home Administrator Biomedical Engineer Electroneurodiagnostic Technician Environmental Health Specialist Industrial Hygienist Opthalmic Technologist Athletic Trainer Health Sciences Librarian	Dental Assistant	Dental Laboratory Technician	Physician Assistant	Physician
Genetic Counselor Social Worker Social Worker Pharmacy Technician Cocupational Therapist echnician Physical Therapist Therapeutic Recreation Specialist Cytotechnologist Therapeutic Recreation Specialist Therapeutic Administrator Therapeutic Recreation Specialist Therapeutic Administrator Therapeutic Recreation Specialist Therapeutic Administrator Therapeutic Recreation Specialist Therapeutic Recreation Speciali	ph Technician	Counselor	Nurse Practitioner	Podiatrist
Social Worker Pharmacy Technician Occupational Therapist Phrapical Therapist Cocupational Therapist Physical Therapist Creative Arts	Dental Hygienist	Genetic Counselor	Nurse Midwife	Dentist
Pharmacy Technician Occupational Therapist Occupational Therapist Physical Therapist Cocupational Therapist Physical Therapist Physical Therapist Prostrict Coreative Arts Therapist Creative Arts The	Psychiatric Aide	Social Worker	Nurse Anesthetist	Psychologist
Occupational Therapist Audiologist Physical Therapist Physical Therapist Physical Therapist Physical Therapist Physical Therapist Physical Therapist Creative Arts Therapist Orthotist Therapeutic Recreation Specialist Prosthetist Cytotechnologist Histotechnologist Histotechnologist Amician Medical Laboratory Technician Registered Dietician Nursing Home Administrator Biomedical Engineer Electroneurodiagnostic Technician Biomedical Engineer Electroneurodiagnostic Technician Engineer Electroneurodiagnostic Technician Engineer Electroneurodiagnostic Technician Houstrial Hygienist Opthalmic Technologist Athletic Trainer Health Educator Health Sciences Librarian	Psychiatric Technician	Pharmacy Technician	Clinical Nurse Specialist	Pharmacist
Physical Therapist Creative Arts Therapist Respiratory Care Therapist Orthotist Inhologist Therapeutic Recreation Specialist Cytotechnologist Histotechnologist Histotechnologist Histotechnologist Medical Laboratory Technician Medical Laboratory Technician Medical Laboratory Technician Medical Technician Registered Dietician Nursing Home Administrator Biomedical Engineer Electroneurodiagnostic Technician Encroneurodiagnostic Technician Environmental Health Specialist Industrial Hygienist Opthalmic Technologist Athletic Trainer Health Educator Health Sciences Librarian	Histologic Technician	Occupational Therapist	Audiologist	Research Scientist
Respiratory Care Therapist Orthotist Inclogist Therapeutic Recreation Specialist Cytotechnologist Histotechnologist Histotechnologist Medical Laboratory Technician Medical Laboratory Technician Medical Laboratory Technician Registered Dietician Nursing Home Administrator Biomedical Engineer Electroneurodiagnostic Technician Biomedical Engineer Electroneurodiagnostic Technician Electroneurodiagnostic Technician Electroneurodiagnostic Technician Electroneurodiagnostic Technician Athletic Trainer Health Sciences Librarian	Monitor Surveillance Technician	Physical Therapist	Creative Arts Therapist	Optometrist
nnologist Therapeutic Recreation Specialist Cytotechnologist Histotechnologist Histotechnologist Technician Medical Laboratory Technician Hegistered Dietician Nursing Home Administrator Biomedical Engineer Electroneurodiagnostic Technician Electroneurodiagnostic Technician Electroneurodiagnostic Technician Electroneurodiagnostic Technician Electroneurodiagnostic Technician Electroneurodiagnostic Technician Houstrial Hygienist Opthalmic Technologist Athletic Trainer Health Sciences Librarian	Dietectic Technician	Respiratory Care Therapist	Orthotist	
cytotechnologist Histotechnologist Histotechnologist Histotechnologist Medical Laboratory Technician Medical Technologist Electroneurodiagnostic Technician Nursing Home Administrator Biomedical Engineer Electroneurodiagnostic Technician Environmental Health Specialist Industrial Hygienist Opthalmic Technologist Athletic Trainer Health Sciences Librarian	Nuclear Medicine Technologist	Therapeutic Recreation Specialist	Prosthetist	
Histotechnologist Technician Medical Laboratory Technician Medical Technologist Electroneurodiagnostic Technician Nursing Home Administrator Biomedical Engineer Electroneurodiagnostic Technician Environmental Health Specialist Industrial Hygienist Opthalmic Technologist Athletic Trainer Health Sciences Librarian	_	Cytotechnologist	Speech/Language Pathologist	
Technician hnician schnician	Sonographer	Histotechnologist	Health Services Administrator	
chnician	Biomedical Equipment Technician	Medical Laboratory Technician		
chnician	Optical Laboratory Technician	Medical Technologist		
chnician	Optician	Electroneurodiagnostic Technician		
chnician	Optometric Assistant	Registered Dietician		
	Optometric Technician	Nursing Home Administrator		
		Biomedical Engineer		
Environmental Health Specialist Industrial Hygienist Opthalmic Technologist Athletic Trainer Health Educator Health Sciences Librarian	Perfusionist	Electroneurodiagnostic Technician		
Industrial Hygienist Opthalmic Technologist Athletic Trainer Health Educator Health Sciences Librarian		Environmental Health Specialist		
Opthalmic Technologist Athletic Trainer Health Educator Health Sciences Librarian		Industrial Hygienist		
Athletic Trainer Health Educator Health Sciences Librarian		Opthalmic Technologist		
Health Educator Health Sciences Librarian		Athletic Trainer		
Health Sciences Librarian		Health Educator		
		Health Sciences Librarian		

Source: Virginia Health Careers 1996-1998

*Educational requirements appearing in job advertisements may differ from the information contained in this table due to differences in employer requirements.



NORTHERN VIRGINIA COMMUNITY COLLEGE

COLLEGE MISSION AND GOALS

The mission of Northern Virginia Community College is to respond to the educational needs of its dynamic and diverse constituencies through an array of comprehensive programs and services that facilitate learning and workforce development in an environment of open access and through lifelong educational opportunities.

To achieve this mission, the following strategic goals for 1999-2001 are established:

- I. Sustain and Strengthen Academic Quality and Teaching Excellence.
- II. Enhance the Quality of Services to Students.
- III. Expand the Integration of Technology in Instruction and Administration.
- IV. Increase Access to College Programs and Services.
- V. Improve the Quality of Institutional Communication.
- VI. Strengthen Programs That Help Build a World Class Workforce.
- VII. Promote Responsiveness to Diversity of Students and Employees.
- VIII. Strengthen and Develop Additional Linkages with Community Groups.
- IX. Integrate College Planning and Facility Requirements.
- X. Enhance the Overall Wellness of Our Working and Living Environments.





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