

# General Science – Syllabus

## Instructor Information

Name: John W. Pluemer  
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## Office

Building 100  
Room 107

## Course Information

Course No: 10-806-107  
Credits: 3

## Meeting Times / Location

Beginning Date: 8/25/04      Monday 11:30 – 12:30 Rm116  
Number of Weeks: 16      Wednesday 7:30 – 9:30 Rm 116  
Ending Date: 12/22/04

## Course Description

General Science is divided into three units: 1. Scientific Tools and Methods, 2. Introduction to Chemistry, 3. Chemistry Applications. In unit 1, students convert measurements, design tables and graphs, create models, and use the scientific method. In unit 2, students interpret a model of the atom and use the periodic table. They distinguish physical, chemical, and nuclear changes and identify properties of common compounds. In unit 3, they analyze chemical equations and relate technical applications to chemical properties. Students examine basic cell structure and function.

## Prerequisites

None

## Textbooks, Resources, Supplies

Text: John Pluemer. *Technical Science*. Publisher: Southwest Wisconsin Technical College  
Resources: <http://www.swtc.edu:8082/courses/gensci>  
Supplies: Scientific calculator

## Course Outcomes

Primary Core Ability: Communicate Clearly  
General Education Outcome: Apply Scientific Concepts

## Competencies

Convert measurements to required accuracy  
Create tables and graphs  
Create a model  
Use the scientific method  
Interpret a model of an atom  
Use the Periodic Table  
Distinguish between physical, nuclear, and chemical changes  
Determine chemical properties of basic compounds  
Analyze a chemical equation  
Relate technical applications to chemical or physical properties  
Examine basic cell structure  
Interpret basic cell function

## **Grading Information**

### **Rationale**

**Attendance, Attitude, and Participation:** Regular attendance will be taken and is mandatory for the successful completion of this course. Attitude and participation will also play a major part in this course. Grades will not be directly assigned for these factors but they may figure into a student's final grade based on the instructor's discretion. See policy regarding makeup work.

**Worktext, Internet Assignments, and Labs:** Students will be expected to complete the assigned reading, questions, and activities presented in the "Technical Science" worktext. The worktext will be checked periodically at the instructor's discretion and point values from 0-10 will be given. Failure to complete the worktext will cause the student to lose these points and will also adversely affect their performance on the quizzes. In addition, there will be Internet assignments that will require the student to answer questions based on a particular web site and email the answers back to the instructor within the allotted time. Students will also perform lab activities. Labs that require set up cannot be made up. The worktext, Internet assignments, and labs will be 20% of the student's grade.

**Quizzes:** The student will be required to complete 16 quizzes covering material from the three units outlined above. The quizzes range in value from 14 to 50 points. Quizzes may be assigned by the instructor to be completed individually, as take home assignments, or as group projects. Quizzes represent 40% of the student's grade.

**Tests:** The student will be required to complete a test covering each unit. The tests represent 25% of the student's grade.

**Report:** Students will complete a short report on a topic of their choice in the field of science. The specific requirements will be explained after completion of Unit 2. The project will represent 15% of the students' grade.

### **Final Grade Computation**

The final grade is based 40% on quizzes and 25% on tests, 15% on report and 20% on worktext, Internet assignments, and labs.

**Quizzes -** At the end of the semester after the student has dropped one quiz grade, the quiz points earned will be divided by the total quiz points possible for that student. This is the quiz score.

**Tests -** The test points earned will be divided by the possible test points. This is the test score.

**Worktext, Internet Assignments, and Labs -** The worktext and Internet assignment points earned will be divided by the possible worktext and internet assignment points. This is the assignment score.

**Report -** The report points earned will be divided by the possible report points. This is the report score.

**Final % =** (Quiz Score x 40%) + (Test Score x 25%) + (Assign. Score x 20%) + (Report Score x 15%)

The final percentage will translate into a grade based on the scale below.

### **Grading Scale**

A = 92% - 100%

B = 83% - 91%

C = 74% - 82%

D = 65% - 73%

F = Below 65%

## **Guidelines and Information**

### **Make Up Work and Absentee Policy**

It is essential that students attend class regularly. For this reason NO quizzes, tests, or assignments can be made-up after an absence. If a student knows that they will be unable to attend a class, the student can make arrangements to complete the work for that day without penalty. It is the student's responsibility to make these arrangements prior to the absence. Students will be allowed to drop one quiz grade of their choice at the end of the semester. Neither the project grade nor the worktext/internet grade nor a test grade can be dropped.

### **ADA Statement**

Students with disabilities should contact the Special Services Coordinator to arrange special accommodations or services to participate in this course, please contact...

Alan Propst, Special Services Coordinator,  
Building 100 Room 108.

1-800-362-3322 x 2130 or TDD 1-608-822-2072.

apropst@swtc.edu

Refer to the Student Handbook for further details.

### **Ethics Policy:**

When an instructor has evidenced dishonest behavior by a student or students, that student shall be withdrawn from the course for the semester. A letter describing the infraction will be sent to the student and the division dean and filed with student services. The student or students will be required to meet with the division dean, the counselor, and the course instructor.

### **ASC Statement**

If you would like some additional help understanding the course material, you can stop at the Academic Skills Center (building 100 room 107). Instructors are available at all times to answer any questions you may have regarding this course. This service is provided free of charge to all SWTC students. All you have to do is "ASC".

## **Grade Record**

### **Unit 1 Scientific Tools and Methods**

<b>Section</b>	<b>Assignment</b>	<b>Quiz</b>	<b>Test</b>
<b>Making Observations</b>	-----	Quiz 1 =	-----
<b>Measurements</b>	-----	Quiz 2 =	-----
<b>Tables and Graphs</b>	-----	Quiz 3 =	-----
<b>Models</b>	-----	Quiz 4 =	-----
<b>Scientific Method</b>	-----	Quiz 5 =	-----
			Test 1 =

## Unit 2 Introduction to Chemistry

Section	Assignment	Quiz	Test
Study of Matter	-----	Quiz 6 =	-----
Multidimensional Properties	Multidimensional Properties Worksheet	Quiz 7 =	-----
Atoms	Atom Web Assign	Quiz 8 =	-----
Elements, Isotopes, and Ions	-----	Quiz 9 =	-----
Periodic Table	Periodic Table Web Assign.	Quiz 10 =	-----
Physical, Nuclear, & Chemical Changes	-----	Quiz 11 =	-----
Chemical Bonds	Soap Web Assign	Quiz 12 =	-----
			Test 2 =

## Report

Report / Presentation	Score =
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## Unit 3 Chemistry Applications

Section	Assignment	Quiz	Test
Making Compounds	Making Molecules Wrksht Acid/Base Web Assign	Quiz 13 =	-----
Chemical Equations	Skip this section	Skip this section	Skip this section
Chemistry in Your Everyday Life.	Shampoo Evaluation	-----	-----
Biochemistry	Solvents Web Assign Fat Assign	Quiz 15 =	-----
Cells	Hair Color Web Assign	Quiz 16 =	-----
Meiosis	Meiosis Worksheet	Quiz 17 =	-----
Genetics	Tanning Web Assign	Quiz 18 =	-----
			Test 3 =