Medical Waste Contamination
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Abstract
With the medical field advancing, prescriptions and other medicines are becoming more common and are increasing biomedical waste. These drugs are leaching into our water resources through improper disposal such as rinsing them down a sink, throwing them into household trash, or directly depositing them into the environment. At Worcester Polytechnic Institute this is a problem because students do not have access to proper disposal methods. They are adding to the wastewater problem instead of helping it. Our methods to change WPI’s effect on the problem were conducted through research and a survey of students’ pharmaceutical waste habits. We learned the best solution is to install drop-boxes on campus. In order to solve this problem, we need to start small.

Project Goals
- Find out campus’s knowledge on medical waste disposal
- Educate campus on proper medical waste disposal methods
- Implement a safe disposal method on campus to reduce amount of waste improperly disposed

Survey

Results
Results were Favorable!
- This problem impacts the United States more and more every year
- WPI campus community is negatively affecting the water resources in the surrounding area, which in turn reflects poorly on its attempt to be more sustainable
- 357 undergraduates took our 9 question survey
- About 86% of the participants have had to take a prescription in the past three years and only 44% of them did not finish it
- When the participants were asked if they knew about locations to bring unused medications to, a majority said they did not (85%)
- If a take-back program were implemented on campus more than half of our participants (52%) would use it to dispose of their unused medications properly

Future Actions
- Setup drop-box at health services
- Green Team
  - Work with organization to promote and educate campus
- Examine and assess system through
  - Follow-up survey
  - Usage of drop-box
- Implementation on a larger scale

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