This is a generic syllabus for this class. At the beginning of a semester, all students receive a current syllabus, which includes the information in this syllabus, plus information for the semester. Information for the semester includes, among other things, exam dates, chapters in the textbook, and assigned problems.

SYLLABUS
CHEMISTRY 241L

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Note: Chemistry 241 is a co-requisite for this course. You must enroll in Chemistry 241, unless you already have credit for the course, and if you drop either co-requisite course, you must drop them both. This may have unforeseen consequences if dropping four hours drops you below the minimum of 12 hours required to be a full-time student. The consequences may include loss of financial aid and student discounts on insurance.

The goal of this class is to acquaint you with some basic observations associated with descriptive inorganic chemistry. These observations will prepare you for additional coursework, either in chemistry or in other disciplines, and will help you function in a technological society. This goal assumes that you have passed chemistry 133 and 134 (or their equivalents).

The objective of this course is to illustrate various aspects of Periodic Law. From these experiments, you will see why the Periodic Table appears as it does. The main emphasis of these experiments will be the observations that you make. In most cases, measurements will only be of secondary importance. For this reason, make sure that you immediately write down all of your observations in your lab book. Your accumulated points will determine how well you achieve this goal at the end of the term.

This course is part of the SFASU Chemistry major and part of the ACS certified Chemistry major. In addition, this course may satisfy certain ExCet/TEKS objectives for Chemistry and Integrated Physics and Chemistry (Physical Science). See Dr. John Moore, the chemistry certification advisor, for the correlation between these objectives and the chemistry courses.

You will need to purchase a lab book for this course. It must be bound book. Spirals or loose-leaf notebooks are in no way acceptable. If the pages are not numbered, you must number them. The first two or three pages are for a table of contents. All entries must be in ink. You should enter everything done in the lab, and needed for your lab report during the lab. The format you use is your choice, as long as it maintains these guidelines.

When you check into lab, make sure that you have all the equipment in your lab drawer that is supposed to be there. If anything is broken or missing, get it replaced. After check-in, you will need to pay for anything that you replace. At the end of the term, or if you drop the course, you will need to checkout. At this time, you must clear any bills that you owe.
Each experiment requires a lab report. The report will include some, if not all, of the following:

1. Title, your name, and date
2. A short introduction (usually one paragraph)
3. A description of any changes in the procedure (Do not write the entire procedure, only list changes and/or problems.)
4. Tables containing any data collected.
5. Results
6. Observations
7. Conclusions
8. Any references used other than the lab manual.

Some experiments will require variations in these requirements, there will be a variety of report formats using some or all of the above categories. For very short experiments, the entire report may only be one or two pages long. A short discussion of each of the items on the list follows.

Item 1 is self explanatory, and is required for all experiments.

Item 2 should be in your own words, and should avoid using direct quotes from the lab manual or from any other source. Item 2 should include a prediction or a hypothesis to be tested in the experiment, a simple statement of purpose may suffice. A major point deduction will result if first person is used.

Item 3 does not require a complete procedure. However, you should specifically note any variations in the procedure, and/or any problems.

Item 4 may include word descriptions and/or numerical data. You may incorporate some, or all, of this material into the observation section. If you discard any data, make sure you tell why.

The results section (item 5) should contain any calculations needed in the experiment. Obviously, if there are no calculations required, this section will not be present. If the same calculation occurs multiple times, you only need to write it down once, and just give the results for the remaining times.
The observation section (item 6) will be very important for many of the experiments. Here you will note what you have seen during the experiment. For example, what color is your product from a synthesis? You should pay particular attention to observations that indicate a reaction. Some of these indicative observations are color changes; precipitate formation; gas evolution; odor; generation of heat; etc....

Chemical equations for various reactions may go in either item 5 or item 6.

The conclusion section (item 7) summarizes all of the other sections. Some things that may be included are:

- A comparison of the results/observations with predictions
- A discussion of any problems in the experiment
- A comparison of the different elements in a periodic sense – Noting specifically any trends in behavior

In most cases, the conclusion section will be the most important section of the report.

The last item (#8) is only required when other sources are used. You must list these using correct bibliographic formats.

The amount of time spent in writing a particular report should reflect the amount of time necessary to carry out the experiment. The point values reflect the total work required for the experiment. The greater the point value of an experiment, the better the report must be.

Your total accumulated points will determine your grade in this class. Each experiment has a point value. Upon the completion of the lab report on an experiment, you will receive the points for that experiment, less any deductions on that experiment. In addition, before doing each experiment, you must submit an outline to the lab instructor. If the outline is not ready at the beginning of the lab period, there will be a 50-point deduction made in the accumulated point total for each offense.

A poor lab report will receive various deductions. If you are unsure as to what constitutes a good lab report please consult the lab instructor. The primary reason for a loss of points will be the omission of a section or of important details.

Lab reports will be due one week after you have finished an experiment. There will be a penalty of 5 points per day (increasing each day), or fraction thereof (including holidays and weekends) for late reports. This will continue until the last day of Finals week, even if a negative total results. Special circumstances may alter this rule.
Some of the possible deductions from your total points are:

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<td>Improper lab reports</td>
<td>As noted on the report</td>
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<td>Late lab reports</td>
<td>5 points for first day, increasing by 5 points/day for each consecutive day (Weekends and holidays included)</td>
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<td>Not following safety rules</td>
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<td>Not entering data directly into the lab book</td>
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<td>Using the wrong type of lab book</td>
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<td>&quot;Dry-Labbing&quot;</td>
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<td>Copying from another student or allowing another student to copy from you</td>
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<td>Not wearing safety goggles</td>
<td>250 points/offense</td>
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<td>Not submitting a report by the end of the term</td>
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<td>Plagiarism</td>
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<td>Unbalanced equations (this includes charges)</td>
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<td>Incorrect nomenclature</td>
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<td>Improper disposal of chemicals</td>
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<td>Not completing experiment on scheduled day (Extenuating circumstances may yield exceptions to this.)</td>
<td>100 points/offense</td>
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At the end of the term, the grading scale will be:

- **A** 2300-2058
- **B** 2057-1828
- **C** 1827-1598
- **D** 1897-1368

The grade in lab is a separate grade from your lecture grade, and as such, neither grade has any bearing on the other.
Week | Experiment (point value)
--- | ---
1 | All Groups | Check-in | Experiment 1 (100)
2 | Groups 1, 3, 5 | Experiment 2 (20), Experiment 4 (125)
   | Groups 2, 4, 6 | Experiment 10 (100), Experiment 2 (20)
3 | Groups 1, 3, 5 | Experiment 10 (100), Experiment 6 (30)
   | Groups 2, 4, 6 | Experiment 6 (30), Experiment 4 (125)
4 | Groups 1, 2 | Experiment 22 (150)
   | Groups 3, 4 | Experiment 7 (50), Experiment 17 (75)
   | Groups 5, 6 | Experiment 9 (20), Experiment 13 (30)
5 | Groups 1, 2 | Experiment 9 (20), Experiment 13 (30)
   | Groups 3, 4 | Experiment 22 (150)
   | Groups 5, 6 | Experiment 7 (50), Experiment 17 (75)
6 | Groups 1, 2 | Experiment 7 (50), Experiment 17 (75)
   | Groups 3, 4 | Experiment 9 (20), Experiment 13 (30)
   | Groups 5, 6 | Experiment 22 (150)
7 | All Groups | Experiment 18 (75)
   | Set A: Experiments 24 (*), 25 (50) | Set B: Experiments 26 (*), 27 (150)
   | Set C: Experiments 23 (*), 29 (15) | Set D: Experiments 28 (*), 31 (*)
   | Set E: Experiments 32 (*), 33 (75) | Set F: Experiments 35 (*), 38 (*)

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8 | All Groups | Experiment 37 (125)
15 | Finish, Checkout

(*) These are the survey experiments. The report the following week will only consist of the balanced chemical equations for the week's survey. The weekly reports are worth 40 points each. There will be one overall lab report on all the survey experiments. The overall report is due on 12/9/04. The total value of all of the overall survey report is 870 points (Observations = 100 points, Reactions = 250 points, and Discussion = 520 points). The points available reflect how long each section should be.