Biotechnology Equipment List

July 2024



## Equipment List:

### Safety

* First Aid Kit
* Eye Wash Station/Safety Shower
* Fire Extinguisher
* Chemical Spill Kit

### MSDS (Material Safety Data Sheets)

* Posted Emergency Contact Numbers
* Safety Googles/Glasses
* Aprons/Lab Coats
* Disposable Gloves
* Heat Resistant Mitts
* Face Shields/Masks
* Ear Protection
* Appropriate Footwear
* Hair Clips/Ties

### Classroom Technology

* Computers and software (for data analysis, bioinformatics, and lab reports)
* Digital Cameras or Document Cameras
* Interactive Whiteboard or Projector
* Advanced equipment – 3D Printer

### Basic Laboratory

1. Sterile Work Area

### Glassware and Plasticware:

1. Beakers, flasks, test tubes, Petri dishes, culture plates, and pipettes.
2. **Media and Reagents**   
   Nutrient agar, broth media, buffers, stains, and various chemicals for experiments.
3. Dissection Kits
4. Labeling Supplies: Markers, tape, and labels
5. Microscopes: Compound microscopes, stereomicroscopes, inverted microscope.
6. Micropipettes: Various volumes e.g., 2-20 µL, 20-200 µL, 100-1000 µL, with pipette tips.
7. Analytical Balances, Electronic Balances
8. pH Meters
9. Centrifuges: Mini centrifuges and larger capacity centrifuges
10. Centrifuge tube racks
11. Spectrophotometers
12. Thermometers
13. Hemocytometers
14. Heat Block/Dry water bath
15. Water Baths
16. Hot Plates
17. Incubators
18. Autoclaves
19. Chemical Storage Cabinets
20. Refrigerators and Freezers
21. Advanced - Mass Spectrometer
22. Advanced - Cytometer

### Biomanufacturing

1. Small-scale bioreactors or fermenters
2. Shakers and Orbital Shakers
3. Laminar Flow Hood or Biosafety Cabinet
4. Gel Electrophoresis Apparatus and Documentation System
5. [Blue Light or LED Transilluminator](https://www.btlabsystems.com/Transilluminators/LED_Transilluminators/blue_light_transilluminator)
6. PCR Machines: Thermal cyclers
7. Basic Column Chromatography setups or HPLC systems