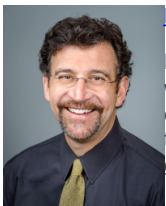

Is Nursing a STEM Profession?



[Keith Carlson](#)

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Certain occupations are steeped in science, technology, engineering, and/or math, and these professional pathways are generally referred to as STEM careers. Although we often refer to [nursing](#) as an art, nursing is deeply based on science and technology, and there is a movement to recognize nursing as a STEM profession officially.

Would having nursing categorized as a STEM career benefit the most trusted profession in the United States and the largest segment of the healthcare workforce?

What is STEM?

According to the [Bureau of Labor Statistics](#) (BLS), STEM workers use their knowledge of science, technology, engineering, or math to try to understand how the world works and to solve problems. Their work often involves the use of computers and other tools.”

As the world becomes more reliant on digital interfaces, artificial intelligence, [informatics](#), robotics, and other technologies, it is crucial to have a workforce willing to help advance the use of these technologies.

To remain competitive with other countries that are quickly advancing on the technology front (e.g., India and China), a push for students to develop and maintain interest in STEM careers has been ongoing for some time.

STEM initiatives by organizations as diverse as the [Boys and Girls Clubs of America](#), the [Department of Defense](#), and the [National Alliance for Partnerships in Equity](#) encourage young people to explore potential STEM-related careers.

The push for universal support of STEM-related educational programs and careers is a 21st-century imperative. As nursing increasingly relies on technology (including informatics and AI), should the profession be widely and officially adopted as a STEM profession?

Nursing and STEM

Many thousands of nurses work in healthcare areas significantly rooted in science and technology. In fact, the vast majority of nurses interact with computer-based technologies every day, and patients obviously benefit from nurses who are educated and experts in the use of numerous technologies.

With the growth of the [nursing informatics](#) specialty, numerous nurses are gaining expertise in the application of machine learning, artificial intelligence, virtual reality, and other emerging technologies, including at the graduate and doctoral levels.

The [Nursing is STEM Coalition](#) was founded in 2023 to advance the cause of nursing being officially recognized as a STEM profession. The coalition is steadily working towards its goals with support from the Yale School of Nursing, the Commission for Nursing Reimbursement, Penn Nursing, Vanderbilt University, and other prestigious institutions.

The coalition lists the following factors informing its work:

- 100,000 nurses left the profession during the COVID-19 pandemic, and an additional 600,000+ plan to leave by 2027
- We are seeing an overall 5.3% decline in nursing school applications
- There is an approximately 200,000 to 400,000 gap in terms of the number of nurses needed for direct patient care of the American population
- Only 19.4% of nurses are from minority backgrounds, although 40% of the overall population identifies as being people of color

With nursing school enrollments in decline but more than [6% nursing job growth](#) projected through 2032, attracting talented and dedicated individuals to the nursing profession could not be more critical, especially in the context of a rapidly aging population in need of nursing care.

The Nursing is STEM Coalition states that categorizing nursing as a STEM profession could have the following impact:

- Expand the supply of talent in nursing and nursing education
- Support universities and communities through STEM-related funding
- Increase nursing's contribution to STEM in scientific research and healthcare informatics

The Nursing is STEM Coalition points out that the U.S. Department of Education invested \$578M in STEM education in 2020, the White House budget request for the National Science Foundation to accelerate STEM education and workforce development was over \$1.4B, and numerous public and private sector organizations have committed to enhancing STEM-related education. And since international workers with a STEM-related educational background can more easily gain work visas to support our labor force, categorizing nursing as STEM could allow us a broader reach for foreign workers to fill crucial vacant nursing positions.

Since nursing students study [pharmacology](#), biology, pathophysiology, microbiology, [informatics](#), statistics, anatomy and physiology, sociology, and developmental psychology, there is no doubt that nursing is deeply science-based. As more nurses gain advanced education and training in robotics, machine learning, AI, and other digital technologies, nursing fits many criteria used for categorizing career pathways as STEM-related.

Officially categorizing nursing as a STEM career would unlock funding for nursing [education](#), expose more young people to nursing as a viable career path, and increase the international nurse workforce able to gain visas to be employed in U.S. healthcare facilities. As diversity, equity, and inclusion initiatives continue to receive attention and funding, this could also help diversify the nursing workforce to represent the population it serves more accurately.

Recognizing nursing as STEM would not detract from the perception of the art of nursing; in fact, it would empower and encourage the most trusted profession, allowing it to grow, expand, diversify, and serve a nation that needs it more than ever.

Source: [Daily Nurse](#)

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