Biotechnology Industry Research

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Biotechnology Research Scientist

- Biotechnology is a field of science that is extremely broad ranging from medical research, to forensic science, to making synthetic materials.
- A biotechnical scientist will typically specialize in research to advance any of these services/products.
- Specific duties are dependent on the field of specialty, but all involve working in a laboratory setting.
Education

• Undergraduate
  ▫ Most universities do not offer bachelor’s degrees in biotechnology, so a degree in chemistry or biology is best.

• Graduate
  ▫ A master’s degree in biotechnology, along with a Ph.D. are necessary to be hired as a biotechnical scientist.

• Other Requirements
  ▫ Two years of experience performing research in a related field is often expected.

• Overall
  ▫ A total of about ten years of education is necessary to become a biotechnical scientist.
Other Requirements/Recommendations

- High GPA throughout education
- Research experience throughout education
- Clean criminal record
- Volunteer work/community service
- Experience participating as a member of a team
- Focus on writing, biology, chemistry, physics, and math in high school curriculum
Monetary Losses and Gains

• The average cost of a bachelor’s degree in the United States was found to be about $7,000 per year in 2009. This only includes tuition costs.
• The average cost of getting a master’s degree is a little over $28,000 (total tuition cost without books).
• Most people have their Ph.D. education paid for with grants, but for the rest, total cost for this education could be as high as $25,000 per year.
• Starting salary for a biotechnical scientist is about $46,000 per year, and after promotions, can make as much as $100,000 per year or more.
What To Expect

- Work is primarily performed in teams, and each team focuses on a single research project at a time. Work is performed typically during normal hours (9-5) with weekends off. However, this could easily change in extreme circumstances. The majority of time is spent in laboratory settings.
Questions

• What skills and qualities do you think would be valued as a biotechnical scientist?
• What are some of the pros and cons of working as a biotechnical scientist?
• In what ways do you think this profession has benefitted the world around us?
References

- http://www.worldwidelearn.com/online-education-guide/science/biotechnology-major.htm This is a great site exploring all of the avenues that I was unable to describe in this presentation.