# Microbiology Major Unknown

This assignment will be worth a total of 100 points toward your total course grade. Assignments must be typed and follow general guidelines for college level writing.

The point scoring is:

Correct genus	5 each for 10 points
Correct species	5 each for 10 points
Write-up	25 each for 50 points
Proper scientific format and spelling	10 points
Key for Gram positives	7 points
Key for Gram negatives	7 points
Media requests and efficiency	<u>6 points</u>
TOTAL	100 points

For your Gram negative and Gram positive organisms, you will want to write up <u>separate reports</u> including the following information:

#### Name and unknown number

#### **Details of Write-up**

**I. Introduction** This must be in complete sentences, paragraph format.

Background on Gram positive or Gram negative groups of bacteria <u>as a whole</u>. Use this introduction to discuss your background and knowledge of bacteria, gram staining, cell walls, etc.
Clinical and /or environmental significance of Gram negative or positive as a whole.

NOTE: Do not discuss your identified species here. The introduction is used to introduce the whole group of either Gram positives or Gram negatives and remarkable genera or species.

#### **II. Materials and methods**

#### 1. Lab Procedures:

- a. How you went about doing the unknown, a daily account.
- b. <u>A table</u> with all the tests and media used, including **the purpose and results**.

#### 2. Dichotomous key:

Show <u>all</u> available choices of potential genera based on our class strain list and, after reaching correct genus, all potential species for testing in the route you chose.

III. Results and Discussion. This must be in complete sentences, paragraph format.

#### 1. Identification of organism (genus and species)

#### 2. Habitat of organism

**2. Special characteristics** of the genus and your species. Be sure to include metabolic requirements, any special nutritional needs, toxin production, unique enzymes, etc.

**3.** Clinical and/or environmental significance- any diseases the organism may cause, symptoms and treatments, environmental impact, participation in nutrient cycling, etc..

## IV. Media requests:

Prior to receiving any media you must turn in a request with a brief explanation on why such a media is necessary, such as what groups are to be separated by such a test (i.e. catalase to separate *Staphylococcus spp.* from *Streptococcus spp.*). The instructor or lab tech will sign off on all media requests and points will be deducted for use of unnecessary media. You will write up all requests for your Gram positive and your Gram negative on the sheets (provided). **Keep these and turn in with your report.** 

### V. Citations and bibliography

You are required to include at least three (3) resources outside of your text for the paper. Any material or information that you receive from an external source (including the text) must be included in a bibliography. This means that you must compile a list of all resources for your paper. If you take material from a particular website, book or journal, make sure to add it in the bibliography. Be aware that public sites such as "Wikipedia" are not reliable resources and cannot be included in your bibliography. In addition to including a bibliography, <u>you must cite the material as you write about it in the body of the paper</u>. If you have any questions, please let me know. I have included a website below with information on proper citation and bibliographic format:

http://www.scientificstyleandformat.org/Tools/SSF-Citation-Quick-Guide.html

Once again... cite your resources in the body of the lab report. This means that you add citations as your write, depending on where you got the information. Do NOT just include a bibliography at the end.