Major Unknown Assignment

You will need to write **two separate papers**, one for your Gram positive and one for your Gram negative. The following directions should be followed for both. Do not enclose your reports in any kind of a folder- just staple the pages together. **These papers are due at the beginning of class on the due date listed in your *Course Syllabus*.**

Your papers should be typed, double-spaced and follow general college level grammar & writing guidelines as well as scientific generalities. If these general grammar guidelines are not followed, points will be deducted from your grade.

Title Page (2 points, 8 points for correct genus & species identification)

- your name
- your student lab number (not your CSID)
- your organism identification (genus & species)

Daily Log (4 points)

A table containing the following information.

inoculation date	media requested	test performed	result	conclusion (who you're ruling out with this inoculation)

For example

inoculation date	media requested	test performed	result	conclusion (who you're ruling out with this inoculation)
5/11	Durham lactose	lac ferm acid/gas	positive	ruling out all lac- genera in fac. ana. motile gram - rods

Media Request Form (1 point):

The actual *Media Request Forms* that you submitted throughout the semester. Do not retype or rewrite these forms.

Flow Chart/Dichotomous Key (4 points)

Follow the style found in this lab and the enteric portion of the SSE assignment. This should follow your isolation strategy to the genus level. Branches that include genera that have been ruled out need not include more than one level. The dichotomous key should be oriented in the portrait position (I should not have to rotate the page to read it).

Table of Organism Traits (4 points)

A table, similar to that you will construct for your *Daily Log*, within which you will list your organism and three or four closely related organisms (one of whom is the putative identification). You will compare each of these four or five organisms for their stated results for at least four traits. Note that the traits not shared with your isolate are shaded. The table should be oriented in the portrait position.

organism name	trait one	trait two	trait three	trait four

For instance, if you have identified your isolate as *Escherichia coli*, a table like this would be applicable:

organism name	Lactose fermentation	Tryptophan Hydrolysis	Sole Carbon- Citrate	Mixed Acid Fermentation
Gram negative isolate	+	+	-	+
Escherichia coli	+	+	-	+
Enterobacter cloacae	(V)	-	+	-
Enterobacter aerogenes	+	-	+	-
Citrobacter diversus	V	+	+	+

Isolation Strategy (4 points)

In paragraph form, answer the following question for your isolate. What was the genus and species identification of the organisms? Which data support these results, which data do not? Make sure that you explain any findings that deviate from the expected results.

Website Submission of Lab Results (1 point)

Submission of the pertinent results from your organism onto the Course Website.
Please print out and attach the Form Confirmation from the Course Website to the end of your Major Unknown Assignment.