
PURDUE
UNIVERSITY

BIOMEDICAL ENGINEERS PLAY **KEY ROLES** IN **MEDICAL PRODUCT AND SERVICE COMPANIES**

MORE THAN **700 COMPANIES IN INDIANA** ALONE

LARGER SECTORS OF THIS INDUSTRY -- INCLUDING BIOTECHNOLOGY, PHARMACEUTICAL, MEDICAL DEVICE, AND ORTHOPEDIC COMPANIES

HAVE TOTAL SALES EXCEEDING $5.5 BILLION AND **EMPLOY OVER 40,000 WORKERS**

THE NEED TO EMPLOY BIOMEDICAL ENGINEERS IS PROJECTED TO GROW 23% FROM 2014 TO 2024 ACCORDING TO STATISTICS WITH THE US DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS.

THIS JOB OUTLOOK IS A MUCH FASTER PROJECTED GROWTH RATE THAN THE AVERAGE FOR ALL OCCUPATIONS.

THE BUREAU STATES THAT "GROWING TECHNOLOGY AND ITS APPLICATION TO MEDICAL EQUIPMENT AND DEVICES, ALONG WITH AN AGING POPULATION, WILL INCREASE DEMAND FOR THE WORK OF BIOMEDICAL ENGINEERS."

MS BME – Biomedical Device Development

- TAKE A DEEPER DIVE INTO THE CONTENT, CONCEPTS AND PROFESSIONAL SKILLS THAT WILL HELP YOU BECOME A PIVOTAL PLAYER IN THE INDUSTRY.
- INCREASE YOUR TECHNICAL DEPTH AND UNDERSTANDING OF REGULATORY SCIENCE.
- FURTHER DEVELOP YOUR COMMUNICATION AND LEADERSHIP SKILLS.

PREPARE FOR YOUR NEXT MOVE

MS BME – Biomedical Device Development

A professional master's degree

TWO ON-CAMPUS DEGREE OPTIONS:

- ACCELERATED 1-YEAR BIOMEDICAL DEVICE DESIGN, MS BME
- BIOMEDICAL DEVICE DESIGN WITH INDUSTRY IMMERSION-18 MONTH TO 2-YEAR PROGRAM

*OPEN TO GRADUATES FROM **ANY SCIENCE AND ENGINEERING DISCIPLINE.**

YOUR MASTER'S STUDIES:

DETAILS FOR THE 1-YEAR AND 2-YEAR PROGRAMS

WELDON SCHOOL OF BIOMEDICAL ENGINEERING

PROGRAM AT- A- GLANCE

PURDUE ENGINEERING

Biomedical Engineering (6 cr.)

Quantitative (3 cr.)

Life Science (3 cr.)

Professional Skills and Regulatory Affairs (12 cr.)

Electives for Specialization (6 cr.)

PROGRAM AT- A- GLANCE 1-YEAR OPTION

BIOMEDICAL DEVICE DEVELOPMENT

TYPICAL PLAN OF STUDY

Semester 1 / Fall / On Campus	12 credits of coursework
Semester 2 / Spring/ On Campus	12 credits of coursework
Semester 3 / Summer / On Campus	6 credits of coursework

30 credits of study = Master of Science in Biomedical Engineering with a concentration in Biomedical Device Development

PROGRAM AT- A- GLANCE 2-YEAR OPTION

Biomedical Device Development w/ Industry Immersion Typical Plan of Study

Semester 1 / Fall / On Campus	9 credits of coursework
Semester 2 / Spring	9 credits of coursework
Semester 3 / Summer / Off Campus	Internship + 3 credits of coursework
Semester 4 / Fall / Off Campus	Internship + 3 credits of coursework
Semester 5 / Spring / On Campus	6 credits of coursework

AT THE END OF THE PROGRAM, YOU WOULD HAVE A MASTER OF SCIENCE IN BIOMEDICAL ENGINEERING, ADDITIONAL TECHNICAL DEPTH, A GRADUATE-LEVEL EXPOSURE TO THE BIOMEDICAL INDUSTRY, AND UP TO ONE YEAR OF WORK EXPERIENCE.

Learning Impacts

- A functional understanding of the design and development of biomedical products and processes at the systems level
- A practical understanding of the processes to ensure quality, testing, and approval of biomedical products
- A more seasoned ability to make well-reasoned, ethical-, and socially-responsible engineering decisions in a variety of scenarios
- An experienced skill-set of communicating clearly, negotiating effectively, and leading strategically while contributing to biomedical engineering projects

Company Feedback

“We consistently need engineers who have not only the foundational skills and knowledge of undergraduate engineering, but who have also furthered their education to develop skills in project management, organizational leadership, and regulatory requirements that govern most of the medical industry”

Mark Bleyer, *former President, CEO, Cook Biotech*

Placement Success

Master's Internship, Co-Op, Full-Time

- Abbott Vascular
- Apple
- BD (Bard)
- Biosense Webster
- Boston Scientific
- Con Med
- Cook Biotech
- Cook Research
- Deloitte
- Depuy Synthes
- Eli Lilly
- Lutonix
- Ethicon
- Medical Murray
- Merck
- Nevro
- Philips
- Project Farma
- Roche Diagnostics
- Smith & Nephew
- Stryker
- Thermo Fisher
- Zimmer Biomet

PURDUE UNIVERSITY

College of Engineering

WELDON SCHOOL OF BIOMEDICAL ENGINEERING

HOW TO APPLY

PURDUE ENGINEERING

Accepting applications for the Fall 2020 term.

Apply by June 1st

APPLYING TO GRADUATE SCHOOL

ALL DEGREE-SEEKING APPLICATIONS MUST INCLUDE:

- COMPLETED ELECTRONIC APPLICATION
- APPLICATION FEE PAYMENT
- COPY OF OFFICIAL TRANSCRIPTS FROM ALL INSTITUTIONS ATTENDED
- LETTERS OF RECOMMENDATION
- STATEMENT OF PURPOSE
- **GRE EXAM WAIVE FOR CURRENT PURDUE STUDENTS**

TOTAL COST ESTIMATES

Biomedical Device Development
1-year Option

Indiana Resident	Non-Resident
$13, 780	**$37,283**

Biomedical Device Development with Industry Immersion
2-year Option

Indiana Resident	Non-Resident
$21,685	**$41,533**

*International graduate students pay an additional $80 International fee per semester.

QUESTIONS?

Enrollment Data

Fall Census, 2019-2020

- Avg. GPA: 3.56
- Enrolled: 8
- International: 3 (higher in past years)
- Women: 4
- Men: 4
- Industry Immersion: 4
- Total Current Enrollment: 13
- Fall 2020: Currently 20 students

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