

THE UNIVERSITY OF TEXAS AT SAN ANTONIO
COEHD-ILT

**IDS 3201: Physical Science Lab
Spring 2007**

**IDS 3201: Physical Science Lab
Spring 2008**

Instructor: Dr.Suja Kochat
Office Address: DB 4.210
e-mail Address: suja.kochat@utsa.edu
Office Phone: 458-5969(leave a message)
Office hours: Monday 3:00pm- 5:00pm
Wednesday 3:00pm-5Pm
Thursday 3pm - 5:00 pm

Textbook: none

Other: Scientific calculator

Completion of core curriculum requirements, including college algebra or higher math, is a prerequisite for this course.

Grading Scale:

90-100 = A
89-80 = B
79-70 = C
69-60 = D
< 60 = F

Grade Components:

Final = 20%
Lab exercises and reports, including Experiment Notebook = 70%
Participation = 10%

Experiment Note Book

The Experiment Notebook will consist of 10 science experiments of your choice that are related to physics or chemistry. Sample websites to visit include:

<http://www.spartechsoftware.com/reeko/> and
<http://www.scifun.chem.wisc.edu>.

While ideas for experiments can be gathered from any science website or from other sources, the Experiment Notebook should be written in your own words. Do not just download from the internet. Each science experiment should contain the following: the concept(s) that the experiment is illustrating, description of materials used, procedure, and a citation. The grade assigned to

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the notebook will be based on completeness, creativity, and age-appropriateness. Please refer to the "Experiment Notebook Model," which describes the proper format of the Experiment Notebook. Failure to follow this format will result in a reduction of at least 10 points from the final grade of the Experiment Notebook.

Catalog Description:

Introduction to the tools, techniques, and topics of modern physical and chemical science investigations with academic applications.

Classroom Climate:

While in class, each student has the right to expect courteous treatment and has the obligation to treat others the same way. This will allow us to focus on the study of the course material.

Class Attendance:

Students are responsible for all of the material presented in this class.

Missed lab meetings: Missing class will result in a grade of zero for that day's work and participation grade. However, extenuating circumstances may warrant non-attendance. In such cases, it is the student's responsibility to contact the instructor as soon as possible and to provide documentation such as a doctor's note. **Only ONE missed class can be made up.**

Late work: Late work will be accepted under the following limitations: per calendar day late, 5 points will be deducted from the raw score; work that is more than 14 days late will not be accepted and will result in a grade of zero for that report.

Late arrival and/or early departure: If a student arrives late or leaves early, points will be deducted from that day's lab assignment(s). Students may not depart from the laboratory session early without the instructor's express permission.

Group work: No credit will be awarded for the work that his/her group completes while the student is absent.

Policy Statements:

Fitness to Teach:

Students are expected to demonstrate professional conduct and attire during class sessions (see Fitness to Teach policy document located in the Department website). All cell phones and beepers must be turned off during class periods unless prior permission has been given by the instructor.

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The instructor will follow all the policies and procedures, in regards to students, as they are specified in the UTSA Faculty Handbook and the Fitness to Teach Policy document. Any incidence of scholastic dishonesty or other student discipline issues will be managed as the Handbook specifies (Faculty Handbook, Section 2.37, pages IV-3li-vi).

No electronic recording of lectures or class sessions may be done without the prior permission of the instructor. No eating, drinking, or smoking is allowed in UTSA classrooms and laboratories (Ad. Memorandum No. 54)

Disability:

If you need accommodation related to a disability, please visit me during my office hours to discuss your needs. Students with disabilities must be registered with the Office of Disability Services located in MS 2.03.18 (Main Campus, 458-4157) or BV 1.302 (Downtown, 458-2838) in order to receive support services.

Scholastic Dishonesty:

The University expects every student to maintain a high standard of individual integrity for work done. Scholastic dishonesty is a serious offense, which includes, but is not limited to, cheating on a test or other class work, plagiarism (the appropriation of another's work and the unauthorized incorporation of that work in one's own work), and collusion (the unauthorized collaboration with another person in preparing college work offered for credit). In cases of scholastic dishonesty, the faculty member responsible for the class may initiate disciplinary proceedings against the student. In this class all UTSA procedures will be followed and the necessary paperwork will be filed with the Office of Student Life and the Division of Education. The course instructor will recommend a penalty to the Office of Student Life, which may impose an additional university penalty.

UTSA Honor Code:

"On my honor, as a student at The University of Texas at San Antonio, I will uphold the highest standards of academic integrity and personal accountability for the advancement of the dignity and the reputation of our university and myself."

Criminal Background Checks:

Criminal background checks will be conducted on all students enrolled in selected undergraduate courses in the COEHD. Since observation and interaction with minors is required for successful completion for degree programs

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in the COEHD, students who do not have a clear criminal background check may not be allowed to continue in the programs of the College.

Disclaimer:

The course instructor reserves the right to alter at any time any of the information presented on this syllabus at her discretion. If you are not in class, you may miss important information that directly affects your grade!

Laboratory Safety Rules

Contact with many of the chemicals we use in the laboratory may have harmful effects on the user. For some it may be enough to just inhale them. Always be careful when you are in the lab.

Personal Protective Equipment (PPE) is anything you have to wear when handling chemicals. This includes, but is not limited to:

- a. Eye protection (chemical splash goggles or full face shield, depending on what you are working on) – wear these always.
- b. Gloves – wear these always. When you are not working on your experiment in the lab, but wish to use a computer, a telephone, or leave the room, take off your gloves to avoid contamination.
- c. Some experiments may require that a lab apron be worn.

Wear clothing that is comfortable, of natural fibers, and that will cover your body as much as possible (long sleeves, long pants). Do not wear loose clothing – a loose sleeve may catch on glassware and cause a spill. Do wear comfortable, low leather shoes. Do not come to the lab wearing tank tops, shorts, or sandals. Also remove jewelry.

If you have long hair, be sure to tie it back so that it will not come into contact with the chemicals or with an open flame.

Open flames may be necessary in some of the experiments. Before lighting a flame, make sure no flammable solvents are nearby.

Flammable solvents or other volatile chemicals (example: alcohols such as methanol, or ketones, such as acetone) may not be heated on a hot plate in an open vessel. Set up a condensing system instead.

In an emergency:

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- a. Injuries such as cuts → tell the instructor immediately; if it is a serious cut, use a clean towel and apply direct pressure to the area, then notify the instructor;
- b. Fires or other imminent danger → tell the instructor and the other students immediately;
- c. Chemical splash into eyes → immediately get the eye(s) washed out at the eyewash station.

Be sure to know where to find the following items and how to operate them:

- a. Fire extinguisher
- b. Fire blanket
- c. Fire alarm box
- d. Safety shower
- e. Eye wash station
- f. Exit doors
- g. Telephones

Always wash your hands before leaving the lab.

Do not bring food or beverages into the laboratory. Neither eating, nor drinking or smoking is allowed in the laboratory.

Always wait with your work in the laboratory until you have ensured that an instructor is there to help you if problems arise.

Prepare for your lab session beforehand so that you know what is expected of you. If you have any doubts along the way, ask your instructor.
Keep the aisles and walkways clear and drawers and cabinet doors closed while you are working.

Do not ever use mouth suction to pipette chemicals and avoid inhaling or tasting chemicals.

If you have to insert glass tubing into a rubber stopper, do so with minimal force. First use a lubricant such as glycerol on the tube and the stopper, then protect your hands by wrapping the tubing in a towel before pushing the tube into the stopper.

Before touching glassware, make sure it is not hot.

Children are not allowed in the laboratory.

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Preparation for Lab Sessions

Carefully read the description of any scheduled experiments before the session begins. This may require you to read additional materials.

If there are any pre-lab exercises, do them to the best of your ability and bring them to the lab. Such exercises are intended to help you better understand what you are about to do and to aid you in necessary calculations and observations.

Write yourself an outline of the experiment and include applicable data tables and questions you might have about the process or outcome. You may use your laboratory manual for such notes.

During the Lab Session

As you carry out the experiment(s), don't forget to keep track of your observations. Write them down in your manual.

If, as you compare your observations with expected data, you find that your data is questionable, check your procedure and setup to make sure everything is prepared as it is supposed to be. It is then best to repeat the experiment to get better data. You may wish to consult your instructor first.

Clean up after yourself.

Pay attention to your instructor and make sure you are not missing explanations on the experiment(s).

ALWAYS BE SAFE.



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UTSA Diversity Statement

The University of Texas at San Antonio (UTSA) is committed to the success of every student, staff and faculty member – on campus, at work and in life. For all members of our university community to excel, we must preserve freedom of thought and expression and promote a climate of respect that honors the rights, safety, dignity and worth of every individual. We choose to be members of this community and pledge our respect for the well-being of all its members.

To further strengthen our wonderful UTSA community, we affirm the following values:

- **RESPECT.** We respect the dignity, worth and contribution of all individuals.
- **INCLUSIVENESS.** We include people of every race, culture, ethnicity, ability, religion, gender, sexual orientation and socio-economic status, and we include a diversity of ideas and points of view.
- **RESPONSIBILITY.** We take responsibility for struggling against and eliminating hate, injustice, discrimination, harassment, bigotry, violence or intimidation of any kind.
- **SELF-EXAMINATION.** We examine our own biases and struggle against racism, sexism, homophobia and other forms of oppression.
- **CIVILITY.** We recognize differences among people as a natural thing and see each new experience working with diverse groups as an opportunity to be better than we were before. We listen, and when we disagree, we work to resolve all disagreements with integrity.
- **INTEGRITY.** We practice personal and academic integrity and value service, citizenship and leadership.
- **CELEBRATION.** We celebrate all of the many backgrounds, experiences, similarities and differences among members of the university community.

For all our differences, we share one world.
To embrace diversity is to welcome the differences and delight in the sharing.

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**Department of Interdisciplinary Learning and Teaching Mission
and Goal Statements:**

Mission

The mission of the Department of Interdisciplinary Learning and Teaching is to foster the intellectual and professional growth and integrity of students and faculty through critical reflection and dialogue, civic responsibility, and leadership.

Goals

The Department of Interdisciplinary Learning and Teaching will create a context that nurtures interdisciplinary learners who:

- Acquire and demonstrate content and discipline knowledge
- Demonstrate an awareness and acknowledgement of and engagement in research-based, reflective, culturally responsive practices
- Are producers, disseminators, and critical consumers of research
- Demonstrate an awareness and acknowledgment of and engagement in social justice and equitable practices
- Articulate their professional philosophy and demonstrate a strong professional identity