

Mayo Clinic and Arizona State University Alliance for Health Care

Dual-degree program: MD/MS

Biomedical Diagnostics



Training physicians of the future in the intellectual disciplines and practices of medicine and diagnostics

Physicians of the future are not only doctors, but also economists, administrators and problem solvers working toward the common goal of improving patient care. Answering the nation's need to transform medical school education, Mayo Clinic Alix School of Medicine and Arizona State University's International School of Biomedical Diagnostics have created the new MD/MS dual-degree program.

The International School of Biomedical Diagnostics is a unique and innovative initiative in the exciting and fast-growing field of diagnostics. ASU, along with its academic partner Dublin City University and other industry partners, is creating a critical center of biomedical knowledge and innovation, committed to stimulating economic growth and improving the quality of life globally. Higher education is being transformed globally through new collaborations between public and private sectors. At the intersection of business and health care communities, the school's mission is to:

- Educate the next generation of health care executives to understand, appreciate and better utilize diagnostics in clinical medicine and scientific research
- Train students to be active, impactful and senior members of the health care and life science communities through course work and exposure to industry experts
- Positively impact the advancement of preventive health care and personalized medicine while lowering health care costs

Curriculum overview

The Master of Science in biomedical diagnostics degree is designed to give a broad perspective of the field with a focus on applied research and best practices in four central areas related to diagnostics. This will enable graduates to think critically and globally on all major aspects of biomedical diagnostics.

"The glory of medicine is that it is constantly moving forward, that there is always more to learn."

— William J. Mayo, M.D.

These four core curricular areas provide the foundation for the degree program:

1. Technology of diagnostics

Explores instrument and assay development, biomedical engineering and diagnostic product development

2. Science of diagnostics

Focuses on underlying bioinformatics and biostatistical analysis, clinical trial design, regulatory systems and the technology behind imaging, pathology, molecular and sequencing technology

3. Business of diagnostics

Encompasses public and private health care finance and reimbursement, along with personalized health care, and includes the companion diagnostics

4. Application of diagnostics

Taught through case studies on critical diagnostics-related issues, including intellectual property, bioethics, clinical utility, intellectual property and smart systems, as well as modality integration and systems analysis companion diagnostics



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Degree requirements

The MS degree requires 30 total credit hours, 27 of which will be taken at ASU, with the remaining three credits for an applied project that is part of Mayo Clinic Alix School of Medicine MD requirements.

Admission

Dual-degree program students will apply to ASU Graduate Admission Services for admission to the online MS in biomedical diagnostics degree during the spring semester of their second year Mayo Clinic Alix School of Medicine. If admitted, they will take time off from their medical course of study and begin the MS program in the fall of their third year in the dual-degree program. Students will return to complete the remainder of their program of study toward their MD degree in year four.

All students are required to meet general university admission requirements. No GRE entrance exam is required for admission to the MS in biomedical diagnostics.

Tuition

Program fees for Mayo Clinic Alix School of Medicine students are waived.

**#1 in the U.S.
for innovation**

ASU ahead of MIT and Stanford

—U.S. News & World Report, 6 years, 2016–2021



FAQs

Why should I pursue the dual degree in biomedical diagnostics?

Technological innovation continues to increase the importance of diagnostics in medicine, including prevention, etiology and therapy. Molecular (including multiple-omics) and imaging diagnostics are readily accelerating and impacting health and health care extensively.

How does the program work?

Students will complete the first two years with Mayo Clinic Alix School of Medicine. The third year of study in the dual MD/MS degree will be focused on biomedical diagnostics. The MS is offered entirely online in a 7 1/2-week format through state-of-the-art delivery. Upon completion of the biomedical diagnostics course work, students will return to their MD studies to complete both degrees.

Whom should I contact for information?

All Mayo Clinic students must indicate their intention to apply for this program to:

Victoria (Vicki) Hochstetler, MEd
Operations Manager, Mayo Clinic Graduate School of Biomedical Sciences and Mayo Clinic School of Health Sciences
Hochstetler.Victoria@mayo.edu

Alan Rawls, PhD
Executive Director of Clinical Partnerships Office of the Provost Arizona State University
Alan.Rawls@asu.edu
(480) 965-5682