The course is designed to familiarize students with (1) various chemical and physical properties of substances, (2) techniques of quantitative chemistry, and (3) scientific methodology. Four hours of laboratory and discussion per week. CHE 134 may not be taken for credit in addition to CHE 154. This course has an associated fee. See http://mobile.cc.stonybrook.edu/sb/summer-session/tuition-and-aid/ for information.

Prerequisites: CHE 133

Pre- or Corequisite: CHE 132

1 credit

Each student is responsible for knowing all procedures and course expectations detailed in this document, in other handouts, or announced during lectures and laboratory sessions, and those posted on Blackboard. Failure to attend a lecture or laboratory session is not an excuse for not knowing what was presented or announced. If you miss a lecture or laboratory, it is your responsibility to find out what transpired from a fellow student, a teaching assistant, or from the course instructor.

PERSONNEL

- Dr. Bradford Tooker oversees the course, conducts the TTh lectures, supervises the teaching assistants and stockroom staff, prepares quizzes, and determines grading criteria.
- Ms. Lobna Kahek supervises the stockroom, prepares chemical reagents, maintains equipment, and assists both students and teaching assistants as needed.
- Experienced undergraduate and graduate teaching assistants supervise students in each laboratory room.

LEARNING OBJECTIVES

The course is designed to enable students to become familiar and confident with standard experimental techniques, scientific measuring equipment, laboratory procedures, and to develop the skill of making insightful observations that lead to the reporting of accurate and precise quantitative results. The basic principles of general chemistry presented in CHE132 will be applied to practical and challenging experimental exercises that illustrate and enhance these principles. Grading practices are designed to assess the student’s ability to report results based on their observations and accurate measurements of systems undergoing both chemical and physical changes. In synthesis reactions grading is based on the purity and percent yield of the product. In exercises involving an unknown compound grading is based
on the correct identification of that compound and its properties. In the analysis of a particular compound or element in a given mixture, grading is based on determining the correct quantity of the species in that mixture.

See the COURSE DESCRIPTION and GRADING SYSTEM headings below for more information.

REQUERIED RESOURCES

- Introductory Chemistry Laboratory Manual, CHE134 Stony Brook University, 11th Edition
- Safety goggles that give splash protection, as required by NY State law
- A bound notebook with numbered pages (spiral notebooks are not acceptable)
- Blackboard.stonybrook.edu account
- Stony Brook email account
- Terry cloth towel for drying glassware
- Scientific Calculator with powers, exponents, and logarithms

Optional Resource
- Gloves

White lab coats will be provided to each student at no additional cost.
All of the above physical materials can be purchased at the University Bookstore.

The course Blackboard page is where announcements, policies, and information are posted. For help accessing Blackboard see the Need Help? section at the site homepage (Blackboard.stonybrook.edu)
A Stony Brook Email Account is accessible at stonybrook.edu/mycloud. For help with Google Apps for Education see it.stonybrook.edu/help/kb/logging-in-to-google-apps-for-education

COURSE DESCRIPTION and GRADING SYSTEM

(see SUSB-001b in the CHE134 Laboratory Manual for additional information)

In this course you will work with common chemicals and household materials to attain skills in performing certain laboratory techniques and measurements. You must learn to draw logical and correct conclusions based on your observations and the data you record for each experiment you will perform.

Each person will perform a total of nine (9) experimental exercises. Two of these will be conducted as Test Exercises. They will involve the correct determination of the amount of a substance in a given sample mixture (quantitative analysis), and may also require the identification of the substance itself (qualitative analysis). Test exercises are worth 105 points each, the grade for each being based on the comparison of reported values to actual ones. The rest of the experiments are termed Preliminary Exercises and are worth 55 points each. Pre-lab assignments are worth 10 points each.

The Laboratory Manual contains an explanation of each exercise, the procedure that is to be followed, safety concerns, and a Pre-Lab assignment. Note however that all Pre-Lab assignments are done on line using the Chemistry Departments OSCER system (written and administered by Prof. Joseph Lauher). https://organic.cc.stonybrook.edu Normally, OSCER Pre-labs are due at 10:00 AM on the day the experiment will be performed.
Unless stated otherwise, lab reports (lab manual data sheets) for each experimental exercise are to be handed in to the supervising TA at the end of each laboratory class.

Two 15 minute quizzes, worth 50 points each, will be given. These are indicated on the course schedule (see below). A final 30 minute comprehensive quiz, worth 100 points, is given on the final day of the course. Quizzes are multiple choice, where answers are entered on a standard scantron form.

Test Exercises are graded by specifically assigned TA’s in order to ensure uniformity in the grading process. Preliminary exercises are graded by each individual TA for their own section(s). Allowances for different grading trends by different TA’s are made when assigning final course grades, if it is determined to be necessary.

Lectures are held in Frey Hall, room 104, Tuesday and Thursday of each week from 1:00 PM – 1:55 PM. Lecture notes will be posted on the course web page (see below) before each class. Both sections 01 and 02 of the course attend the same lecture. In most lectures a set of questions - Lecture Questions - will be handed out that must be answered during the lecture itself, and then handed in to the lecturer at the conclusion.

At the end of the summer session each person’s final grade is determined on the basis of the sum of test exercises (210 points), preliminary exercises (385 points), OSCER pre-labs assignments (80, 8 of 9) quizzes (200 points) and an independent safety project (25 points). Therefore the final course grade is determined by the total number of points accumulated out of a possible 900 points. Unexcused absences for laboratory exercises and quizzes will result in grade of zero (0). General guidelines for determining final letter grades will be posted at some point after the start of the session.

Note that illnesses or extenuating circumstances that cause a person to miss more than two laboratory exercises and/or more than two quizzes may result in a grade of incomplete (I) being assigned for the course.

Questions or concerns should be addressed to Dr. Tooker either using the course Blackboard email address or bradford.tooker@stonybrook.edu. For best results DO NOT use the reply option of an outdated email message you have received in the past with a subject heading that has nothing to do with the content of your current inquiry. Compose a new message with a relevant subject heading.

**ATTENDANCE and MAKE UP POLICY**

All persons registered in the course are require to attend lectures, laboratory sessions, and to take the two mid-term quizzes, as well as the final quiz.

**Laboratory Exercises -**

A make-up experiment will be given on the last day of the session. People with a valid excuse for missing one of the regular experiments, either a Test or Preliminary Exercise, will be allowed to perform this make-up. Note that in most cases excuses do need to be documented. People who miss more than one experiment due to illness will be considered for excusal on an individual basis.

On occasion it may be possible for a person to perform an experiment in the alternate section of the same day. If you know in advance that you must be absent from your own laboratory section (morning or afternoon), contact Dr. Tooker before that day. **NOTE: permission to attend the alternate section (morning or afternoon) will only be given if space and resources permit.**
Quizzes -
Make-ups for the two midterm quizzes may or may not be offered, depending on individual circumstances. If a make-up is not possible, a prorated grade will be assigned. Any person who is unable to take the final quiz due to illness or other extenuating circumstances must contact Dr. Tooker before, or within 24 hours following, the final quiz date. Only then will a make-up final quiz be scheduled.

Lecture Questions –
There are no make-ups for lecture questions, nor are excuses accepted for students who attend lecture but do not answer questions.

Again, Note that illnesses or extenuating circumstances that cause a person to miss more than two laboratory exercises and/or more than two quizzes may result in a grade of incomplete (I) being assigned for the course.

COURSE RESOURCES
Help sessions will be held by the TA’s in room 215 of the Graduate Chemistry Building. This room is to the left, at the end of the hall of laboratory rooms. A schedule of days and times will be posted shortly before or right after the start of the session.

The Academic Success and Tutoring Center (ASTC) provides FREE walk-in tutoring services for various math, physics, and chemistry courses. Information can be found at: www.stonybrook.edu/commcms/academic_success/

The Course Web Page contains the schedule of Laboratory Exercises and is the source of many other informative and useful pieces of information about each exercise. It is the site where the lecture notes are posted prior to each day’s lecture. The TA help session schedule will also be posted there.

The course web page is http://www.ic.sunysb.edu/Class/che134

Dr. Tooker will hold office hours as follows:

Tuesday 8:30 – 9:30 AM Room 208 or Room 215
Thursday 2:30 – 3:30 PM Room 208

Thursday office hours are during the Laboratory classes, but consultations can be held with individuals in Room 215. Other times can be arranged outside of these hours by request.

AMERICAN WITH DISABILITIES ACT
If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, Room 128, (631)632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.

studentaffairs.stonybrook.edu/dss/
The below section concerns University policies that both instructors and students are required to be aware of, understand, and adhere to.

ACADEMIC INTEGRITY

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty to Academic Judiciary.

Acts of academic dishonesty include, but are not limited to, plagiarizing data from another person, intentional disruption of another person’s work, collaboration or copying answers during a quiz, use of electronic devices other than a calculator during a quiz, or fabrication of data.

For more comprehensive information on academic integrity, including categories of academic dishonesty please refer to the academic judiciary website at:
www.stonybrook.edu/commcms/academic_integrity/

CRITICAL INCIDENT MANAGEMENT STATEMENT

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn.

INSTRUCTIONAL/STUDENT RESPONSIBILITIES

Both students and instructors need to be aware of their own responsibilities, as well as those of each other. The University’s statements of both may be found in the Academic Policies and Regulations section of the on-line Undergraduate Bulletin
sb.cc.stonybrook.edu/bulletin/current/policiesandregulations/policies_expectations/min_instructional_student_resp.php

This link provides information on the University's Statement of Minimal Instructional and Student Responsibilities
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<td>8/18</td>
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<td><strong>FINAL QUIZ</strong> Clean up</td>
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Other Material: a) safety goggles, which **must** be worn in the lab at all times; b) a **bound** notebook with numbered pages to record your observations and data for each experiment; c) a terry towel to dry glassware

White Lab Coats will be provided to each person at no additional cost;

All items are available at the University Bookstore.