

September 3, 2024

The Honorable Alejandro Mayorkas
Secretary of Homeland Security
Washington, DC 20528

Secretary Mayorkas,

The American Nurses Association (ANA) and below signatories write to you today regarding the Department of Homeland Security (DHS) Science, Technology, Engineering, and Mathematics (STEM) Designated Degree Program List. To date this list does not include a nursing degree as a STEM degree. Nursing is an important STEM profession that advances health and science across many disciplines. We urge you to promptly add nursing as a STEM degree to the STEM Designated Degree Program List.

In an update to the STEM Designated Degree Program List, DHS explained that a degree is designated as STEM if it includes core STEM disciplines such as “engineering, biological sciences, mathematics and statistics, and physical sciences, or a related field, which generally involves research, innovation, or development of new technologies using engineering, mathematics, computer science, or natural sciences (including physical, biological, and agricultural sciences).”¹ Nursing is an evidence-based scientific practice and according to the American Association of Colleges of Nursing (AACN) a nursing degree requires foundational knowledge of chemistry, biology, microbiology, informatics and technology, statistics, anatomy and physiology, pharmacology, social and behavioral sciences, and developmental lifespan psychology.² This foundational knowledge is also required in many other health profession degrees.

DHS uses the National Center for Education Statistics (NCES) Classification of Instructional Program (CIP) code system for their STEM list definitions. DHS’ list currently contains many health profession degrees, including specialties that nurses practice in such as occupational safety and health.³ DHS includes medical science but not nursing

¹ *Update to the Department of Homeland Security STEM Designated Degree Program List*, 88 Fed. Reg. 44381, July 12, 2023, available at: <https://www.federalregister.gov/documents/2023/07/12/2023-14807/update-to-the-department-of-homeland-security-stem-designated-degree-program-list>.

² American Association of Colleges of Nursing, *The Essentials: Core Competencies for Professional Nursing Education*, April 6, 2021, available at: <https://www.aacnnursing.org/Portals/0/PDFs/Publications/Essentials-2021.pdf>.

³ Department of Homeland Security, DHS STEM Designated Degree Program List, Last updated July 22, 2024, available at: <https://www.ice.gov/doclib/sevis/pdf/stemList2024.pdf>.

science despite the CIP code definitions being equivalent. Medical science is defined as “an undifferentiated clinical science program that prepares clinicians to conduct clinical and translational research in various areas” and nursing science as “a research program that focuses on the study of advanced clinical practices, research methodologies, the administration of complex nursing services, and that prepares nurses to further the progress of nursing research through experimentation and clinical applications.”⁴ Both definitions clearly require a foundation in STEM disciplines for clinical research and nursing science converges with many other traditional STEM fields. Yet nursing science continues to be erroneously excluded.

The Department of Health and Human Services recognizes the importance and rigor of nursing science. The National Institutes of Health (NIH) leads medical research that has increased the length and quality of American lives. NIH researchers found a critical need for nursing research to effectively reach their mission and launched the National Institute of Nursing Research (NINR).⁵ NINR utilizes nurse scientists and nursing research to advance individual health and public health through innovations to health care delivery and addressing underlying causes such as social determinants of health.

Additionally, other federal agencies specifically recognize nursing as a STEM field. The Department of Labor’s Bureau of Labor Statistics’ Standard Occupational Classification details five clinical nursing roles as STEM professions.⁶ The Department of Veterans Affairs’ (VA) STEM Designated Degree Program List includes nearly 70 nursing roles and degree programs.⁷ While DHS and VA both follow the NCES CIP code in their Designated Degree Program Lists, only the VA properly includes the full scope of health professions and clinical sciences including nursing science and practice.

There is ample evidence that nursing practice and nursing science are STEM professions and deserve to be recognized as such. Nurses are innovators, advancing public health, clinical practice, and scientific progress across a myriad of roles. They uphold strict codes of ethical and evidence-based practice utilizing all areas of the STEM field. The below

⁴ Caitlin Dreisbach, et al., *Nursing science as a federally-recognized STEM degree: A call to action for the United States with global implications*, International Journal of Nursing Studies Advances, December 2022, available at: <https://www.sciencedirect.com/science/article/pii/S2666142X22000236>.

⁵ National Institute of Nursing Research, *About NINR*, available at: <https://www.ninr.nih.gov/aboutninr>.

⁶ Bureau of Labor Statistics, *Standard Occupational Classification List*, June 2019, available at: https://www.bls.gov/soc/Attachment_C_STEM_2018.pdf.

⁷ Department of Veterans Affairs, *STEM Designated Degree Program List*, Last updated March 17, 2021, available at: https://benefits.va.gov/gibill/docs/fgib/STEM_Program_List.pdf.

signatories urge DHS to immediately add nursing professions to their STEM Designated Degree Program List.

We appreciate your timely response to this issue. If you have any questions, please contact Tim Nanof, Vice President, Policy and Government Affairs at ANA, tim.nanof@ana.org or (301) 628-5166.

Sincerely,

American Nurses Association
American Association of Critical-Care Nurses
American Association of Neuroscience Nurses (AANN)
American Nurses Association - New York
American Nurses Association Massachusetts, Inc.
American Organization for Nursing Leadership
ANA-Illinois
Association of Rehabilitation Nurses
Delaware Nurses Association
Dermatology Nurses' Association
International Association of Forensic Nurses, Inc.
Minnesota Organization of Registered Nurses (MNORN)
National Association for Clinical Nurse Specialists
National Association of School Nurses
Nebraska Nurses Association
Orthodox Jewish Nurses Association (OJNA)
Pennsylvania State Nurses Association
Tennessee Nurses Association
Texas Nurses Association
The National Association of Nurse Practitioners in Women's Health (NPWH)
Utah Nurses Association
Wyoming Nurses Association