



**Integrated Science 352.01E, 20776**  
**COURSE SYLLABUS: Spring 2018**

**Instructor:** Dr. Cheri Davis

**Office Location:** Science #148

**Office Hours:** Monday/Wednesday 2-3 pm & Tuesday/Thursday 3:30-4 pm, Friday 9-10 am, or anytime my office is open and I am available.

**Office Phone:** 903 468 8650      **Fax:** 903 468 8651

**University Email Address:** [Cheri.Davis@tamuc.edu](mailto:Cheri.Davis@tamuc.edu)

**Class Hours:** Tuesday & Thursday 9:30-10:45 am, STC 135

### **COURSE INFORMATION**

**Materials:** Textbooks, Readings, Supplementary Readings

- **978-1-68231-288-9** Next Gen PET "Matter and Interactions" Module (Studio style)
- **978-1-68231-287-2** Next Gen PET "Waves, Sound and Light" Module (Studio style)
- Course specific lab packet **IS 352: Davis** available from the campus bookstore

The required lab packet is specific for this course and is available at the campus bookstore, please verify that you are getting the one designated **IS 352: Davis** at the time of your purchase. A calculator is recommended for each student; a simple inexpensive 5-function calculator will work. In addition to the text & class packet, students will need something for note taking, and computer/printer access.

### **Course Description**

Science is an interesting and diverse topic; it is the instructor's intent to demonstrate that learning and teaching can be enjoyable as well as educational. Science is what allows mankind to function in a productive manner. We will explore the question, "What is Science?" and help each individual grasp an understanding of his/her own philosophy of teaching.

Students will participate in a cooperative learning environment through hands-on experiments and lecture. Pedagogy, methods and techniques, critical thinking, data analysis, proper handling of equipment, and content will be explored in this course.

### **Topics Covered**

#### **Matter and Interactions Module**

The main purpose of this module is to introduce students to theories and models that can help explain some of the properties of materials, changes in those properties, and interactions between materials. The 'small particle theory' is used in the Physical Changes Unit to account for the properties of gases, liquids, and solids, and changes in state. In each of these physical changes, the identities of the materials, as well as their masses,

remain the same. In the Chemical Reactions Unit, students will consider situations where the identities of the materials change. Students will learn how to classify materials according to macroscopic properties, and learn that mass is conserved even during chemical reactions. Students will learn about the small particle theory for chemical reactions, and how elements and compounds are composed of small particles—atoms, molecules, and formula units and can then ‘explain’ why mass is conserved in chemical reactions (or physical changes) in terms of the same number of atoms of the reactants and products in the chemical reaction. Students will explore how materials are classified and organized according to their physical and chemical properties (Periodic Table), and how the organization can be explained in terms of atoms and ions and the behavior of valence electrons. Finally, students will use a simple model to describe ionic and covalent bonds and explain the chemical composition of molecules and formula units.

### **Unit PC: Physical Changes**

The purpose of this unit is to introduce students to the small particle theory of gases, liquids, and solids. Through experiments, demonstrations, and movies, they will observe macroscopic phenomena and then, with the aid of computer simulations, try to explain the phenomena in terms of small particle theory. Students will consider gases and investigate changes in the macroscopic quantities of pressure, volume, temperature, and mass which leads them to a mathematical statement of the relationship between these quantities known as the Ideal Gas Law. Students will explore the changes of states of matter, consider liquids, and the change of state from gas to liquid. They are introduced to different forms of matter and can be used to distinguish substances from one another such as the characteristic property of density. Students also examine the differences between solids and liquids. Students will examine the role of energy in physical changes, and come up with energy models for the heating and cooling of substances, and for changes of state between solids, liquids, and gases.

### **Unit CR: Chemical Reactions**

In Unit PC, students used the small particle model to explain changes to materials (gases, liquids or solids) that do not involve changes to the physical identities of the materials. In this unit, they explore what happens when materials interact in a way such that their chemical identities change. These interactions are called chemical reactions.

Students will learn about the evidence supporting the claim that a chemical reaction has occurred and to classify materials as pure substances (elements and compounds), and mixtures (solutions and heterogeneous mixtures) according to macroscopic criteria. Students will gather evidence to conclude that mass is conserved during chemical reactions as well as during physical changes. Students will learn about the small particle theory of chemical reactions, and that elements and compounds are composed of small particles—atoms, molecules, and formula units and become familiar with both pictorial and chemical equation representations of reactions.

Students learn about how elements can be classified and organized, and develop a general understanding of the organization of the Periodic Table. Students will learn how the macroscopic organization of the Periodic Table can be simply ‘explained’ in terms of atoms, ions, and the behavior of valence electrons. They will use the Lewis Dot Diagram Model to describe both ionic and covalent bonding, which provides insight as to why molecules or formula units are comprised of very specific numbers of different atoms. Students will use what they have learned to explain everyday chemical and physical phenomena.

## **Waves, Sound & Light Module**

The main purpose of this module is to introduce students to a wave model, studying different types of waves and phenomena that can be explained in terms of waves. In the unit on waves and sound (UWS), students are introduced to properties of mechanical waves in one dimension, two dimensions, and three dimensions according to types of waves and mediums. Wave properties include amplitude, frequency, wavelength, and wave speed. They also learn about both transverse and longitudinal waves. The unit on light (UL) includes a very brief introduction to electromagnetic waves, describing visible light as an example. Students use the light ray model to explore pinhole and shadow phenomena and to learn about reflection and refraction of light. As time allows, students will learn about how the eye/brain system perceives color and explore both color addition of lights and color subtraction with color filters.

### **Unit WS: Mechanical Waves and Sound**

This unit introduces students to a wave model where students will learn about the properties of (mechanical) waves in one dimension, two dimensions, and three dimensions. The students will learn about transverse and longitudinal waves; that the frequency of the wave is the same as that of the source; that the wave speed depends on the properties of the medium; and that for a constant wave speed, the frequency and wavelength are inversely related.

### **Unit L: Light and Color**

Students learn that light is a special type of wave-motion known as an electromagnetic wave. Unlike mechanical waves, electromagnetic waves do not require a medium to travel through. Visible light occupies a tiny fraction of the entire range of electromagnetic waves, and within that range the different frequencies (wavelengths) of light are perceived as different colors.

Students will learn that light travels in straight lines and that its behavior can be represented by light ray diagrams. Finally, students will study light and color; to approximate the color spectrum by assuming it consists of three bands: red for the longest wavelengths, green for the middle range, and the blue for the shortest. After a description of the three-color receptors in the eye, students learn about color addition of lights.

### **Student Learning Outcomes**

1. Students will be better prepared to achieve success completing the TExES exam.
  - Students will understand the basic methodology of science through experimentation.
  - Students will understand the meaning, application, and concepts of the periodic table.
  - Students will understand the properties of matter; states/phase changes.
  - Students will learn the basic functions of: balancing equations, acids/bases, and reactions.
  - Students will learn the basic concepts of waves, types of waves, propagation, & the E&M Spectrum.
  - Students will prove content mastery through taking and passing exams.
2. Students will gain a better pedagogical understanding.
  - Students will identify and practice different teaching methods.
  - Students will identify different learning styles.
  - Students will be able to determine how teaching and learning styles complement or support material in various situations.

- Students will better understand the NGSS/TEKS alignment and how that process applies to content delivery.

3. Students will assist the instructor through cooperative learning to provide interesting and practical science knowledge and skills for taking instruction into the classroom and everyday life.

- Students will identify student centered versus teacher centered instructional methods.
- Students will practice student centered instruction.
- Students will develop a plan for laboratory safety and classroom management.

## **COURSE REQUIREMENTS**

### **Instructional / Methods / Activities Assessments**

The instructional methods for this course will vary with the topic being explored. Students will be attentive through any lecture, providing the instructor/presenter their full attention. Questions will be welcomed and are encouraged during lecture, however students will not engage in "personal discussions" thus disrupting class.

Students will be working in groups to complete labs throughout the semester. It is imperative that students do NOT miss class as their group will not have each member's contribution. Any missed classes will not be made up. For clarification purposes, there are NO make-up labs. This includes any lab section of a test.

### **Grading**

The following scale will be used for determining final course grades:

Attendance	15%
Daily labs/quizzes/assignments	55%
Exams 10 % each (3 total)	30%

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

#### Tentative Exam Dates

- 1) March 1
- 2) April 19
- 3) TBA-finals week according to the university calendar

Test dates are approximate and subject to change. Test dates will be determined by the amount of material covered and the rate at which the course advances. Advance notice will be given to allow ample time for preparation.

Plagiarism or cheating will not be tolerated for any reason and violation will provide the individual(s) involved with a failing grade and a referral to the dean's office for further disciplinary action.

## **TECHNOLOGY REQUIREMENTS**

Preservice teachers need to incorporate technology into their learning so that they can take this knowledge and understanding into their classrooms as they facilitate learning. Throughout this course, students will be using tools and technology to complete laboratory procedures. Students will need computer and printer access to complete various assignments. All written work should be typed, including citations as needed. Emailing your

assignments instead of printing and turning in is not acceptable. Students should expect a large amount of printing through the duration of this course.

This course is web enhanced and students will be participating through the MyLeo portal. Students must have access to a scanner or smart phone that takes quality images to submit homework and assignments. I like/use Genius Scan; there are many different apps that will work with various smartphones and some are free.

- Students should have access to Skype (or equivalent) to participate in office hours.
- Students will need to use the current Flash enabled browser. For PC users, the recommended browser is Google Chrome or Mozilla Firefox, and for Mac users; the most current version of Mozilla Firefox is recommended.
- Students will need regular access to a computer with broadband internet connection. The minimum computer requirements are:
  - 512 MB of RAM, 1 GB or more preferred
  - Broadband connection required-courses are video intensive
  - Video display capable of high-color 16-bit display (1024 x 768) or higher resolution
- Students must have:
  - A sound card, usually integrated into your computer
  - Speakers/headphones
  - For courses utilizing video-conferencing tools, and/or online proctoring solutions, a webcam and microphone are required.
- Students must have antivirus software installed, up to date, and enabled.
- Both versions of JAVA (32 & 64 bit) must be installed and up to date on your computer. Java 7, update 51 is required to support the learning management system. The most current version of Java can be downloaded at: <https://www.java.com/en/download/manual.jsp>
- Run a browser check through the Pearson LearningStudio Technical Requirements website.
  - Browser Check: [http://help.ecollege.com/LS\\_Tech\\_Req\\_WebHelp/en-us/#LS\\_Technical\\_Requirements.htm#Browset](http://help.ecollege.com/LS_Tech_Req_WebHelp/en-us/#LS_Technical_Requirements.htm#Browset)Running the browser check will ensure your internet browser is supported.
  - Pop-ups are allowed.
  - JavaScript is enabled.
  - Cookies are enabled.
- Students will need some additional free software (plug-ins) for enhanced web browsing. Ensure that you download the free versions of the following software:
  - Adobe Reader: <https://get.adobe.com/reader/>
  - Adobe Flash Player (version 17 or later): <https://get.adobe.com/flashplayer/>
  - Adobe Shockwave Player: <https://get.adobe.com/shockwave/>
  - Apple Quick Time: <http://www.apple.com/quicktime/download/>
- At a minimum, you must have Microsoft Office 2013, 2010, 2007 or Open Office. Microsoft Office is the standard office productivity software utilized by faculty, students, and staff. Microsoft Word is the standard word processing software, Microsoft Excel is the standard spreadsheet software, and Microsoft PowerPoint is the standard presentation software.
  - Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required.
  - If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.
- For additional information about system requirements, please see: System Requirements for LearningStudio: <https://secure.ecollege.com/tamuc/index.learn?action=technical>

## ACCESS AND NAVIGATION

### **Pearson LearningStudio (eCollege) Access and Log in Information**

This course will be facilitated using Pearson LearningStudio, the learning management system used by Texas A&M University-Commerce. To get started with the course, go to myLeo. <http://www.tamuc.edu/myleo.aspx>

You will need your CWID and password to log in to the course. If you do not know your CWID or have forgotten your password, contact Technology Services at 903.468.6000 or [helpdesk@tamuc.edu](mailto:helpdesk@tamuc.edu)

It is strongly recommended that you perform a “Browser Test” prior to the start of the course. To launch a browser test, login to Pearson LearningStudio, click on the “My Courses” tab, then select the “Browser Test” link under Support Services.

**Pearson Learning Studio Student Technical Support** Texas A&M University-Commerce provides students technical support in the use of Pearson LearningStudio. Technical assistance is available 24 hours a day/ 7 days a week.

If at any time you experience technical problems (e.g., you can't log in to the course, you can't see certain material, etc.) please contact the Pearson LearningStudio Help Desk, available 24 hours a day, seven days a week. The student help desk may be reached by the following means 24 hours a day, seven days a week.

- **Chat Support:** Click on 'Live Support' on the tool bar within your course to chat with a Pearson Learning Studio Representative.

- **Phone:** 1-866-656-5511 (Toll Free) to speak with Pearson Learning Studio Technical Support Representative.

**Accessing Help from within Your Course:** Click on the 'Tech Support' icon on the upper left side of the screen inside the course. You then will be able to get assistance via online chat, email or by phone by calling the Help Desk number noted below.

**Note:** Personal computer problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, an Internet cafe, or a bookstore, such as Barnes & Noble, etc. Policy for Reporting Problems with Pearson LearningStudio. Should students encounter Pearson LearningStudio based problems while submitting assignments/discussions/comments/exams, the following procedure **MUST** be followed:

1. Students **MUST** report the problem to the help desk. You may reach the helpdesk at 1-866-656-5511.
2. Students **MUST** file their problem with the helpdesk and obtain a helpdesk ticket number.
3. Once a helpdesk ticket number is in your possession, students should email to advise me of the problem including the helpdesk ticket number.
4. At that time, I will follow-up with the helpdesk to confirm your problem.

### **PLEASE NOTE:**

Your personal computer/access problems are not a legitimate excuse for filing a ticket with the Pearson LearningStudio Help Desk. You are strongly encouraged to check for compatibility of your browser **BEFORE the course begins** and to take the Pearson LearningStudio tutorial offered for students who may require some

extra assistance in navigating the Pearson LearningStudio platform. ONLY Pearson LearningStudio based problems are legitimate.

### myLeo Support

Your myLeo email address is required to send and receive all student correspondence. Please email [helpdesk@tamuc.edu](mailto:helpdesk@tamuc.edu) or call us at 903-468-6000 with any questions about setting up your myLeo email account. You may also access information at myLeo. <https://leo.tamuc.edu>

### Learner Support

Go to the following links:

**One Stop Shop** - created to serve you by attempting to provide as many resources as possible in one location. <http://www.tamuc.edu/admissions/onestopshop/>

**Academic Success Center**- focused on providing academic resources to help you achieve academic success. <http://www.tamuc.edu/campusLife/campusServices/academicSuccessCenter/>

### FREE MOBILE APPS

The Courses apps for phones have been adapted to support the tasks students can easily complete on a smaller device. Due to the smaller screen size course content is not presented. The Courses app is free of charge. The mobile Courses Apps are designed and adapted for different devices.

	<b>App Title:</b>	<b>iPhone – Pearson LearningStudio Courses for iPhone</b> <b>Android – LearningStudio Courses - Phone</b>
	<b>Operating System:</b>	<b>iPhone</b> - OS 6 and above <b>Android</b> – Jelly Bean, Kitkat, and Lollipop OS
	<b>iPhone App URL:</b>	<a href="https://itunes.apple.com/us/app/pearson-learningstudio-courses/id977280011?mt=8">https://itunes.apple.com/us/app/pearson-learningstudio-courses/id977280011?mt=8</a>
	<b>Android App URL:</b>	<a href="https://play.google.com/store/apps/details?id=com.pearson.lsphone">https://play.google.com/store/apps/details?id=com.pearson.lsphone</a>

Once downloaded, search for Texas A&M University-Commerce, and it should appear on the list. Then you will need to sign into the myLeo Mobile portal.

The Courses App for Android and iPhone contain the following feature set:

- View titles/code/Instructor of all Courses enrolled in online
- View and respond to all discussions in individual Courses
- View Instructor Announcements in individual Courses
- View Graded items, Grades and comments in individual Courses
- Grade to Date
- View Events (assignments) and Calendar in individual Courses
- View Activity Feed for all courses
- View course filters on activities
- View link to Privacy Policy
- Ability to Sign out
- Send Feedback

### LEARNINGSTUDIO NOTIFICATIONS

Students can be alerted to course activities via text on their mobile phones or up to two email addresses.

To begin setting up notifications, go into your course in LearningStudio and click on the bell-shaped Notifications icon on the main menu ribbon.

By default the student's university email address will appear. This cannot be changed in LearningStudio. Additional email addresses may be added by clicking the Add button. After all of the other selections are completed be sure to click the Save and Finish button.

## COMMUNICATION AND SUPPORT

### Interaction with Instructor

Students are welcome to visit during office hours or at any other time I am in my office and available. For a specific time outside of the scheduled office hours please feel welcome to call my office or email to schedule an appointment.

All written communication needs to be through email at this address: [Cheri.Davis@tamuc.edu](mailto:Cheri.Davis@tamuc.edu)

Students will be expected to regularly check their email provided to/by the University through eCollege/myLeo as this address is provided to the professor. In **ALL email**, students are required to include the following information in the subject line: **the course name, your name, and a (very) brief statement/inquiry.**  
e.g. Subject: IS 352, Dr. Davis, lesson #3 question

This will allow all inquiries to be answered as soon as possible. If a response is not received within 2-weekdays then assume there was a problem with the email and please follow-up through other contact options.

## COURSE AND UNIVERSITY PROCEDURES/POLICIES

### Course Specific Policies

Violation of any class policies will be reflected on the student's final grade for the course.

1. **Be professional.** You are completing your degree and preparing for the classroom as the facilitator of instruction. Your attitude should reflect your professionalism which should include the remaining class policies.
2. **Be here.** Absences will result in lowering your overall grade and counts as 15% of your grade for this course. If you know in advance that you are going to miss class, please inform me in writing-email is preferred.

This class meets twice weekly, missing even one class results in missing a large amount of material. Excessive absences may result in the student being dropped from class with a failing grade.

3. **Be on time.** Tardiness will be a direct reflection of your professional attitude. This class meets Tuesday & Thursday from 9:30-10:45 am. This is a very short amount of time and must be utilized effectively. It is important that you arrive to class on time. Excessive tardiness will result in a low participation grade for this course and the result will be reflected in student's final grade. Tardiness is a bad habit, impolite, disruptive, and unprofessional.

As a teacher, you will be expected to turn in grades on time as well as meeting other deadlines; again be professional. Absences are not considered a good reason for turning in late assignments. All due dates are given in advance; take them seriously as late work is not accepted.

4. **Be courteous.** Cell phones will be turned off; failure to comply will result in the student being excused from class. I will give you my undivided attention and I expect the same of each student.

No electronic devices (this includes use of a computer/tablet/iPad/other) will be permitted during class unless arrangements are made in advance and approved by the professor. I have a set of computers which will be supplied for any necessary lab activities.

### **Course Specific Procedures**

1. Students will be required to take all exams and must prove content mastery by completing at least two tests with a grade of 70 or better to pass this course. It may be possible for students to complete all coursework with a high enough average to pass the overall class without completing any of the tests with a grade above 70. If fewer than 2 exams are not completed with a score above 70, the student will receive a failing grade for the course. Combined exams total 30% of the final grade.
2. Students will be responsible for their learning and participate in all class activities with a positive attitude. Professionalism will be practiced in this course.
3. Students will have all homework completed/printed upon entering class. Late work is not accepted so do not be late to class. Students will not attempt to work on any material for another class.
4. Students will contribute to a grade specific notebook assignment which is strategically formatted to aid the student in planning lessons, locating appropriate supplementary curriculum/experiments, and becoming competent in the use and navigation of the NGSS & TEKS. Additional instructions will be provided.
5. Students will be printing a large amount of material through the semester for regular assignments/homework. Students will need computer and printer access. Students will be responsible for their own printing needs. Emailing material to the professor (or TA) to print for you is **not** an option.
6. Students will participate and contribute equally in group activities; this includes cleaning work area after class/labs. All collaborative assignments will have an individual grade for each student dependent upon their individual contribution, collaboration, content, and professionalism. Failure to comply will be reflected in the non-compliant student's grade and will not be a detriment to the remaining group members.
7. Students are welcome to visit during office hours, or make an appointment if the posted hours do not fit the need. If you are struggling, seek assistance early. Students have the option to earn an A for this class, however extra credit is not usually offered. Although I have the right to drop a student for excessive absences, I won't do so. Students have the right to earn an F if they decide to not complete the work. I generally do not offer or approve drops/incompletes for poor effort.

### **University Specific Procedures**

#### **Student Conduct**

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.

<http://www.tamuc.edu/admissions/registrar/documents/studentGuidebook.pdf>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: Netiquette <http://www.albion.com/netiquette/corerules.html>

## **TAMU-C Attendance**

For more information about the attendance policy please visit the Attendance webpage and Procedure 13.99.99.R0.01.

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

## **Academic Integrity**

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures

Undergraduate Academic Dishonesty 13.99.99.R0.03

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

Graduate Student Academic Dishonesty 13.99.99.R0.10

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf>

## **ADA Statement**

### **Students with Disabilities**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

### **Office of Student Disability Resources and Services**

Texas A&M University-Commerce Gee Library 132

**Phone:** (903) 886-5150 or (903) 886-5835

**Fax:** (903) 468-8148    **Email:** [Rebecca.Tuerk@tamuc.edu](mailto:Rebecca.Tuerk@tamuc.edu)

[StudentDisabilityServices@tamuc.edu](mailto:StudentDisabilityServices@tamuc.edu)

Student Disability Resources & Services:

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

### **Nondiscrimination Statement**

A&M-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

### **Campus Concealed Carry**

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC)46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployees>

[AndStudents/34.06.02.R1.pdf](#) and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

### **Student Conduct**

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See Code of Student Conduct from Student Guide Handbook).

## **COURSE OUTLINE**

**The syllabus and/or schedule are subject to change.**

### **DOMAIN IV – SCIENCE**

<b>Competency 024</b>	Safe and Proper Laboratory Processes
<b>Competency 025</b>	Scientific Inquiry
<b>Competency 026</b>	Impact on Daily Life/Environment
<b>Competency 028</b>	Theory and Practice of Science Teaching
<b>Competency 029</b>	Assessments in Science Learning
<b>Competency 031</b>	Physical Science-physical and chemical properties
<b>Competency 032</b>	Physical Science-energy
<b>Competency 034</b>	Life Science

In science, many of the concepts work in conjunction with others, the weekly outline is general and not specific. The outline is approximated for a long semester.

<b>Week</b>	<b>Topic</b>		
1	Syllabus, experiments, pedagogy, & expectations		
2-6	Physical Changes	Module	Test 1
7-12	Chemical Reactions	Module	Test 2
13-15	Waves, Sound, & Light	Mod. WSL&C	Final (non-cumulative)

Dates are approximate and may change according to the progression of course content.