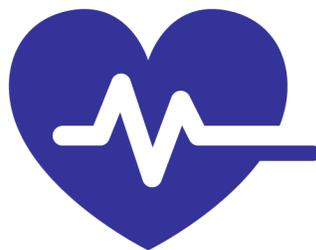




Patient Care Career Pathway

Preparing secondary students for
careers in Patient Care through
Regional Career Pathways



Education Building Blocks

PURPOSE

The purpose of **Educational Building Blocks** is to give secondary educators guidance on the skills and competencies that will prepare their students for careers in direct patient care.

Education Building Blocks are not fully developed curriculum and lessons, **nor are they a replacement for state education standards in Health Science and other content areas**. Rather, they should be used as guidelines that reference the skills and competencies that employers are looking for in a particular industry. These guidelines should inform you as you develop curriculum aligned to state standards.

Education Building Blocks are comprised of four groups of skills:

- *Employability Skills (Appendix A)
- *Digital Literacy Skills (Appendix B)
- *Academic Skills
- *Technical Skills

The combination of these sets of skills comprise the necessary learning to prepare students to be future ready to transition to adulthood prepared for college AND career in patient care.

PROCESS

Groups of employers and employer professional associations (Appendix C) have gathered to develop this document in order to provide secondary educators with a current picture of skill sets desired in a particular high skill, high demand industry sector. Their input has been collated into this guidance document for use in regional career pathway development in secondary settings.

Once defined, the **State-Endorsed Career Pathway outline** was developed showing the career ladder progression, as well as the desired industry-recognized education and credentials needed to advance to different levels in the industry sector.

The State-Endorsed Career Pathway outline is adopted into a **Regional Map** by Regional Councils of higher education and public agency partners to leverage their local resources for implementation. Regional Councils must address barriers to access, as well as connect secondary students directly to available work-based learning experiences, dual credit (high school and college) course opportunities, and local district course offerings. This “ready-made Academic and Career Plan (ACP)” highlights to students the series of activities for those interested in the career sector. Regional Maps, adopted by the local school, can be used with students and families in ACP planning and advising.

Education Building Blocks

SKILL SETS

All Regional Career Pathways require districts to identify a sequence of courses that students will take in order to complete the secondary pathway. The specific courses may vary from district to district. However, every district's sequence of courses should reflect the Education Building Blocks for the pathway. This ensures a consistent approach to the skills and competencies that are being developed while providing local flexibility in delivery.

Employability Skills

Often referred to as "Soft" skills, the source for the Employability Skills Set in the Education Building Blocks is the Wisconsin Department of Public Instruction's (DPI) Employability Skill Standards (Appendix A). Furthermore, because employers are also seeking job candidates that are able to think and act innovatively, it is also recommended to reference the Innovation Learning Outcomes (Appendix A) as part of this learning. Although this skill set was originally created for future entrepreneurs, it provides suggestions to prepare students to become innovation leaders with an entrepreneurial mindset.

Digital Literacy Skills

Today's job market requires some level of digital literacy. Therefore, it is essential to include digital literacy skills in every Education Building Block model. For our purpose, Digital Literacy Skills are defined by DPI's Information and Technology Standards for Digital Literacy (Appendix B).

Academic Skills

Academic Skills are clearly defined by states in standards which act as benchmarks of quality and excellence in education. The Wisconsin Academic Standards (Appendix C) specify what students should know and be able to do in the classroom. Setting high standards enables students, parents, educators, and citizens to know what students should have learned at a given point in time. State standards serve as a model. Locally elected school boards adopt academic standards in each subject to best serve their local community. Educational Building Blocks point to specific groups of academic skills that employer partners have indicated are critical to their industry.

Technical Skills

Often referred to as "Hard" Skills, employers recognize that developing basic occupational skills in secondary settings allows students to apply academic learning in unique and contextualized ways. Employers identify specific technical skills in the Educational Building Blocks that should be developed for anyone interested in pursuing a career in the this area.

"The solution is to pursue initiatives that instill both hard skills and soft skills into the available workforce, not settle for one at the expense of the other."

Matt Kirchner, Lab Midwest

Education Building Blocks

BLOCK 1

Employability Skills

Appendix A

- Employability Skill Standards
- Innovation Learning Outcomes

BLOCK 2

Digital Literacy Skills

Appendix B

- Standards for Information and Technology Literacy

BLOCK 3: ACADEMIC SKILLS

Medical Math

- Demonstrate competency in basic math skills and mathematical conversions as they relate to Healthcare.
 - ◇ Metric system (such as: centi, milli, kilo)
 - ◇ Mathematical (average, ratios, fractions, percentages, addition, subtraction, multiplication, division)
 - ◇ Conversions (height, weight/mass, length, volume, temperature, household measurements)
- Demonstrate the ability to analyze diagrams, charts, graphs, and tables to interpret healthcare results.
- Demonstrate use of the 24-hour clock/military time.
- Demonstrate critical thinking skills and problem solving in applied mathematics using healthcare related scenarios.

Science

Human Anatomy and Physiology

- Identify basic levels of organization of the human body.
- Identify body planes, directional terms, cavities, and quadrants.
- Analyze basic structures and functions of human body systems (skeletal, muscular, integumentary, cardiovascular, lymphatic, respiratory, nervous, special senses, endocrine, digestive, urinary, and reproductive).

Diseases and Disorders

- Describe common diseases and disorders of each body system (such as: cancer, diabetes, dementia, stroke, heart disease, tuberculosis, hepatitis, COPD, kidney disease, arthritis, ulcers).
- Discuss research related to emerging diseases and disorders (such as: autism, VRSA, PTSD, Listeria, seasonal flu).
- Describe biomedical therapies as they relate to the prevention, pathology, and treatment of disease.

Applied Chemistry

- Understand that chemical treatments trigger physiologic reactions.
- Understand the catalyzation process of chemicals and how it applies to medication administration.
- Demonstrate critical thinking skills and problem solving in applied science using healthcare related scenarios.

Education Building Blocks

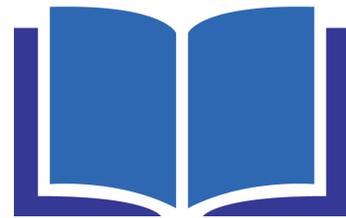
BLOCK 3: ACADEMIC SKILLS

Communication

- Concepts of Effective Communication
 - ◊ Tactful communication
- Written Communication Skills
 - ◊ Attention to detail
- Medical Terminology
- Interpersonal Conversation, Persuasive Speech, Peer to peer feedback

Other Recommended Coursework

- Psychology
- Sociology
- Global & Intercultural Competency
- World Languages



BLOCK 4: TECHNICAL SKILLS– CAREERS

Be prepared for a Healthcare Career.

- Research levels of education, credentialing requirements, and employment trends in health professions.
- Distinguish differences among careers within health science pathways (diagnostic services, therapeutic services, health informatics, support services, or biotechnology research and development).
- Understand and apply teamwork:
 - ◊ Identify roles and responsibilities of individual members as part of the healthcare team.
 - ◊ Participate and work professionally in teams.
- Successful healthcare professionals like to help people, to teach, and to talk. They do well at:
 - Taking initiative
 - Tolerating stressful situations
 - Problem solving and decision making
 - Managing time appropriately
 - Accepting criticism
 - Willing to learn and change
- Successful healthcare professionals possess characteristics such as:
 - Patience
 - Enthusiasm
 - Honesty, integrity and dependability
 - Respectful and aware of professional boundaries
 - Discretion
 - Responsible
 - Empathy

Education Building Blocks

BLOCK 4: TECHNICAL SKILLS- CAREERS

Apply safety principles:

- Identify existing and potential hazards to clients, co-workers, and self.
- Employ safe work practices and follow health and safety policies and procedures to prevent injury and illness.
- Infection Control
- Personal Safety
- Environmental Safety
- Common Safety Hazards
- Emergency Procedures and Protocols

Practice legal and ethical behaviors:

- Identification of legal responsibilities, implications and practices
- Requirements for privacy and confidentiality of Health Information
- Understanding the accepted ethical practices with respect to cultural, social, and ethnic differences within the healthcare environment.
- Understanding the patient experience, providing service excellence

Wisconsin K12 Health Science Academic & Technical Standards:

https://dpi.wi.gov/sites/default/files/imce/cte/pdf/hs_standards.pdf

BLOCK 5: TECHNICAL SKILLS- INDUSTRY

Understand the Healthcare Industry.

- Awareness of current and future trends in the industry
 - See Technical Skills- Emerging Trends in Block 7
- Distinguish between healthcare delivery systems
- Compare healthcare settings
 - Acute
 - Assisted Living
 - Skilled Nursing Care
 - Senior Apartments
 - Hospice
 - Behavioral Health
 - Public Health
 - Ambulatory
 - Home Care
 - Adult Day Services
 - Memory Care
 - Emergency
 - Population Health
- Differentiate between wellness and disease.
- Promote disease prevention and model healthy behaviors.

Education Building Blocks

BLOCK 6: TECHNICAL SKILLS– TECHNOLOGY

Know the tools and technologies in the Healthcare Industry.

- Apply procedures for measuring and recording vital signs including the normal ranges (temperature, pulse, EKG, respirations, blood pressure, pain).
- Obtain training or certification in cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), foreign body airway obstruction (FBAO) and first aid.
- Utilize hands-on and technical tools, such as:
 - ◊ Ambulatory lifts and devices (sit-to-stands, hoists, antifriction sheets, etc.)
 - ◊ Adaptive equipment, wheelchairs, adjustable beds, walkers, canes, braces
- Key Principles of Health Information Systems
 - ◊ Electronic Medication Administration Record software
 - ◊ Epic Systems
 - ◊ MEDITECH software

BLOCK 7: TECHNICAL SKILLS– EMERGING

Governance

- Discuss ongoing impacts of insurance reimbursements, Social Security Administration (SSA), and Medicare to the healthcare business model.
- Describe the need for more youth to be active advocates of healthcare.
- Explain healthcare as a business that must be financially responsible. Productivity is still part of the service.
- Discuss cost of compliance and impact to organizational bottom line.

Global

- Discuss the economic impact on healthcare delivery is driven by payment reimbursement structure.
- Explain how immigration means that new cultures are encountered more frequently.
- Understand global differences in medicine and treatment and delivery.
- Describe the Epidemiological impact of disease emergence and spread with more frequent travel.
- Understand the importance of diversifying the workforce to support patient-centered experience
- Explain why focusing more on patient education is better than patients just doing what is told by professionals.
- Discuss the impact of continuous healthcare reforms on healthcare facility operations.

Education Building Blocks

BLOCK 7: TECHNICAL SKILLS- EMERGING

Regulatory/Legal

- Compare medical and other requirements required to work in healthcare facilities.
- Discuss the impact of publicly released data on outcomes and efficiencies to business operations.
- Discuss the implications of privacy and legal requirements for patient care.
- Understand the impact of personal actions on patients and healthcare facilities.
- Describe the importance of staying current with changing legislation and policy.
- Explain the impact of personal social media use and patient privacy (HIPPA).

Technology

- Develop strong verbal/nonverbal skills while using technology to communicate.
- Patient communication is critical. Do not allow technology (the tool) to supercede the relationship and communication. Technology is linked to the ultimate goal of improved client care. Reimbursement is based on the patient experience.
- Learn about technologies in healthcare but know that not all facilities have the same level of technology.
- Understand that electronic medical records (EMRs) are an important part of technology use.
- Opportunities exist for careers not directly working with patients.
- Use simulation centers to prepare and train to decrease the vulnerability of patients for job shadows.
- Explore the future of telemedicine, virtual visits.
- Note trends to use data to identify and measure impact.

Cultural

- Healthcare work is not isolate and often occurs as part of inter-personal care teams. Critical thinking and teamwork skills are critical.
- Empathy, Customer Service, and Professionalism are important skills as part of healthcare delivery.
- Understanding the importance of holistic coordination in healthcare.
- Being Bilingual is important in some regions; however, preference is for professional interpreters to step in for medical explanations.
- Culturally responsive communication is rising as part of patient care interactions; especially communicating care, compassion, and in behavioral interviewing.
- Cultural competency and sensitivity are more important than language. Self-awareness of bias , misconceptions, and sensitivity to cultural views of healthcare are important in interactions (e.g. Amish, Transgender - personal pronoun & treatment, work ethic, and cultural differences between employees).
- Trauma Informed Caring is now integrated into all areas of healthcare.
- Understand health equity and that different populations may have different needs.

Education Building Blocks

BLOCK 8: TEACHING PATIENT CARE PATHWAY

Health Science concepts are taught at all grade levels by classroom teachers. Elementary and middle school education serve as the foundational background to advanced study in high school health science pathways courses. Connect employer recommendations in this document to [Wisconsin's Health Science Academic and Technical Standards](https://dpi.wi.gov/sites/default/files/imce/cte/pdf/hs_standards.pdf) at: https://dpi.wi.gov/sites/default/files/imce/cte/pdf/hs_standards.pdf. Pages 63-88.

Elementary

- World of work
- Word parts (suffixes and prefixes) for Medical Terminology
- Parts of the body
- Caring for self and others
- Nutrition and wellness



Middle School

- Medical career options and exploration
- Medical words and their meaning
- Body systems
- Following written and oral instructions when performing tasks

At this level, it is essential to expose students to a variety of healthcare careers through the Academic & Career Planning (ACP) process in the school. Experiences could include:

Career Fairs, Guest Speakers, Company Tours

High School

As students move through the Academic and Career Planning (ACP) process into high school, identify those interested in pursuing a career in healthcare. Counselors and advisors should help these students create an ACP plan that is developed from the [published State-Endorsed Regional Career Pathway](#) plan, which includes:

- an appropriate sequence of courses,
- industry recommended certifications,
- related dual credit courses, and
- related work-based learning experiences



Current [Wisconsin Health Science Academic and Technical Standards](#) for high school suggest:

- Planning and preparation for healthcare careers in specific pathways
- Knowledge and use of medical terminology related to healthcare practices
- Structure and function of the human body as it relates to development, disease, and healthy lifestyle
- Education and training to prepare for certification

Suggested courses include:

- Introduction to Health Science Careers
- Anatomy and Physiology
- Certified Nursing Assistant
- Medical Terminology
- Chemistry
- Psychology

Education Building Blocks

APPENDIX A– EMPLOYABILITY SKILLS

Wisconsin Employability Skill Standards

1. Develops positive relationships with others.
2. Communicates effectively with others.
3. Collaborates with others.
4. Maintains composure under pressure.
5. Demonstrates integrity.
6. Performs quality work.
7. Provides quality goods or service (internal and external).
8. Shows initiative and self-direction.
9. Adapts to change.
10. Demonstrates safety and security regulations and practices.
11. Applies job-related technology, information, and media.
12. Sets personal goals for improvement.



Innovation Learning Outcomes

Art of Entrepreneurship– Critical Thinking

1. Information discovery
2. Interpretation and analysis
3. Reasoning
4. Problem Solving/Solution Finding
5. Constructing arguments

Art of Entrepreneurship– Communication

1. Engaging in conversations & discussions
2. Using 21st century communication tools
3. Listening
4. Delivering oral presentations

Art of Entrepreneurship– Collaboration

1. Leadership & initiative
2. Cooperation
3. Openness
4. Responsibility & productivity
5. Use if Tech Tools for collaboration
6. Responsiveness

Art of Entrepreneurship– Creativity

1. Idea generation
2. Idea design & refinement
3. Openness & courage to explore
4. Work creatively with others
5. Creative production & innovation

Attitude of Entrepreneurship

1. Adaptability & openness to change
2. Curiosity & imagination
3. Risk taking & being opportunistic
4. Optimism & persistence; Resilience
5. Focus; Goal-Oriented

Science of Entrepreneurship

1. Who is your customer?
2. What can you do for your customer?
3. How can you acquire your customer?

Student Entrepreneurial Accelerator Program. The Commons, 2016.

Education Building Blocks

APPENDIX B– DIGITAL LITERACY SKILLS

Wisconsin Standards for Information and Technology Literacy

Empowered Learner

1. Students leverage digital tools and strategies to take an active role in choosing and achieving their learning goals.
2. Students understand the fundamental concepts of technology operations and demonstrate the ability to choose, use, and troubleshoot current technologies.
3. Students are able to transfer knowledge to explore emerging technologies.

Digital Citizen

1. Students recognize the rights, responsibilities, and opportunities of living, learning, and working in an interconnected digital world.
2. Students will demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.

Knowledge Constructor

1. Students critically curate a variety of digital tools and diverse resources.
2. - Students produce creative artifacts and make meaningful learning experiences from curated knowledge for themselves and others.

Innovative Designer

1. Students use a variety of digital tools and resources to identify and solve authentic problems using design thinking.
2. Students use a variety of technologies within a design process to create new, useful, and imaginative solutions.

Computational Thinker

1. Students develop and employ strategies for understanding and solving problems.

Creative Communicator

1. Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats, and digital media appropriate to their goals.
2. Students publish and present content customized for their audience(s), purpose, and task.

Global Collaborator

1. Students use digital tools to broaden their perspectives and enrich their learning with culturally responsive practices by collaborating and working effectively with local and global teams.
2. Students use digital tools to connect with a global network of learners and engage with issues that impact local and global communities.



[Complete Standards set](#) by grade band. November 2017.

Education Building Blocks

APPENDIX C – STATE HEALTHCARE PARTNERS

The Wisconsin Department of Public Instruction (DPI) and J.P. Morgan Chase New Skills for Grant project, Pathways Wisconsin, thanks the following partners for contributing to the development of this secondary Career Pathway.

Employer Partners.

Richelle Andrea, Wisconsin Council on Medical Education & Workforce
Jerry Baake, Advocate Aurora Health
William Bartlett, Schmitt Woodland Hills Retirement Community
Kathy Bernaden, Three Pillars Senior Living
Bryan Bessa, Grace Lutheran Communities
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Robert Weisbecker, Ascension Wisconsin
Vicky Wenzel, Evergreen Retirement Community
Bridget Willey, UW Health



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