

## CIST 1520 – Scripting Technologies

### **DISCLAIMER STATEMENT**

**Instructor reserves the right to change the syllabus and/or lesson plan as necessary.**

**The official copy of the syllabus is located inside the student's online course shell or will be given to them during face to face class time the first day of the semester. The syllabus displayed in advance of the semester in a location other than the course you are enrolled in is for planning purposes only.**



**CIST 1520 – Scripting Technologies**  
**COURSE SYLLABUS**  
**FALL Semester 2017(FY201812)**  
**Aug 14, 2017 – Dec 6, 2017**


**COURSE INFORMATION**

Credit Hours/Minutes: **3 / 3000**  
Class Location: **Room 812 Gillis Building, Vidalia Campus**  
Class Meets: **Monday and Wednesday, 1:15 - 3:00 PM**  
CRN: **20156**  
Preferred Method of Contact: **STC Email**

**INSTRUCTOR CONTACT INFORMATION**

Instructor Name: **John Taylor**  
Office Location: **Room 810 Gillis Building, Vidalia Campus**  
Office Hours: **3:00 PM – 5:30 PM Monday - Thursday**  
Email Address: **jtaylor@southeasterntech.edu**  
Phone: **(912) 538-3116**  
Fax Number: **(912) 538-3106**  
Tutoring Hours: **Made by appointment with instructor**

**REQUIRED TEXT**

Book Image	Book Information
	<p><b>Murach's JavaScript, 2<sup>nd</sup> Edition</b></p> <p><b>Mary Delamater</b></p> <p><b>ISBN-13: 978-1-890774-85-1</b></p> <p><b>©2015 • Mike Murach &amp; Associates, Inc. • Paper</b></p> <p><b>You can purchase from the STC bookstore</b> <a href="#">STC Bookstore</a> or 912-538-3129.</p>

**REQUIRED SUPPLIES & SOFTWARE**

Text Editor software (Brackets will be used in classroom), Web Browser and Internet Access

## COURSE DESCRIPTION

Students learn how to use the features and structure of a client side scripting language, explore the features on server side scripting and develop professional web applications that include special effects, interactive, dynamic, validated, and secure forms.

## MAJOR COURSE COMPETENCIES/OUTLINE

Scripting Languages; Develop web pages using variables, expressions and operators; Develop web pages with arrays, loops and conditional statements; Develop web pages with special effects, including menus, images, and image maps; Develop web pages using interactive forms; and Develop web pages using cookies and passwords to maintain security.

## PREREQUISITE(S)

CIST 1510

## GENERAL EDUCATION CORE COMPETENCIES

STC has identified the following general education core competencies that graduates will attain:

1. The ability to utilize standard written English.
2. The ability to solve practical mathematical problems.
3. The ability to read, analyze, and interpret information.

## STUDENT REQUIREMENTS

- **Students are expected to come prepared for each class meeting, focused and ready to learn.** This means that it is necessary to read the chapters and work outside of class in order to succeed in this course. A detailed lesson schedule has been provided at the end of this syllabus.
- **Students MUST wear their STC id; one free lanyard is provided in the student affairs division. Students may NOT enter the classroom without their student id visible. This is strictly enforced.**
- Students should complete all work shown on the attached tentative lesson schedule by the scheduled deadlines, unless otherwise notified of a change in deadline.
- Homework will be collected for a grade. **Homework assignments will not be graded after the due date; a zero will be assigned if homework is not submitted on or before the due date.**
- There may be graded in class activities planned in which you will not be able to participate if you are not prepared for that day's class.
- **Unannounced quizzes or in-class assignments are subject to be given every day. A grade of zero will be assigned for any quizzes or in class assignments missed. There will be no makeup of quizzes or in class assignments; a grade of zero will be assigned.**
- Please make every effort to be in class every day. However, if you are SICK and CONTAGIOUS, please do not come to class.
- Students are expected to complete all tests, labs, and other assignments on the dates specified on the attached lesson schedule.
- Instructor reserves the right to modify the tentative lesson schedule attached to this syllabus with notice.
- Students should subscribe to remind.com for reminder from the instructor via email or text. Instructions will be provided to students.
- Students are responsible for policies and procedures included in the STC Catalog and must acknowledge this by completing the PLEDGE Discussion Topic on Blackboard the first day of class.

## ATTENDANCE GUIDELINES

Class attendance is a very important aspect of a student's success. Being absent from class prevents students from receiving the full benefit of a course and also interrupts the learning process. Southeastern Technical

College considers both tardiness and leaving early as types of absenteeism. Responsibility for class attendance rests with the student. Regular and punctual attendance at all scheduled classes is required for student success. Students will be expected to complete all work required by the instructor as described in the individual course syllabus.

Instructors have the right to give unannounced quizzes/assignments. Students who miss an unannounced quiz or assignment will receive a grade of 0. Students who stop attending class, but do not formally withdraw, may receive a grade of F and face financial aid repercussions in upcoming semesters.

Instructors are responsible for determining whether missed work may be made up and the content and dates for makeup work is at the discretion of the instructor.

Students will not be withdrawn by an instructor for attendance; however, all instructors will keep records of graded assignments and student participation in course activities. The completion dates of these activities will be used to determine a student's last date of attendance in the event a student withdraws, stops attending, or receives an F in a course.

### **SPECIAL NEEDS**

Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact Helen Thomas, 912-538-3126, [hthomas@southeasterntech.edu](mailto:hthomas@southeasterntech.edu), to coordinate reasonable accommodations.

### **SPECIFIC ABSENCES**

Provisions for Instructional Time missed because of documented absences due to jury duty, military duty, court duty, or required job training will be made at the discretion of the instructor.

### **PREGNANCY**

Southeastern Technical College does not discriminate on the basis of pregnancy. However, we can offer accommodations to students who are pregnant that need special consideration to successfully complete the course. If you think you will need accommodations due to pregnancy, please advise me and make appropriate arrangements with Helen Thomas, 912-538-3126, [hthomas@southeasterntech.edu](mailto:hthomas@southeasterntech.edu).

### **WITHDRAWAL PROCEDURE**

Students wishing to officially withdraw from a course(s) or all courses after the drop/add period and prior to the 65% portion of the semester (date will be posted on the school calendar) must speak with a Career Counselor in Student Affairs and complete a Student Withdrawal Form. A grade of "W" is assigned when the student completes the withdrawal form from the course.

Students who are dropped from courses due to attendance (see your course syllabus for attendance policy) after drop/add until the 65% point of the semester will receive a "W" for the course. Abandoning a course(s) instead of following official withdrawal procedures may result in a grade of 'F' being assigned.

After the 65% portion of the semester, the student will receive a grade for the course. (Please note: A zero will be given for all missed assignments.)

There is no refund for partial reduction of hours. Withdrawals may affect students' eligibility for financial aid

for the current semester and in the future, so a student must also speak with a representative of the Financial Aid Office to determine any financial penalties that may be assessed due to the withdrawal. All grades, including grades of 'W', will count in attempted hour calculations for the purpose of Financial Aid.

**Remember** - Informing your instructor that you will not return to his/her course does not satisfy the approved withdrawal procedure outlined above.

### **MAKEUP GUIDELINES (TESTS, QUIZZES, HOMEWORK, PROJECTS, ETC...)**

Statement will vary per program, course, or instructor. Information should be included pertaining to such items as tests, quizzes, homework, etc.....

### **ACADEMIC DISHONESTY POLICY**

The STC Academic Dishonesty Policy states All forms of academic dishonesty, including but not limited to cheating on tests, plagiarism, collusion, and falsification of information, will call for discipline. The policy can also be found in the STC Catalog and Student Handbook.

### **PROCEDURE FOR ACADEMIC MISCONDUCT**

The procedure for dealing with academic misconduct and dishonesty is as follows:

#### **1. First Offense**

Student will be assigned a grade of "0" for the test or assignment. Instructor keeps a record in course/program files and notes as first offense. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus. The Registrar will input the incident into Banner for tracking purposes.

#### **2. Second Offense**

Student is given a grade of "WF" for the course in which offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Registrar will input the incident into Banner for tracking purposes.

#### **3. Third Offense**

Student is given a grade of "WF" for the course in which the offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of third offense. The Vice President for Student Affairs, or designee, will notify the student of suspension from college for a specified period of time. The Registrar will input the incident into Banner for tracking purposes.

### **STATEMENT OF NON-DISCRIMINATION**

The Technical College System of Georgia and its constituent Technical Colleges do not discriminate on the basis of race, color, creed, national or ethnic origin, sex, religion, disability, age, political affiliation or belief, genetic information, disabled veteran, veteran of the Vietnam Era, spouse of military member or citizenship status (except in those special circumstances permitted or mandated by law). This school is in compliance with Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin; with the provisions of Title IX of the Educational Amendments of 1972, which prohibits discrimination on the basis of gender; with the provisions of Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap; and with the American with Disabilities Act (ADA).

The following individuals have been designated to handle inquiries regarding the nondiscrimination policies:

<b>ADA/Section 504 - Equity- Title IX (Students) - OCR Compliance Officer</b>	<b>Title VI - Title IX (Employees) - EEOC Officer</b>
Helen Thomas, Special Needs Specialist Vidalia Campus 3001 East 1 <sup>st</sup> Street, Vidalia Office 108 Phone: 912-538-3126 <a href="mailto:hthomas@southeasterntech.edu">hthomas@southeasterntech.edu</a>	Blythe Wilcox, Director of Human Resources Vidalia Campus 3001 East 1 <sup>st</sup> Street, Vidalia Office 138B Phone: 912-538-3147 <a href="mailto:bwilcox@southeasterntech.edu">bwilcox@southeasterntech.edu</a>

## GRIEVANCE PROCEDURES

Grievance procedures can be found in the Catalog and Handbook located on STC's website.

## ACCESS TO TECHNOLOGY

Students can now access Blackboard, Remote Lab Access, Student Email, Library Databases (Galileo), and BannerWeb via the mySTC portal or by clicking the Current Students link on the [STC website](#).

## TCSG GUARANTEE/WARRANTY STATEMENT

*The Technical College System of Georgia guarantees employers that graduates of State Technical Colleges shall possess skills and knowledge as prescribed by State Curriculum Standards. Should any graduate employee within two years of graduation be deemed lacking in said skills, that student shall be retrained in any State Technical College at no charge for instructional costs to either the student or the employer.*

### GRADING POLICY

Assessment/Assignment	Percentage
Chapter Work	15%
Chapter Exercises	20%
Short Exercises	25%
Chapter Tests	20%
Final Project	20%

### GRADING SCALE

Letter Grade	Range
A	90-100
B	80-89
C	70-79
*D	60-69
*F	0-59

\*Grade of D or below results in student repeating the class

## SYLLABUS ADDENDUM-

Please note the following classroom courtesies, which are designed to maximize the classroom experience for you and your classmates.

- Class begins promptly at the start time shown on your schedule.
  - Please make arrangements to be here on time.
  - Attendance is taken daily at the beginning of class.
  - The classroom door is locked as a safety precaution; therefore arriving late will be disruptive and inconsiderate to your instructor and your fellow classmates. Expect to wait if you arrive late and a lecture is in progress.
  - Failure to be present and accounted for at the beginning of class may result in missing an unannounced quiz, for which there are **NO MAKEUPS**.
- In an attempt to simulate a work environment, please notify your instructor if you are absent by emailing or leaving a voice message. To avoid telephone tag, please do not leave a message for your instructor to call you back. Leave a message with the information regarding your absence. You would call in to your workplace if you were going to be absent from your job; class is preparation for the workplace. See instructor contact information on the syllabus.
- **The classroom is a learning environment; enter the classroom quietly EVERY DAY. Conversations should take place in the student center or outside. You will be asked to leave if you disrupt the class; this includes sleeping.**
- **EVERY DAY**--Please turn your cell phone on silent when in the classroom. In emergencies, please go outside the building to make or receive a call. If your phone interrupts class by ringing or vibrating, you will be asked to leave class.
- Also, no texting is allowed during class; you will be asked to leave class. Texting during an exam, in particular, may result in an academic dishonesty policy violation being noted in your records.
- **No food or drinks are allowed in the classroom.** Bottled drinks may be kept in your book bag or on the floor. They should never be open or consumed in the classroom. Do **not** bring an open can or cup into the classroom. If you have a medical condition that requires a snack or drink, you should see Helen Thomas, Room 108 Vidalia Campus, 912-538-3126, to coordinate reasonable accommodations.
- Please dress appropriately for class. You may be asked to leave if dressed inappropriately, and you will be counted absent. **Regardless of current fashion trends or the time you awoke for class, no hats, caps, scarves, etc. covering the head are allowed in the classroom. This refers to both ladies and gentlemen.**

# CIST 1520 – Scripting Technologies

## LESSON PLAN

FALL Semester 2017 (FY 201812)

### WEEK 1

Date	Chapter	Content	Assignments & Test Due Dates	Competency Area
Monday August 14		<p>Class Introduction – Syllabi, Outline, Work Ethics, Rules, and Regulations Coverage</p> <p>Introduction</p>	<p><b>Logon to the course on BLACKBOARD.</b></p> <p><b>All students:</b> Click the <b>Getting Started</b> link. Complete all tasks located under the <b>Start Here Items</b>. <b>You must complete the Pledge and Student Introduction tasks within the first 3 days of class. Otherwise, you will be dropped from the class!!!</b></p> <p>To begin, click the <b>Lessons</b> link and complete each item in order to maintain attendance for the class. You have assignments to complete that are due Wednesday midnight of the following week.</p> <p>Copy the “<b>M: CIST/cist1520</b>” folder to your P: drive</p> <p>Read and work thru <b>Chapter 1</b> pp. 3-47.</p>	
Wednesday August 16	1	<p><b>Introduction to Web Development</b></p> <p><i>Class lecture and discussion</i></p>	<p>Complete <b>Exercises 1-1 &amp; 1-2</b> (pp. 48-49 in book).</p> <p>Complete <b>Short Exercise 1</b> on Blackboard. Save your work <b>cist1520/short/ch01</b>.</p> <p>Complete <b>Chapter 1 Review Questions</b> on Blackboard.</p>	1 a,c

**\*\*Week 1 assignments must be completed and turned in before midnight Aug 23.**



## WEEK 2

Date	Chapter	Content	Assignments & Test Due Dates	Competency Area
Monday Aug 21	2	<b>Getting Started with JavaScript</b>  <i>Class lecture and discussion</i>	Read and work thru <b>Chapter 2</b> pp. 51-81.	1,2 a,c
Wednesday Aug 23			Complete <b>Exercises 2-1, 2-2 &amp; 2-3</b> (pp. 81-82 in book). Complete <b>Short Exercise 2</b> on Blackboard. Save your work <b>cist1520/short/ch02</b> . Complete <b>Chapter 2 Review Questions</b> on Blackboard	1,2 a,c

**\*\*Week 2 assignments must be completed and turned in before midnight Aug 30.**

## WEEK 3

Date	Chapter	Content	Assignments & Test Due Dates	Competency Area
Monday Aug 28	3	<b>The Essential JavaScript Statements</b>  <i>Class lecture and discussion</i>	Read and work thru <b>Chapter 3</b> pp. 83-104.	1,2,3,5 a,c
Wednesday Aug 30			Complete <b>Exercises 3-1 &amp; 3-2</b> (pp. 105-106) Complete <b>Short Exercise 3</b> on Blackboard. Save your work <b>cist1520/short/ch03</b> . Complete <b>Chapter 3 Review Questions</b> on Blackboard	1,2,3,5 a,c

**\*\*Week 3 assignments must be completed and turned in before midnight Sep 6.**

## WEEK 4

Date	Chapter	Content	Assignments & Test Due Dates	Competency Area
Monday Sep 4	H	<b>HOLIDAY (Labor Day)</b>		
Wednesday Sep 6	4	<b>How to Work with JavaScript Objects, Functions, and Events</b>  <i>Class lecture and discussion</i>	Read and work thru <b>Chapter 4</b> pp. 107-134.	1,2,3,5 a,c

**\*\*Week 4 assignments must be completed and turned in before midnight Sep 13.**

## WEEK 5

Date	Chapter	Content	Assignments & Test Due Dates	Competency Area
Monday Sep 11			Complete <b>Exercises 4-1 &amp; 4-2</b> (pp. 135-138)	1,2,3,5 a,c
Wednesday Sep 13			Complete <b>Short Exercise 4</b> on Blackboard. Save your work <b>cist1520/short/ch04</b> . Complete <b>Chapter 4 Review Questions</b> on Blackboard	1,2,3,5 a,c

**\*\*Week 5 assignments must be completed and turned in before midnight Sep 20.**

## WEEK 6

Date	Chapter	Content	Assignments & Test Due Dates	Competency Area
Monday Sep 18	<b>5</b>	<b>How to Script Forms and Controls</b>  <i>Class lecture and discussion</i>	Read and work thru <b>Chapter 5</b> pp. 139-172.	1,2,3,5 a,c
Wednesday Sep 20			Complete <b>Exercises 5-1 &amp; 5-2</b> (pp. 173-174) Complete <b>Short Exercise 5A &amp; 5B</b> on Blackboard. Save your work <b>cist1520/short/ch05</b> . Complete <b>Chapter 5 Review Questions</b> on Blackboard	1,2,3,5 a,c

**\*\*Week 6 assignments must be completed and turned in before midnight Sep 27.**

## WEEK 7

Date	Chapter	Content	Assignments & Test Due Dates	Competency Area
Monday Sep 25	<b>6</b>	<b>How to Test and Debug a JavaScript Application</b>  <i>Class lecture and discussion</i>	Read and work thru <b>Chapter 6</b> pp. 175-194.	1 a,c
Wednesday Sep 27			Complete <b>Exercises 6-1, 6-2 &amp; 6-3</b> (pp. 195-196) Complete <b>Short Exercise 6</b> on Blackboard. Save your work <b>cist1520/short/ch06</b> . Complete <b>Chapter 6 Review Questions</b> on Blackboard	1 a,c

**\*\*Week 7 assignments must be completed and turned in before midnight Oct 4.**

## WEEK 8

Date	Chapter	Content	Assignments & Test Due Dates	Competency Area
Monday Oct 2	7	<b>How to Work with Numbers, Strings, and Dates</b>  <i>Class lecture and discussion</i>	Read and work thru <b>Chapter 7</b> pp. 175-194.	1,2,3,5 a,c
Wednesday Oct 4			Complete <b>Exercises 7-1</b> (pp. 227-228). Complete <b>Short Exercise 7</b> on Blackboard. Save you work <b>cist1520/short/ch07</b> . Complete <b>Chapter 7 Review Questions</b> on Blackboard	1,2,3,5 a,c

**\*\*Week 8 assignments must be completed and turned in before midnight Oct 11.**

## WEEK 9

Date	Chapter	Content	Assignments & Test Due Dates	Competency Area
Monday Oct 9	8	<b>How to Code Control Statements</b>  <i>Class lecture and discussion</i>	Read and work thru <b>Chapter 8</b> pp. 229-254.	1,2,3,5 a,c
Wednesday Oct 11			Complete <b>Exercises 8-1 &amp; 8-2</b> pp. 255-256. Complete <b>Short Exercise 8</b> on Blackboard. Save you work <b>cist1520/short/ch08</b> . Complete <b>Chapter 8 Review Questions</b> on Blackboard	1,2,3,5 a,c

**\*\*Week 9 assignments must be completed and turned in before midnight Oct 18.**

## WEEK 10

Date	Chapter	Content	Assignments & Test Due Dates	Competency Area
Monday Oct 16	9	<b>How to Work with Arrays and Web Storage</b>  <i>Class lecture and discussion</i>	Read and work thru <b>Chapter 9</b> pp. 257-290.	1,2,3,5,6 a,c
Wednesday Oct 18			Complete <b>Exercises 9-1</b> pp. 291-292. Complete <b>Short Exercise 9</b> on Blackboard. Save you work <b>cist1520/short/ch09</b> . Complete <b>Chapter 9 Review Questions</b> on Blackboard	1,2,3,5,6 a,c

**\*\*Week 10 assignments must be completed and turned in before midnight Nov 1.**

## WEEK 11

Date	Chapter	Content	Assignments & Test Due Dates	Competency Area
Monday Oct 23	10	<b>How to Create and Use Functions</b>  <i>Class lecture and discussion</i>	Read and work thru <b>Chapter 10</b> pp. 293-316	1,2,3,5 a,c
Wednesday Oct 25			Complete <b>Exercises 10-1</b> pp. 317-318. Complete <b>Short Exercise 10</b> on Blackboard. Save you work <b>cist1520/short/ch10</b> . Complete <b>Chapter 10 Review Questions</b> on Blackboard	1,2,3,5 a,c

**\*\*Week 11 assignments must be completed and turned in before midnight Nov 1.**

## WEEK 12

Date	Chapter	Content	Assignments & Test Due Dates	Competency Area
Monday Oct 30	11	<b>How to Create and Use Objects</b>  <i>Class lecture and discussion</i>	Read and work thru <b>Chapter 11</b> pp. 319-358	1,2,3,5 a,c
Wednesday Nov 1			Complete <b>Exercises 11-1 &amp; 11-2</b> pp. 359-360. Complete <b>Short Exercise 11</b> on Blackboard. Save you work <b>cist1520/short/ch11</b> . Complete <b>Chapter 11 Review Questions</b> on Blackboard	1,2,3,5 a,c

**\*\*Week 12 assignments must be completed and turned in before midnight Nov 8.**

## WEEK 13

Date	Chapter	Content	Assignments & Test Due Dates	Competency Area
Monday Nov 6	12	<b>How to Use Regular Expressions, Handle Exceptions, and Validate Data</b>  <i>Class lecture and discussion</i>	Read and work thru <b>Chapter 12</b> pp. 361-390.	1,2,3,5 a,c
Wednesday Nov 8			Complete <b>Exercises 12-1 &amp; 12-2</b> pp. 391-392. Complete <b>Short Exercise 12</b> on Blackboard. Save you work <b>cist1520/short/ch12</b> . Complete <b>Chapter 12 Review Questions</b> on Blackboard	1,2,3,5 a,c

**\*\*Week 13 assignments must be completed and turned in before midnight Nov 15.**

## WEEK 14

Date	Chapter	Content	Assignments & Test Due Dates	Competency Area
Monday Nov 13	13	<b>How to Work with Events, Images, and Timers</b>  <i>Class lecture and discussion</i>	Read and work thru <b>Chapter 13</b> pp. 395-426 Complete <b>Exercises 13-1 &amp; 13-2</b> pp. 427-428.	1,2,3,4,5 a,c
Wednesday Nov 15			Complete <b>Short Exercise 13</b> on Blackboard. Save you work <b>cist1520/short/ch13</b> . Complete <b>Chapter 13 Review Questions</b> on Blackboard	1,2,3,4,5 a,c

**\*\*Week 14 assignments must be completed and turned in before midnight Nov 30.**

## WEEK 15

Date	Chapter	Content	Assignments & Test Due Dates	Competency Area
Monday Nov 20	14	<b>How to Work with Closures, Callbacks, and Recursion</b>  <i>Class lecture and discussion</i>	Read and work thru <b>Chapter 14</b> pp. 429-468.	1,2,3,4,5 a,c
Wed Nov 22	H	<b>HOLIDAY (Thanksgiving) Nov 22-24</b>		

**\*\*Week 15 assignments must be completed and turned in before midnight Nov 30.**

## WEEK 16

Date	Chapter	Content	Assignments & Test Due Dates	Competency Area
Monday Nov 27			Complete <b>Exercises 14-1, 14-2 &amp; 14-3</b> pp. 469-471.	1,2,3,4,5 a,c
Wednesday Nov 29			Complete <b>Short Exercise 14</b> on Blackboard. Save you work <b>cist1520/short/ch14</b> . Complete <b>Chapter 14 Review Questions</b> on Blackboard	1,2,3,4,5 a,c

**\*\*Week 16 assignments must be completed and turned in before midnight Nov 30.**

### COMPETENCY AREAS:

1. Scripting Languages
2. Develop Web Pages using Variables, Expressions and Operators
3. Develop Web Pages with Arrays, Loops, and Conditional Statements
4. Develop Web Pages using Special Effects including Menus, Images, and Image Maps
5. Develop Web pages using Interactive Forms
6. Develop Web Pages using Cookies and Passwords to Maintain Security

### GENERAL CORE EDUCATIONAL COMPETENCIES

- a) The ability to utilize standard written English.
- b) The ability to solve practical mathematical problems.
- c) The ability to read, analyze, and interpret information.