

H. COUNCILL TRENHOLM STATE COMMUNITY COLLEGE
COURSE SYLLABUS
Fall Term, 2017
Office Administration Program

COURSE NUMBER AND NAME: SET 244 Database Management (Hybrid)

MEETING DAYS/TIMES: Tuesday & Thursday (B Days) 10:00 - 11:30 a.m.

COURSE LOCATION: CTE/Annex Room 107

INSTRUCTOR'S NAME: Mr. William C. Turner

OFFICE HOURS AND LOCATION: Daily 8:00 a.m. - 9:30 a.m / CTEC Annex Rm 107

TELEPHONE NUMBER: 334-724-1236, ext. 12091

E-MAIL ADDRESS: wturner@trenholmstate.edu

COURSE DESCRIPTION: This course is designed to provide the student with an understanding of the concepts of database management through classroom instruction and lab exercises. Emphasis is on the use of database software for business applications. Upon completion, the student should be able to create and manipulate data files and format output such as documents and reports.

CREDIT HOURS: 3 **CONTACT HOURS:** 3

PREREQUISITE: CIS 130 (149)

REQUIRED MATERIALS (*Student's responsibility – Students will not be allowed to participate in this course without these required materials.*):

REQUIRED TEXTBOOK: Randy Nordell & Easton. Microsoft Office Access 2013: Complete, In Practice. McGraw-Hill 2014.

OTHER REQUIRED MATERIALS: Flash Drive, Pen, Pencil, Notebook, Paper

REQUIREMENTS FOR LAB/SHOP/CLINICAL PARTICIPATION : Approximately two to four hours per week of computer lab time outside of class is recommended for successful completion of course requirements

COURSE PARTICIPATION POLICY: According to the college attendance policy (see college catalog), students must demonstrate a minimum level of participation to receive college credit for a course. For online students, this means attending class on campus three times (course orientation, midterm exam, and final exam) and weekly, active participation at the course website. Active participation is demonstrated by contributions to online class discussion forums, chats, or virtual classroom sessions and the completion of all online homework, quizzes, and/or tests that are due for the week. Failure to actively participate in the course for any three weeks (consecutive or not) will result in an unofficial withdrawal from the course!

For traditional students, the following attendance policy applies:

Each student is expected to participate in all assigned course activities. In order to receive credit for the course, a student must attend 85% of the scheduled class meetings. Prior to 70% of the term being completed, instructors must unofficially withdraw (drop) students who are absent in excess of 15% of the scheduled class meetings. Any combination of three tardies or early exits will count as one missed class meeting. No absences are excused except those due to official military orders or jury duty. Students should submit documentation for excused absences in advance to prevent an instructor-initiated withdrawal. The following table shows the maximum number of unexcused absences per term:

| Maximum Number of Absences Allowed | | |
|------------------------------------|--|----------------------------------|
| Class Meetings Per Week | Allowed Absences Fall or Spring Semester | Allowed Absences Summer Semester |
| 1 | 2 | 1 |
| 2 | 5 | 3 |
| 3 | 7 | 4 |
| 4 | 10 | 6 |
| 5 | 12 | 7 |
| 6 | 14 | 9 |

STUDENT LEARNING OUTCOMES: A student who successfully completes this course should be able to:

- 1 Explain the system and hardware associated with database management applications.
- 2 Create a basic database.
- 3 Use tables to organize the database.
- 4 Manage a database.
- 5 Perform database queries.
- 6 Use forms to manage data.
- 7 Create and modify reports.
- 8 Use switchboards when working with a database.

EVALUATION: Students will be evaluated on their achievement of the identified Student Learning Outcomes with the following assessments:

- How to design/create a simple database.
- Build a new database with related tables.
- Manage the data in a table.
- Query a database using different methods.
- Design forms/generate reports.

GRADING: The final grade for this course will be calculated according to the following criteria:

| Assessment Category | Weighting Percentage |
|------------------------------|----------------------|
| Workbook Assignments/Quizzes | 20% |
| Tests (Mid-term & Final) | 30% |
| e-Portfolio | 30% |
| Research Paper | 10% |
| Work Ethics | 10% |
| Total | 100% |

Final letter grades for the course will be assigned according to the following scale:

| Letter Grade | Scale | Letter Grade | Scale |
|--------------|--------|--------------|-------|
| A | 90-100 | F | 50-59 |
| B | 80-89 | W | N/A |
| C | 70-79 | I | N/A |
| D | 60-69 | | |

MAKE UP WORK: Absences, whether excused or not, do not relieve students of the responsibility for assignments and/or material covered during classes missed. Instructors are not obligated to re-cover material, re-issue assignments, or give make up tests due to a student's absence.

LIBRARY RESOURCES AND ASSIGNMENTS: The college library will serve as an important resource for graded research assignments for this and other classes offered by the College. The Trenholm State Community College library is located on the 1st floor of the Library Tower at 3086 Mobile Highway. A branch of the library is located on the Patterson campus in room 101E of Building E. You can visit the library's website by clicking on the link on the college website homepage or by going directly to the website through your internet browser by typing in the following address:

<http://www.trenholmstate.edu/academics/college-library.cms>

MIDTERM REVIEW: Students will meet the instructor at midterm to review their grades for the course. Any student who has below a "C" average will work with the instructor to develop a plan for improving that class average.

DISCLAIMER: The course syllabus provides a general plan for the course; changes may be necessary pending intervening circumstances that in the judgment of the instructor require the addition or deletion of material and/or assignments. Any changes shall be communicated to the students in a timely manner.

DEPARTMENTAL/INSTRUCTOR CLASS POLICIES

The following policies have been adopted by the instructor of the course and/or the academic department to make the class environment as conducive to learning as possible. These policies are designed to ensure that all students are treated equitably and held to standards that will adequately prepare them for further academic study and/or professional success.

1. All class assignments including homework and computer lab/projects are due at the beginning of class on the specified date. Late assignments will be lowered one full grade and will not be accepted beyond one week of the original due date.
2. Students are responsible for the study of all assigned topics in the class. The Instructor is not responsible for reviewing any material, and administering any make-up test, or reissuing assignments missed due to the student being absent. Students are encouraged to bring to the instructor any unresolved problems.
3. Students are NOT allowed to eat, drink, chat on-line, or disturb in any way instruction\study in the classroom or computer lab. Cellular phones and pagers are NOT to be used in class, if you have them they must remain OFF or on vibrate the entire class period; also, children are NOT allowed in class.
4. It is the responsibility of the student to complete satisfactorily all homework assignments.

INSTITUTIONAL POLICIES

DISABILITY POLICY

H. Council Trenholm State Community College complies with the provisions of the Americans with Disabilities Act (ADA) of 1990, which makes it illegal to discriminate against individuals with disabilities in employment, public accommodations, public services, transportation, and telecommunications.

It is the policy of H. Council Trenholm State Community College to provide special assistance and accommodations to those students who require assistance in testing, course and program planning, and registration. If you have any type of disability that may require accommodations to succeed in this course or this program, it is your responsibility to inform your instructor and/or the ADA Coordinator so that you and he or she can plan for such accommodations. You may inform your instructor after class, or you may contact the ADA coordinator on your campus.

SEXUAL HARASSMENT POLICY

H. Council Trenholm State Community College affirms its commitment to ensuring an environment for all employees and students which is fair, humane, and respectful. Therefore, the College will not tolerate any verbal or physical conduct that constitutes sexual harassment of any employee or student. Such behaviors are prohibited by Federal regulations, which state:

“Harassment on the basis of sex is a violation of Section 703 of Title VII. Unwelcome sexual advances, requests for sexual behaviors, and other verbal or physical conduct of a sexual nature constitute sexual harassments when (1) submission to such conduct is made either explicitly or implicitly a term or condition of an individual’s employment, (2) submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting such individual, or (3) such conduct has the purpose or effect of substantially interfering with an individual’s work performance or creating an intimidating, hostile, or offensive working environment.”

H. Council Trenholm State Community College deplores such conduct as an abuse of authority, and thus it is an official institutional policy that sexual harassment of employees and/or students will not be tolerated. The College accepts the proposition that sexual harassment, like any civil rights violation, generates a harmful environment. The administration of the College will act positively to investigate alleged harassment and to effect remedy when an allegation is determined to be valid.

Complaints about sexual harassment should be registered in the office of the Title IX Coordinator on your campus.

ACADEMIC DISHONESTY POLICY

The primary goal of H. Council Trenholm State Community College is the promotion of an atmosphere conducive to studying and learning. Those conditions and actions that encourage scholarship are applauded; those conditions and actions that deter or discourage intellectual growth and development are deplored. Therefore, ‘Academic Dishonesty’ is defined as follows:

1. Cheating on an exercise, test, problem, practice or examination submitted by a student to meet course requirements. Cheating includes, but is not limited to: the use of unauthorized aids (such as crib sheets, written materials, drawing, etc.); copying from another student’s work; soliciting, giving and/or receiving

unauthorized aid orally or in writing; or similar action contrary to the principles of academic honesty.

2. Plagiarism on an assigned paper, theme, report or other material submitted to meet course requirements. Plagiarism is the act of using, in one's own work, the work of another without indicating that source.
3. Use of tests or papers prepared by commercial or non-commercial agents and submitted as a student's own work.

Charges of academic dishonesty made against a student by a faculty member must follow the principles of due process. Faculty members must bring charges against a student in writing. A faculty member shall not give the grade 'F' or any punitive punishment for academic dishonesty unless guilt is established through the due process procedure.

WORK ETHICS PROGRAM

Trenholm State Community College promotes employability skills in its students through participation in the Work Ethics Program. Business and industry leaders have identified essential work ethics that should be taught and practiced in order to develop a viable and effective workforce. The ten work ethics traits identified are stated below.

1. **Attendance:** Attends class, arrives/leaves on time; notifies instructor in advance of planned absences; and makes up assignments punctually.
2. **Character:** Displays loyalty, honesty, trustworthiness, reliability, dependability, initiative, self-discipline, and self-responsibility.
3. **Teamwork:** Respects rights of others; is a team worker; is cooperative; is assertive; displays customer service attitude; seeks opportunities for continuous learning; and displays mannerly behavior.
4. **Appearance:** Displays appropriate dress, grooming, hygiene, and etiquette.
5. **Attitude:** Demonstrates a positive attitude; appears self-confident; and has realistic expectations of self.
6. **Productivity:** Follows safety practices; conserves materials; keeps work area neat and clean; and follows directions and procedures.
7. **Organizational Skills:** Manifests skill in personal management, time management, prioritizing, flexibility, stress management, and dealing with change.
8. **Communication:** Displays appropriate nonverbal and verbal skills.
9. **Cooperation:** Displays leadership skills; appropriately handles criticism and complaints; demonstrates problem-solving capability; maintains appropriate relationships with supervisors and peers; and follows chain of command.
10. **Respect:** Deals appropriately with cultural/racial diversity and does not engage in harassment of any kind.

WORK ETHICS EXPECTATIONS FOR STUDENTS

As a student you are expected to:

- ❖ Attend each scheduled class period and be in class on time.
- ❖ Complete assignments on time.
- ❖ Prepare for class by reading assignments, completing homework, and bringing to class all necessary supplies and/or equipment. Evidence of this will be class presentation, instructor observations, lab assignments, and testing and evaluation.
- ❖ Demonstrate proper use of time by beginning and ending work as expected, observe policies on break and lunch periods, and use work time appropriately.
- ❖ Encourage and facilitate cooperation, pride, trust, and group identity as well as foster commitments and team spirit.
- ❖ Display a high level of effort and commitment to performing work, operate effectively within the defined structure, and demonstrate trustworthiness and responsible behavior.
- ❖ Participate in activities by contributing to class discussions, completing assignments, and being involved in lab activities.
- ❖ Observe established policies on safety and notify proper authorities of circumstances or situations that present potential safety hazards.
- ❖ Use all equipment and tools in a safe and proper manner. Do not use or knowingly permit others to use tools and equipment improperly.
- ❖ Present a neat, clean appearance, dress appropriately, practice personal hygiene, and wear clothing suitable to the job task and environment based on customers served.
- ❖ Communicate accurate information to others in a professional and courteous manner, convey a willingness to assist, work to resolve conflicts and to identify solutions in which all parties benefit, and demonstrate concerns for treating people fairly and equitably.
- ❖ Display a willingness to cooperate and accept constructive feedback. Treat your instructor and classmates with respect, courtesy and tact.

STATEMENT OF RECEIPT BY STUDENT

I certify that my instructor has provided me with a copy of the syllabus for this course. I certify that I have been advised of the course content and course requirements; Additionally, I certify that I have read the course participation, disability, sexual harassment, and academic dishonesty policies.

Student's Name (please print legibly)

Course Number/ Course Name

Student's Signature

Date

GENERAL INSTRUCTIONAL OBJECTIVES

- **Cognitive:** Comprehend foundational knowledge of database management software
- **Psychomotor:** Apply foundational knowledge of database management software.
- **Affective:** There are no affective objectives directly associated with this course.

PROFESSIONAL COMPETENCIES/OBJECTIVES

Unless otherwise indicated, evaluation of student's attainment of objectives is based on knowledge gained from this course. During performance evaluations, s will be provided necessary tools, equipment, materials, specifications, and any other resources necessary to accomplish the task. Specifications may be in the form of, but not limited to, manufacturer's specifications, Community orders, regulations, national and state codes, certification agencies, locally developed lab assignments, or any combination of specifications

| | | |
|---|---|----------------------|
| MODULE A – COMPUTER ESSENTIALS | | |
| MODULE DESCRIPTION – This module is intended to ensure students have basic knowledge of computer operation. This module is foundational for other instruction in this course. | | |
| PROFESSIONAL COMPETENCIES | PERFORMANCE OBJECTIVES | |
| A1.0 Explain the system and hardware associated with database management applications. (B) | A1.1 This competency is measured cognitively. | |
| ENABLING OBJECTIVES | | KSA Indicator |
| A1.1.1 Define terms associated with the computer system. | | A |
| A1.1.2 Explain the function of hardware devices. | | B |
| A1.1.3 Identify elements of the graphical user interface. | | a |
| A1.1.4 Explain the process of launching and exiting programs. | | b |
| A1.1.5 Explain various methods of file management. | | b |
| MODULE A OUTLINE | | |
| <ul style="list-style-type: none"> • Hardware devices • Graphical User Interface (GUI) <ul style="list-style-type: none"> – Launching and exiting programs – File Management | | |

| MODULE B – INTRODUCTION TO DATABASE MANAGEMENT SYSTEMS | | |
|--|---|----------------------|
| MODULE DESCRIPTION – During this module students learn to create a basic database. | | |
| PROFESSIONAL COMPETENCIES | PERFORMANCE OBJECTIVES | |
| B1.0 Create a basic database. (2b) | B1.1 Use specified features to create a basic database. | |
| ENABLING OBJECTIVES | | KSA Indicator |
| B1.1.1 Explain the use of a database. | | C |
| B1.1.2 Define terms associated with a database. | | A |
| B1.1.3 Identify parts of the database window. | | a |
| B1.1.4 Explain the function of objects in a database. | | B |
| B1.1.5 Explain the importance of planning the database. | | B |
| B1.1.6 Explain the process of creating and saving a blank database. | | b |
| B1.1.7 Explain the process of opening an existing database. | | b |
| MODULE B OUTLINE | | |
| <ul style="list-style-type: none"> • Terms • Database Management System Window <ul style="list-style-type: none"> – Menus and tool bars <ul style="list-style-type: none"> ○ Customizing tool bars – Parts of the window – Objects <ul style="list-style-type: none"> ○ Tables ○ Queries ○ Forms ○ Reports • Creating a new database <ul style="list-style-type: none"> – Planning a database <ul style="list-style-type: none"> ○ Organizing data ○ Determine relationship(s) between tables ○ Determine potential questions to be asked of the database (queries) ○ Design forms needed ○ Design reports needed – Create a blank database • Opening and closing a database | | |

| MODULE C – TABLES AND DATA | | |
|---|--|----------------------|
| MODULE DESCRIPTION – During this module students learn to use tables to organize a database. | | |
| PROFESSIONAL COMPETENCIES | PERFORMANCE OBJECTIVES | |
| C1.0 Use tables to organize the database. (2b) | C1.1 Use specified features to create and modify tables in a database. | |
| ENABLING OBJECTIVES | | KSA Indicator |
| C1.1.1 Explain the process of creating a table. | | b |
| C1.1.2 Explain the process of editing an existing table’s structure. | | b |
| C1.1.3 Explain the process of updating data in an existing table. | | b |
| C1.1.4 Explain the function of various edit features. | | B |
| C1.1.5 Explain various processes of sorting records. | | b |
| C1.1.6 Explain various processes to filter records. | | b |
| C1.1.7 Explain various processes to add tables to a database. | | b |
| C1.1.8 Explain the importance of validating data. | | b |
| C1.1.9 Explain various processes to validate data. | | B |
| C1.1.10 Explain the process of creating data relationships. | | b |
| MODULE C OUTLINE | | |
| <ul style="list-style-type: none"> • Creating tables <ul style="list-style-type: none"> – Defining fields – Saving a table – Changing views – Adding records – Navigating records in a table – Preview and print table – Closing a table • Editing an existing table’s structure <ul style="list-style-type: none"> – Adding a field – Deleting a field – Editing a field – Changing field properties • Updating data in an existing table <ul style="list-style-type: none"> – Importing data from another source – Copying records from another database – Editing existing records – Deleting records • Edit features <ul style="list-style-type: none"> – Spell check – Undo and redo – Find and replace – Cut, copy, and paste – Drag and drop | | |

MODULE C OUTLINE (Continued)

- Sorting records
- Filtering records
- Add a table to a database
 - Wizards
 - Custom
 - Importing tables
 - Linking tables
- Data validation
 - Terms
 - Required fields
 - Ranges
 - Default values
 - Defining rules
 - Wizards
- Relationships
 - Terms
 - Create a relationship between two tables
 - Edit a relationship
 - Enforce referential integrity

| MODULE D – MANAGING A DATABASE | | |
|--|--|----------------------|
| MODULE DESCRIPTION – During this module students learn to manage a database. | | |
| PROFESSIONAL COMPETENCIES | PERFORMANCE OBJECTIVES | |
| D1.0 Manage a database. (2b) | D1.1 Use selected features to manage a database. | |
| ENABLING OBJECTIVES | | KSA Indicator |
| D1.1.1 Explain the importance of backing up a database. | | B |
| D1.1.2 Explain the process of backing up and restoring a database. | | b |
| D1.1.3 Explain various methods of compacting a database. | | b |
| D1.1.4 Explain various methods of repairing a database. | | b |
| D1.1.5 Explain the process of converting a database to another database type or version. | | b |
| D1.1.6 Explain the process of replicating a database. | | b |
| D1.1.7 Explain the process of setting database security. | | b |
| D1.1.8 Explain the process of enhancing database performance. | | b |
| D1.1.9 Explain the process of documenting a database. | | b |
| MODULE D OUTLINE | | |
| <ul style="list-style-type: none"> • Backing up and restoring a database • Compacting and repairing a database • Compacting a database automatically • Converting a database to another database type or version • Replicating a database • Setting database security <ul style="list-style-type: none"> – Database passwords – User permissions – Database encryption • Database performance <ul style="list-style-type: none"> – Using a performance analyzer – Splitting a database • Documenting a database | | |

| MODULE E – WORKING WITH QUERIES | | |
|---|---|----------------------|
| MODULE DESCRIPTION – During this module students learn to perform database queries. | | |
| PROFESSIONAL COMPETENCIES | PERFORMANCE OBJECTIVES | |
| E1.0 Perform database queries. (2b) | E1.1 Use selected features to perform database queries. | |
| ENABLING OBJECTIVES | | KSA Indicator |
| E1.1.1 Explain the function of queries. | | c |
| E1.1.2 Explain various processes to create queries. | | b |
| E1.1.3 Explain criteria for conducting a query. | | B |
| E1.1.4 Explain sorting. | | b |
| E1.1.5 Explain calculated fields and functions. | | b |
| E1.1.6 Explain the process for conducting various types of queries. | | b |
| MODULE E OUTLINE | | |
| <ul style="list-style-type: none"> • Create a one-table select query <ul style="list-style-type: none"> – Custom – Wizards – Query By Example (QBE) vs. Structured Query Language (SQL) • Create a multiple-table select query <ul style="list-style-type: none"> – Custom – Wizards – Query By Example (QBE) vs. Structured Query Language (SQL) • Applying criteria to a select query <ul style="list-style-type: none"> – Text data – Using wildcards – Specifying criteria for a field not to be displayed in the results – Numeric data – Using comparison operators – Using compound criteria • Sorting data in a query • Using calculated fields • Calculating statistics (aggregate functions) • Types of queries <ul style="list-style-type: none"> – Summary queries – Crosstab queries – Parameter queries – Update queries – Make-table queries – Delete queries – Append queries | | |

| | | |
|--|--|----------------------|
| MODULE F – FORMS | | |
| MODULE DESCRIPTION – During this module students learn to use forms to manage data. | | |
| PROFESSIONAL COMPETENCIES | PERFORMANCE OBJECTIVES | |
| F1.0 Use forms to manage data. (2b) | F1.1 Use selected features to create and modify forms. | |
| ENABLING OBJECTIVES | | KSA Indicator |
| F1.1.1 Explain the use of forms. | | c |
| F1.1.2 Explain various processes to create and save forms. | | b |
| F1.1.3 Explain various processes to add data using a form. | | b |
| F1.1.4 Explain various processes for finding and replacing data using a form. | | b |
| F1.1.5 Explain calculated fields and functions in forms. | | B |
| F1.1.6 Explain various processes to create and modify a subform. | | b |
| MODULE F OUTLINE | | |
| <ul style="list-style-type: none"> • Create a form <ul style="list-style-type: none"> – Custom – Wizards – Elements of form design – Areas of a form – Form controls <ul style="list-style-type: none"> ○ Type of controls ○ Changing properties ○ Moving ○ Resizing – Form tools <ul style="list-style-type: none"> ○ Check box ○ Combo box ○ Command button ○ Image ○ Label ○ Line ○ Option button ○ Option group ○ Page break ○ Subform/subreport ○ Text box • Formatting • Saving • Adding data using a form • Use filters to find and replace data • Create a main form with a subform <ul style="list-style-type: none"> – Modify the form – Modify the subform | | |

| MODULE G - REPORTS | | |
|--|---|----------------------|
| PROFESSIONAL COMPETENCIES | PERFORMANCE OBJECTIVES | |
| G1.0 Create and modify reports. (2b) | G1.1 Use selected database features to create and modify reports. | |
| ENABLING OBJECTIVES | | KSA Indicator |
| G1.1.1 Explain the use of reports. | | c |
| G1.1.2 Explain various processes to create and save reports. | | b |
| G1.1.3 Explain various processes to create and modify a subreport. | | b |
| G1.1.4 Explain various processes to sort and group data. | | b |
| G1.1.5 Explain calculated fields and functions in reports. | | b |
| G1.1.6 Explain various processes to create mailing labels. | | b |
| MODULE G OUTLINE | | |
| <ul style="list-style-type: none"> • Create a report <ul style="list-style-type: none"> – Custom – Wizards – Elements of report design – Areas of a report – Report controls <ul style="list-style-type: none"> ○ Type of controls ○ Changing properties ○ Moving ○ Resizing – Report tools <ul style="list-style-type: none"> ○ Check box ○ Image ○ Label ○ Line ○ Page break ○ Subform/subreport ○ Text box – Formatting – Saving • Create a main report with a subreport <ul style="list-style-type: none"> – Modify the main report – Modify the subreport • Sorting and grouping data • Using statistical functions (aggregate functions) • Creating mailing labels | | |

| MODULE H – WORKING WITH A SWITCHBOARD | | |
|--|--|----------------------|
| MODULE DESCRIPTION – During this module students learn to use switchboards when working with a database. | | |
| PROFESSIONAL COMPETENCIES | PERFORMANCE OBJECTIVES | |
| H1.0 Use switchboards when working with a database. (2b) | H1.1 Use selected database features to create and modify switchboards. | |
| ENABLING OBJECTIVES | | KSA Indicator |
| H1.1.1 Explain the use of switchboards. | | c |
| H1.1.2 Explain various processes to create and save switchboards. | | b |
| H1.1.3 Explain various processes to modify a switchboard page. | | b |
| MODULE H OUTLINE | | |
| <ul style="list-style-type: none"> • Create a switchboard <ul style="list-style-type: none"> – Create the main switchboard – Create switchboard pages – Test and review switchboard – Modify switchboard pages • Add command buttons to a switchboard page • Setting and modifying startup options | | |

ENABLING OBJECTIVES TABLE OF SPECIFICATIONS

The table below identifies the percentage of cognitive objectives for each module. **Instructors should develop sufficient numbers of test items at the appropriate level of evaluation.**

| | Facts/ Nomenclature A/a | Principles/ Procedures B/b | Analysis/ Operating Principles C/c | Evaluation/ Complete Theory D/d |
|----------|-------------------------------|----------------------------------|---|--|
| Module A | 40% | 60% | - | - |
| Module B | 29% | 57% | 14% | - |
| Module C | - | 100% | - | - |
| Module D | - | 100% | - | - |
| Module E | - | 83% | 17% | - |
| Module F | - | 83% | 17% | - |
| Module G | - | 83% | 17% | - |
| Module H | - | 67% | 33% | - |

| Knowledge, Skills, and Attitudes (KSA) Indicators | | | |
|---|--------------|----------------------------------|---|
| | Value | Key Word(s) | Definition |
| Performance Ability | 4 | Highly Proficient | Performs competency quickly and accurately. Instructs others how to do the competency. |
| | 3 | Proficient | Performs all parts of the competency. Needs only a spot check of completed work. |
| | 2 | Partially Proficient | Performs most parts of the competency. Needs help only on hardest parts. |
| | 1 | Limited Proficiency | Performs simple parts of the competency. Needs to be told or shown how to do most of the competency. |
| Knowledge of Skills | d | Complete Theory | Predicts, isolates, and resolves problems about the competency. |
| | c | Operating Principles | Identifies why and when the competency must be done and why each step is needed. |
| | b | Procedures | Determines step-by-step procedures for doing the competency. |
| | a | Nomenclature | Names parts, tools, and simple facts about the competency. |
| Knowledge | D | Evaluation | Evaluates conditions and makes proper decisions about the subject. |
| | C | Analysis | Analyzes facts and principles and draws conclusions about the subject. |
| | B | Principles | Identifies relationship of basic facts and states general principles about the subject. |
| | A | Facts | Identifies basic facts and terms about the subject. |
| Affective | *5 | Characterization by Value | Acting consistently with the new value |
| | *4 | Organization | Integrating a new value into one's general set of values, giving it some ranking among one's general priorities |
| | *3 | Valuing | Showing some definite involvement or commitment |
| | *2 | Responding | Showing some new behaviors as a result of experience |
| | *1 | Receiving | Being aware of or attending to something in the environment |
| <p>Alpha Scale Values - Any item with an upper case letter (A, B, C, D) by itself is taught as general information on a topic. This information may be related to the competency or encompass multiple competencies. Examples might include mathematical computations or knowledge of principles such as Ohm's Law.</p> <p>A lower case letter indicates a level of "Knowledge of Skills." Individuals are taught information pertaining to performing a competency. These may be indicated alone or in conjunction with a numerical scale value. A lower case letter by itself indicates the individual is not required to perform the task-just know about the task. (example: Can state or explain procedures for doing a task).</p> <p>Numerical Scale Values - The numbers reflect the levels the individual will be able to perform a competency. Number values are always accompanied by lower case letters (i.e. 1a, 2b, 3c...etc.) in order to specify the level of knowledge of skills associated with the competency.</p> <p>Example: An individual with a competency with a scale indicator of 3b has received training of knowledge of skills whereby he or she can determine the correct procedures and perform with limited supervision; only requiring evaluation of the finished product or procedure.</p> <p>Asterisk items indicate desired affective domain levels and are used to indicate the desired level for a given competency. They may be used independently or with other indicators (i.e. 1a-*1, 2c-*3). If used with another indicator, separate with a hyphen.</p> <p>NOTE: Codes indicate terminal values.</p> | | | |