

LAREDO COMMUNITY COLLEGE COURSE SYLLABUS

INSTRUCTOR:	Minerva Vital, RN
DEPARTMENT:	Vocational Nursing Program mvital@laredo.edu
PHONE NUMBER/EXTENSION:	(956) 721-5255
OFFICE HOURS:	Refer to Instructor's Door Schedule
COURSE TITLE:	Maternal-Neonatal Nursing
COURSE NUMBER:	VNSG 1230
COURSE LEVEL:	Introductory
CONTACT HOURS (RANGE FOR STATE INFORMATION):	Contact hours 32 Credit hours 2
LAB:	N/A
TEXTBOOKS:	Leifer (2010) 6 th Ed. Introduction to Maternity & Pediatrics ISBN #978-1-4377-0824-0 Leifer (2010) 6 th Ed. Introduction to maternity & Pediatrics Study Guide ISBN#978-1-4377-0824-0
CORE or NON-CORE Course	NON-CORE
COURSE DESCRIPTION:	A study of the biological, psychological, and sociological concepts applicable to basic needs of the family including childbearing and neonate care. Utilization of the nursing process in the assessment and management of the childbearing family. Topics include physiological changes related to pregnancy, fetal development, and nursing care of the family during labor and delivery and the puerperium. Prerequisites: VNSG 1304, VNSG 1323 VNSG 1500, and VNSG 1360. Concurrent enrollment in VNSG 1234, VNSG 2331 and successful completion of the Semester I courses with a grade of 75% (C) or better.
END-OF-COURSE OUTCOMES:	Upon completion of this course, the student should be able to: 1. Discuss human reproduction and fetal development as related to the normal aspects of

	<p>childbearing.</p> <ol style="list-style-type: none"> 2. Identify common complications of the mother and newborn during prenatal antenatal, and postnatal periods. 3. Relate the characteristics of the normal newborn and associated nursing interventions to meet identified health care needs utilizing the nursing process.
COURSE OBJECTIVES OR EXEMPLARY OBJECTIVES	<p>Upon completion of this course, the nursing student will</p> <ol style="list-style-type: none"> 1. Discuss the psychosocial and cultural needs of the childbearing family. 2. Utilize the nursing process to assist in planning the care of the childbearing family. 3. Develop therapeutic communication skills to facilitate effective interactions with the childbearing family 4. Develop a plan of care to meet the teaching needs of the childbearing family. 5. Discuss growth and development tasks for the childbearing family. 6. Explain nutrition as it relates to health and illness of the childbearing family. 7. Explain <u>mental</u> health concepts of the childbearing family. 8. Summarize the major health problems affecting the childbearing family. 9. Discuss caring behaviors utilized to support and guide the health outcomes of the childbearing family. 10. Explain the role of the Vocational Nurse in the care of the childbearing family
SCANS COMPETENCIES	Refer to attachment
SCANS ASSESSMENT	CI, C5, C6, C7, C10, C11, C12, C13, C14, C15
TEACHING STRATEGIES METHODS OF INSTRUCTION:	The course content will be presented utilizing formal and interactive lecture methodology. Additional learning experiences will be offered by audio/visual aids, group discussions, and written assignments. Also class presentations will be used.
OUTCOMES ASSESSMENT:	Unit exams, standardized exam, quizzes, and a final examination will measure the students' achievement of the learning outcomes stated for the course.

METHODS AND CRITERIA FOR EVALUATION:

Grade determination:

Unit Exams	55%
Standardized Exam	10%
Assignments	5%
Quizzes	5%
Final Exam	<u>25%</u>
	100%

Grades accumulated in the course will be recorded as scored (i.e. 74.5% = 74.5%). The final course grade will be rounded off to the tenth of a point and recorded as a whole number (i.e. 75.5% = 76%).

Unit exams will be scheduled in advance to correlate with completion of portion of the content. **After all students have taken an exam, feedback will be provided at a scheduled time. The student will not retain exams. If student is unable to take the exam at the scheduled time he/she must notify the course instructor prior to the exam. Failure to do so will result in a score of zero for the exam. The type of makeup exam will be at discretion of the instructor (i.e. multiple choice, essay, or case study).**

The Computer Generated Form will be the official answer sheet. Quizzes will be given at the discretion of the instructor. Quizzes cannot be made up, and any missed quiz will constitute a zero. This grade cannot be dropped. The student is advised to be acquainted with the material covered in the quiz as it may help him/her to prepare for the next exam. The comprehensive examination will be scheduled according to the schedule printed by the Office of the Vice President of Instruction. E-mail is one of the official ways for the student to communicate with the faculty members. Faculty members will E-mail class information, etc, to the student.

A minimum theory grade of 75% or better is required to complete this course satisfactorily. Behavioral/learning objectives in the syllabus and texts are used to evaluate the student's mastery of the content.

A minimum theory grade of 75% or better is required to complete this course satisfactorily. Behavioral/learning objectives in the syllabus and texts are used to evaluate

	<p>the student's mastery of the content. Refer to the VN Student Handbook regarding penalties for late assignments and late testing.</p>
<p>GRADING SCALE:</p>	<p>A = 100-90% B = 89-80% C = 79-70% D = 69-60%</p> <p>The Semester Progress Report will be available on Passport (http://passport.laredo.edu) The instructor will notify you when the grade will be available and for how long. Students must access the Semester Progress Report and Final grades through Passport http://passport.laredo.edu</p>
<p>ATTENDANCE REGULATIONS</p>	<p>ATTENDANCE REGULATIONS Attendance: Students are required to attend classes to remain enrolled. Students will be dropped from the class roster by the instructor; a student may be reinstated by the Division Dean upon the recommendation of the instructor(s) and the Department Chair. An agreement from the student to make up all of the missed assignments, lab times and/or tests.</p> <p>Students have the right to initiate a drop request from any or all classes by informing the instructor and submitting a drop slip to the Admissions/Registration Office.</p> <p><u>Regular Semester</u> During a regular semester, students will be dropped after being absent:</p> <ol style="list-style-type: none"> 1. For six consecutive lecture hours on Monday-Wednesday-Friday schedule; or 2. Twice in a three-hour class that meets once a week; or 3. For four consecutive lecture hours on Tuesday-Thursday or Monday-Wednesday schedule. 4. For 20 percent of the total class time. <p>A grade of "W" will be given through the Friday of the twelfth week of the semester for all drops initiated by the instructor or by the student. After the Friday of the twelfth week of the semester, a grade of "F" will be given. Exceptions require the approval of the Vice-President of Instruction.</p> <p><u>Summer Courses:</u></p>

During a summer session, students will be dropped after being absent for the following consecutive days:

1. For four periods on a Monday through Friday schedule; or
2. For two periods on a Tuesday, Wednesday, Thursday schedule; or
3. For three periods on a Monday through Thursday schedule; or
4. For two periods on a Monday, Tuesday, Wednesday schedule; or
5. For two periods on a Monday-Wednesday schedule.
6. For 20 percent of the total class time.

A grade of "W" will be given through the Friday of the fourth week of the summer session for all drops initiated by the instructor or by the student. After the Friday of the fourth week of the summer session, a grade of "F" will be given. Exceptions require the approval of the Vice President of Instruction.

Responsibility for class attendance rests with the student. Regular and punctual attendance is expected.

Instructors must drop students according to the College's attendance policy in a timely manner in order to comply with the requirements of external funding agencies. The last day that the student attended the class must be included in the drop slip. It is the student's responsibility to ensure that drop slips be completed and processed whether it is student-requested or faculty-initiated.

Online Student Attendance Guidelines

Responsibility for class attendance rests with the student. LCC Holidays will not be factored in as part of the student's attendance requirements.

Students are required to log in and participate in their respective online classes to remain enrolled. Students will be dropped from the class roster by the instructor according to College Attendance Regulations; however, a student may be reinstated by the Vice-President of Instruction upon the recommendation of the instructor(s) and an agreement from the student to make up all of the missed assignments, lab times and/or tests.

Students will be dropped after being absent:

During a regular semester:

1. Students will be dropped with a “W” for failure to log-in to the course for 14 consecutive days.
2. A "W" will be given through the Friday of the twelfth week of the semester for all drops initiated by the instructor or by the student.
3. After the Friday of the twelfth week of the semester, a grade of "F" will be given.
4. The instructor will drop an online student if he or she has never logged-in to their course prior to certifying the rolls on the 12th Class Day.

During a summer session:

1. Students will be dropped with a “W” for failure to log-in to the course for 7 consecutive days.
2. A grade of "W" will be given through the Thursday of the fourth week of the summer session for all drops initiated by the instructor or by the student.
3. After the official drop date of the fourth week of the summer session, a grade of "F" will be given.
4. The instructor will drop an online student if he or she has never logged-in to their course prior to certifying the rolls on the 4th Class Day.

Flex Entry Courses (8 week):

1. Students will be dropped with a “W” for failure to log-in to the course for 7 consecutive days.
2. A grade of "W" will be given through the sixth week for the Flex Entry Course for all drops initiated by the instructor or by the student.
3. After the official drop date of the sixth week for the Flex Entry Course, a grade of "F" will be given.
4. The instructor will drop an online student if he or she has never logged-in to their course prior to certifying the rolls on the 6th Class Day.

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. 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. A fee of \$5.00 must be paid by the student for taking a final examination other than at the scheduled time,

	<p>regardless of the reason for absence. Only students with an approved absence may exercise this privilege. Final examinations cannot be re-taken.</p>
<p>SPECIAL SERVICES CENTER</p>	<p>The student with disabilities, including learning disabilities, that 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 the 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 Macintosh Campus - KCC room 213 or call 721-5137. • South Campus – Billy Hall Building A 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. As a point of information, the pregnant student is reminded of the many contaminants present in the clinical area(s) that could adversely affect the fetus. It is advisable for the student to contact her obstetrician, once the pregnancy has been confirmed, to ensure that there are no medical concerns/limitations.</p>
<p>GRADE APPEAL</p>	<p>A student who wishes to question the final grade earned in a course or a grade earned in a class activity should first discuss the situation with the instructor of record 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. 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. Established departmental procedures will be utilized to resolve student grade questions. If necessary, the student may request a review by the Vice-President for Instruction after all other avenues have been exhausted for the review of the grade. Student grades are an academic matter; therefore, there is no</p>

	<p>further appeal beyond the Office of the Vice-President for Instruction.</p> <p>Students, who think that the final course grade is unfair, have two weeks (10 working days) after the grade is issued to appeal the grade. Students who think that a grade earned in a class activity is unfair have one week (five working days) after the grades are issued to appeal the grade. Exceptions require the approval of the Vice-President for Instruction.</p>
<p>CLASSROOM ETIQUETTE:</p>	<p>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>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>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</p>

or moving images in any location where individuals may reasonably expect a right to privacy is not authorized on 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

	<p>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 and Student Development. If the student does not accept the decision of the appropriate Department Chairperson, Dean of Instruction, or the Vice President for Instruction and Student Development, 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 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>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, building that 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 in large quantities, while some are considered dangerous to human health through contact to skin, if fumes are inhaled, etc. The buildings should be placed to warn responding emergency personnel if they should put on SCBA or wear “HAZ-MAT” 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-</p>

	<p>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 to 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. Reminder to give instructions to the nearest entrance to your campus 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>
<p>DISCLAIMER:</p>	<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 will be the on-line catalog and can be found at www.laredo.edu.

VNSG 1230 Maternal Neonatal Nursing
 COURSE SCHEDULE
 January 14 –March 7, 2013

Wednesday & Thursday

8:00am to 10am

Date Week	Brief Description of Topic	Assignments/Examinations/ Activities with Brief Description	Chapters/Reading
1/16 Wk 1	This chapter will introduce students to the neonate's physiological and psychological adjustments to extrauterine life	OBQ # 12	Chapter 12 - The Term Newborn
1/17	This chapter introduces the student to proper prenatal care and the nurse's role in helping women adapt to pregnancy.	OBQ # 4 PN Maternal Newborn Online Practice 2011 A	Chapter 4 - Prenatal Care and Adaptations to Pregnancy
1/23 Wk 2	In this chapter, students will be introduced to the anatomy and functions of the male and female reproductive systems.	OBQ # 2 ATI - Maternal-Newborn Care	Chapter 2 – Human Reproductive anatomy and Physiology
1/24		(TEST 1) (Chapter 12,4,2)	
1/30 Wk 3	In this chapter, students will have the opportunity to learn about the skills required to provide care to women who have complications during pregnancy In this chapter, students will have the opportunity to learn about the various ways to manage pain during labor and delivery.	OBQ # 5 OBQ # 7	Chapter 5 - Nursing Care of Women with Complications 7 - Nursing Management of Pain During Labor and Birth During Pregnancy Chapter
1/31	In this chapter, students will have the opportunity to learn the admitting process for patients entering the maternity unit		Chapter 6 - Nursing Care of Mother and Infant During Labor and Birth
2/6 Wk 4	In this chapter, students will have the opportunity to learn the admitting process for patients entering the maternity unit	OBQ # 6 ATI - The Reproductive and Genitourinary System	Chapter 6 - Nursing Care of Mother and Infant During Labor and Birth
2/7	In this chapter, students will have the opportunity to learn about the complications that can occur during labor and birth	(TEST II) (chapters 5, 6, 7) OBQ # 8	Chapter 8 - Nursing Care of Women with Complications During Labor and Birth
2/13 Wk 5	This chapter addresses the physiological and psychological issues for the mother, family, and newborn associated with the puerperium	OBQ # 9	Chapter 9 - The Family After Birth

2/14	This chapter will introduce students to the various complications that can occur postpartum, such as shock, hemorrhage, thrombosis, infection, uterine abnormalities, and mood disorders	(MIDTERM EXAM) OBQ # 10	Chapter 10 - Nursing Care of Women with Complications After Birth
2/20 Wk 6	Students will be introduced to women's preventive health care, particularly the care of menstrual disorders and gynecological infections.	OBQ # 11	Chapter 11 - The Nurse's Role in Women's Health Care Video the <u>Miracle of Birth</u>
2/21	In this chapter, students will be introduced to the anatomy and functions of the male and female reproductive systems.	OBQ # 3	Chapter 3 – Fetal Development
2/27 Wk 7	This chapter focuses on the assessment, common physiological problems, and common family reactions to the preterm infant. The chapter stresses nursing goals for both preterm and postterm infants	OBQ # 13 Presentation Due ATI - Maternal Newborn Final	Chapter 13 - Preterm and Postterm Newborns
2/28	This chapter provides an overview of congenital birth defects—abnormalities of structure, function, and metabolism that may result in a physical or mental disability, shortened lifespan, or fatality.	(TEST III) OBQ # 14 PN Maternal Newborn Online Practice 2011 B	Chapter 14 - The Newborn with a Perinatal Injury or Congenital Malformation
3/6 Wk 8		Standardized Exam	Standardized Exam
3/7		Final Exam	Final Examination

*Schedule is subject to change

**VNSG 1230 MATERNITY/NEWBORN
TEACHING PROJECT PRESENTATION GUIDELINES**

The student's power point presentation and teaching handout will be graded using the following criteria for a total point value of 100 points.

1. Create a **power point presentation** with assigned topic and state the intended audience/age group.
2. Organize your power point logically and outline teaching points to be presented.
3. Include a statement and teaching points on power point and teaching handout that includes the teaching/learning needs for the assigned topic.
4. Create a teaching point's handout to utilize with the target audience and submit a copy to the clinical instructor for grading.
5. Research community resources available for further information about the topic and include on display websites, support groups, clinics, etc. Cite resources on teaching handout and presentation.
6. Include the student's name in the first slide and on the teaching handout.

TEACHNG PLAN CRITERIA VISUAL DISPLAY	POINTS AVAILABLE	POINTS EARNED
Visual Creativity of Display.	20	
Organized the visual display presentation logically.	10	
Identified topic, subtopic, age group, and teaching need for topic on visual display.	5	
Actively interacted with target audience.	10	
Demonstrated professional behaviors with target audience.	10	
Identified teaching points on visual display.	10	
Identified community resources for further information about assigned topic on visual display.	5	

TEACHNG PLAN CRITERIA (1 PAGE) TEACHING HANDOUT	POINTS AVAILABLE	POINTS EARNED
Identified topic, subtopic, and age group.	5	
Discussed the teaching learning need for assigned teaching topic.	10	
Described specific teaching points for assigned topic.	10	
Cited resources utilized for teaching project.	5	
TOTAL POINTS	100 POINTS	

LAREDO COMMUNITY COLLEGE

COURSE SYLLABUS

STUDENT SIGNATURE

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

Course & Number

Student Name

Palomino #

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 Reading, Writing, Arithmetic or Mathematics, Speaking and Listening, Thinking Skills, Personal Qualities, Work Place Competencies, and Basic Use of Computers as competencies required to enter employment.

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. **Teaches Others:** 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.