National Academy of Sports Medicine® (NASM) Leverages BioDigital to Improve Learning Outcomes

Customer Story
About the Customer

National Academy of Sports Medicine, a leading American fitness certification provider, has helped train over 1,400,000 fitness and wellness professionals. For over three decades, NASM has been using science-based strategies and learning innovations to provide personal trainers, nutrition coaches, and wellness coaches with the right tools and knowledge to change the lives of their clients and advance the industry.

NASM’s focus on looking at the body holistically highlighted the need to transition from using 2D drawings in their course content to BioDigital’s interactive 3D visualization that highlights both motion and anatomy.

Functional Anatomy Needs More Than 2D

A study from Wiley-Blackwell’s Clinical Anatomy journal shows learners have difficulties gaining a comprehensive spatial understanding of anatomy using two-dimensional imaging to learn. It’s hard for students to rotate 2D images in their minds. Plus, the difficulty and complexity of anatomy can make it difficult for professionals to recognize anatomical phenomena in real-life settings. Research shows that using 3D technology in learning results in a higher understanding of factual and spatial anatomy than traditional 2D images.
BioDigital’s 3D Models Prepare Trainers for Real-Life Training

Before NASM introduced its integrated fitness system focused on a holistic understanding of the human body, personal trainers trained people as athletes, which increased the risk of injuries due to a lack of body priming and balance. Traditional methods of learning anatomy were not well aligned with NASM’s roots in functional anatomy— they don’t prepare personal trainers to spot and analyze imbalances by watching a client move, something medical students and personal trainers who learn through 3D visualization technology do with ease.

NASM’s goal is to teach physiology and proper body assessment to its professionals so they can identify, understand, condition, and treat their clients’ bodies effectively. 3D interactive is a more tangible way to visualize the human body and show its complexities in motion and rest, bettering student understanding and ultimately preparing better personal trainers.

NASM engaged BioDigital to develop over 80 customized 3D anatomical models that highlight structures and critical functions, showcasing overactive muscles in the color red and underactive ones in blue. NASM integrated these 3D functional anatomy models into their Certified Personal Trainer (CPT) course. By using BioDigital’s models in their curriculum, aspiring personal trainers can identify areas within the whole body that need improvement and understand how to address any physiological issues.
NASM’s course focuses on physiology, biomechanics, exercise mechanics, and how bodies move and adapt. Aspiring personal trainers often focus on obtaining certification for work but miss the importance of learning fundamental concepts in anatomy. By integrating tailored 3D anatomy models into their training, NASM gives personal trainers a deeper understanding of anatomical structures that support optimal human performance—making them more effective personal trainers before they start training real people.

“BioDigital helps our aspiring personal trainers feel more confident in one of the most challenging domains they have to master—anatomy. And when they feel more confident and perform better, they become better professionals as they implement those assessments to help improve people’s lives.”

Laurie McCartney
President of NASM
The Value of BioDigital’s 3D Interactive Models

Embedding BioDigital’s 3D customized content into NASM’s curriculum drives increased user acquisitions and improves learner satisfaction and engagement. Most importantly, NASM’s personal trainers are better informed about the body’s physiology and motion. With this knowledge, they can guide clients more effectively.

NASM believes that BioDigital 3D models train their students’ eyes to detect under or overactive muscles just by watching a client move. While 2D visuals limit learning to regional snapshots of the body, 3D models in natural, color-coded movement give a more comprehensive picture of what is happening. 3D makes functional anatomy real.

NASM’s learners stand to gain better assessment scores, improved exam results, and the thorough knowledge and training they need to help people. In addition, learning from lifelike 3D models provides them with an unparalleled perspective on the human body. Connecting visual learning with the accompanying curriculum builds even more confidence in these aspiring professionals.

“BioDigital helps our learners score better and feel better about their abilities. They are more likely to implement what they’ve learned in the real world because they feel confident.”

Steve Myers
Product Manager, AFAA, NASM