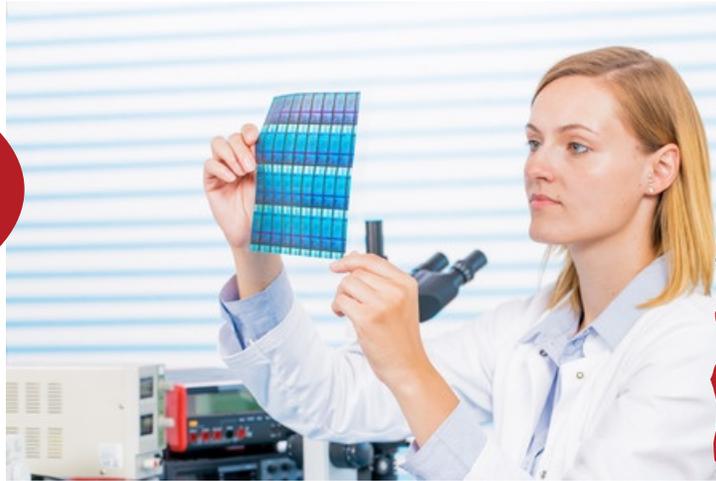


## Target Group:



## Occupational Profile

# Biomedical Engineer

Standard Occupational Code 17-2031.00

## What They Do

Apply knowledge of engineering, biology, and biomechanical principles to the design, development, and evaluation of biological and health systems and products, such as artificial organs, prostheses, instrumentation, medical information systems, and health management and care delivery systems.

## Is This For You?

**Work Interests** are described in the following categories (compatible with Holland's Model). People who tend to succeed in this career are:

**Investigative** – Interested in science and logic. They like to analyze, evaluate, and solve problems, and enjoy learning and understanding the causes of events.

**Realistic** – Enjoy work activities that involve practical, hands-on problems and solutions.

**Work Values** are aspects of work that are satisfying to you. The following work values are generally associated with this career:

**Working Conditions** – Offer job security and good working conditions.

**Achievement** – Results oriented occupation that allows employees to use their strongest abilities, giving them a feeling of accomplishment.

**Independence** – Allow employees to work on their own and make decisions.

**Abilities** reflect a person's aptitude to acquire skills and knowledge. The following abilities are important for success in the career:

- Deductive Reasoning
- Inductive Reasoning
- Mathematical Reasoning
- Problem Sensitivity
- Written and Oral Comprehension
- Written and Oral Expression

## Skills You Need

- Critical Thinking
- Science
- Mathematics
- Systems Analysis
- Judgement and Decision Making
- Operations Analysis
- Complex Problem Solving
- Active Listening

## Education & Training

Biomedical Engineers need **at least a bachelor's degree in biomedical engineering or a related program**. Biomedical engineers are required to be licensed by the South Dakota Board of Technical Professions.

## Employment & Wages\*

2012 Workers	2022 Workers	Numeric Change	Percent Change	Median Annual Wage
19,400	24,600	5,200	26.8%	\$86,960

## Additional References

### Career OneStop

[www.careeronestop.org](http://www.careeronestop.org)

### O\*Net Online

[online.onetcenter.org](http://online.onetcenter.org)

### \* Bureau of Labor Statistics (National Data)

[www.bls.gov](http://www.bls.gov)

## Requirements for the National Career Readiness Certificate (NCRC)

	Median Skill Level
Applied Mathematics	7
Reading for Information	7
Locating Information	5

## Where They Work

Industries which employ the largest number of biomedical engineers are:

- Manufacturing Companies
- Universities
- Hospitals
- Research Facilities of Companies and Educational and Medical Institutions
- Government Regulatory Agencies

Visit [www.sdjobs.org/lmic/occpfiles](http://www.sdjobs.org/lmic/occpfiles) to obtain the most recent workforce data and trends. Also available are explanations of the terms used for work interests, work values, abilities, and skills sections of occupational profiles.