

## How Being a Dance Major Will Help Me Be a Better Doctor

*The overall knowledge you obtain in an Arts Degree can be more beneficial than a Science Degree—both for getting into graduate school and sometimes, for living a happier life!*

by Emily Coan

Why major in dance if I am going to pursue a career in the medical field? What do I gain by being a dance major? Am I wasting my time here? These are questions I asked myself everyday as I plowed through hours of homework and studying while majoring in both dance and biological sciences. Am I just here to keep up my technique? Make friends? To be honest, yes! However, that's only a part of it. This art form and the classes it requires have taught me countless skills, improving my communication, confidence, creativity, exposure, discipline, and teamwork. I NEVER could have learned all of that in my 400-student cutthroat biology lectures. The liberal arts education I have received in college is extremely valuable, and the experiences these past four years will allow me to be the best doctor I can be.

Why study dance in college? Enrolling in a higher-education institution and pursuing a dance program offers well-rounded training. Undergraduate dance programs such as University of California, Irvine offer interdisciplinary perspectives on dance, not just technique classes all day every day, which is what many people may think. You also engage dance on other levels, such as historical, cultural, aesthetic, and scientific. This can lead dancers to pursue various kinds of careers where they will make use of their communication skills, patience, and creativity. These classes gave me a knowledgeable perspective that I can use in everyday life and eventually in the medical field for tough situations and patient care.

Former dancer Dr. Deirdre Mattina pursued a degree in dance while taking pre-med classes at Cornell, and then became a Rockette at Radio City Music Hall after graduating in 1999. Now a cardiologist, she says her earlier career as a Rockette taught her the discipline needed as a doctor, finding that working as a team with synchronized dancing is similar to what she does now with her medical colleagues (Samuel). Former member of the National Ballet of Canada Dr. Paul Winston felt prepared for medical school because of his dance skills, saying “the sheer brute force work [of med school] is easy for me because of the dance background” (Lederman). He found that his undergraduate science degree never taught him enough about how to treat patients or the safe way to tell them about a diagnosis. The communication he uses today when discussing body movement and mobility problems with patients is superior to other doctors because of the detailed knowledge taught by his dance teachers growing up. He feels better able to break down explanations into understandable terms.

The benefits of an arts education can even assist with academic classes when it comes to critical thinking. At Rice University, a survey of 10,000 students, aged 8-14, tested students' reading, math, science, and writing skills and found that students who had an educational arts experience had better academic scores, fewer absences, and fewer disciplinary actions (Bowen and Kisida). These results provided evidence that the arts have positive impacts in benefiting students in terms of social, emotional, and academic outcomes. A further arts education in college can lead to even more improvements in discipline, writing, and compassion for others.

High school seniors, undergraduates, and their parents almost always value a university degree for economic reasons, choosing a major in order to result in a job with a high income. However, majors don't necessarily correlate with matters of employment or lifelong earnings. Many students wonder if they must pursue a pre-med degree in order to get into medical school. In most cases, the answer is no. Recently, admissions counselors at health professional schools are recommending degrees other than biological science in order to produce more well-rounded doctors.

According to a former dean of medical education in 1987, "schools across the country were worried that the string for a straight-A report card and high test scores was actually producing sub-par doctors. Applicants—and consequently, medical students, were too single-minded." He also believed that doctors could not relate to patients and communicate with them unless they had a good grounding in liberal arts (Muller). Traditionally, pre-med majors have to endure hardcore biology, physics, and chemistry weed-out courses, and if they get an A-minus, they won't get into a good medical school. These artificial barriers exclude so many students from attending medical school, and for a discouraging reason. Dr. Paul Winston found that a combination of medical school and ballet school gave him guidance and friends in a way that different from his undergraduate experience, where there was more competitiveness in science lecture halls. Pre-med classes that eliminate A-minus students may be missing out on some qualities they excel at, like communication, confidence, creativity, discipline, and teamwork. Why leave them out?

According to the Association of American Medical Colleges (AAMC), counselors are aware that "medical students can develop essential skills of acquiring, synthesizing, applying, and communicating information through a wide variety of academic disciplines" (Skorton and Altschuler). Students who immerse themselves in their non-science major can distinguish themselves from other candidates and make their application stand out. AAMC U.S. Medical School data for 2021 shows that while 42% of biological sciences majors were accepted into medical school, 48% of humanities majors were accepted. Additionally, the average MCAT score for biological sciences majors was 511.3 while for humanities majors was 512.8

(Shemmassian). It turns out that students who major in humanities (which includes liberal arts like dance) achieve higher admissions rates and MCAT scores in comparison to biological sciences.

You could argue that these are extremely similar statistics for both majors, so why not choose the most common pre-med major, biology? I believe that whatever major you choose, it should be one that is most interesting to you, so it will allow for an achievement at a high academic level. Some admissions counselors give bonus points for taking extra challenges, which is why I believe being a dance major is a great idea. In my case, taking on the challenge of both a biological science and dance degree made me stand out from the pack of optometry school applicants. While my GPA and Optometry Admissions Test (OAT) were only a little above average, I was granted the opportunity to interview with the top schools around the country because of my dance degree. My communication, patience, and creativity has improved tremendously due to the classes I've taken as a dance major, which in turn made me a better applicant and future optometrist than students fully investing their lives in just biology.

	Mon	Tue	Wed	Thu	Fri
7am					
8am		8:00 - 9:20 Lec Chem 51A		8:00 - 9:20 Lec Chem 51A	
9am		9:30 - 10:50 Stu Dance 133A	9:00 - 9:50 Dis Bio Sci Q7		
10am	10:00 - 11:50 Stu Dance 133A		10:00 - 11:50 Stu Dance 133A		10:00 - 11:50 Stu Dance 133A
11am		11:00 - 12:20 Stu Dance 60A		11:00 - 12:20 Stu Dance 60A	
12pm	12:00 - 1:50 Stu Dance 142A		12:00 - 1:50 Stu Dance 142A		12:00 - 1:50 Stu Dance 142A
1pm		1:00 - 4:50 Lab Chem 1LD			
2pm	2:00 - 3:20 Lec Dance 21A		2:00 - 3:20 Lec Dance 21A	2:00 - 2:50 Dis Chem 51A	2:00 - 3:20 Lec Dance 21A
3pm					
4pm	4:00 - 4:50 Lec Bio Sci Q7		4:00 - 4:50 Lec Bio Sci Q7	4:00 - 4:50 Sem Bio Sci 2R	4:00 - 4:50 Lec Bio Sci Q7

My sophomore year fall quarter schedule was jammed packed with classes of both majors, showcasing my ability to take on the rigor of health professional school.

Why dance, as opposed to other humanities majors? There are countless advantages to dance! Dance is shown to reduce stress levels and raise energy levels, which is important for when you are pursuing a career in health. Dance is a great form of aerobic activity and improves balance, posture, and control as one ages. A study published in the New England Journal of Medicine stated that dancing frequently reduced the risk of dementia by 76%, much more than reading, swimming, biking, and doing puzzles (Beris). Dance helps to rewire neural pathways in the brain and practices rapid decision making which is an excellent way to enhance intelligence. Another study at the University of Deusto compared dance movement therapy with stress management and found that dance highly improved stress management and reduced psychological distress in comparison to not dancing (Brauninger). Muscle memory is a huge cognitive and physical aspect to both dance and a variety of fields, which optimizes performance whether that is dancing in a thirty-minute long piece or surgery. Neuronal synapses are better in dancers because dance constantly creates new neural paths when learning movements, something that normally becomes weaker with age. A doctor at the Department of Medicine at Imperial College London explained that the brain's adaptation over years of dance training has allowed for a reduced perception of

dizziness in the cerebral cortex (Crees). This essentially makes dancers resistant to feeling dizzy, improving the function of the cerebellum.

Overall, studying dance improves many brain functions and increases neural connectivity, helping to further one's career path, patience, discipline, creativity, and so much more. I chose to pursue both dance and biological sciences in pursuit of health science graduate school because I wanted to get the best education I could receive at UC Irvine. Why only major in one field when I could major in two? I need the scientific information for my chosen occupation, but having this arts education will ultimately make me a more personable, creative, compassionate, and efficient doctor and make the world a better place.



*Emily Coan will graduate in June 2021 with a B.S. in Biological Sciences and B.A. in Dance. She will be attending optometry school in California starting fall of 2021, with a projected graduation as a Doctor of Optometry in 2025.*

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