

# DRIVING STUDENT SUCCESS WITH TEACHING AND ASSESSMENT

A Conversation with the  
Joan C. Edwards School of Medicine  
at Marshall University





We are dedicated to providing top-notch medical education and postgraduate training programs to foster a skilled physician workforce to serve the healthcare needs of our communities. We aim to address the unique needs of West Virginia and Central Appalachia, and the learning and training challenges that our students face. We are committed to developing centers of excellence promoting diversity and inclusivity and fostering an environment of life-long learning.

**Robert Nance, MBA**

## OVERCOMING CHALLENGES

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The Joan C. Edwards School of Medicine at Marshall University has a mission — to train their students to meet the healthcare needs of underserved rural areas. Many students come from these socio-economically disadvantaged communities and are first-generation higher education learners, a reflection of the unique demographic nature of West Virginia. This presented a unique set of challenges.

### PROFICIENCY

Some incoming students aren't at the same level of academic preparedness as those entering other medical schools but must attain the same proficiency levels.

### VALIDITY OF IN-HOUSE ASSESSMENTS

Though students performed well on in-house assessments, some struggled to pass standardized examinations such as the USMLE® Step 1.

### ASSESSMENT PROTOCOL

Students often relied on rote memorization, rather than problem solving or critical thinking skills, when taking assessments.

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## Redesigning the curriculum

Following leading medical educators and in alignment with recently published research, the Curriculum Committee made four significant changes to address the challenges the school was facing.

- **Structural.** Moving from a traditional 2x2 curriculum to a more vertically integrated curriculum with a shorter pre-clerkship and a longer clinical phase gave students more chances to practice.
- **Pedagogical.** A switch from primarily lecture-based learning toward more self-directed and team-based learning fostered problem solving and critical thinking skills.
- **Assessment and evaluation.** Instead of looking at assessments in silos, Marshall began viewing them across a continuum, with regular administrations that provided multiple data points on which to base support and curriculum decisions.
- **Student support.** Marshall developed a robust support program that provides academic and career advising throughout the learning journey, including a system for early identification and support of at-risk students.

# A PROGRAM OF ASSESSMENT FOR LEARNING

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## Frequent feedback

Beginning in the first year of medical school, students are exposed to very low-stakes and formative feedback assessments daily. This is complemented by both medium-stakes, in-house assessments and NBME® assessments. Regular assessment administration continues through the clerkship phase, and every data point feeds back into the growth and academic development of the student.

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## Revision of in-house assessments

The Assessment Evaluation Committee conducts ongoing reviews of all assessment items to ensure each one promotes problem solving and critical thinking instead of just recall.

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## The use of NBME assessments

### Subject Exams

Marshall uses the Comprehensive Basic Science Exam (CBSE) as a promotion examination at the end of the pre-clerkship phase and the Comprehensive Clinical Science Exam (CCSE) at the end of the clerkship curriculum as a precursor to taking the USMLE® Step 2. They also use the Clinical Science Subject Exams throughout the clerkship years.

### Customized Assessment Services (CAS)

During the pre-clerkship years, Marshall follows their in-house medium stakes assessments with a customized assessment from NBME. This allows them to create an exam tailored to their curriculum, while also giving students practice with USMLE-style questions.

### Self-Assessment Services

Marshall offers NBME Self-Assessment (Clinical Mastery Series) vouchers for each clerkship — with an average of two vouchers per student and more available on a case-by-case basis — to help students meet and exceed their goals with NBME-style exams. They also offer vouchers at least once before each Comprehensive Subject Exam.



## A DATA-DRIVEN STUDENT SUPPORT SYSTEM

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Marshall's robust academic advising program begins on day one and follows the student throughout the curriculum. Student wellness and support initiatives include:

- Access to real-time assessment performance data so students and their advisors know where they stand and how they're progressing
- Early identification of at-risk students coupled with immediate intervention and assistance, including monthly meetings
- Extensive peer-to-peer tutoring system
- Access to a life coach
- Early emphasis on academic advising, transitioning to more career advising as they progress in their studies

## THE OUTCOME

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“We are family” is not a slogan for us, it is a way of life. And we don't leave anybody behind.

**Nitin Puri, M.D., PhD**

Marshall has embraced the challenges associated with their mission. They don't treat their first-generation students like outliers, and they don't single them out. Instead, the school has designed a system for their students, to offer them the support they need to thrive and to ensure that they are on an equal footing with their peers.

As a result of the new system of assessment and support that they've put in place, Marshall has seen significant changes.

- Their USMLE Step 1 pass rate has been above the national average for the last two years.
- Students are faring far better with the academic component of the clinical environment than they previously did.
- Remediation and repeats of clerkship rotations have drastically reduced.

Marshall continues to evaluate and revise their curriculum each year in response to ongoing learnings from data and student reports. Their long-term goal is true competency-based medical education, where students can graduate based on their competencies instead of having to complete a standard 4-year program.

**Watch the full recording to learn more about Marshall  
and how they're helping their students succeed.**

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