Biomedical Pathway

Our MISSION
Educating all learners for tomorrow's world.

Pathway Experience

The Biomedical Pathway provides career awareness, occupational skills, and college preparation for learners with aspirations in the medical field, nutrition, animals sciences, and more. Learners will explore real-world issues through topics like disease, DNA analysis, prosthetic design, public health, and gain experience with tools and techniques used by professionals in hospitals and labs every day. Knowledge and skills learned may prepare learners for careers in patient care, medical research, or lab sciences. Learners will have advanced experiences through a capstone project or dual credit.

HIGH-WAGE, HIGH-SKILL, AND HIGH-DEMAND CAREERS	
Biotechnology Research & Development	Research Scientist/Assistant • Microbiologist • Biostatistician • Cell Biologist • Biomedical Chemist • Geneticist• Genetics Lab Assistant • Quality Assurance Technician
Diagnostic Services	Clinical Lab Technician • Phlebotomist • Geneticist • Nutritionist • Magnetic Resonance (MR) Technologist • Radiologist • Pathologist • Exercise Physiologist
Health Informatics	Health Information Coder • Admitting Clerk • Transcriptionist • Medical Librarian • Public Health Educator • Ethicist• Medical Assistant • Epidemiologist
Support Services	Dietary Aide • Hospital Maintenance Engineer • Environmental Services Manager • Industrial Hygienist • Biomedical Engineer • Transport Technician
Therapeutic Services	Dental Assistant/Hygienist • Occupational Therapist • EMT/Paramedic • Physician • Nurse • Veterinarian • Social Worker • Massage Therapist • Physical Therapist

PROGRAM OF STUDY: BIOMEDICAL SCIENCES				
SUBJECT	**9th Grade**	**10th Grade**	**11th Grade**	**12th Grade**
Choice Ready Planning	Freshman Experience HS 101	Choice Ready Career & Financial Literacy	Cybersecurity & College Ready	Senior Experience & Profile of a Graduate
CTE Program of Study Courses	**Principals of Biomedical**	**Human Body Systems**	**Medical Inventions**	**Capstone Cooperative Work Experience**
English Language Arts	**4 Credits required:** core academic, electives, and dual credit are available			
Math	**3 Credits required:** core academic, electives, and dual credit are available			
PE/Health	**1 & .5 Credits required:** core academic, electives, and dual credit are available			
Science	**3 Credits required:** core academic, electives, and dual credit are available			
Social Studies	**3.5 credits required:** core academic, electives, and dual credit are available			
Other Electives	Other electives for pathway preparation: Business, Marketing, World Language			

Aligned Career and Technical Student Organization(s)

HOSA encourages students to join and become actively involved in leadership and demonstrate skills through local, state, and national competitions. HOSA leadership development, motivation, and recognition exclusively for secondary, postsecondary, adult, and collegiate students enrolled in health science education and biomedical science programs or have interests in pursuing careers in health professions.

College & Career Experiences – Accessible to ALL Academy Program of Study Students

4-year rolling plan, Classroom Guest Speakers, Campus and Industry Tours, Career Interest Inventory, College Application, R U Ready ND exploration, Compass Tool Profiles, College & Career Research, College and industry representative visits during advisory and lunch and learn session, Job Shadow/ Professional Interview/CareerViewXR, Scholarship & Financial Aid, Senior Capstone/Profile of a Graduate Reflection

Aligned Early Postsecondary Courses – Accessible to ALL Academy Program of Study Students

Review the West Fargo Course Catalog for dual credit course and advanced placement course offerings. (link)

Professional Certification(s)

Certified Nursing Assistant, TEAS Exam

Is this Academy for you?

- Do you get satisfaction from helping people, animals, and/or the environment?
- Do you enjoy dealing with a problem that isn't easily solved or doesn't have the correct answer?
- Are you comfortable with situations that are unpredictable and rapidly changing?
- Are you interested in math and science?
- Do you like listening and working with others who have differing viewpoints?
- Do you enjoy puzzles, exploring and solving problems?
- Can you respond quickly and calmly in unexpected situations?
- Do you like to volunteer and do service work that focuses on helping other people or the environment?

Health Science Coordinated Plan of Study – ND Scholarship

Therapeutic Services		Biotechnology Research	
Course Name	**Cr**	**Course Name**	**Cr**
Certified Nurse Assistant - 07031	.5	PLTW Principles of Biomedical Science - 10730	1
Health Science I - 07033	1	PLTW Human Body Systems - 10732	1
Health Science II - 07035	.5	PLTW Medical Interventions - 10734	1
Prevention and Care of Athletic Injuries *(Dual Credit option)* - 07034	.5	Capstone Experience	.5-1
Medical Terminology Online *(Dual Credit option)* - 07036	.5		
Emergency Medical Responder— 07044	.5		
Health Supervised Occupational Experience			½ to 4

North Dakota Health Science Related Post-Secondary Programs

Pathway	Certificate or Associate's Degree	Bachelor's Degree	Master's Degree or More
Biotechnology Research & Development	♦ Biotechnology transfer (NDSCS) ♦ Pharmacy Technician (NDSCS, RC, TMCC)	♦ Bioinformatics (MiSU) ♦ Biotechnology (NDSU) ♦ Pharmaceutical Sciences (NDSU)	♦ Biomedical Sciences (UND) ♦ Genomics and Bioinformatics (NDSU) ♦ Pharmaceutical Sciences/Pharmacy (NDSU)
Diagnostic Services	♦ Clinical Laboratory Science transfer (NDSCS) ♦ Dialysis Technician (NDSCS) ♦ EMT – Paramedic Technician (BSC, DCB, NDSCS) ♦ Medical Laboratory Technician (BSC, TMCC) ♦ Medical Laboratory transfer (BSC) ♦ Phlebotomy Technician (BSC, TMCC)	♦ Medical Lab Science (MaSU, MiSU, NDSU, UJ, UM, UND, VCSU) ♦ Communication Sciences and Disorders (UM, UND) ♦ Radiologic Technology (MiSU, NDSU, UJ, UM)	♦ Medical Lab Science (UND)
Health Informatics	♦ Community Health Worker (SBC) ♦ Health Information Technician/ Management (DCB, NDSCS) ♦ Medical Administrative Asst. (BJCC, DCB, RC) ♦ Medical Coding/Billing (DCB, NDSCS, RC, UTTC, WSC)	♦ Community Nutrition (UND) ♦ Forensic Science (UND) ♦ Healthcare Management (RC) ♦ Health Administration (UM) ♦ Health Communication (NDSU)	♦ Health Care Administration (UM) ♦ Nurse Administrator (UM) ♦ Public Health (NDSU, UND)
Support Services	♦ Caregiver Services (DCB) ♦ Environmental Public Health (TMCC) ♦ Fitness Trainer Technician (LRSC) ♦ Social Work transfer (BSC, CCCC, NDSCS, TMCC, WSC)	♦ Corporate Fitness/Wellness (MaSU, MiSU) ♦ Exercise Science (DSU, NDSU, UJ, UM) ♦ Kinesiology (UND) ♦ Social Work (MiSU, UM, UND)	♦ Clinical Exercise Physiology (UM) ♦ Exercise Science and Nutrition (NDSU) ♦ Exercise Physiology/Kinesiology (UM, UND) ♦ Social Work (UND)
Therapeutic Services	♦ Addictions Studies Transfer (NHSC) ♦ Dental Assisting/Hygiene (NDSCS) ♦ Health/Medical Assistant (CCCC, DCB) ♦ Massage Therapy (JSHDF, JSHDGF, TSPA, WSC) ♦ Mental Health/Addictions Technician (WSC) ♦ Nursing transfer (BSC, CCCC, DCB, LRSC, NDSCS, SBC, WSC) ♦ Occupational Therapy Assistant (NDSCS) ♦ Practical Nursing (BSC, BJCC, DCB, DSU, NDSCS, NHSC, SBC, TMCC, UTTC, WSC) ♦ Pre-Professional transfer (BSC, DCB, MaSU, NDSCS, TMCC, WSC) ♦ Surgical Technology (BSC)	♦ Addiction Studies (MiSU) ♦ Athletic Training (MiSU, UM, UND) ♦ Dietetics (NDSU, UND) ♦ Music Therapy (UND) ♦ Nursing (DSU, MaSU, MiSU, NDSU, RC, UJ, UM, UND) ♦ Pre-Professional Programs (MaSU, MiSU, UM) ♦ Rehabilitation and Human Services (UND) ♦ Respiratory Care/Therapy (NDSU, UM)	♦ Advanced Nursing Practice (NDSU) ♦ Advanced Athletic Training (NDSU) ♦ Dietetics (NDSU) ♦ Health, Nutrition and Exercise Science (NDSU) ♦ Gerontology (NDSU) ♦ Nursing (NDSU, UM, UND) ♦ Nutrition (UND) ♦ Occupational Therapy (UM, UND) ♦ Physical Therapy (UJ, UM, UND) ♦ Physician Assistant (UND) ♦ Psychological Clinical Science (NDSU) ♦ Respiratory Therapy (UM)