

**LAREDO COMMUNITY COLLEGE
GENERAL COURSE SYLLABUS**

INSTRUCTOR:	Jodie M. Valls, C.O.T.A., B.A.
DEPARTMENT:	Occupational Therapy Assistant
PHONE NUMBER/EXTENSION and EMAIL ADDRESS:	(956) 721-5347 jmvalls@laredo.edu
OFFICE LOCATION: OFFICE HOURS:	Monday – 1:00-2:30 pm and 5:30-6:00 pm Tuesday – 8:00 am – 9:00 am and 1:00 – 2:00 pm (IPASS) Wednesday – 1:00 - 2:30 pm and 3:30 - 6:00 pm Thursday - 8:00 am – 9:00 am and 1:00 – 2:00 pm (IPASS) Also by Appointment
COURSE TITLE:	Human Structure and Function in Occupational Therapy
COURSE NUMBER:	OTHA 1409
COURSE LEVEL:	Introductory
CONTACT HOURS (RANGE FOR STATE INFORMATION):	80-128 range 96 hours
LAB:	Recommended
TEXTBOOKS:	<ol style="list-style-type: none"> 1. Lippert, L. (2011). <i>Clinical kinesiology and Anatomy, 5th edition</i>. Philadelphia, PA:F.A. Davis ISBN: 978-0-8036-2363-7. 2. Lippert, L. (2011). <i>Laboratory manual for clinical kinesiology and Anatomy, 3rd edition</i>. Philadelphia, PA:F.A. Davis ISBN: 978-0-8036-2390-3 3. Lippert, L. (2011). <i>Flash cards for clinical kinesiology and Anatomy, 3rd edition</i>. Philadelphia, PA:F.A. Davis ISBN: 978-0-8036-2548-8 4. Hislop, H & Montgomery, J. (2007). <i>Daniels and Worthingham's Muscle Testing Techniques of Manual Examination, 8th edi</i>. St. Louis, Saunders. ISBB: 978-1-41602-350-0 <p>Recommended:</p> <ol style="list-style-type: none"> 1. AOTA (2008). <i>Occupational therapy practice framework: domain and process, 2nd edi</i>. Bethesda, MD: AOTA. ISBN: 978-1-56900-265-0
CORE or NON-CORE Course:	Core
COURSE DESCRIPTION:	Study of the biomechanics of human motion. Emphasis on the musculoskeletal system including skeletal structure, muscles and nerves, and biomechanical assessment procedures.
END-OF-COURSE OUTCOMES:	Upon completion of the course, the student should be able to: <ol style="list-style-type: none"> 1. Identify human skeletal structure by bones, boney landmarks, and muscles. 2. Analyze human motion by muscle function, innervation, and kinetics related to functional outcomes. 3. Identify normal and abnormal movement. 4. Evaluate joint range of motion and muscle strength.
COURSE OBJECTIVES OR EXEMPLARY OBJECTIVES:	<ol style="list-style-type: none"> 1. The student will demonstrate the ability to identify human skeletal structure such as bones, boney

	<p>landmarks, and muscles. (B.1.4.)</p> <p>2. Analyze dynamic and static positions used in occupations, identify and describing joint(s) involved in the movement or position, prime movers and synergists for all joints involved, the axis and plane associate with each joint movement or position, type of muscle contractions required to complete occupation, and changes in body position and other biomechanical methods of grading the activity, identify insertion points for muscle and how they relate to normal and abnormal function during occupation. (B.1.4., B.2.7., B.2.10., B.5.1., B.5.8., B.5.11.)</p> <p>3. Demonstrate safely the ability to estimate, calculate, measure and document joint range of motion of all upper and lower extremity joints (B.1.4., B.1.10., B.2.8., B.4.1., B.4.2., B.4.3., B.4.6.)</p> <p>4. Demonstrate safely the ability to evaluate and document the strength of upper and lower extremity muscle groups, including appropriate abbreviations and numerical manual muscle test grades. (B.1.10., B.2.8., B.4.2., B.4.6.)</p> <p>5. Explain the rationale, indications, contraindications and basic principles associated with manual muscle testing and evaluation of joint range of motion. (B.2.8., B.4.1., B.4.2., B.4.3.)</p>														
SCANS COMPETENCIES:	Refer to attachment														
SCANS ASSESSMENT:	Reading and writing skills will be graded as components within the communication section of the Fieldwork Performance Evaluation; speaking and listening will be graded as a component of oral reporting; thinking skills will be graded as a component of the required analysis of case studies; personal qualities and work place competencies will include respect of others and attendance including punctuality and will be a component of personal counseling sessions as needed.														
TEACHING STRATEGIES METHODS OF INSTRUCTION:	Lecture, demonstration, discussions, chapter review, quizzes, tests, case studies, group assignments, and online resources.														
OUTCOMES ASSESSMENT:	Chapter exams, assignments (journal articles, paper, and presentation), web-discussion, and a final examination will measure the student's achievement of the specific learning objectives identified for the course.														
METHODS AND CRITERIA FOR EVALUATION:	<table> <tr> <td>Assignments/Lab Skills:</td> <td>10%</td> </tr> <tr> <td>Quizzes:</td> <td>15%</td> </tr> <tr> <td>UE/LE, Goniometry Practicums:</td> <td>20%</td> </tr> <tr> <td>Exams</td> <td>25%</td> </tr> <tr> <td>Final Exam</td> <td>25%</td> </tr> <tr> <td>Professionalism</td> <td>5%</td> </tr> <tr> <td>Total</td> <td>100%</td> </tr> </table>	Assignments/Lab Skills:	10%	Quizzes:	15%	UE/LE, Goniometry Practicums:	20%	Exams	25%	Final Exam	25%	Professionalism	5%	Total	100%
Assignments/Lab Skills:	10%														
Quizzes:	15%														
UE/LE, Goniometry Practicums:	20%														
Exams	25%														
Final Exam	25%														
Professionalism	5%														
Total	100%														

	<p>Note:</p> <ol style="list-style-type: none"> (1) The student must complete all assignments in order to receive credit for the course. If any of these assignments are not completed, the student will receive an “I” – Incomplete” grade for the semester and will not be allowed to progress in the OTA program. The student who receives an “I” has 60-90 days to submit all missing required assignments to the instructor in order for the student to earn a grade for the course. (2) The student must pass the lecture and laboratory portions each with a minimum average of 70% and have a combined grade of at least 70% in order to pass the entire course. (3) Students scoring below 70% on any lecture exam must participate in assigned remedial work prior to taking the next lecture exam during the hours of IPASS. The additional course work will not count toward the final course grade. (4) Skills are essential performance standards to competent OTA practice. Competency is considered achieved when a grade of 70% in each skill is attained. A student has a maximum of two attempts to achieve competency. If he/she does not obtain competency during the first attempt, he/she must adhere to the tutorial sessions and show written proof to the faculty member. The maximum grade that may be achieved on a second practical is 70%. The additional course work will not count toward the final course grade if the 70% is not attained in the skill component. The student will not be allowed to progress in the OTA Program. (5) “Attitude” refers to professional behavior including: attendance, compliance with dress code, maintaining professional behavior (in/out of classroom) and active participation in class.
<p>GRADING SCALE:</p>	<p>A = 100-90% B = 89-80% C = 79-70% D = 69-60% F= 59% or below NC= No credit (for developmental courses) P = Pass NP = No Pass AU = Audit</p> <p>Students must access the Semester Progress Report and Final grades through PasPort</p>

	<p>http://passport.laredo.edu).</p> <p>Instructors will notify students of the window of availability for grades.</p>
ATTENDANCE REGULATIONS:	<p>ATTENDANCE REGULATIONS</p> <p>Attendance will be taken up until the official census date, which is the first 11 class days during the fall and spring semester, and for the first three days during the summer sessions. Students who attend at least one day of class leading up to the census date will be officially enrolled in the course, and faculty members will drop any students who have not attended at least one class day. Once the official census date for the semester or session has passed, no formal attendance will be required except for programs where the respective accreditation agency requires attendance records.</p> <p>Students who do not intend to remain enrolled after attending at least one class day must initiate a drop request from any or all classes by submitting a drop slip to the Enrollment and Registration Center or through PASPort. Responsibility for class attendance rests with the student. Regular and punctual attendance is expected.</p> <p>It is advised that a student contact Financial Aid Center at (956) 721-5361 prior to dropping a course.</p> <p>Absence From Final Examinations: A student who is absent from a final examination receives a grade of "0" for the examination and a grade of "F" for the course. Any students authorized to be absent from a final examination receive a grade of F* on their transcript until they take the final examination. Such students must take the final exam within four months. Final exams cannot be re-taken.</p> <p>Other Policies (LCC and State-Wide): A. 3-peat—If a student signs up for a class for a third time, even if he/she dropped or failed it before, the State will not provide funding for that student and the student will be required to pay an additional fee. B. 6 W's—Beginning Fall 2007, students cannot drop more than 6 classes throughout their college career. Any subsequent drops will become F's. The rule includes credits earned at all Texas colleges/universities, and W's will carry over when transferring to other institutions. C. Finishing on time—The State expects students to graduate on time. Students who obtain 90 or more credit hours at a Community College are no longer eligible for</p>

	<p>financial aid.</p> <p>D. Bacterial Meningitis Vaccination Requirement effective Spring 2012.</p> <ul style="list-style-type: none"> • Per Texas State Law (SB 1107), students who meet the criteria below, must provide proper documentation that they have received the bacterial meningitis vaccination within the last five years and at least 10 calendar days before the beginning of the semester. • All new or transfer students under age 30. • All returning students under the age of 30, who have experienced a break in enrollment of at least one fall or spring term. • Students enrolled in online courses that physically attend classes or come to campus within the semester.
<p>SPECIAL SERVICES CENTER:</p>	<p>A student with disabilities, including learning disabilities, who wishes to request special accommodations in this class should notify the Special Services Center. The request should be made early in the semester so that appropriate arrangements may be made. In accordance with Federal Law, a student requesting accommodations must provide documentation of his/her disability to the Special Services Counselor. For additional information, visit the Special Services Center at:</p> <ul style="list-style-type: none"> • Fort McIntosh Campus - KCC Room 213 or call 721-5137. • South Campus – Billy Hall Student Center Room 121 or call 794-4137. <p>The student who needs note-taking and/or test-taking accommodations must notify the faculty member prior to the first exam.</p> <p>A pregnant student is required to meet all course/ program outcomes, including attendance.</p> <p>There may be contaminants present in clinical area(s) that could adversely affect a fetus. It is advisable for the student to contact her obstetrician, once pregnancy has been confirmed, to ensure that there are no medical concerns/limitations to continuing their courses.</p>
<p>GRADE APPEAL:</p>	<p>A student who wishes to question the final grade earned in a course or class activity should first discuss the situation with the instructor who issued the grade. If the issue is not resolved, the student should contact the appropriate Department Chairperson to request a review of the grade.</p> <p>If the student is not satisfied with the Department Chairperson's decision, the student may contact the appropriate Dean of Instruction for assistance related to the grade appeal.</p>

	<p>Established departmental procedures will be utilized to resolve student grade appeals. After all other avenues have been exhausted, the student may request a review of the grade by the Vice-President for Instruction. Student grades are an academic matter; therefore, there is no further appeal beyond the Office of the Vice-President for Instruction.</p> <p>Students have two weeks (10 working days) after a final course grade is issued to appeal it. Students have one week (five working days) after an activity grade is issued to appeal it. Exceptions require the approval of the Vice-President for Instruction.</p>
<p>CLASSROOM ETIQUETTE:</p>	<p style="text-align: center;">Code of Student Conduct & Discipline</p> <p>Each student is expected to be fully acquainted with all published policies, rules, and regulations of the college, copies of which shall be available to each student for review at the Office of Dean of Student Affairs. Laredo Community College will hold each student responsible for compliance with these policies, rules, and regulations. The student is responsible for obtaining published materials to update the items in this Code. Students are also expected to comply with all federal, state, and local laws. This principle extends to conduct off campus which is likely to have an adverse effect on Laredo Community College or on the educational process.</p> <p style="text-align: center;">Student Misconduct</p> <p>Each student is expected to conduct him/herself in a manner consistent with the college's functions as an educational institution. Specific examples of misconduct and the disciplinary process is located at www.laredo.edu (go to Student Information, then Student Handbook).</p> <p style="text-align: center;">Use of Personal Electronic Devices</p> <p>The use of an electronic device shall not interfere with the instructional, administrative, student activities, public service, and other authorized activities on College District premises. Unless prior authorization is obtained from the instructor or respective College District official, the use of an electronic device is expressly prohibited in classrooms, laboratories, clinical settings, and designated quiet areas on College District premises. Certain violations of this policy may be excused in the case of emergencies or other extenuating circumstances provided that prior approval is obtained from the instructor or respective College District official.</p> <p>The use of electronic equipment capable of capturing still or moving images in any location where individuals may reasonably expect a right to privacy is not authorized on</p>

College District premises. Noncompliance with these provisions shall be considered a violation of Board adopted policy and shall warrant appropriate disciplinary action.

Academic Dishonesty

The College expects all students to engage in all academic pursuits in a manner that is beyond reproach. Students will be expected to maintain complete honesty and integrity in their experiences in the classroom. Any student found guilty of dishonesty in their academic work is subject to disciplinary action.

(1) The College and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, the following:

A. **Scholastic dishonesty** includes, but is not limited to, cheating on academic work, plagiarism, and collusion.

B. **Cheating on academic work includes:**

a. Copying from another student's test paper or other academic work.

b. Using, during a test, materials not authorized by the person giving the test.

c. Collaborating, without authority, with another student during an examination or in preparing academic work.

d. Knowingly using, buying, selling, stealing, transporting, or soliciting, in whole or part, the contents of an unadministered test.

e. Substitution for another student, or permitting another student to substitute for oneself, to take a test or prepare other academic work.

f. Bribing another person to obtain an unadministered test or information about an unadministered test.

C. **Plagiarism** means the appropriation of another's work and the unacknowledged incorporation of that work in one's own written work offered for credit.

D. **Collusion** means the unauthorized collaboration with another person in preparing written work offered for credit.

(2) Procedures for discipline due to academic dishonesty shall be the same as in student disciplinary actions, except that all academic dishonesty actions shall be first considered and reviewed by the faculty member. If the student does not accept the decision of the faculty member, he/she may appeal the decision to the appropriate Department Chairperson, Dean of Instruction, or the Vice President for Instruction. If the student does not accept the decision of the appropriate Department

	<p>Chairperson, Dean of Instruction, or the Vice President for Instruction, the student may then follow the normal disciplinary appeal procedures for a review of the decision.</p> <p>For additional information please refer to the: Student Policies - LCC Policy Manual</p> <p>The LCC Policy Manual is available online and includes all Federal, State, and Local Policies applicable to the college. Students may access the LCC Policy Manual through LCC's Web Page (www.laredo.edu) - Homepage, select-Campus Information, select - Manual of Policy.</p>
EMERGENCY PROCEDURES:	<p><u>LCC Alert System:</u> Safety and security for LCC is paramount. When an emergency arises, LCC will provide students with information as rapidly and as efficiently as possible. Students must register for the LCC Alert system at www.laredo.edu/lccalert.</p> <p><u>Fire:</u> Upon activation of the alarm, you will quietly and calmly exit the building from the nearest exit. Once everyone has gathered, at a predetermined or arranged site, a roll call shall be taken to ensure everyone is out of the building. If the building is on fire, no one should be near it to allow firefighting equipment and emergency vehicles to access the building. Additionally, the building(s) may have chemicals, paints, or aerosol cans may have explosions that could be dangerous to anyone near the building.</p> <p>No one should re-enter the building until an "All Clear" has been given. The "All Clear" shall be determined by a senior campus official in cooperation with the incident commander from the responding agency.</p> <p>PLEASE NOTE: The Science buildings do contain several types of biological and chemical agents. Some of these agents are stored in large quantities, while some are considered dangerous to human health through contact to skin or if fumes are inhaled. The building signage should be placed to warn responding emergency personnel if they should put on SCBA or wear "HAZ-MAT" suits in lieu of or over turnout gear.</p> <p><u>Injury, Person Down, Illness, Stalking or Theft:</u> Call the Campus Police (Main 721-5303; South 794-4303 or 111 Emergency) and/or the campus nurse (Main 721-5189; South 794-4189) to alert emergency personnel. Give the location of the person and briefly describe the person's condition. If the person is not breathing or does not have a pulse, call 9-911 to alert the City of Laredo emergency services.</p>

	<p>For serious injury, illness, heart attack etc., call 111 from any Campus phone or 911 from your personal cell phone. A back up call should be made to the Campus Police and the Campus Nurse. They may be able to arrive on the scene quicker than the EMT's and City police. When placing an emergency call, be sure to give instructions to the nearest entrance to the building, thus saving time for emergency personnel.</p> <p><u>Assault:</u> Call the Campus Police (Main 721-5303; South 794-4303 or 111 Emergency) and 9-911 to alert the City of Laredo emergency services. For any possible threats to life or property from criminal acts call Campus Police. Please remember that after hours they operate on a limited staff basis.</p>
DISCLAIMER:	<p>Every attempt has been made to make the contents of this syllabus informative and accurate. Content of the syllabus is subject to revision and change in the event of extenuating circumstances. Changes will be distributed to you in writing.</p>

The updated official version of the LCC Catalog is the on-line catalog and can be found at www.laredo.edu.

OTHA 1409 – Human Structure and Function in OT
COURSE SCHEDULE

*Schedule is subject to change

<i>Date Week</i>	<i>Brief Description of Topic</i>	<i>Assignments/Examinations/ Activities with Brief Description</i>	<i>Chapters/ Reading</i>
Week 1 1/17/12	Introduction to Course Introduction of Concepts Ch. 1-4	Lecture, group activity, group discussion.	Ch. 1-4
1/17/12 1/19/12	<i>Lab</i> <i>Ch. 1-4 Introduction of concepts</i>	<i>Lab activity, group activity, demonstration</i>	<i>Ch. 5-8</i>
Week 2 1/23/12	Ch. 5-8 Introduction of concepts	Lecture, group activity, group discussion.	
1/24/12 1/26/12	<i>Lab</i> <i>Ch. 5-8 Introduction of concepts</i>	<i>Lab activity, group activity, demonstration</i>	<i>Ch. 9</i>
Week 3 1/30/12	Exam 1 Ch. 1-8 Ch. 9 Shoulder Girdle	Exam, lecture, group activity, group discussion.	Ch. 10-11
1/31/12 2/2/12	<i>Lab</i> <i>Ch. 9-10 Shoulder Girdle and Joint</i>	<i>Lab activity, group activity, demonstration</i>	
Week 4 2/6/12	Ch. 10 Shoulder Joint Ch. 11 Elbow Joint	Lecture, group activity, group discussion.	
2/7/12 2/9/12	<i>Lab</i> <i>Ch. 10-11 Shoulder and Elbow</i>	<i>Lab activity, group activity, demonstration</i>	
Week 5 2/13/12	Ch. 10 Shoulder Joint Ch. 11 Elbow Joint	Lecture, group activity, group discussion.	
2/14/12 2/16/12	<i>Lab</i> <i>Ch. 10-11 Shoulder and Elbow</i>	<i>Lab</i> <i>Ch. 10-11 Shoulder and Elbow</i>	Ch. 12
Week 6 2/20/12	Exam 2 Ch. 9-11 Ch. 12 Wrist Joint	Exam Lecture	
2/21/12 2/23/12	<i>Lab</i> <i>Ch. 12 Wrist</i>	<i>Lab activity, group activity, demonstration</i>	<i>Ch. 13</i>
Week 7 2/27/12	Ch. 13 Hand	Lecture, group activity, group discussion.	
2/28/12 3/1/12	<i>Lab</i> <i>Ch. 9-13 Wrist and Hand</i>	<i>Lab activity, group activity, demonstration</i>	
Week 8 3/5/12	Exam 3 Ch. 12-13	Exam	
3/6/12 3/8/12	Lab Practicum UE and MMT	UE and MMT Practicum	Ch. 18
Week 9 Spring Break	Holiday	Holiday	Holiday
Spring Break	Holiday	Holiday	Holiday
Week 10 3/19/12	Ch. 18 Hip Joint Ch. 17 Pelvic Girdle	Lecture, group activity, group discussion.	

3/20-12 3/22/12	Lab Practicum LE Lab Ch. 18 Hip Joint Ch. 17 Pelvic Girdle	Lab Practicum LE Lab activity, group activity, demonstration	
Week 11 3/26/12	Ch. 15 Neck and Trunk	Lecture, group activity, group discussion.	
3/27/12 3/29/12	Lab Ch. 15 Neck and Trunk	Lab activity, group activity, demonstration	Ch. 16 and 21
Week 12 4/2/12	Ch. 16 Respiratory Ch. 21 Posture	Lecture, group activity, group discussion , lab activity, group activity, demonstration	
4/3/12 4/5/12	Lab Practicum LE Lab – Ch. 16 Respiratory Ch. 21 Posture	Lab Practicum LE Lab activity, group activity, demonstration	
Week 13 4/9/12	HOLIDAY	HOLIDAY	HOLIDAY
4/10/12 4/12/12	Lab Ch. 21 Posture	Lab activity, group activity, demonstration	
Week 14 4/16/12	Exam 4 Ch. 15-18 and 21	Lecture, group activity, group discussion.	
4/17/12 4/19/12	Lab Practicum LE and MMT Lab LE and Goniometry	Lab Practicum LE and MMT Lab activity, group activity, demonstration	
Week 15 4/23/12	Blackboard Assignment	Blackboard Assignment	
4/24/12 4/26/12	Blackboard Assignment	Blackboard Assignment	
Week 16 4/30/12 5/1/12 5/3/12	4/30/11 Goniometry Practicum 5/1/11 Goniometry Practicum 5/3/11 Repeat Practicums	4/30/11 Goniometry Practicum/Review 5/1/11 Goniometry Practicum/Review 5/3/11 Repeat Practicums/Review	
5/9/12	Final Exam 3:00-4:50 pm		

LAREDO COMMUNITY COLLEGE
COURSE SYLLABUS
STUDENT ACKNOWLEDGEMENT

I have read and understand the information and requirements of the syllabus for

OTHA 1409 M01

Student Name Palomino ID Date

Admission into and/or graduation from the program does not guarantee employment, any particular salary level, and/or passage on any licensure examinations.

Student Signature _____

Faculty Name _____

SCANS COMPETENCIES

ENCLOSURE

The Secretary's Commission on Achieving Necessary Skills (SCANS) has identified foundation skills and workplace competencies for students. Foundation Skills are defined in three areas: basic skills, thinking skills, and personal qualities. Basic Skills includes Reading, Writing, Arithmetic and Mathematical Operations, Listening, and Speaking effectively. Thinking Skills include a worker must think creatively, make decisions, solve problems, visualize, know how to learn, and reason effectively. Personal Qualities include a worker must display responsibility, self esteem, sociability, self management, integrity, and honest. Work Place Competencies include resources, interpersonal skills, information, systems, and technology.

Resources.

- C1. **Allocates Time:** Selects relevant, goal-related activities, ranks them in order of importance, allocates time to activities, and understands, prepares, and follows schedules.
- C2. **Allocates Money:** Uses or prepares budgets, including making cost and revenue forecasts, keeps detailed records to track budget performance, and makes appropriate adjustments.
- C3. **Allocates Material and Facility Resources:** Acquires, stores, and distributes materials, supplies, parts, equipment, space, or final products in order to make the best use of them.
- C4. **Allocates Human Resources:** Assesses knowledge and skills and distributes work accordingly, evaluates performance, and provides feedback.

Interpersonal

- C5. **Participates as a member of a team:** Works cooperatively with others and contributes to group with ideas, suggestions, and effort.
- C6. **Teach Others New Skills:** Helps others to learn.
- C7. **Serves Clients/Customers:** Works and communicates with clients and customers to satisfy their expectations.
- C8. **Exercises Leadership:** Communicates thoughts, feelings, and ideas to justify a position, encourages, persuades, convinces, or otherwise motivates an individual or groups: including responsibly challenging existing procedures, policies, or authority.
- C9. **Negotiates to Arrive at a Decision:** Works toward an agreement that may involve exchanging specific resources or resolving divergent interests.
- C10. **Works with Cultural Diversity:** Works well with men and women and with a variety of ethnic, social, or educational backgrounds.

Information

- C11. **Acquires and Evaluates Information:** Identifies need for data, obtains it from existing sources or creates it, and evaluates its relevance and accuracy.
- C12. **Organizes and Maintains Information:** Organizes, processes, and maintains written or computerized reports and other forms of information in a systematic fashion.
- C13. **Interprets and Communicates Information:** Selects and analyzes information and communicates the results to others using oral, written, graphic, pictorial, or multi-media methods.
- C14. **Uses Computers to Process Information:** Employs computers to acquire, organize, analyze, and communicate information.

Systems

- C15. **Understands Systems:** Knows how social, organizational, and technological systems work and operates effectively within them.
- C16. **Monitors and Corrects Performance:** Distinguishes trends, predicts impact of actions on system operations, diagnoses deviations in the function of a system/organization, and takes necessary action to correct performance.
- C17. **Improves and Designs Systems:** Makes suggestions to modify existing systems to improve products or services, and develops new or alternative systems.

Technology

- C18. **Selects Technology:** Judges which set of procedures, tools, or machines, including computers and their programs will produce the desired results.
- C19. **Applies Technology to Task:** Understands the overall intent and the proper procedures for setting up and operating machines, including computers and their programming systems.
- C20. **Maintains and Troubleshoots Technology:** Prevents, identifies, or solves problems in machines, computers, and other technologies.