**TOXICOLOGY**

**HISTORY**
- Identify and classify chemicals.
- Develop new chemicals.
- Conduct research.

**JOB RESPONSIBILITIES**
- Cooperate with other scientists.
- Compose reports on findings.
- Observe toxic materials and radiation.
- Identify man-made or natural toxic substances.
- Be able to conduct field experiments.
- Conduct data statistically.
- Create safety profiles.
- Advise on safety protocols.

**BENEFITS AND CHALLENGES**

**BENEFITS**
- Toxicologists make products safer.
- Toxicology is a well-paid field.
- Toxicologists are in high demand.
- Medical coverage is typically included.
- Toxicologists often stay in a lab for long periods.

**CHALLENGES**
- There is a risk of injury by toxic substances.
- Completion of education is lengthy.

**TYPES OF TOXICOLOGISTS**
- Forensic Toxicologist: Identifies and screens for drugs in a body. Uses scientific tests for body fluids and tissues to screen for the presence of drugs.
- Analytical Toxicologist: Measures, detects, and identifies unknown compounds in specimens and in training.
- Industrial Toxicologist: Studies commercial chemicals and their effects on workers.
- Environmental Toxicologist: Studies the effects of chemicals on organisms and the ecosystem in which they live.
- Medical Toxicologist: Helps patients understand the effects of drugs and substances.

**SPEEDING GLASSES**
- They protect the Toxicologist's eyes from infections or dangerous chemicals.
- These specific gloves can withstand high temperatures and are resistant to most chemicals.

**KEY TOOLS**
- Lab Syringes: Used for the collection of blood and other samples.
- Medical Syringes: Used for the administration of medicines.
LOGIST

Fun Facts

- The most common type of Toxicologist is the Forensic Toxicologist, which is Toxicology for the purposes of law.
- Did you know that Toxicologists play a key role in the public's and environment's health?
- Toxicologists can sometimes spend an entire week in a lab!
- Can you believe that mushrooms, potatoes, and almonds all have toxins that could be fatal in large amounts?
- Did you know that Cleopatra the Egyptian queen experimented with poisons as well and committed suicide by the venom of an asp?
- In the year 2009, 411 Toxicology labs received 4.1 million requests to establish forensic services.

The Life of the Trade

Beakers contain and measure liquids that are used for Toxicology. Most beakers are, forged with borosilicate glass, which helps the beakers resist chemical interaction and thermal shock.

Education

- Earn a high school diploma.
- Earn a Bachelor of Science degree.
- Earn a Bachelor of Science degree in forensic science.
- Earn a Master's degree.
- Earn a Doctor of Pharmacy (PharmD) degree.
- Complete postgraduate training.

Entry Salary

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<th>Locality</th>
<th>Hourly</th>
<th>Monthly</th>
<th>Annually</th>
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<tr>
<td>Locally (LA)</td>
<td>$41</td>
<td>$713.72</td>
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<tr>
<td>Nationally (U.S.A.)</td>
<td>$36</td>
<td>$624.44</td>
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<tr>
<td>Globally</td>
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As a Toxicologist, the average entry salary in Southern California is about $80,000 per year. As years of experience increase, it is very possible for salary to increase.

Cost

- Bachelor's degree: Average (private) $31,826, Public: $25,037, Private four-year college $31,244
- Master's degree: Public/private schools $40,300, Public four-year college $26,880
- Doctor of Pharmacy degree $65,000 - $200,000
- Doctorate Degree: Public institution, $11,120, Private university, $46,000
- Online programs, $6,000
- Postdoctoral Training $47,000
Event Name - Health Career Display
Competitors - Rich Juson and Margaret Yonzon
HOSA Division - Middle School Division
HOSA Chapter Number - 32050
School Name - Caroldale Learning Community STEAM Academy
State/Association - California
Profession - Toxicologist

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