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 working with ideas, and require an extensive amount of thinking. Involves searching for facts and figuring out our problems mentally.
- **Realistic** – Involve work activities that include 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

• Active Listening – Listening to others, not interrupting, and asking good questions.
• Complex Problem Solving – Noticing a problem and figuring out the best way to solve it.
• Writing – Writing things for co-workers or customers.
• Speaking – Talking to others.
• Reading Comprehension – Reading work-related information.
• Critical Thinking – Thinking about the pros and cons of difference ways to solve a problem.
• Science – Using scientific rules and strategies to solve problems.

US Employment & Wages

<table>
<thead>
<tr>
<th></th>
<th>2016 Workers</th>
<th>2026 Workers</th>
<th>Numeric Change</th>
<th>Percent Change</th>
<th>Median Annual Wage</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>132,500</td>
<td>141,000</td>
<td>8,500</td>
<td>6%</td>
<td>$97,250</td>
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</tbody>
</table>

Activities: what you might do in a day

• Maintain operational records or records systems.
• Update technical knowledge.
• Develop technical methods or processes.
• Prepare technical reports for internal use.
• Prepare contracts, disclosures, or applications.
• Research engineering aspects of biological or chemical processes.
• Develop operational methods or processes that use green materials or emphasize sustainability.

Additional References

Career OneStop
www.careeronestop.org

O*Net Online
online.onetcenter.org

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