

UNIVERSITY of WASHINGTON  
DEPARTMENT OF BIOENGINEERING

# MASTER of APPLIED BIOENGINEERING

Bioengineers in Scrubs  
Inventing the Future of Medicine



## ENGINEER SOLUTIONS TO TODAY'S CLINICAL NEEDS.

IMPROVE THE QUALITY OF LIFE OF HEALTH CARE PROVIDERS,  
PATIENTS AND THEIR CARE GIVERS THROUGH BIOENGINEERING.

The Master of Applied Bioengineering (MAB) is an innovative degree that combines an immersive Clinical Preceptorship with engineering design and entrepreneurship education to creatively address unmet clinical and healthcare opportunities.

### The Four Parts of MAB

#### PRODUCT DEVELOPMENT & DESIGN THINKING

DESIGN SERIES (BIOEN 540-544)

#### ENTREPRENEURSHIP

INTRO TO TECHNOLOGY COMMERCIALIZATION  
(BIOEN 504)  
or BIOMEDICAL ENTREPRENEURSHIP  
(BIOEN 505)  
BUSINESS PRACTICUM (ENTRE 540)  
HOLLOMAN HEALTH INNOVATION CHALLENGE  
INDUSTRY INTERNSHIP (BIOEN 601)

#### FUNDAMENTALS of BIOENGINEERING

QUANTITATIVE PHYSIOLOGY (BIOEN 536)

BIOENGINEERING SEMINARS  
(BIOEN 509 or 511)

#### TECHNICAL FOCUS

BIOMEDICAL IMAGING

MOLECULAR BIOENGINEERING &  
BIOMATERIALS

REGENERATIVE MEDICINE & BIOMATERIALS

DESIGN-YOUR-OWN

**TAKE YOUR NEXT STEP  
FORWARD.**

**APPLY TODAY.**

**Application Deadline: January 31**

**Program starts late August.**

Strong candidates hold a B.S. or higher in an engineering, biomedical or other interdisciplinary field.

International students are encouraged to apply.

GRE scores are optional

MAB program is financial aid and I-20 eligible

Visit us online to learn more:

<https://bioe.uw.edu/>

Master-Applied-Bioengineering

## MAB PROGRAM DETAILS

The Master of Applied Bioengineering (MAB) is a one-year project-based daytime degree program in bioengineering. Students enroll full-time in this non-thesis graduate degree program.

MAB immerses students in healthcare settings through its Clinical Preceptorship program which partners with world-leading physicians and health care providers at UW Medical Center, Harborview, Seattle Children's, UW School of Dentistry and more. MAB curriculum is structured so that students identify unmet clinical needs, research these needs, identify suitable projects, design-build-test a solution and prepare a business plan. The sequence of courses is followed by a self-selected industry internship or a summer capstone project.

Students will:

- Identify real-world health care needs alongside UW Medicine physicians
- Apply design thinking principles to innovate solutions to these needs
- Learn about business issues specific to biomedical technology development
- Gain technical expertise in medical imaging, biomaterials, molecular bioengineering, or regenerative medicine
- Complete a full-time industry internship

### Autumn Quarter 🧑🏻‍🔬

Clinical Preceptorship (BIOEN 540, 4 credits)  
Design Skills I: Identify Clinical Needs (BIOEN 541, 3 credits)  
Introduction to Technology Commercialization (BIOEN 504, 4 credits)  
Quantitative Physiology (BIOEN 536, 3 credits)  
Bioengineering Technical Electives or School of Medicine courses (3-4 credits)

### Winter Quarter 🏠

Design Skills II: Design Proposal and Prototype (BIOEN 542, 4 credits)  
Business Practicum (ENTRE 540, 2 credits)  
Participation in the Holloman Health Innovation Challenge  
Bioengineering Seminar (BIOEN 509 or BIOEN 511, 1 credits)  
Bioengineering Technical Electives or School of Medicine courses (8-10 credits)

### Spring Quarter 🌱

Design Skills III: Testing and Verification (BIOEN 543, 4 credits)  
Bioengineering Seminar (BIOEN 509 or BIOEN 511, 1 credits)  
Bioengineering Technical Electives or School of Medicine courses (9-12 credits)

### Summer Quarter 🧑🏻‍🔬

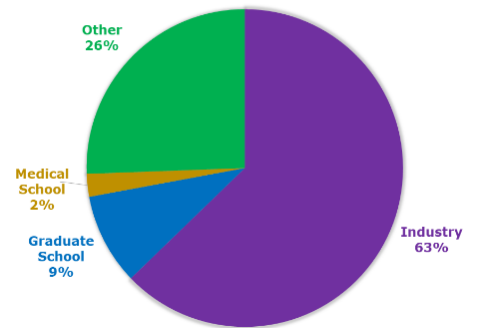
Design Skills IV: Advanced Capstone Design Project (BIOEN 544, 2 credits)  
or  
Industry Internship (BIOEN 601, 2 credits)

## POST MAB PLACEMENTS

MAB is writing-intensive and professional skills such as graphical communication, resumes, interviewing, networking and job search are integral to the program.

MAB students graduate prepared to enter the workforce, with the ability to respond to the market-based demands of industry and health care.

### POST MAB PLACEMENT



Earn your degree in ONE year full time

### Clinical Preceptorship

- > Over 40 partner physicians at UWMC, Harborview, Seattle Children's Hospital, UW School of Dentistry, and we're always adding
- > During Clinical Preceptorship, students have the opportunity to observe surgeries, clinical procedures, clinic visits, medical research laboratories, imaging centers and many more
- > Students spend at least 40 hrs observing health care providers

Contact us: [bioe.uw.edu/Master-Applied-Bioengineering](https://bioe.uw.edu/Master-Applied-Bioengineering)

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