

Pathogen Project

Micr-22, revised Fall 2018

Objectives

This project is intended to:

- Give you practice **finding information** on properties of pathogens.
- Motivate some discussion of the **reliability of your information** sources.
- Learn **characteristics** of and gain **familiarity** with major pathogens and diseases.
- Learn **terminology** used to distinguish among pathogens and among diseases.

Materials needed

- Access to our course website and to internet resources.
- One to two hours of your time for each chart and each phase of the project.
- Patience with your classmates.

Structure of the project (further instructions may be in separate documents)

1. **Single chart:** Complete a single chart on *Treponema pallidum*. To start, review other examples of pathogen charts. Bring a copy of this chart to lecture on the due date.

Chart format

- One side of one page maximum, for each chart.
- Your name at the top of page.
- Cite source(s) on each item.
- Include a picture of something unique to the pathogen or disease.

See our forms and examples online. For those pathogens that infect people as well as other animals, use human beings as your point of reference in compiling the data.

Suggestions for information sources

Start online. Reputable websites include cdc.gov, nlm.nih.gov, who.int, and fda.gov, as well as various foreign health agencies, such as sites ending in “.gov.ca” (Canada), and “.gov.au” (Australia).

Other resources include the index of your textbook and David Heymann's *Control of Communicable Diseases Manual*. The manual is from the American Public Health Association, and is available both electronically and in print.

2. **Five more charts:** Complete five more assigned pathogen charts on your own. The specific pathogens will be assigned in class. Bring a printed copy of your charts to lecture on the due date. Print each chart on its own page.
3. **Reliability analysis:** In class, we will evaluate each other's work for its reliability. *See separate instructions.*
4. **Dataset:** Complete a dataset of information about all of the pathogens and diseases we are studying. This will help you study. *See separate instructions.*
5. **Pathogen test:** Put your knowledge to use by diagnosing unknown case studies. Our pathogen test is a supplement to our lecture final exam.

Evaluation

Like many other assignments in this course, parts 1 through 4 will be graded as follows:

- Check-minus: Approaches expectations.
- Check: Meets expectations. Full credit.
- Check-plus: Exceeds expectations. (A check-plus can compensate for a check-minus.)

Our pathogen test will consist of ten case studies presented to you during our final exam period. Your task is to determine two things about each case: (1) What is the pathogen? and (2) What is the name of the disease or condition that the pathogen is causing? Your work on this semester-long project is meant to prepare you for the pathogen test.

Expectations for assignments

- Respond meaningfully to every part of the assignment.
- Respect your own ideas enough to present them professionally and clearly. Consider grammar, spelling, appropriate terminology, and appearance. Complete sentences are not always necessary.
- May be typed or clearly handwritten. Double-sided printing is encouraged.
- If you generate multiple pages for an assignment, simply staple the pages together rather than using a cover.

Points

First chart	5 pts
Five more charts	10
Reliability analysis (in class)	5
Identification assignment	10
Pathogen test	<u>50 (5 per case on test)</u>
Project total	80 pts