General Safety Considerations

Only particularly unique safety issues are addressed in the individual units. However, teachers should instruct students in general laboratory safety practices and expect them to be followed at all times. Following are general safety considerations.

- Safety Equipment: Locate and know how to use all of the safety equipment in the lab. This includes fire extinguishers, fire blanket, safety shower, eyewash, Material Safety Data Sheets (MSDS), and first aid kit.

- Personal Protection: Wear goggles to protect your eyes whenever you are using chemicals or potentially pathogenic samples. Wear lab aprons to protect your clothes from chemicals. Wear rubber gloves when handling strong acids and bases and latex gloves when handling potentially pathogenic samples.

- In Case of Fire or Accident: In case of fire or accident, call your teacher at once. Report even minor incidents (such as small cuts, chemical spills, broken glassware, etc.).

- No food or drink in the lab: To avoid ingestion of harmful chemicals and potentially pathogenic samples do not bring food or drink into the laboratory area. Gummed labels should never be moistened with your tongue. Use tap water instead. Don't put your pencil or pen in your mouth.

  Wash your hands thoroughly when you leave the lab and before you eat. This applies to short trip to the restroom as well as at the end of the period.

- Be cautious of hot plates and gas burners: To avoid burns, beware of hot plates and gas burners. Use protective gloves or long handled tongs when using autoclave, hot plate, furnace or oven. Never leave a burner unattended. Turn it off if you leave your lab table. Don't ignite it unless it is actually needed. If it is not working properly or does not light easily, ask your instructor for help. Long, loose sleeves and long hair are a fire hazard. Be careful. Pin hair back with a barrette or rubber band.

- Discard broken glassware appropriately: Discard or repair cracked or broken glassware immediately. Discard broken glassware in appropriate container, not the trash can.

- Pipeting: **NEVER** use your mouth to fill pipettes. Use a suction bulb every time.

- Consider all Chemicals as Dangerous: Always label chemicals properly. Never use chemicals or solutions from an unlabeled container. Never allow a chemical or solution to touch your skin. If you do, wash the area thoroughly with soap and water.

- Strong Acids and Bases: Be cautious of strong acids and bases. Always use

protective eyeglasses, gloves and apron when handling acids and bases. Always dilute strong acids and bases by adding the acid or base to the water, not *visa versa.*

- Samples: Most of the samples you work with will be harmless, but some are not. Wastewater samples and some freshwater samples may contain pathogens. To be safe, assume all of them to be potentially dangerous and handle them accordingly.

- Used Cultures: Place old cultures or any contaminated material in the biohazard bag provided by your teacher. Label all current culture tubes and dishes that you wish to keep with your initials, date and lab period (class).

- Spilled Cultures: Whenever bacterial cultures are accidentally spilled, notify your teacher so that proper disinfection procedures can be assured.