The biotechnology industry is expansive and includes human health, agriculture and food, biofuels, environmental protection, forensics and security, industrial instrumentation and suppliers, and scientific research. Biotechnology industries make many different products and five of the most common job areas are: research and development; manufacturing and services; quality and regulatory affairs; sales and technical support; and administration and management. A degree in science is a common path for those interested in biotechnology but there is a need for professionals from other disciplines as well. Most positions in biotech require a strong background in life science, chemistry, computers science and/or business.

Sample of Occupations in Biotechnology (California E.D.D. Labor Market Information Division April 2013)

*occupations may require additional education and/or training

<table>
<thead>
<tr>
<th>Animal Caretaker</th>
<th>Documentation</th>
<th>Marketing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal Technician</td>
<td>Coordinator</td>
<td>Medical and Clinical</td>
</tr>
<tr>
<td>Biochemical Engineers</td>
<td>Electrical Engineers</td>
<td>Laboratory Technicians</td>
</tr>
<tr>
<td>Biochemists and Biophysicist*</td>
<td>Environmental Scientists</td>
<td>Medical and Clinical</td>
</tr>
<tr>
<td>Biotechnology Specialist</td>
<td>Epidemiologists*</td>
<td>Laboratory Technologists</td>
</tr>
<tr>
<td>Biologists</td>
<td>Forensic DNA Analysts</td>
<td>Medical Scientists*</td>
</tr>
<tr>
<td>Biostatistician</td>
<td>Health and Safety</td>
<td>Microbiologists</td>
</tr>
<tr>
<td>Biomedical Engineers</td>
<td>Specialists</td>
<td>Natural Science Managers</td>
</tr>
<tr>
<td>Chemical Engineers</td>
<td>Human Resources</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Chemical Technicians*</td>
<td>Laboratory Assistant</td>
<td>Sales Representative</td>
</tr>
<tr>
<td>Chemists</td>
<td>Laboratory Technician</td>
<td>Statisticians*</td>
</tr>
<tr>
<td>Clinical Research Associate</td>
<td>Management Analysts</td>
<td>Technical Service</td>
</tr>
<tr>
<td>Compliance Officers</td>
<td>Manufacturing Assistant</td>
<td>Representative</td>
</tr>
<tr>
<td></td>
<td>Market Research Analysts</td>
<td>Technical Writers</td>
</tr>
</tbody>
</table>

To do:
☐ Use career related websites such as O’NET OnLine onetonline.org and the Bureau of Labor Statistics Occupational Outlook Handbook bls.gov/ooh to gather more information about occupations of interest. Type the name of the position in the occupation keyword search to learn specifics including job duties, skills required, job outlook and average pay.

Sample of Skills Needed in Biotechnology

<table>
<thead>
<tr>
<th>Active Listening</th>
<th>Laboratory procedures</th>
<th>Read and follow instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Learning</td>
<td>Manual dexterity</td>
<td>Record keeping skills</td>
</tr>
<tr>
<td>Analyze/evaluate data</td>
<td>Math skills</td>
<td>Research</td>
</tr>
<tr>
<td>Animal care skills</td>
<td>Monitoring</td>
<td>Teamwork skills</td>
</tr>
<tr>
<td>Computer skills</td>
<td>Observation skills</td>
<td>Technical writing skills</td>
</tr>
<tr>
<td>Customer service skills</td>
<td>Organized</td>
<td>Time management</td>
</tr>
<tr>
<td>Detail oriented</td>
<td>Persuasion</td>
<td>Understand technical information</td>
</tr>
<tr>
<td>Judgment and decision making</td>
<td>Plant care skills</td>
<td>Work independently</td>
</tr>
<tr>
<td>Knowledge of life sciences/chemistry</td>
<td>Problem solving/critical thinking</td>
<td>Written and oral communication</td>
</tr>
</tbody>
</table>
**Sacramento Region Biotech Companies** *(Book of Lists 2012, Sacramento Business Journal)*

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
<th>Company Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antibodies Incorporated</td>
<td>Davis</td>
<td>antibodiesinc.com</td>
</tr>
<tr>
<td>California Seed and Plant Labs</td>
<td>Elverta</td>
<td>calspl.com</td>
</tr>
<tr>
<td>Davis Sequencing</td>
<td>Davis</td>
<td>davissequencing.com</td>
</tr>
<tr>
<td>Gemini Bio-Products</td>
<td>West Sacramento</td>
<td>gembio.com</td>
</tr>
<tr>
<td>Hygeila Biological Laboratories</td>
<td>Woodland</td>
<td>hygieialabs.com</td>
</tr>
<tr>
<td>Idexx Laboratories</td>
<td>West Sacramento</td>
<td>idexx.com</td>
</tr>
<tr>
<td>The Jackson Laboratory- West</td>
<td>Sacramento</td>
<td>jax.org</td>
</tr>
<tr>
<td>J.R. Scientific Inc.</td>
<td>Woodland</td>
<td>jrscientific.com</td>
</tr>
<tr>
<td>Marrone Bio Innovations</td>
<td>Davis</td>
<td>marronebioinnovations.com</td>
</tr>
<tr>
<td>Miltenyi Biotec</td>
<td>Auburn</td>
<td>miltenyibiotec.com</td>
</tr>
<tr>
<td>Monsanto, Vegetable Seed Division</td>
<td>Woodland</td>
<td>monsantovegetableseeds.com</td>
</tr>
<tr>
<td>Novozymes</td>
<td>Davis</td>
<td>novozymes.com</td>
</tr>
<tr>
<td>Nunhems USA Inc.</td>
<td>Davis</td>
<td>nunhemsusa.com</td>
</tr>
</tbody>
</table>

**To do:**
- Visit the company websites to learn more about the work that they do and career opportunities with the organization. Key information can be found on various pages of their website including “About Us”, “Products and Services”, and “Careers”.
- Research additional biotech companies by geographic location by using Google Maps, [maps.google.com](http://maps.google.com). Type the following in the Google search bar: biotech near _________ (e.g. Davis, CA)

**Biotechnology Career Related Websites**

Use the following websites to conduct further research about the biotechnology industry and career opportunities in the field.

- **Biotechnology Industry Organization, [bio.org](http://bio.org)**, is a national industry association for the biotechnology field. The organization’s website contains comprehensive industry information including areas of work and conferences and event.
  - Click on the member services tab, and then the membership directory to view a list of companies and links to their website.
  - View the resource page and find the career center page to search active biotech jobs.

- **Bio-Link National Center, [bio-link.org](http://bio-link.org)**, is an informative website that includes information on educational programs, industry information and biotech companies.
  - Click on employers to search biotech employers by state, you will find thousands of biotech companies in the state of California
  - View the career site to learn about the different careers in biotech, the salary and the job duties of different positions. To find this page, click on resources and then biotech careers.

**Specialized Websites with Job Listings**

The websites below are industry related sites that have online job boards where job seekers may search for science, technology and health related positions.

- **BioSpace, [biospace.com](http://biospace.com)**
- **NewScientist Jobs, [newscientistjobs.com](http://newscientistjobs.com)**
- **MedZilla, [medzilla.com](http://medzilla.com)**

Special thank you to our company representative Novozymes!