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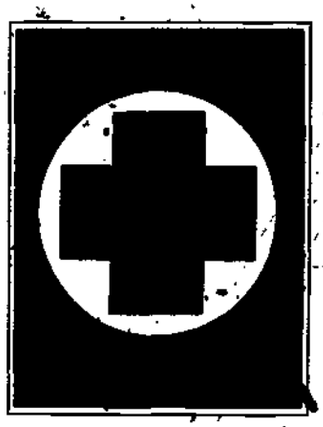
ABSTRACT

The results of a five-step curriculum analysis of the licensed vocational nursing program at Fresno City College, California, are provided in this booklet. (An analysis of four other vocational programs are provided in CE 019 817-820.) The products of step 1 include a definition of the employment opportunity for this area, and a statement of the skills/behaviors/attitudes required for employment; program curriculum objective defined specific to the stated employment requirements; performance requirements for the stated program curriculum objective; curriculum objectives of all existing vocational/occupational courses presently required for graduation from this program area; and a definition of the terminal mastery (cognitive/affective/psychomotor) which students must achieve from each non-occupational/vocational course included in the program. Step 2 includes a cognitive/affective/psychomotor analysis of each stated course objective and the criteria of mastery for each item identified. Step 3 includes an identification of items of mastery required in each course which represent problem areas for the disadvantaged student; and a diagnosis/identification of the nature of the problem areas and their perceived causes in terms of student-related and curriculum/course-related causes. Step 4 includes a restatement of the priority problem area as terminal performance objectives, criterion measures for each terminal performance objective, learning requirements to achieve each objective, an organization of learning stress, and an analysis of alternate methods and media. Finally, step 5 includes specific recommendations of program/course change to eliminate identified problems and produce the required mastery. (JH)

"Project: MOBILITY"

A Federally Funded Research & Design Project
for
Disadvantaged and Handicapped Vocational Education Students
(Grant #G007603888)

THE FOLLOWING IS A CURRICULUM ANALYSIS
COMPLETED TO
IDENTIFY AND ELIMINATE HURDLES TO STUDENT SUCCESS IN



Licensed Vocational Nursing

Curriculum Analysis

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June, 1978

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RESEARCH AND DESIGN PROJECT
CURRICULUM ANALYSIS

LICENSED VOCATIONAL NURSING

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RESEARCH AND DESIGN PROJECT

CURRICULUM ANALYSIS

INTRODUCTION

The largest task undertaken in completing Phase II of this project was the thorough curriculum assessment of the five vocational education programs focused on by this project (Automotive Mechanics, Electronics, Licensed Vocational Nursing, Registered Nursing and Office Occupations). This analysis sought to identify the specific hurdles which were preventing student success; and then to determine what specific instructional methods/media changes would have to be made to eliminate them.

Each team worked to translate their curriculum from a norm referenced to a criterion referenced basis. Employment requirements replaced textbook tables of content as the basis of determining what should be mastered. Individual mastery replaced class standing as the standard of success or failure; and the methods and media of instruction were reassessed to determine if they were most appropriate, given the unique needs of the target students and the characteristics of the skills/knowledges/attitudes to be mastered.

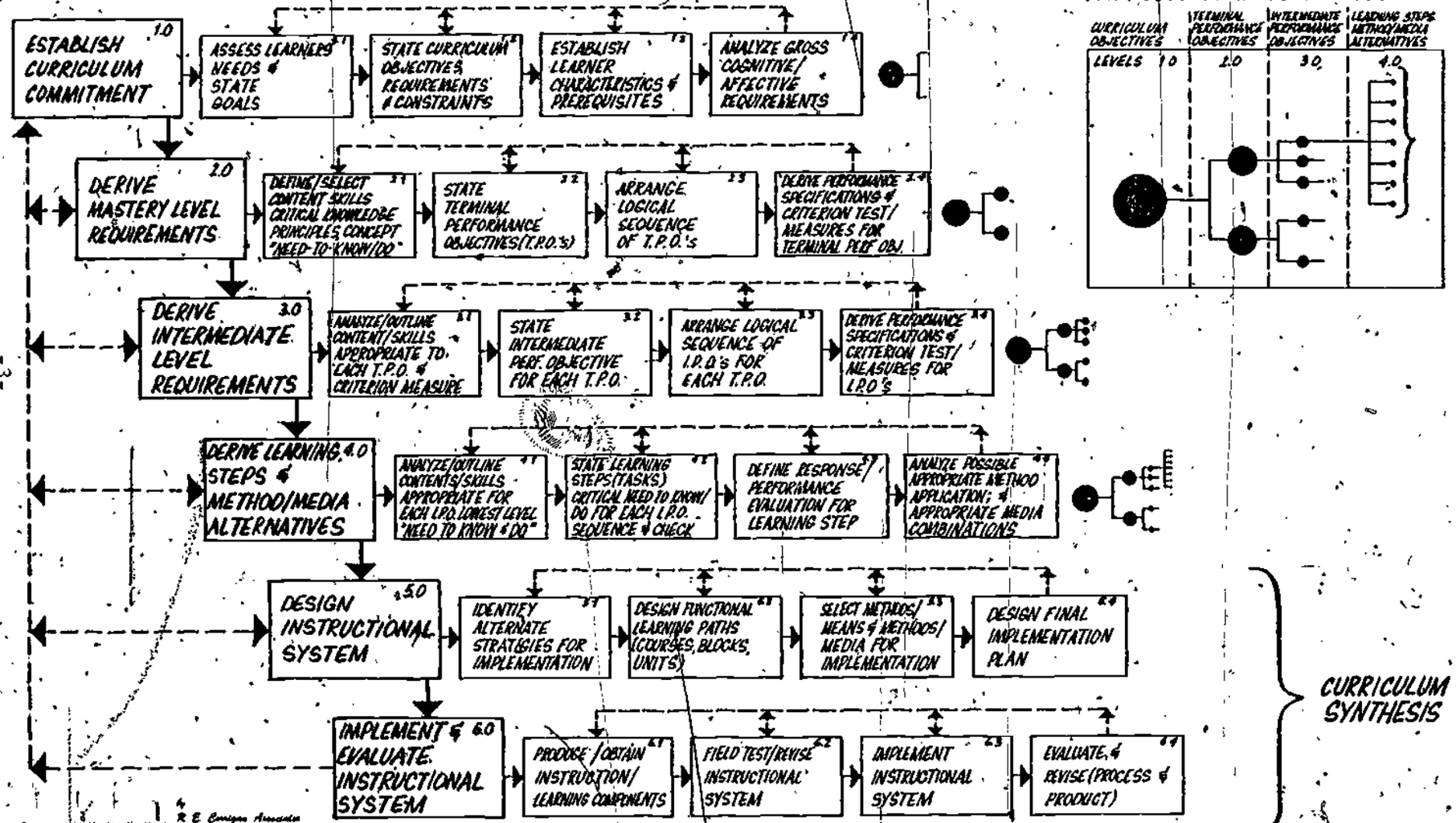
The process used by each team was a highly systematic one. It sought to eliminate assumption and to standardize the curriculum analysis steps being applied by each of the five instructional design teams. All teams applied the same steps, in the same sequence, and against the same standards of completion. As much as possible, the process remained a constant. It was only the content/skills/behavior being analyzed that differed from team to team. The model of curriculum analysis that was employed can be found on page 3. All team members

were trained in its application. In addition, a consultant from the developers of the model worked with each design team as they applied it to their vocational education program.

There were five general steps applied by each team. A listing of those steps can be found on pages 5 and 6. This booklet has been sectioned and bound according to those five steps. At the beginning of each section, you will be provided with a general overview of what the team did at that step. You will then be given a listing of the analysis functions performed by the team at that step. For steps 3 and 4, you will also be provided with the detailed instructions given to the team and copies of the forms they used. The curriculum analysis products developed by the team will then be provided in the sequence in which they were developed.

We hope that our effort will be of value and that the following analysis will help eliminate the hurdles which are keeping disadvantaged and/or handicapped vocational education students from successfully acquiring the skills, knowledges and attitudes they require to enter the job market place and; as a minimum, achieve their independent survival point.

SAFE INSTRUCTIONAL SYSTEM MODEL



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RESEARCH AND DESIGN PROJECT

SPECIFIC WORK ASSIGNMENTS TO BE COMPLETED BY EACH CURRICULUM DESIGN TEAM.

The following five steps will constitute the total scope of work to be completed during Phase II of the project. Establish your own work schedules and meeting times. All work is to be completed by December 16, 1977.

STEP 1

a) Derive Employment Requirements - a definition of the employment opportunity and a statement of the Skills/Behaviors/Attitudes required for employment.

b) Define your Program Curriculum Objective specific to the stated Employment Requirements - focus on required final mastery.

c) Derive Performance Requirements for the stated Program Curriculum Objective. These represent statements of all operating limitations, conditions or givens affecting the implementation or content of the Program Curriculum Objective.

d) Translate all existing courses presently required for graduation from your program area into curriculum objectives (vocational/occupational courses only).

e) Define the terminal mastery (Cognitive/Affective/Psychomotor) which students must achieve from each non-occupational/vocational course included in your program.

STEP 2

a) Perform a Cognitive/Affective/Psychomotor Analysis of each stated course objective to derive ALL highest levels of mastery required for successful completion of the course.

b) State the criteria of mastery for each item identified in the Cognitive/Affective/Psychomotor Analysis. These statements would include the method of evaluation and the level of performance required of the student (How and How Well). This statement is not the exact test item that the student would encounter (Criterion Measure).

c) Assess each course to confirm that the sequencing of the items of mastery is correct according to the taxonomies; and that the combined courses will produce the mastery demanded by the Employment Requirements and the Program Curriculum Objective (vocational/occupational courses only).

STEP 3

a) Identify those items of mastery required in each course which represent problem areas for the disadvantaged student; i.e., required proficiency levels

not being attained.

b) Diagnose/Identify the nature of the problem areas and their perceived causes for performance deficiencies in terms of 1) student related and 2) curriculum/course related causes.

c) Prioritize the identified problem areas according to their criticality for continuing success by the disadvantaged student.

STEP 4

a) Restate the priority problem areas as Terminal Performance Objectives.

b) Derive Criterion Measures for each Terminal Performance Objective.

c) Analyze the Learning Requirements to Achieve each Objective.

d) Organize the learning steps.

e) Analyze alternate Methods and Media.

STEP 5

a) Define specific recommendations of program/course change to eliminate the identified problems and produce the required mastery.

RESEARCH AND DESIGN

PROJECT: MOBILITY

STEPS OF CURRICULUM ANALYSIS

STEP 1

AS THEIR FIRST STEP, THE DESIGN TEAM SEEKS OUT THE EMPLOYER'S STATEMENT OF SKILLS/KNOWLEDGES/ATTITUDES REQUIRED FOR EMPLOYMENT. THE COLLEGE'S VOCATIONAL PROGRAM AND ITS COURSES ARE THEN TRANSLATED INTO MEASURABLE PERFORMANCE OBJECTIVES.

THIS STEP CLEARLY DEFINES THE SKILLS/KNOWLEDGES AND ATTITUDES REQUIRED FOR EMPLOYMENT WHICH WILL BE THE ULTIMATE REFERENT FOR THE ENTIRE PROJECT. IT ALSO TRANSLATES THE COLLEGE'S VOCATIONAL EDUCATION PROGRAMS INTO MORE PRECISE STATEMENTS OF REQUIRED FINAL MASTERY. THIS FINAL MASTERY WILL BE THE TARGET OF ALL UPCOMING CURRICULUM ANALYSIS STEPS.

STEP 1:

A) DERIVE EMPLOYMENT REQUIREMENTS - A DEFINITION OF THE EMPLOYMENT OPPORTUNITY AND A STATEMENT OF THE SKILLS/BEHAVIORS/ATTITUDES REQUIRED FOR EMPLOYMENT.

B) DEFINE YOUR PROGRAM CURRICULUM OBJECTIVE SPECIFIC TO THE STATED EMPLOYMENT REQUIREMENTS - FOCUS ON REQUIRED FINAL MASTERY.

C) DERIVE PERFORMANCE REQUIREMENTS FOR THE STATED PROGRAM CURRICULUM OBJECTIVE. THESE REPRESENT STATEMENTS OF ALL OPERATING LIMITATIONS, CONDITIONS OR GIVEN AFFECTING THE IMPLEMENTATION OR CONTENT OF THE PROGRAM CURRICULUM OBJECTIVE.

D) TRANSLATE ALL EXISTING COURSES PRESENTLY REQUIRED FOR GRADUATION FROM YOUR PROGRAM AREA INTO CURRICULUM OBJECTIVES (VOCATIONAL/OCCUPATIONAL COURSES ONLY).

E) DEFINE THE TERMINAL MASTERY (COGNITIVE/AFFECTIVE/PSYCHOMOTOR) WHICH STUDENTS MUST ACHIEVE FROM EACH NON-OCCUPATIONAL/VOCATIONAL COURSE INCLUDED IN YOUR PROGRAM.

RESEARCH AND DESIGN PROJECT
VOCATIONAL NURSING COMMITTEE

Employment Requirements--Crossindexed to Course Content

Assists with Beds and Baths	V.N. 51
Monitors Vital Signs	V.N. 50, Unit IV #3; V.N. 51, 53, 55
Applies Heat and Cold	V.N. 51, 53, 55
Bandages and Changes Dressings	V.N. 51
Places and/or Maintains Catheters, N/G Tubes, O_2 Equipment, Suctioning Equipment	V.N. 51, 53, 55
Applies Restraints	V.N. 51, 53, 55
Teaches and/or Supervises Crutch Walking	V.N. 50, Unit IV #76; V.N. 53
Performs CPR	V.N. 51
Provides Perineal Care	V.N. 51; 52, Unit VIII #2, #53
Provides Ostomy Care	V.N. 51; 50, Unit IV #64-66
Maintains Patient Traction	V.N. 52
Cares for Tracheostomies	V.N. 51; 54, Unit IV #7
Provides Oral and Pharyngeal Suction	V.N. 51
Cares for and Applies Prosthesis	V.N. 50, Unit IV #76; 52, Unit III, #16; 52, Unit VII, #11
Collects Specimens	V.N. 51, 53, 55
Maintains Closed Chest Drainage	V.N. 55, 54
Maintains Hyperalimentation	V.N. 52, Unit I #9
Respects Confidentiality of Patient Information	V.N. 50, Unit I #33-47
Functions Within Framework of V.N.	V.N. 50, Unit I #17-32
Displays:	
Honesty	V.N. 50, Unit I #10
Courtesy	V.N. 50, Unit I #24
Cooperation	V.N. 50, Unit I #11-12
Personal Attributes Necessary for Nursing	V.N. 50, Unit IV #24-28; 51, 53, 55
Health Habits Necessary in Nursing	V.N. 50, Unit I #3
Professional Appearance	V.N. 50, Unit I #4
Supports Professional Organization	V.N. 50, Unit I #33
Continues Postgraduate Training	V.N. 50, Unit I #30-31
Assists with Planning Nursing Care	V.N. 51, 53, 55
Assists with Patient Teaching and Rehabilitation	V.N. 50, Unit IV #13; 69-79
Assists Doctor with Special Procedures	V.N. 51, 53, 55
Administers Medication	V.N. 50, Unit III, #1-50; 55
Provides Pre and Post-Op Care	V.N. 50, Unit IV #32-41, #74-75
Provides Postmortum Care	V.N. 50, Unit IV #42-47
Utilizes Proper Channels of Communication	V.N. 50, Unit I #17-24
Communicates Rationale for Nursing Procedures	V.N. 50, Unit IV, #1-6, #24, #27, #28
Communicates with Family	V.N. 50, Unit IV, #27-28

Research and Design Project, Vocational Nursing Committee
Employment Requirements--Crossindexed to Course Content (Continued)

Communicates by Reporting to Designated Personnel	V.N. 50, Unit I #7, #23, #24
Identifies Records and Reports, Signs and Symptoms	V.N. 50, Unit IV #2-3, #10-12
Cares for Dying Patient	V.N. 50, Unit IV #42-47
Participates in Discharge Planning	V.N. 50, Unit IV #6

ON THE FOLLOWING PAGES, YOU ARE PROVIDED WITH AN ANALYSIS OF THE ENTRY-LEVEL SKILLS/KNOWLEDGES/ATTITUDES REQUIRED TO SUCCEED IN THIS OCCUPATIONAL AREA. THE INFORMATION IS TAKEN FROM THE DICTIONARY OF OCCUPATIONAL TITLES, D.O.T., COMPILED BY THE DEPARTMENT OF LABOR.

THIS ANALYSIS IS ONE OF SEVERAL SOURCES USED BY THE PROJECT DURING PHASE II TO DEFINE THE LEVELS AT WHICH A STUDENT WOULD HAVE TO BE ABLE TO PERFORM IN ORDER TO ENTER AND SUCCEED IN THIS PROGRAM. THESE LEVELS FURTHER SERVED TO HELP PUT LIMITS ON REMEDIAL PROGRAMS DESIGNED TO BRING A STUDENT UP TO ENTRY-LEVEL STANDARDS.

RESEARCH DESIGN PROJECT FOR DISADVANTAGED STUDENTS DOT INFORMATION SHEET

VOCATIONAL PROGRAM: Nursing

WORKER TRAIT NUMBER THIS VOCATIONAL CLUSTER: .378

JOBS WITHIN THIS VOCATIONAL CLUSTER:

Job	DOT Number
Registered Nurse	075.378
Licensed Vocational Nurse	075.378

BREAK-DOWN OF VOCATIONAL CLUSTER WORKER TRAIT INFORMATION:

A. CLUSTER: Nursing

B. JOB: Reg: Nurse & Lic. Voc. Nurse DOT NUMBER 075.378

C. WORKER TRAITS RELATED TO DATA, PEOPLE, THINGS:

A. Compiling
B. Serving
C. No Significant Relationship

D. GENERAL EDUCATIONAL DEVELOPED REQUIRED:

1. Reasoning Development -- Level 4 - Apply principles of rational systems to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists. Interpret a variety of instructions furnished in written, oral, diagrammatic, or schedule form.

D. GENERAL EDUCATIONAL DEVELOPMENT REQUIRED Con't.

2. Matematical Development, Level 4 - Perform ordinary arithmetic, algebraic, and geometric procedures in standard, practical applications.

3. Language Developmemt, Level 4 - Comprehension and expression of a level to: Transcribe dictation, make appointments for executive and handle his personal mail, interview and screen people wishing to speak to him, and write routine correspondence on own initiative. - Interview job applicants to determine work best suited for their abilities and experience, and contact employers to interest them in services of agency. - Interpret technical manuals as well as drawings and specifications, such as layouts, blue prints, and schematics.
Comprehension and expression of a level to: File, post, and mail such material as forms, checks, receipts, and bills. Copy data from one record to another, fill in report forms, and type all work from rough draft or corrected copy. - Interview members (2 b)

E. APTITUDES; Specific capabilities and abilities required in order to learn or perform adequately a job duty.

Aptitude	Level	Explanation
G	3	INTELLIGENCE: General Learning Ability. The ability to "catch on" or understand instructions and underlying principles. Ability to reason and make judgments. Closely related to doing well in school. (3) The middle third of the population. possesses a medium degree of the aptitude, ranging from slightly below to slightly above average.
V	3	VERBAL: Ability to understand meanings of words and ideas associated with them, and to use them effectively. To comprehend language, to understand relationships between words, and to understand meanings of whole sentences and paragraphs. To present information or ideas clearly. (3) See above.

K	3	MOTOR COORDINATION: Ability to coordinate eyes and hands or fingers rapidly and accurately in making pracise movements with speed. Ability to make a movement response accurately and quickly. (3) See above.
F	3	FINGER DEXTERITY: Ability to move the fingers and manipulate small objects with the fingers rapidly or accurately. (3) See above.
M	3	MANUAL DESTERITY: Ability to move the hands easily and skillfully. To work with the hands in placing and turning motions. (3) See above.

Language Development (continued)

of household to obtain such information as age, occupation, and number of children, to be used as data for surveys, or economic studies.
- Guide people on tours through historical or public buildings, describing such features as size, value and points of interest.

* *

F. INTERESTS (Continued)

8 - Situations involving a preference for activities of an abstract and creative nature.

E. SPECIFIC VOCATIONAL PREPARATION - Amount of time required to learn the techniques needed for average performance of job duties.

6 Over 1 year up to and including 2 years.

7 Over 2 years up to and including 4 years.

F. INTERESTS - Perferences for certain types of work activities or experiences.

4 - Situations involving a preference for working for people for their presumed good, as in the social welfare sense, or for dealing with people and language in social situations.

6 - Situations involving a preference for activities concerned with people and the communication of ideas.

7 - Situations involving a preference for activities of a scientific and technical nature. (See 2 b)

G. TEMPERAMENTS - Work situation adjustments required.

4 - Situations involving the direction, control, and planning of an entire activity or the activities of others.

5 - Situations involving the necessity of dealing with people in actual job duties beyond giving and receiving instructions.

H. PHYSICAL DEMANDS - Physical demand activities required to perform job tasks

4 - Reaching, Handling, Fingering, and/or Feeling:

(1) Reaching: Extending the hands and arms in any direction.

(2) Handling: Seizing, holding, grasping, turning, or otherwise working with the hand or hands (fingering not involved)

(3) Fingering: Picking, pinching, or otherwise working with the fingers primarily (rather than with the whole hand or arm as in handling).

(4) Feeling: Perceiving such attributes of objects and materials as size, shape, temperature, or texture, by means of receptors in the skin, particularly those of the finger tips.

5 - (1) Talking: Expressing or exchanging ideas by means of the spoken word.

(2) Hearing: Perceiving the nature of sounds by the ear.

L. LIGHT WORK - Lifting 20 lbs. maximum with frequent lifting and/or carrying of objects weighing up to 10 lbs. Even through the weight lifted may be only a negligible amount, a job is in this category when it requires walking or standing to a significant degree, or when it involves sitting most of the time with a degree of pushing and pulling of arm and/or leg controls.

RESEARCH AND DESIGN PROJECT
VOCATIONAL NURSING COMMITTEE

Curriculum Objective

Upon completion of the three semester Fresno City College Vocational Nursing program, the student must demonstrate mastery (as defined in course objective) of the basic principles of: anatomy, growth and development, nutrition, drugs and solutions, ethics, legal aspects of nursing, and patient care assessment, planning and implementation for patients with disorders of all body systems.

RESEARCH AND DESIGN PROJECT
VOCATIONAL NURSING COMMITTEE

Performance Requirements

1. Under the law, the school must maintain accreditation through the offices of the State Board of Vocational Nursing and Psychiatric Technician Education.

2. The program must be completed within forty-six to fifty-four weeks, with a work week not to exceed forty hours, nor a work day to exceed eight hours.

3. The program must maintain a minimum of 1530 total hours, of which there will be a minimum of 450 lecture hours and a minimum of 1080 laboratory hours.

4. Scheduling of laboratory hours between the hours of 6 p.m. and 7 a.m. may not exceed 160 hours total.

5. Absences not made up during the ongoing program may not exceed five days total.

6. In the health care facilities used for laboratory assignments, there must be a minimum of three patients per student per clinical day.

7. There must be a minimum of one instructor per fifteen assigned students per clinical assignment.

8. Student assignment per local health care facilities may not exceed eight to ten per clinical day.

9. Instructors assigned to local health care facilities must follow the approved health care facility procedures during the clinical assignment.

10. All students must be eligible for admission to Fresno City College.

11. All students must submit transcripts and health history prior to the deadline date for admission: March 15 or October 15.

    The student must obtain from a private medical doctor a signed health form stating that the student possesses adequate health and physical ability to perform required nursing functions.

    The student must demonstrate oral proficiency and the ability to use the senses of hearing and sight within commonly accepted normal limits.

12. All students must achieve a grade of 75% or better on the Health Arts and Science Division's Math Skills Test.

    Students must demonstrate the ability to perform ordinary arithmetic, algebraic and geometric procedures in standard, practical applications.

RESEARCH AND DESIGN PROJECT
VOCATIONAL NURSING COMMITTEE

Course Objectives

Vocational Nursing 50 (Medical-Surgical Nursing I)

Upon completion of Fresno City College's Vocational Nursing 50 (Medical-Surgical Nursing I), the student will demonstrate comprehension of the framework of Vocational Nursing, basic concepts of anatomy and physiology, pharmacology, fundamental principles of nursing, and nutrition.

The student will know and comprehend facts and principles in the following areas:

I. Framework of Vocational Nursing

- a. Vocational Nurse Conduct (Page 1, #1-12)
- b. History of Nursing (Page 1, #13-14)
- c. Cultural Needs of Peoples (Page 1, #15-16)
- d. Role of the Licensed Vocational Nurse (Pages 1-2, #17-32)
- e. Legal Aspects of Nursing (Page 2, #33-47)

II. Basic Concepts of Physical and Life Sciences

- a. Structural Units of the Body (Page 3, #1-10)
- b. Integumentary System (Page 3, #11-12)
- c. Muscular System (Page 3, #13-15)
- d. Skeletal System (Pages 3-4, #16-23)
- e. Circulatory System (Page 4, #24-38)
- f. Respiratory System (Page 4, #39-42)
- g. Urinary System (Pages 4-5, #43-47)
- h. Reproductive System (Page 5, #48-53)
- i. Endocrine System (Page 5, #54-56)
- j. Nervous System (Pages 5-6, #57-72)
- k. Digestive System (Page 6, #73-81)
- l. Special Senses of Sight and Hearing (Pages 6-7, #82-87)

III. Pharmacology

- a. Arithmetic of Pharmacology (Page 7, #1-13)
- b. Administration of Medications (Pages 7-8, #14-26)
- c. Approximate Equivalents (Page 8, #27-28)
- d. Actions and Uses of Drugs (Pages 8-9, #29-50)

IV. Fundamental Principles of Nursing

- a. Introduction of the Patient to the Hospital (Page 9, #1-6)
- b. Disease Process (Pages 9-10, #7-21)
- c. Effects of Stress and Time (Page 10, #22-31)
- d. Preoperative Care of the Hospitalized Patient (Page 10, #32-33)
- e. Postoperative Care of the Hospitalized Patient (Pages 10-11, #34-41)
- f. Care of the Dying Patient (Page 11, #42-47)
- g. Special Needs of Patients (Page 11, #48-59)
- h. Nursing Care of the Patient With Cancer (Pages 11-12, #60-67)
- i. Rehabilitative Nursing (Pages 12-13, #68-79)

V. Nutrition

- a. Basic Four Food Groups (Page 13, #1-3)
- b. Basic Nutrients (Page 13, #4-13)
- c. Basic Daily Diet (Pages 13-14, #14-16)

RESEARCH AND DESIGN PROJECT
VOCATIONAL NURSING COMMITTEE

Course Objectives

Vocational Nursing 52 (Medical-Surgical Nursing II)

Prerequisite: Completion of Vocational Nursing 50-51 or equivalent.

Upon completion of Fresno City College's Vocational Nursing 52 (Medical-Surgical Nursing II), the student will demonstrate comprehension of the nursing care of patients with pathological conditions of the gastrointestinal, urinary, musculoskeletal, reproductive, nervous and integumentary systems, the special sensory organs and obstetrics.

The student will know and comprehend facts and principles in the following areas:

I. Gastrointestinal System (Page 1, #1-10)

II. Urinary System (Pages 1-3, #1-25)

III. Musculoskeletal System (Page 3, #1-16)

IV. Reproductive System (Page 4, #1-20)

V. Nervous System (Page 5, #1-8)

VI. Integumentary System (Page 5, #1-7)

VII. Special Sensory Organs (Pages 6-7, #1-11)

VIII. Obstetrics (Pages 7-10, #1-65)

RESEARCH AND DESIGN PROJECT
VOCATIONAL NURSING COMMITTEE

Course Objectives

Vocational Nursing 54 (Medical-Surgical Nursing III)

Prerequisite: Completion of Vocational Nursing 50-51 or equivalent

Upon completion of Fresno City College's Vocational Nursing 54 (Medical-Surgical Nursing III), the student will demonstrate comprehension of the following: 1) growth and development from birth through adolescence, including pathology; 2) advanced pediatrics including the psychological and socio-cultural aspects; 3) nursing care principles for adult patients with endocrine, respiratory and cardiovascular disorders.

The student will know and comprehend facts and principles in the following areas and will be measured by the referenced criteria:

I. Growth and Development (Pages 1-5, #1-101)

II. Advanced Pediatrics (Pages 5-7, #1-32)

III. Endocrine System (Page 7, #1-14)

IV. Respiratory System (Pages 8-9, #1-29)

V. Cardiovascular System (Pages 9-10, #1-23)

RESEARCH AND DESIGN

PROJECT: MOBILITY

STEPS OF CURRICULUM ANALYSIS

STEP 2

HAVING DEFINED THE REQUIREMENTS OF THE EMPLOYER AND RESTATED THE COLLEGE'S PROGRAMS IN PERFORMANCE TERMS, THE TEAM NOW SEEKS TO IDENTIFY WHAT EACH STUDENT MUST BE ABLE TO KNOW/FEEL/DO IN ORDER TO ACHIEVE THOSE OBJECTIVES. EACH COURSE OBJECTIVE IS ANALYZED TO IDENTIFY THE COGNITIVE/AFFECTIVE/PSYCHOMOTOR MASTERY EACH STUDENT MUST DEMONSTRATE TO SUCCEED. THIS ANALYSIS WILL PROVIDE THE TEAM WITH A DETAILED ENOUGH DEFINITION OF WHAT IS REQUIRED OF EACH COURSE TO SPECIFICALLY PINPOINT WHERE THE PROBLEM AREAS REALLY ARE.

STEP 2:

A) PERFORM A COGNITIVE/AFFECTIVE/PSYCHOMOTOR ANALYSIS OF EACH STATED COURSE OBJECTIVE TO DERIVE ALL HIGHEST LEVELS OF MASTERY REQUIRED FOR SUCCESSFUL COMPLETION OF THE COURSE.

B) STATE THE CRITERIA OF MASTERY FOR EACH ITEM IDENTIFIED IN THE COGNITIVE/AFFECTIVE/PSYCHOMOTOR ANALYSIS. THESE STATEMENTS WOULD INCLUDE THE METHOD OF EVALUATION AND THE LEVEL OF PERFORMANCE REQUIRED OF THE STUDENT (HOW AND HOW WELL). THIS STATEMENT IS NOT THE EXACT TEST ITEM THAT THE STUDENT WOULD ENCOUNTER (CRITERION MEASURE).

C) ASSESS EACH COURSE TO CONFIRM THAT THE SEQUENCING OF THE ITEMS OF MASTERY IS CORRECT ACCORDING TO THE TAXONOMIES; AND THAT THE COMBINED COURSES WILL PRODUCE THE MASTERY DEMANDED BY THE EMPLOYMENT REQUIREMENTS AND THE PROGRAM CURRICULUM OBJECTIVE (VOCATIONAL/OCCUPATIONAL COURSES ONLY).

RESEARCH AND DESIGN PROJECT
VOCATIONAL NURSING

VOCATIONAL NURSING 5D: MEDICAL-SURGICAL NURSING I
Elements of Required Mastery

Cognitive:

Unit I: Framework of Vocational Nursing

1. Define: nursing, vocational or practical nurse, confidentiality, hospital, patient, community, peer.

2. List and explain the personal attributes and abilities necessary for a vocational nurse.

3. From a list provided by instructor, explain three physical health habits essential to the vocational nurse.

4. List desirable aspects of a nurse's appearance.

5. Keep a record of your activities of daily living for one week. Check for sufficient sleep, rest, exercise and study time.

6. List helpful suggestions for study habits, note-taking and test-taking.

7. List three types of communication skills and briefly explain the purpose of each.

8. Name and explain the five steps in problem solving.

9. Define the steps of the nursing process.

10. Explain how a vocational nurse can manifest honesty and economy in nursing.

11. List several rules of etiquette in nursing.

12. Give an explanation of the seven rules for answering the telephone.

13. Name the Father of Medicine and tell why he was given this title.

14. Answer the question: Who was Florence Nightingale?

15. Compare and contrast the cultural needs of patients.

16. Describe the varied cultures in your local community.

17. List the levels of nursing care personnel and briefly state their function.

18. State the differences between ward or unit clerks and unit managers.

19. List the ways nursing care assignments are made.

20. Explain team nursing, private duty nursing and total patient care.

21. Explain how each of the above functions.

22. List the advantages available to the licensed vocational nurse working in a hospital.

23. Explain the relationship that should exist between the licensed vocational nurse and the physician, and the licensed vocational nurse and the registered nurse.

24. Describe how the licensed vocational nurse can work effectively with ancillary personnel.

25. Name ways to find available positions in nursing and explain the importance of the salary and fringe benefits.

26. List the two main objectives of an interview, and give points you should observe during an interview for a job.

27. Tell ways that you can advance in your career.

28. Define and explain resignation. Write a letter of resignation.

29. List some causes for failure in a position and state how they can be prevented.

30. List opportunities available for continuing your education after graduation.

31. Explain the purpose of postgraduate courses. List the factors you should investigate concerning these programs.

32. Explain the functions of the professional organizations: CLVNA, NAPNES, NFLPN, NLN.

33. Discuss the NFLPN code of ethics for the licensed vocational nurse.

34. Tell what is meant by legal aspects of nursing.

35. Tell how the code of ethics and legal aspects relate.

36. Define nursing practice acts and their purpose.

37. List the duties of the Board of Vocational Nurse and Psychiatric Technician Examiners.

38. Explain the purpose of a license to a vocational nurse. Give qualifications needed for licensure.

39. Distinguish between reciprocity, renewal and revocation of a license.

40. Define tort. Explain the difference between negligence and malpractice.

41. Tell what is meant by invasion of privacy.

42. Define: contact, assault, battery, defamation, crimes, misdemeanors, felony.

43. State the factors that should be considered when a will is drafted or witnessed.

44. List four types of permits in a hospital.

45. Describe the significance of the patient's chart in legal action.

46. List the steps you would take if you became involved in a lawsuit.

47. Tell why the vocational nurse should be covered by liability insurance.

Unit II: Basic Concepts of the Physical Life Sciences

1. Define: cell, tissue, organs, organ systems, organism, homeostasis.

2. List the characteristics of all cells which differentiate living matter from nonliving matter.

3. Diagram a cell and label the cell membrane, cytoplasm and nucleus. List the chief functions of each of these structures.

4. Describe mitosis.

5. List the three rules of solutions that take place in movement of materials through cell membranes.

6. List the types of tissue in the body and give an example of each.

7. Define the term "tumor."

8. Give the definition of the term membrane and describe three types of membranes.

9. List the organs found in the dorsal and ventral cavities.

10. Define the following terms: superior, inferior, anterior, ventral, posterior, dorsal, proximal, distal, medial, lateral.

11. Identify the layers and appendages of the skin and locate all of these on a chart.

12. List the function of the skin and its appendages.

13. Discuss the structure and functions of the muscles. Identify the general characteristics of all muscles.

14. Define: origin, insertions, prime mover, antagonist, synergist in relationship to movement of the body.

15. Name and locate on a chart the major muscle groups in the human body and indicate the action of each group.

16. State five major functions of the skeletal system.

17. Give an example of each of the four types of bones.

18. Diagram a long bone and label the diaphysis, epiphysis, red marrow, yellow marrow, periosteum and endosteum.

19. Name and describe the action of the several joints of the body.

20. Define: facet, tuberosity, process spine, ridge, foramen, meatus, sinus, fossa and structure in relationship to bone markings.

21. Discuss the relationship between ligaments, cartilage and bone.

22. Define: flexion, extension, abduction, adduction, circumduction, rotation, supination, pronation, protraction, retraction, inversion and eversion.

23. Discuss the three major divisions of the skeletal system.

24. List the functions of the circulatory system.

25. Identify the components of plasma and list the function of each component.

26. Describe the red blood cell and its functions.

27. List the characteristics common to all white blood cells.

28. State the most important function of platelets.

29. Identify the four blood groups and state which is the universal donor.

30. Discuss the mechanism of blood clotting.

31. Diagram the heart, showing the four chambers and the valves, the pericardium and the endocardium.

32. Trace the circulation of the blood through the hearts and lungs.

33. Compare the pulmonary circulation to the general circulation. Identify the phase during which blood is oxygenated.

34. Differentiate between arteries, arterioles, veins, venules and capillaries with regard to the structure and function of each.

35. Discuss origin, composition, circulation and function of lymph.

36. Name at least three functions of the spleen.

37. Tell how the circulatory system helps regulate body temperature.

38. Discuss the portal circulation and its roles in digestion and elimination.

39. Define: <u>ventilation</u>, <u>inspiration</u>, <u>expiration</u>.

40. Diagram the upper and lower respiratory tract and trace the pathway of oxygen as it enters the body. Describe how oxygen is carried to the cells and how carbon dioxide is removed.

41. Discuss the protective mechanisms within the nose, pharynx and larynx.

42. Locate and identify by name the major structures of the respiratory system.

43. Diagram a kidney, showing its location in the body, the renal fascia, hilum, ureter, cortex and medulla. Describe the functions of each structure.

44. Identify the function of the nephron, pyramidal renal pelvis, papillae, calices, Bowman's capsule, the proximal and distal convaluted tubules, the loop of Henle, the connecting tubule, renal arteries, renal veins, ureters, urinary bladder and urethra. Locate each of these structures on a chart.

45. Discuss the amount of urine "normally" contained in an adult bladder before distention occurs.

46. Compare the normal and abnormal components of urine.

47. List the functions of the kidney.

48. Describe the secondary sex characteristics which are present in the adult male and adult female.

49. Identify on a chart the structures involved in the manufacture of sperm and semen: penis, urethra, prostate gland, seminal vesicles, ejaculatory ducts, testicles and epididymis.

50. Describe the production of sperm and seminal fluid. Tract the route of these through the reproductive organs of the male. Identify the role of sperm in human reproduction.

51. Diagram the ovaries, the fallopian tube, the uterus (noting the cervix, body, fundus, myometrium, perimetrium, and endometrium) and vagina. Outline the functions of each structure.

52. Describe the phases of the menstrual cycle if the ovum is not fertilized.

53. Locate on a chart the structures which are considered the external genitalia of the female: mons pubis, labia majora, labia minora, clitoris, Bartholin glands and perineum.

54. Differentiate between exocrine and endocrine glands.

55. Define a hormone.

56. Locate on a chart the major endocrine glands, state what hormone(s) they secrete and list the chief action of each hormone.

57. Explain two functions of the nervous system.

58. State how the nervous system functions as the "control system" of the body.

59. Give three examples of sensory perception.

60. Describe the functions of the three parts of a nerve cell.

61. Diagram and describe the functions of two nerve cells, indicating each cell body, nerve fiber group, dendrite, axon, synapse and indicate the direction of the impulse through these neurons.

62. Identify the functions of sensory, motor and connecting neurons.

63. Define the terms receptor and effector.

64. Discuss the actions and the interrelationships between the sympathetic and parasympathetic divisions of the autonomic nervous sytems.

65. Diagram the human brain, showing the hemispheres of the cerebrum and indicating the frontal, parietal, temporal and occipital areas. Indicate the thalamus, hypothalamus, cerebellum, and indicate the pons and medulla in the midbrain.

66. List the functions of the spinal cord.

67. State the location and function of the meninges and the cerebrospinal fluid.

68. Briefly describe the peripheral nervous system.

69. List the functions controlled by the cranial nerves.

70. Name the ways the body has for receiving sensory information.

71. Identify the sensory receptors of the body in terms of location and function. Identify the areas of the brain which interpret the sensations from each.

72. Discuss the conception of pain and its transmission to the brain.

73. Name the main organs in the digestive tract and list their functions.

74. List the structures that provide accessory services to the digestive tract.

75. Diagram the digestive pathway.

76. Define the term enzyme and list the general functions of enzymes in digestion. List the major enzymes, state where they enter the digestive tract, and indicate the action of each.

77. Diagram the structures of the mouth and throat and indicate their functions in digestion.

78. Diagram the esophagus and the stomach, indicating the fundus, body, pyloric portion, cardiac and pyloric sphincters.

79. Locate on a chart or model the small intestine, indicating the duodenum, jejunum and ileum.

80. Locate the large intestine on a chart or model. Show the ileocecal valve, the cecum, vermiform appendix, the ascending, transverse and descending colon, the sigmoid colon, the rectum and anal sphincter.

81. Outline the contributions of the accessory organs of digestion (liver, gall bladder and pancreas) to the digestive process.

82. Locate on a chart the major structures of the eye, including the conjunctiva, eyelid, lacrimal gland, nasolacrimal duct, sclera, cornea, choroid, ciliary body, iris, pupil, lens, retina, aqueous humor, vitreous humor and optic nerve.

83. Describe how the eyeball itself is moved.

84. Define: refraction, accommodation, rods and cones, optic chiasm and eye blink reflex.

85. Locate on a chart the major structures of the ear, including the auricle, auditory canal, tympanic membrane, malleus, incus, stapes, eustachian tube, cochlea, oval window, organ of corti, acoustic nerve and semicircular canals. Identify the boundaries of the outer, middle and inner ear.

86. Oiscuss the functions of the ear.

87. Oiscuss awareness of hunger, thirst, taste and smell. List the sensations which are transmitted by the organs of taste. State how the sense of taste is related to the sense of smell.

Unit III: Pharmacology

1. Oetermine areas in which improvement in basic arithmetic is needed.

2. Interchange Roman and Arabic numerals.

3. Identify the three kinds of fractions.

4. Perform the following processes using common fractions: reduction, addition, subtraction, multiplication, division.

5. Convert between improper fractions and whole or mixed numbers.

6. Oistinguish between the relative values of common fractions.

7. Work the following processes using fractions and mixed numbers: addition, subtraction, multiplication, division.

8. Set up proportion and solve for unknown.

9. Read and write decimals correctly.

10. Add, subtract, multiply and divide decimal fractions.

11. Convert common fractions to decimal fractions and decimal fractions to common fractions.

12. Convert common fractions and decimal fractions to percents and percents to common fractions and decimal fractions.

13. Find the percent of a given quantity.

14. Identify the parts of a perscription.

15. Oefine: pharmacology, pharmacy, toxicology, drug.

16. Identify current federal legislation regulating the manufacture, advertising, sale and prescription of drugs.

17. Explain the difference between the generic and trade name of a drug.

18. List two books used for official drug standards.

19. Identify the most common pharmaceutical preparations.

20. Tell why medications come in different forms.

21. State the meanings of selected official abbreviations for drug administration.

22. State the "Five Rights of Giving Drugs" and discuss the importance of each.

23. List the essential requirements for charting the administration of a drug.

24. Point out six practices for the care and storage of drugs.

25. State the proper methods of disposal of unused medications.

26. Explain the proper aftercare of equipment.

27. Convert measurements of weight and volume in the household, apothecary and metric systems.

28. Use correct symbols and abbreviations for the above systems.

29. Differentiate between local drug actions and systemic drug actions.

30. Explain the difference between therapeutic and toxic drug effects.

31. Explain adverse drug actions.

32. Define: antiseptic, bactericidal, bacteriostatic, disinfectant.

33. From a list, select an antiseptic or disinfectant appropriate for use in a given situation.

34. Discuss what advice should be given to a patient on antibiotic and/or sulfonamide therapy.

35. State the causes and treatment of anaphylactic shock.

36. List indications for and common side effects of antihistamines.

37. Identify the actions of bronchodilators and expectorants.

38. State the definitions and uses of hematinics, coagulants, anticoagulants, vasoconstrictors and vasodilators.

39. Identify the actions of stimulants, depressants, narcotics, anesthetics, anticonvulsants, sedative hypnotics, mood elevators and ataractics.

40. From a list select specific drugs according to their central nervous system actions.

41. Clearly define the terms addiction, habituation and tolerance.

42. List the dangers in a hospital setting for the habituated or addicted person.

43. Name the various treatment modalities for drug misuse and the basic underlying principles.

44. Define: antacids, carminatives, emetics, antiemetics, cathartics, and anthelmintics.

45. Explain the actions of different types of cathartics.

46. State the effects of various antacids.

47. State the actions of antineoplastic drugs and list common side effects.

48. Identify the uses of oxytocics.

49. State the actions of diuretics.

50. State the action of miotics and mydriatics.

Unit IV: Fundamental Principles of Nursing

1. Discuss the concerns and fears of hospitalized patients.

2. List routine admission procedures and explain how to carry them out with consideration and tact.

3. Discuss how to take, read, and record vital signs. Define related terms.

4. Explain the following terms: cyanosis, pallor, rubor, jaundice.

5. Discuss the need for diagnostic tests on admission to the hospital.

6. Discuss the importance of predischarge teaching, the safe discharge of a patient from the hospital, and the various nursing and medical services available to the patient after discharge.

7. Differentiate between a functional and an organic disorder. Discuss how the two can become interrelated.

8. Name eight major factors which can cause or contribute to illness.

9. Define and give an example of each of the following classifications of physical disorders: hereditary, congenital, infectious, deficiency, metabolic, neoplastic, traumatic and occupational.

10. List at least twelve common signs and symptoms of illness.

11. Compare and contrast objective and subjective symptoms and give examples of each.

12. Using correct terminology, describe the signs and symptoms of a patient so that other members of the health care team can interpret the description accurately.

13. State how accidents and diseases cause stress.

14. Describe the body's defenses against pathogens.

15. Explain how microorganisms enter the body and cause disease.

16. List common microorganisms by their broad group names.

17. List the modes of transmission of microorganisms and factors favorable for their growth and destruction.

18. Outline the local and systemic symptoms of an infection.

19. Describe nursing measures related to symptoms of infection.

20. Differentiate between medical and surgical asepsis.

21. Define the types of immunity and give examples of a situation in which each might occur.

22. Discuss how constant emotional strain may produce stress.

23. Discuss the neuroses which can occur when an individual's ways of coping with stress are ineffective.

24. Explain the importance of emotional support given to patients during tests and treatments.

25. Differentiate among hostile, aggressive and belligerent patients, according to the text.

26. Define and explain what is meant by the term shy/withdrawn patients. Tell what their reactions to illness might be and how you can be of assistance to them.

27. Explain the first step in helping the patient or the family to accept illnesses, and give measures that can be used to assist the patient adjust to illness.

28. Explain the role of relatives and friends in the hospitalization of a patient, and tell how you can gain their cooperation.

29. Discuss the general concept of aging.

30. List the changes associated with aging.

31. Discuss the special needs of the elderly patient.

32. Describe the general principles of preoperative care.

33. Outline the principles of patient-family teaching involved in preoperative care.

34. List the equipment necessary for immediate postoperative care and state the rationale for each.

35. Identify and describe the symptoms of the three most common immediate postoperative complications and the nursing management of each.

36. List common postoperative discomforts and the supportive nursing measures which may be employed for each.

37. Discuss later postoperative complications and their treatment and prevention.

38. List types and causes of pain.

39. Describe some factors which determine the patient's reaction to pain.

40. Describe nursing measures that ease discomfort and pain.

41. List observations the nurse should make of a patient in pain.

42. List and explain the five stages of death according to Dr. Kubler-Ross.

43. Explain why accidental deaths are so hard to explain.

44. Describe emotional and psychological support for the dying patient.

45. List and discuss the signs of approaching death.

46. Discuss important aspects of nursing care of the dying patient.

47. Describe the procedure for post-mortem care.

48. Define incontinence and list the possible causes.

49. Describe the nursing care of the incontinent patient.

50. Define unconsciousness.

51. Discuss physical care of the unconscious patient.

52. Discuss the external and internal environment.

53. Define the term electrolyte.

54. Define the words alkalosis and acidosis.

55. Describe the signs, symptoms, treatment and nursing care for shock.

56. Describe fluid intake and output.

57. Describe what is meant by electrolyte imbalance.

58. Describe what can be done by the nursing staff to prevent fluid and electrolyte imbalance.

59. Discuss the needs and care of a patient with a fluid loss from the gastrointestinal tract.

60. Define the term cancer.

61. Discuss the emotional aspects related to cancer.

62. Discuss some factors which are believed to predispose to the development of the disease.

63. List the following:

    a. seven danger signals of cancer as defined by the American Cancer Society
    b. most common sites for cancer in each sex
    c. characteristics of benign tumors
    d. characteristics of malignant tumors
    e. four ways cancer can be spread in the body
    f. eight chief methods by which cancer is discovered

64. List three major forms of treatment for cancer.

65. Discuss the nursing care of the patient who has cancer.

66. Discuss the teaching of cancer patients and their families.

67. Discuss cancer quackery.

68. Define rehabilitation.

69. Compare and contrast between rehabilitative and general nursing care of the patient.

70. List the seven causes of inactivity from your handout.

71. Identify the levels of spinal injuries and explain the functional losses.

72. Explain the causes and prevention of disuse syndromes.

73. Describe and prepare a chart of the signs and symptoms of the following: fecal impaction, decubitus ulcer, loss of sensory and/or motor functions, urinary retentions and overflow, venous thrombosis.

74. Describe the three groups of activity comprising bed exercises and their contraindications.

75. Discuss stand-up exercises including their rationale and contraindications.

76. Discuss crutches in terms of types, measurement, gaits and important points of use.

77. Describe the tilt table and give indications and contraindications for its use.

78. Given a case history of a stroke patient and a nursing care plan, plan the nursing care for: the acute, post acute and recovery phases, including preventive care, range of motion, predischarge planning and follow-up care after discharge.

79. Define the following terms pertinent to rehabilitative nursing:

ADL	hemiplegia
aphasia	osteoporosis
contraction	paralysis
contracture	paraplegia
deformities	quadriplegia
disuse atrophy	R O M (three types)
disabilities	rotation
extension	self help devices
flaccid	sensory
flexion	spastic
hemiparesis	

Unit V: Nutrition

1. Discuss some of the factors which can contribute to an inadequate diet.
2. Identify the major cause of obesity. List at least two adverse physical conditions which are attributed to obesity.
3. Define the basic four food groups.
4. List six classes of nutrients. Identify the function and give an example of each.
5. Define the term carbohydrate and list the functions, sources and types.
6. Define the term fat and list the functions, sources and types.
7. Describe the storage of fats in the body.
8. Define the term protein and list the functions, sources and types.
9. Define calories. State the number of calories yielded upon burning one gram of protein, fat, carbohydrate and alcohol.
10. Define the term mineral. List the most nutritionally important, their functions and sources.
11. Define the term vitamin. List the most nutritionally important, their sources, functions, and types.
12. List the common diseases and symptoms of vitamin and mineral deficiency.
13. Discuss the importance of a well-balanced diet with special emphasis upon an adequate breakfast.
14. Given the characteristics of a theoretical family, plan a well-balanced menu.

15. Identify the consistency modifications in the diet as the patient progresses toward a full diet immediately after a major surgical procedure. Give examples of other situations in which this progression might be used.

16. Explain the vocational nurse's responsibility concerning diets.

Methods of Evaluating Outcomes

1. Written assignments
2. Objective tests
3. Practical and objective midterm and final examinations
4. Individual and group conference

75% accuracy indicates student mastery of the above competencies.

RESEARCH AND DESIGN PROJECT
VOCATIONAL NURSING

VOCATIONAL NURSING 52: MEDICAL-SURGICAL NURSING II
Elements of Required Mastery

Cognitive:

Unit I: Gastrointestinal Disorders

1. Identify the structure, function and location of each organ of digestion and accessory parts.

2. Trace the path of food through the alimentary canal, indicating the location, structure and function of the digestive organs.

3. Using the assigned chapters in the text and medical dictionary, list the technical terms and definitions used in this unit.

4. List and categorize those drugs used specifically for treating conditions covered within this unit.

5. List and categorize those drugs specifically contraindicated in the treatment of the patient with conditions covered in this unit.

6. Explain the purpose of and the nurse's responsibility for common procedures used in the diagnosis of the gastrointestinal system.

7. From Media Center slide and tape assignment # _____, diagram and label the equipment used in gastric/intestinal decompression.

8. Describe the nursing actions necessary in caring for patients with gastric/intestinal decompression.

9. List two conditions in which hyperelimination might be indicated and list four nursing care principles.

10. Define and discuss the following terms, indicating causes and symptoms:

appendicitis	hemorrhoids
ascites	herniations
cholecystitis	jaundice
cholelithiasis	neoplasms
cirrhosis	obstructions
colitis	pancreatitis
diverticula	peritonitis
enteritis	pilonidal cyst
gastric disorders	viral hepatitis

Unit II: Urinary Disorders

1. Explain the purpose of and the nurse's responsibility for common procedures used in the diagnosis of urinary tract diseases.

2. Identify the aspects of nursing observation and assessment which are particularly applicable for the urology patient.

3. Discuss the needs of the urology patient and the implications for nursing intervention.

4. Indicate the special preoperative and postoperative considerations necessary for the urology patient.

5. Discuss the special nursing care needed by the patient with one or more catheters in place. Include nephrostomy, suprapubic, ureteral and urethral catheters.

6. Explain the needs of the patient with urinary incontinence and the role of the nurse in meeting these needs.

7. Explain the possible results of obstruction in the urinary tract.

8. State the etiologic and contributory factors in urinary stone formation.

9. Discuss the symptoms of urinary calculi and the implications for nursing intervention.

10. Designate acid, alkaline or neutral ash for foods from a list provided by the instructor.

11. List and define surgical procedures which may be used in the treatment of the patient with urinary calculi.

12. Discuss the causes, symptoms and management of cystitis and pyelonephritis.

13. Compare and contrast acute glomerulonephritis, chronic glomerulonephritis, and nephrosis in terms of cause, symptoms, treatment, diet and prognosis.

14. Relate the previously learned general care of the urology patient to the needs of patients under study.

15. Describe the symptoms and management of tumors of the kidney and of the bladder.

16. Discuss the special needs of post-nephrectomy and post-cystectomy patients.

17. Explain the advantages and disadvantages of the various surgical procedures for urinary diversion and the implications for nursing intervention.

18. List the most common symptoms of electrolyte imbalance.

19. Outline the causes of acute and chronic renal failure and relate them to preventive measures.

20. Discuss the symptoms of renal failure and the implications for nursing intervention.

21. Compare and contrast peritoneal dialysis and hemodialysis in terms of method, efficacy, and nursing care needs.

22. Explain the symptoms of benign prostatic hypertrophy in terms of the anatomy and physiology of the male genitourinary tract.

23. Discuss methods for emptying the bladder after acute or chronic retention, including reasons for choice of method and nursing care needs.

24. Compare and contrast the four types of simple prostatectomy in terms of method, postoperative course and nursing implications.

25. Explain the nurse's role in continuous or intermittent bladder irrigations, including observations and ongoing care.

Unit III: Musculoskeletal Disorders

1. Identify medications used in the treatment of musuloskeletal disorders.

2. Describe the components of high protein, high vitamin and low purine diets and the conditions for which they might be prescribed.

3. Identify the major diagnostic procedures utilized in orthopedics.

4. Differentiate between common types of fractures.

5. List four possible complications of fractures and describe the nursing care principles involved.

6. Explain the difference between open and closed reduction and two major differences in nursing care principles.

7. Explain internal fixation, its application, two devices utilized and four nursing care principles involved.

8. Identify two types of casts, their purposes and nursing care principles involved.

9. Compare skin and skeletal traction.

10. On a diagram of a balanced traction set-up, label the major components.

11. Describe five major observations when inspecting a patient's traction.

12. List two specific effects of prolonged musculoskeletal pain.

13. List four physiologic effects of heat, massage and exercise.

14. Compare and contrast rheumatoid arthritis, osteoarthritis and gout as to incidence, etiology, pathology, clinical description and treatment.

15. Describe osteomyelitis, its cause, treatment and rehabilitation and four nursing care principles.

16. Design a nursing care plan for a new amputee which includes postoperative care, prosthesis fitting and rehabilitation.

Unit IV: Reproductive Disorders

1. Explain the purpose of and the nurse's responsibility for common procedures used in the diagnosis of disorders of the female reproductive tract.

2. Discuss the role of the nurse in providing pre and post-operative care for the patient undergoing curettage, vacuttage and conization.

3. Outline the etiology, symptoms and management of endometriosis and uterine fibroids.

4. Define the terms: fistula, cystocele, rectocele, uterine prolapse and uterine retroversion.

5. Explain the nursing needs of the patient after fistula repair.

6. Discuss the symptoms and management of uterine displacement due to pelvic floor relaxation and the postoperative observations, care and teaching incumbent upon the nurse.

7. Relate symptoms and management of infection of the reproductive tracts to the usual symptoms and management of infection elsewhere in the body.

8. Compare and contrast the causes, symptoms and management of the various types of vaginitis.

9. Outline the treatment and nursing care of cervicitis.

10. Discuss the nursing needs of the patient with pelvic inflammatory disease.

11. Explain the significance of mumps infection of the testes.

12. Define the term "venereal."

13. Describe by stages the course of untreated syphilis.

14. Compare and contrast gonorrhea and syphilis in terms of causes, symptoms, diagnosis, treatment and sequelae.

15. Relate the incidence, etiology and pathology of cancer of the cervix, prostate and breast to those of cancer in general.

16. Explain the significance of the classes of the Pap smear.

17. Differentiate between grades and stages of cancer.

18. Describe the various surgical, radiologic and pharmacologic methods of treatment of the cancers under study.

19. Discuss the nursing needs of the patient with cancer of the cervix, prostate, or breast.

20. Identify special psychological problems that might be anticipated for the patient with each of the cancers under study.

Unit V: Nervous Disorders

1. Given a list, define terms relative to this unit.

2. List and categorize those drugs specifically used for treating neurologic disturbances.

3. Explain the purpose of and the nurse's responsibility for common procedures used in the diagnosis of neurological disorders.

4. Describe the neurological assessment made by the nurse.

5. Explain the following terms: altered states of consciousness, increased intracranial pressure, abnormal body temperature elevations, seizures, neurogenic shock, respiratory failure, spinal disorders, and aphasia.

6. Explain the following terms:

intracranial tumors	myasthenia gravis
transient cerebral attacks	multiple sclerosis
intracranial aneurysms	epilepsy
subarachnoid hemorrhage	migraine
subdural hematoma	trigeminal neuralgia
cerebral vascular accident	head, spinal and sciatic nerve injury
Parkinsonism	

7. From Media Center slide and tape assignment # _____, explain six nursing care actions essential in the care of patients with seizures and head injuries.

8. List six specific nursing principles for the care of a patient who has undergone neurosurgery and explain the rationale for each nursing action.

Unit VI: Integumentary Disorders

1. Make recommendations for sensible, safe skin care under various conditions of age, sex, activity and health.

2. From a list provided by the instructor, define terms used to describe common skin lesions.

3. From a list provided by the instructor, define terms used to indicate types of medications applied to the skin.

4. Suggest ways in which the itch impulse can be controlled.

5. Give the rationale and procedures for the various types of skin disease dressings.

6. In general terms, discuss the causes and symptoms of common dermatologic conditions.

7. Relate the previously learned aspects of skin care to the dermatologic conditions under study.

Unit VII: Special Sensory Organ Disorders

1. Using the assigned chapters in the text and the medical dictionary, organize a list of terms and their definitions relative to the eye and the ear.

2. List and categorize those drugs used specifically for pathophysiological conditions of the eye and ear.

3. Contrast mydriatics and miotics: 1) list two common examples of each; 2) list one condition they are used for; 3) list two contraindications to their use.

4. Describe accommodation, refraction and binocular vision, and the nurse's role in general and preventive eye care and protection of vision.

5. From Media Center slide and tape assignment #____ list five important nursing functions and emergency eye care and give the rationale for each.

6. Explain the purpose of and the nurse's responsibility for common procedures used in the diagnosis of disorders of the eyes and ears.

7. Identify four major nursing functions and responsibilities related to surgical procedures of the eye and the ear.

8. Name two agencies serving the blind and deaf and their criteria.

9. List five observational assessment skills used when admitting a patient with an eye problem and five observational skills used when admitting a patient with a hearing loss.

10. Discuss the physiological needs of patients with failing eyesight or hearing loss.

11. Indicate etiology, symptoms and treatment of the following conditions:

Eye:
- blepharitis
- chalazion
- hordeolum
- virus infection
- strabismus
- amblyopia
- conjunctivitis
- keratitis
- corneal transplant
- retinitis
- retinal detachment
- surgical reattachment of retina
- glaucoma
- cataract
- surgical removal of cataracts
- tumors of the eye
- enucleation
- corneal ulcers
- uveitis

Ear:
- foreign bodies
- external otitis media
- perforation of ear drum
- mastoiditis
- otosclerosis
- Meniere's disease
- cerumen
- tumors
- serous otitis media
- acute, chronic suppurative otitis media
- labyrinthitis
- sensorineural and conductive deafness

stapedectomy
tympanoplasty
mastoidectomy

classification of hearing loss
myringotomy

VIII: Obstetrics

1. From a list provided by the instructor, define terms pertinent to the study of obstetrics.
2. Make suggestions for feminine hygiene which are within nursing purview and for which support can be found in professional literature.
3. Explain maturation of ova and spermatozoa.
4. Describe the processes of fertilization and implantation.
5. Discuss infertility, its causes and its management.
6. Explain the structure and function of the placenta.
7. List the structure and function of the amniotic sac and fluid.
8. Distinguish between fraternal and identical twins in terms of their origins and characteristics of the amniotic sac and placenta.
9. Discuss the development of the fetus in general terms by trimesters.
10. Compare and contrast fetal circulation and adult circulation.
11. Identify common environmental dangers to the fetus.
12. Differentiate among presumptive, probable and positive signs of pregnancy, giving examples of each.
13. Describe the changes in reproductive organs and breasts during pregnancy.
14. Explain the systemic changes which occur during pregnancy.
15. Give examples of common psychological problems during pregnancy.
16. Evaluate good prenatal care for the mother, the fetus and society.
17. Identify the danger signs which require consultation with the doctor.
18. Compare and contrast the dietary needs of pregnant and nonpregnant women.
19. Plan a day's menu which meets the needs of a woman in the sixth month of pregnancy.
20. Indicate ways in which the pregnant woman can safeguard her health and that of her fetus with regard to clothing, activity, bathing, and drug use.

21. Discuss the normal discomforts of pregnancy in terms of cause, prevention, and management.

22. Distinguish between the kinds of spontaneous and induced abortions.

23. Explain the causes, characteristics, and management of hydatidiform mole and ectopic pregnancy.

24. Compare and contrast the causes, symptoms, and management of placenta praevia and abruptio placentae.

25. Outline the nursing care of the bleeding patient, including reasons underlying the various aspects of care.

26. List the symptoms of preeclampsia.

27. Differentiate among mild preeclampsia, severe preeclampsia, and eclampsia on the basis of symptoms.

28. Explain the management of toxemia.

29. Discuss the inheritance of the blood factors A, B, AB, O Rh- and RH +, using a simple Mendelian chart.

30. Describe the process of Rh incompatibility, including its possible effects on the fetus and newborn.

31. Tell about the techniques used for treatment and for prevention of Rh incompatibility.

32. Outline the causes, symptoms, and management of hyperemesis gradidarum.

33. Evaluate the effect on the pregnant woman and her baby when she has diabetes, heart disease, rubella, or venereal disease.

34. Identify high-risk factors in pregnancy.

35. From a list provided by the instructor define terms used to describe the mechanism of labor.

36. Explain the mechanism of labor using the proper terms from the above list.

37. Describe two methods of assessing uterine contractions: 1) by subjective judgment of the nurse; and 2) by use of the fetal monitor.

38. Discuss the needs of the labor patient and the implications for nursing intervention.

39. Indicate the signs and symptoms which suggest a deviation from normal labor.

40. Evaluate "prepared childbirth."

41. List the types of drugs commonly used during labor, their purposes, potential hazards, and prototypes.

42. Tell about the methods used for the induction of labor, their relative efficacy and safety.

43. Identify ways of evaluating fetal condition during pregnancy and labor.

44. State the signs of the approaching second stage of labor.

45. Appraise the duties of the delivery room nurse in terms of value to the mother, the baby, and the doctor.

46. Compare and contrast types of obstetrical anesthesia with regard to efficacy and safety.

47. Describe the recovery room nursing care of the newly delivered mother, including reasons for the various aspects of care.

48. State the reasons for use of episiotomies and obstetrical forceps.

49. List the major indications for delivery by Cesarean section.

50. Outline the usual preoperative care of the patient for Cesarean section, indicating ways in which it differs from that for general abdominal surgery.

51. Give examples of causes of dystocia and classify them with respect to the "Four P's": passage, passenger, power and personality.

52. Describe the anatomical and physiological changes that occur during the puerperium.

53. Discuss the needs of the postpartum patient and the implications for nursing intervention.

54. Indicate signs and symptoms which suggest a deviation from the normal postpartum course.

55. Describe the external appearance and characteristics of the normal newborn.

56. Give examples of "common variations" of the newborn.

57. Describe the internal development of the newborn.

58. Indicate signs and symptoms which suggest a deviation from the normal newborn.

59. Outline the admission of the newborn to the nursery, including reasons for each part of the procedure.

60. Discuss the needs of the newborn and the implications for nursing intervention. Include nutrition, positioning, temperature maintenance, safety, comfort, and emotional needs in the discussion.

61. Identify the major hazards of the neonatal period.

62. Outline the causes, symptoms, and management of the major neonatal problems related to respiratory distress, birth injuries, hemolytic disease, infections, errors of metabolism, and developmental abnormalities.

63. Define these terms: premature, postmature, immature and low birth weight.

64. Compare and contrast the premature infant and the normal newborn.

65. Discuss the special needs of the premature infant and the implications for nursing intervention.

Methods of Evaluating Outcomes

1. Written assignments
2. Objective tests
3. Objective midterm and final examinations
4. Individual and group conferences

75% accuracy indicates student mastery of the above competencies.

RESEARCH AND DESIGN PROJECT
VOCATIONAL NURSING

VOCATIONAL NURSING 54: MEDICAL-SURGICAL NURSING III
Elements of Required Mastery

Cognitive:

Unit I: Growth and Development

1. Describe the development of pediatrics as a specialty.
2. Compare and contrast today's pediatric hospital with the original ones.
3. Discuss local pediatric facilities.
4. Describe some of the feelings the child and his parents have about his hospitalization and discuss possible reasons for these feelings and ways the nurse can help them.
5. Define terms that pertain to the study of pediatrics from a list assigned by the instructor.
6. Make suggestions for getting along with children as listed in professional literature.
7. Describe the basic needs of all children.
8. Give examples of how the child uses behavior as an attention-getting mechanism.
9. Define infant, small child, older child and adolescent as they pertain to age groups.
10. Explain the relationship between physical and intellectual development.
11. Define the term "normal" as it relates to growth and development.
12. Explain the normal physical characteristics of the well child from birth to adolescence and discuss signs and symptoms suggesting abnormal deviation.
13. Discuss possible causes of deviation from normal physical growth.
14. Identify age groups having large variations in growth rate.
15. Compare and contrast the physical growth rates of the sexes.
16. Discuss psychological and behavioral problems that develop because of the variations in the growth rate.
17. List the intellectual characteristics of the normal infant, small child and older child: 1) explain possible causes of deviation from the normal; 2) suggest ways of coping with deviations depending on their cause.
18. Describe the emotional characteristics of the infant and discuss how the mother influences these characteristics.
19. Define "momism" and differentiate between mother-love and "smother-love."
20. Describe the emotional development of the small child and explain the influence of parental emotional make-up.

21. Discuss ways of dealing with stuttering, enuresis, encoresis, etc.

22. Describe the emotional development of the older child, give examples of typical behavior for this group, and discuss probable causes of this type of behavior.

23. List community resources available to the older child with emotional problems.

24. Discuss ways parents can develop a good relationship with the preadolescent.

25. Indicate signs that suggest trouble between parents and child during adolescence.

26. Discuss ways of keeping the child well, including diet, physical and dental examinations, immunizations and safety measures.

27. Discuss the advantages and disadvantages of breast feeding and bottle feeding from the mother's standpoint.

28. List reasons why a mother may not want to breast feed.

29. Discuss the husband's role in breast feeding.

30. Describe the advantages of and list the conditions necessary for breast feeding.

31. Name local organizations available to help the mother breast feed successfully.

32. Cite reasons why a mother may wish to bottle feed.

33. Explain the dangers of bottle feeding.

34. Define "bottle mother syndrome" and give examples of how this can be prevented.

35. List ways of helping the child acquire good eating habits.

36. Discuss how children learn food likes and dislikes from parents and siblings.

37. Explain the importance of meal time atmosphere on eating habits and evaluate the importance of a regular meal schedule and restricting between meal snacks.

38. Evaluate how illness affects the child's appetite and consider how being homesick will decrease the child's desire to eat.

39. Enumerate ways to counteract the deterrents to eating.

40. Point out the importance of allowing adequate time for the meal and explain the importance of serving small portions.

41. Explain how punishment and/or force should not be used to get the child to eat and discuss the results when coercion is used.

42. Define immunity and list the types currently used; ages given, method of administration and those which need a "booster."

43. Discuss which immunizations are required locally before entering first grade.

44. Explain possible immunization reactions.

45. Describe the most common preventable accidents of childhood, give examples and discuss ways of preventing them.

46. Explain how adequate supervision is the most important factor in preventing childhood tragedies.

47. Explain long term affects of accidents on the child and how they affect family relationships.

48. Define maternal deprivation and discuss material deprivation, failure to thrive, cause, symptoms and prognosis.

49. Explain how maternal deprivation and failure to thrive can be prevented and/or alleviated and point out how hospitalization can affect these conditions.

50. Discuss the "battered child syndrome" and list common symptoms of the "battered child syndrome."

51. List frequently given reasons for a child's bruises.

52. Explain in which age group the "battered child syndrome" is most frequently seen and discuss reasons for and methods of eliminating it.

53. Describe how children are often verbally as well as physically abused.

54. Explain the legal implications of the "battered child syndrome" and identify the local assistance available to parents and child.

55. Review the development of antibodies.

56. Describe how allergy develops as a result of antigen-antibody interaction.

57. List the various types of allergy and define the source of allergen for each.

58. Discuss the symptoms of allergy and explain the role of heredity and the methods of treating allergy.

59. Discuss the types of asthma, their causes, symptoms and treatment.

60. Explain the emotional factors of asthma.

61. Discuss the special medical facilities available for asthmatic children.

62. Define communicating and noncommunicating hydrocephalus and list their causes and methods of treatment.

63. Tell about the development of the surgical shunt procedure.

64. Explain why hydrocephalus frequently develops following correction of myelomeningocele and/or meningitis.

65. Compare and contrast the prognosis for a patient with hydrocephalus who has had surgical intervention and one who has not.

66. List the specific facilities available for the hydrocephalic patient.

67. Review the anatomy and physiology of the spinal canal.

68. Distinguish between a normal spine and spina bifida and explain possible complications of spina bifida.

69. Differentiate between meningocele and myelomeningocele.

70. Compare and contrast the symptoms and treatment of meningocele and myelomeningocele.

71. Describe the preoperative and postoperative nursing care of the patient with meningocele and myelomeningocele.

72. Describe the surgical correction of meningocele and myelomeningocele.

73. List specific educational and physical therapy facilities available for children with meningocele or myelomeningocele.

74. Explain the relationship between age and the receptivity to disease.

75. Explain the role of Group A beta-hemolytic streptococcus.

76. Explain the cause, symptoms, treatment and nursing care of the child with rheumatic fever.

77. From the text, list the major and minor manifestations of rheumatic fever based on Jones' criteria.

78. Explain the most serious complication of rheumatic fever.

79. List symptoms that indicate the development of rheumatic carditis and identify areas of the heart most frequently involved.

80. Compare and contrast acute and chronic rheumatic carditis as to nursing care, treatment and prognosis.

81. Review the side effects of steroid therapy.

82. Give examples of surgical treatment for damaged heart valves resulting from rheumatic carditis.

83. Review normal blood components.

84. Explain that the nomenclature of leukemia is dependent upon the particular white cells involved.

85. Discuss which type of leukemia most frequently affects each age group.

86. Discuss symptoms common to all types of leukemia.

87. Explain current treatment of leukemia, the drugs used in chemotherapy and their side effects.

88. Explain the effect a diagnosis of prolonged illness has on family relationships.

89. Compare and contrast the nursing care of the child during the acute stage of leukemia and during a period of remission.

90. Define exacerbation of disease.

91. Discuss common parental reaction to terminal illness.

92. Discuss ways the nurse can offer emotional support to the terminally ill child and his family.

93. Compare and contrast the shape of the normal red blood cells and those of the sickle cell patient.

94. Dispel some of the common myths surrounding sickle cell anemia.

95. Give a brief history of the discovery and research on sickle cell anemia.

96. Compare and contrast true sickle cell anemia and sickle cell trait as to symptoms, diagnostic testing procedures, current treatment, and nursing care.

97. List genetic counseling facilities available to the sickle cell patient.

98. Review the location and function of lymph glands.

99. Describe the cause, symptoms, treatment and nursing care of the patient with Hodgkin's Disease.

100. Discuss the age group and sex most often affected by Hodgkin's Disease.

101. Compare the prognosis of Hodgkin's Disease to that of leukemia.

Unit II: Advanced Pediatrics

1. Explain why adolescence is a "never-never" land and give examples of how our society adds to the confusion of this age group.

2. Discuss how the adolescent perceives him/herself.

3. Describe the unusual pressures the adolescent must deal with from society, parents, the school and peers.

4. Explain how adolescent health problems differ from those of a child or an adult.

5. Enumerate the most common adolescent health problems.

6. Define the terms junenician and ephebiatrist.

7. Discuss how hospital facilities must differ in caring for adolescents and for patients of other ages.

8. Discuss statistics on venereal disease locally, statewide and nationally.

9. Discuss the possibility for the high VD rate among adolescents.

10. Review cause, symptoms, treatment, possible complications and prognosis of gonorrhea and syphilis.

11. Discuss recent findings regarding herpes venereal infections and their possible relationship to cancer of the cervix.

12. Discuss availability of venereal disease treatment to anyone over twelve without parental permission.

13. List local venereal disease treatment facilities.

14. Elicit suggestions for curtailing the VD epidemic among adolescents.

15. From the handout: define rape according to Brownmiller.

16. Describe the typical rapist.

17. Discuss common myths regarding rape.

18. Suggest ways of avoiding rape attempts and list ways of best handling a rapist if attacked according to current professional literature.

19. Explain what one should do if raped and list agencies available locally to assist the rape victim.

20. Discuss the high suicide rate among adolescents and the possible reason for this.

21. Identify possible clues to adolescent behavior.

22. Identify suicidal methods most commonly used according to sex and age.

23. List possible deterrents to adolescent suicide and local facilities to help with this problem.

24. List the most abused drugs according to action on the body.

25. Explain why alcohol is the most abused drug today.

26. Identify the most commonly used drug for overdose in Fresno.

27. List the reasons adolescents start using drugs.

28. Discuss the idea that we are a drug oriented culture and that parents blatantly use drugs while telling adolescents not to.

29. Suggest ways for parents to deal with the adolescent on drugs.

30. Name the drug treatment facilities available in Fresno.

31. Discuss realistic goal counseling and parental influence for the adolescent.

32. Identify changes in family structure due to impact of changing urban technology.

Unit III: Care of the Patient with a Disorder of the Endocrine System

1. Given a list, define terms relative to this unit.

2. Discuss the cause, treatment and nursing care for an adult patient with diabetes mellitus.

3. Discuss how obesity may affect the course of diabetes mellitus.

4. Discuss the effect of diet, exercise and illness on the patient with controlled diabetes mellitus.

5. Compare and contrast regular-crystalline, Lente-NPH, PZI-Ultra Lente insulin.

6. Prepare a diabetic flow for a patient on a sliding scale of insulin coverage indicating the appropriate nursing actions to be taken for the following S/A results 4+, 3+, 2+, 1+, Trace, Negative.

7. Prepare a teaching plan for rotation of insulin injections for a patient with diabetes mellitus.

8. Explain how to use the diabetic exchange diet.

9. Compare and contrast the symptoms, treatment and nursing care of diabetic coma and insulin reaction.

10. Compare the signs and symptoms, treatment and nursing care of hypothyroidism and hyperthyroidism.

11. List the symptoms of thyroid storm and indicate the appropriate nursing action.

12. Discuss the necessary nursing actions to be taken during the postoperative period following a thyroidectomy.

13. Compare and contrast the normal activity of the thyroid and the parathyroid glands.

14. Discuss Cushing's syndrome and Addison's disease.

Unit IV: Care of the Patient with a Disorder of the Respiratory System

1. Given a list, define terms relative to this unit.
2. Discuss the underlying causes of sinusitis.
3. List six nursing actions that would be necessary during the postoperative period for a patient having had a submucous resection.
4. List three first aid actions necessary for uncomplicated epistaxis.
5. Discuss symptoms of cancer of the larynx.
6. List the preoperative nursing actions and rational for a laryngectomy patient.
7. Explain how to care for patients with tracheostomies, including suctioning, changing the dressing, cleaning the inner cannula and turning the patient.
8. Compare esophageal speech and the artifical larynx.
9. Describe the basic technique of chest examination by the nurse.
10. Explain the purpose of and the nurse's responsibility for common procedures used in the diagnosis of respiratory disorders.
11. Discuss the underlying pathology of pneumonia.
12. List the nursing actions necessary for the prevention of hypostatic pneumonia.
13. Compare the treatment for pneumonia with the signs and symptoms.
14. List the three most common complications of pneumonia.
15. Compare and contrast symptoms and treatment of pneumonia, influenza and the common cold.
16. Compare and contrast the nursing needs of the acute and chronic respiratory disease patient.
17. List the signs and symptoms that would indicate the onset of an asthmatic attack and the appropriate nursing action.
18. Explain why the use of oxygen is frequently contraindicated during an asthmatic attack.
19. List and categorize those drugs specifically used in the treatment of respiratory disorders and give two examples of each.
20. Discuss five nursing actions by which the nurse can demonstrate emotional support for the patient during an asthmatic attack.
21. Compare and contrast the signs and symptoms of asthma, pneumonia and COPD.

22. Explain the nursing actions necessary for the COPD patient; i.e., smoking, hydration, activity, medication, oxygen therapy.

23. List four symptoms that would alert you to suspect an obstructed airway.

24. Discuss the importance of pulmonary tuberculosis as a public health problem.

25. List six predisposing factors to pulmonary tuberculosis.

26. Discuss the nursing actions needed to prevent or control the transmission of droplet nuclei by means of patient behavior, control of the environment and chemotherapy.

27. Explain how to give an intradermal injection.

28. Identify medications used in the treatment of pulmonary tuberculosis.

29. Discuss the difference between a primary and secondary anti-TB drug.

Unit V: Care of the Patient with a Disorder of the Cardiovascular System

1. Given a list, define terms relative to this unit.

2. Review the anatomy of the cardiovascular system.

3. Analyze the attitudinal and behavioral changes that most commonly occur in a newly diagnosed cardiac patient.

4. Explain the purpose of and the nurse's responsibility for common procedures used in the diagnosis of cardiac disorders.

5. Describe the procedure for measuring CVP.

6. List and categorize those drugs specifically used for treating cardiac disorders.

7. Discuss the most commonly used digitalis preparations and the method of administration.

8. List the signs and symptoms of digitalis toxicity.

9. Differentiate between compensated and decompensated heart failure.

10. Given a rotating tourniquet chart form, chart the time sequence and the direction of rotation.

11. Compare and contrast the signs and symptoms, treatment and nursing care for bacterial endocarditis and pericarditis.

12. Discuss the incidence of coronary heart disease as a public health problem in the United States.

13. List five measures for the prevention of coronary heart disease.

14. Compare and contrast the signs and symptoms, treatment and nursing care of angina pectoris and myocardial infarction.

15. Differentiate between essential and secondary hypertension.

16. List and categorize those drugs used specifically for hypertension.

17. List the possible side effects of antihypertensive drugs.

18. Discuss the signs and symptoms of peripheral vascular disease.

19. Compare and contrast the signs and symptoms for Raynaud's and Buerger's disease.

20. Differentiate between thrombophlebitis and phlebothrombosis.

21. List the signs and symptoms, treatment and nursing care for the patient with pulmonary emboli.

22. List five nursing measures used to lessen the pain in peripheral vascular disease.

23. Discuss the postoperative nursing care following vein ligation and stripping.

Methods of Evaluating Outcomes

1. Written assignments

2. Objective tests

3. Objective midterm and final examinations

4. Individual and group conferences

75% accuracy indicates student mastery of the above competencies.

RESEARCH AND DESIGN

PROJECT; MOBILITY

STEPS OF CURRICULUM ANALYSIS

STEP 3

USING THEIR COMPLETED COGNITIVE/AFFECTIVE/PSYCHOMOTOR ANALYSIS AND CHARACTERISTICS OF THE TARGET STUDENTS FROM THE NEED ASSESSMENT AND THEIR PAST EXPERIENCE, THE TEAM ASSESSES EACH ELEMENT OF REQUIRED MASTERY TO IDENTIFY WHERE THE STUDENTS ARE ENCOUNTERING PROBLEMS. THEY ALSO IDENTIFY NON-CONTENT RELATED PROBLEM AREAS.

HAVING PINPOINTED AN AREA, IT IS FURTHER ANALYZED TO IDENTIFY WHAT FACTORS ARE CONTRIBUTING TO THE CREATION OF THE PROBLEM. THESE WILL BE THE PROBLEMS THAT THE TEAM WILL FOCUS THE REST OF THEIR EFFORTS ON SOLVING.

STEP 3:

DETAILED INSTRUCTIONS PROVIDED TO THE TEAM FOR STEP 3.

A) IDENTIFY THOSE ITEMS OF MASTERY REQUIRED IN EACH COURSE WHICH REPRESENT PROBLEM AREAS FOR THE DISADVANTAGED STUDENT; I.E., REQUIRED PROFICIENCY LEVELS NOT BEING ATTAINED.

B) DIAGNOSE/IDENTIFY THE NATURE OF THE PROBLEM AREAS AND THEIR PERCEIVED CAUSES FOR PERFORMANCE DEFICIENCIES IN TERMS OF 1) STUDENT RELATED AND 2) CURRICULUM/COURSE RELATED CAUSES.

C) PRIORITIZE THE IDENTIFIED PROBLEM AREAS ACCORDING TO THEIR CRITICALITY FOR CONTINUING SUCCESS BY THE DISADVANTAGED STUDENT.

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RESEARCH AND DESIGN PROJECT

Identification of Problem Areas

Instructions For The Completion of Overall Step 3

Operational Definition

Problem Area for the Disadvantaged Student; those areas in the curriculum which consistently present problems to disadvantaged students as a group, rather than to a single individual, which cause any of the following:

a. failure to achieve required mastery proficiency for course/curriculum

b. difficulty in achieving one or more mastery skills or a continuum of skills in a course

c. inability to complete course or curriculum (drops out)

d. the requirement for instructional support beyond that normally provided for students.

Steps To Be Performed

1. Compare course mastery skills with Job Entry requirements in Cognitive/Psychomotor/Affective domains.

   List job entry requirements not presently taught in courses.

2. Assess each mastery item stated for the course and identify any mastery skill within which disadvantaged students encounter academic or content problems in the three domains, per the operational definition, and personal experience.

   Note: If disadvantaged students drop out of curriculum during or following the basic course, and heretofore have not enrolled in higher courses, in analyzing the higher level courses, identify those areas which do present problems to normal students. Rationale: If normal students have problem areas, it can be anticipated that disadvantaged student who remain in the program will encounter similar or worse problems.

   Divide a page into three columns. In the left column, list the identified problem areas in mastery skills.

3. Diagnose/Identify the nature of the problem areas and their perceived causes in terms of critical incidents, personal experience or existing data as related to student related causes or instructional/learning related problems. (See the following for examples.)

   a. Student related causes: List these in center column of page next to mastery problem identified in left column.

Examples:

1. Lack of prerequisite skills required of the mastery skill. (Specify exact skills.)

2. Inability to cope with the reading requirements. (Specify student level of reading, or required level.)

3. Personality or emotional factors. (Cite as related to curriculum, or specific incidents.)

4. Cultural differences. (Cite as related to curriculum or skill mastery.)

5. Cannot transfer knowledge learned in "lecture" to application/psychomotor. (Specify exact nature of failure.)

6. Cannot master cognitive criteria but learns in the lab with oral instructions.

7. Cannot relate "lab" experiences to classroom theory or principles.

8. Any others you might cite.

b. Instructional related causes: List these in the right column opposite mastery problem.

Examples:

1. Learning steps too large for student.

2. Materials (quantity or level) used are beyond abilities of students.

3. Methods of instruction do not match learning styles of students.

4. Failure to build continuum of levels according to taxonomies, i.e., jumping from recall to application, or requiring students to analyze without lead-up learning in comprehension and transfer to application, etc.

5. lack of facilities/equipment.

6. no special services to be responsive to specific needs of group of learners or individuals.

7. any others you might identify.

4. Identify any additional problem areas you know to exist which are not tied directly to an academic mastery skill, i.e., sociological, cultural, emotional, etc.

   These might act as cues which will lead to the identification of areas in the curriculum requiring modification or expansion, or to services which can be provided such learners through counseling/guidance, etc.

   List problem areas in this category.

5. Prioritize problem areas: The points of reference for this step are the three lists that you have produced

   --Job Entry Requirements not presently taught in courses
   --Academic or content problem areas for mastery in courses
   --Additional problem areas in non-academic category

   a. As a first step, inspect each item on each list and, through concurrence by committee members, determine whether the item would be grouped under the following categories:

      1. Problems which can be handled within the instructional program for which you are responsible

      2. Problems which are academically oriented, but not part of your normal courses, but related to other disciplines

      3. Problem areas for which special services might be provided outside of the instructional program.

      As you are performing this analysis, start a separate list of problem areas recommended for handling by other disciplines of instruction or for special services.

   b. For those problem areas which are within your instructional programs or mastery skills in the courses, reach concurrence by committee members as to the priority order in which problem areas should be solved, considering the following factors:

      1. Criticality of the problem mastery skills to continuing or following skills in the course

      2. How failure to master a particular skill contributes to overall achievement of course objective and criteria

      3. Criticality of mastery of cognitive content before transfer to application or psychomotor

Research and Design Project
Identification of Problem Areas (Continued)

4. How mastery of problem areas in the basic course carries over to higher level courses (i.e., will achievement in the basic course reduce problems identified in following courses, or are problems in higher courses related to the specific content in those courses?)

5. Importance of success in mastery of cognitive and psychomotor skills in reducing problem areas in the affective domain

On the list of problem areas for mastery in courses, number the items in priority order.

COURSE TITLE:_____ PROGRAM (VOCATIONAL/OCCUPATIONAL AREA):_____

IDENTIFICATION OF PROBLEM AREAS AND SOURCES OF PROBLEMS

Problem Areas for Students	Sources of Problems		
	Student Related Causes	Instructionally Related Causes	Sociological/Cultural Causes

RESEARCH AND DESIGN PROJECT
VOCATIONAL NURSING

Problem Area for Student	Student Related Causes	Instructional Learning Causes	Sociological/Cultural Causes	Solutions
Vocational Nursing 50: Unit II, #1 Homeostasis. Unit IV, #56 Fluid Balance	Inability to handle abstractions Reading and vocabulary low "Literalness" Difficulty seeing "cause and effect" - sequencing	Needs simplification Concrete examples Vocabulary building Text simplification Abstractions more meaningful, related to student experience	Needs immediate reinforcement: clear, concise, simple	
Unit II, #3 Microscopic View #52 Pathogenesis	Difficulty "perceiving" "Sterile-clean-dirty" (Also same as above)	As above Actual experience of "seeing"	As above Misconceptions Superstitions	
Unit II #4 Mitosis	As above Conceptualizing Transfer of concept to nursing practice	As above Why they need to know How material is to be used	As above Valueing Relatedness to professional competencies Worthwhile goals (pass quiz, course, State Board).	
Unit II #40 Osmosis, Diffusion, Active Transport, Movement of Substances through Membranes, Pressure Gradient	As above Transfer principles of nursing practice to theory Transfer of what they see to theory	As above	As above	
Unit II #30 Blood Clotting	As above Cause and effect relationship	Cause-effect relationship Sequencing	As above	
Unit II #52 Feedback	As above Feedback loop, ping pong effect	As above Ping-pong effect "Loop"	As above	

Problem Area for Student	Student Related Causes	Instructional Learning Causes	Sociological/Cultural Causes	Solutions
Unit II Chemical Reactions: #76 Enzymes, Catalysts, Ionization, Reversible and Irreversible #54 pH #53 Acid Base Balance, Electrolytes, Elements	As above	As above Progression of sequencing Putting in context, relationship to total program	As above	
Unit III: #4, #9 Basic math #5, #10 Fractions #6, #11 Decimals #7, #12 Ratio-Proportion #13 Percent	Not mathmatically oriented Lack of educational background	Start in middle of stream Failure to start at beginning Sequencial progression Need internal consistency	Expectation of failure (math) of female	Entry level prerequisites
Unit #7 Approximate Equivalents Household Apothecary Metric	As above Needs concrete examples of conversion No previous experience	Relatedness to total program Concept of approximate equivalents, not a loss of accuracy or precision		
Unit IV: #7 Functional vs. Organic #22 Psychosomatic Interrelationships Stress-Shock	As above	Difficult to make literal, concrete	Refusal to accept or understand psyche	
Unit IV: #21 Antigen-Antibody Reaction Autoimmunity Allergy Foreign Body Reaction	As above Cause-effect relationship	Start midstream Failure to start at beginning	As above Ignorance Cultural food patterns	

Problem Area for Student	Student Related Causes	Instructional Learning Causes	Sociological/Cultural Causes	Solutions
Unit V: #4 Nutrients CHO-PRO-FAT VIT min. to blood stream level	As above	As above Related to chemical reactions By-products of h_2O and heat	Cultyral food patterns	
Unit V: #9 Metabolism Catabolism Anabolism Calories "Burning" of Foodstuff	As above	As above	As above	
Outside Program: Communication Listening	Vocabulary, general and technical	Instructor has difficulty understanding students Difficulty in understanding Mismatch in levels of language [illegible] by instructor as compared with understanding by student Rate at which complexity is constructed through senses of learner		Rephrasing Restructuring Reviewing
Reading	Meaning from sentence structure Speed of reading Intimidated by level, magnitude of material Don't know how to use material, books, etc. Discipline of reading	Level of available text Concentrate on need to know, then proceed to total text Develop skill of taking multiple choice exams (State Board Exam)	Family situations: Disruption of reading assignments Time limitations, competitive with family Threat to cultural structure, mores Economic restrictions	Digest of need to know against mastery Study questions to lead student

Problem Area for Student	Student Related Causes	Instructional Learning Causes	Sociological/Cultural Causes	Solutions
Verbalizing - Oral	Pronunciation, word choice, technical	Do not require a verbal response from student (speech module)		
Writing Spelling Handwriting Skills	Form of word choice Legibility Handwriting skills Spelling	Charting, meet specifications Correct use of terminology Spelling Descriptive writing in charting form (outside basic English skills course)	Inexperience in writing as a means of communication	
Vocational Nursing 5T: Lab Nursing Judgment Observation Sight Listening Tactile Sense Smell Recall Theory Previous Experience Assessment Relationship of Observation and Recall		Test-Comprehensive (Explain)		

RESEARCH AND DESIGN

PROJECT: MOBILITY

STEPS OF CURRICULUM ANALYSIS

STEP 4

NOW THAT THE TEAM HAS PINPOINTED EXACTLY WHERE THE TARGET STUDENTS ARE ENOUNTERING PROBLEMS AND THE FACTORS CREATING THE PROBLEMS, THEY WILL TURN THEIR ATTENTION TO SOLVING THOSE PROBLEMS.

SOLVING THE PROBLEMS WILL INVOLVE THE SELECTION OR DEVELOPMENT OF NEW METHODS AND MEDIA OF INSTRUCTION, NEW PROGRAMS AND NEW SERVICES, ALL TAILORED TO THE UNIQUE NEEDS OF THE TARGET LEARNERS. BEFORE THE TEAM CAN MAKE THESE KINDS OF DECISIONS, HOWEVER, THEY MUST MORE SPECIFICALLY DEFINE THE EXACT NATURE OF THE MASTERY REQUIRED AND THE CRITERION OF MASTERY FOR EACH OF THE CONTENT PROBLEM AREAS. THIS WILL GIVE THEM ALL THE DATA THEY REQUIRE TO BE SURE THE CHANGES THEY RECOMMEND WILL BOTH GIVE EACH STUDENT THE SKILLS/KNOWLEDGES/ATTITUDES REQUIRED FOR EMPLOYMENT AND BE RESPONSIVE TO THE LEARNERS' NEEDS. THE METHODS/MEDIA RECOMMENDATIONS IDENTIFIED AT THIS STEP WILL BE COMBINED WITH THE RECOMMENDATIONS THAT WILL COME FROM STEP 5. IN COMBINATION THEY WILL CONSTITUTE THE TEAM'S SOLUTIONS TO THE PROBLEMS IDENTIFIED.

STEP 4:

DETAILED INSTRUCTIONS PROVIDED TO THE TEAM FOR STEP 4.

A) RESTATE THE PRIORITY PROBLEM AREAS AS TERMINAL PERFORMANCE OBJECTIVES.

B) DERIVE CRITERION MEASURES FOR EACH TERMINAL PERFORMANCE OBJECTIVE.

C) ANALYZE THE LEARNING REQUIREMENTS TO ACHIEVE EACH OBJECTIVE.

D) ORGANIZE THE LEARNING STEPS.

E) ANALYZE ALTERNATIVE METHODS AND MEDIA.

CORRIGAN ASSOCIATES

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RESEARCH AND DESIGN PROJECT

Development of Mastery Skills Identified as Priority Problem Areas

Instructions For The Completion of Overall Step 4

As a result of the identification of problem areas for disadvantaged learners in the mastery skills for each course, the faculty analysts will have made decisions as to the following:

1. Those problems which can be handled within the instructional/learning environment of the special areas' curriculum;
2. Those problems which should be handled either by
   a. other subject matter specialists (example, reading, math, others)
   b. special support services (example, counseling, guidance, psychological, placement, etc.).

Priorities for development will have been established also.

The procedures listed below are those which will be performed by the faculty to develop learning sequences and solutions for learning problems which can be handled in the instructional/learning environment (#1 above). Other problems will be referred to appropriate groups.

Throughout the procedure, itemized below, references will be made to portions of the SAFE manual, Designing For Predictable Learner Success--the manual used in the training sessions. The faculty analyst might reread the referenced sections for explanation, examples, processes and forms.

SUGGESTION: A more productive and efficient use of the faculty time might result in assigning each member of the team a different problem mastery skill for development, applying the following steps. Group concurrence might be reached in the individual products, periodically. In this manner several products might be developed in the time that it would take the group to produce one.

STEP 1. Restate the Problem Mastery Skill as a Terminal Performance Objective.

Reference: SAFE manual, pages 161-178, "Deriving and Stating Terminal Performance Objectives (T.P.O's)." Also see pages 61-78, "Criteria for the Writing and Critique of Performance Objectives."

Refer to the statements in the course mastery analysis (cognitive/psychomotor/affective). Add the elements to this statement which will expand it into a well stated learning objective, as specified in SAFE manual.

Refer also to the criterion measures identified in the mastery analysis for the evaluation portion of the objective.

Write objective in left column of Form I-2.

STEP 2: Derive Terminal Performance Criterion Measures.

Reference: SAFE manual, pages 179-199.

If you did not state criterion measures during mastery skill analysis, develop them now from the Terminal Performance Objective.

Some groups already performed this step when identifying the criterion measures in the course mastery skill analysis (criterion levels and specific test items).

However, since you have performed further analysis of the mastery skills during problem identification, you might have generated further data or gained other insights regarding learning proficiency. It is suggested, therefore, that you review the prestated criteria to determine the following:

a. Whether the level of proficiency is still acceptable or should be increased or decreased;

b. Whether the criterion measures or test items are valid measurement of achievement of the objective to indicate mastery;

c. Whether the present method of evaluation is still suitable or whether alternate methods of evaluation with the disadvantaged population might yield the data required for evaluation;

d. Whether additional items must be added or existing items deleted or changed so that the evaluation instrument or activity measures all aspects of mastery.

Your expertise and your problem identification analysis statements will be the basis for these judgments.

If changes are required, make them at this point.

In the second column of Form I-2, "Criterion Statements," list the conditions of evaluation.

In the third column of Form I-2, write in the items and instructions given to the student in the testing condition.

a. If questions on a final exam are used for evaluation, include only those items which measure this objective.

b. If a unit test is to be used, the test might be stapled to the form.

c. If evaluation is performance of psychomotor skills or activities, list the instructions given the student.

STEP 3. *Analysis of Learning Requirements to Achieve Objectives.*

Reference: SAFE manual, pages 201-219, Taxonomies Handout, and pages 145-146.

Using Form J-2, analyse the lead-up content (cognitive), skills (psychomotor), behavior (affective) required for achievement of the T.P.O.

Those groups who used course content outlines for identifying mastery skills will have a start on this step. The subtopics on the outlines might represent lead-up knowledge/skills. However, you might determine whether these should be expanded to give you all the required data for learning related to the T.P.O.

In doing this analysis, the reference is the disadvantaged learner.

1. Identify first what level in the taxonomy represents mastery.

2. Analyse from the learner's entry level* and from what the learner needs to know and do to build all elements of mastery.

*Entry level refers to what they have mastered from previous learning sequences or courses.

3. Refer to the taxonomies to determine what lead-up activities and levels the learner must achieve on a continuum from simple to complex.

Remember--do not leave out learning levels.

--they must learn and practice the mastery level before evaluation; i.e., if they must analyse, do not expect to give learning experience in recall, comprehension, and application and then expect them to analyse. They must also have learning experience in analysing or must learn how to analyse.

The columns on Form J-2 will give you cues.

STEP 4. *Organize Learning Steps/Sequence.*

Reference: SAFE manual, pages 277-299.

a. Using Form K-2, organize the learning requirements from the Cognitive/Psychomotor/Affective Analysis (Form J-2, 3) into the actual learning step sequence the learner will perform to achieve the objective.

Note: This might be in the order you stated in the analysis or you might want to schedule several recall activities or comprehension activities before application (for example).

Enter sequence in the left column of Form K-2.

b. As you are sequencing the learning steps, determine the response desired from the learner and whether this will be evaluated. Enter these in the second column of Form K-2.

STEP 5. *Method/Media Analysis.*

Reference: SAFE manual, papes 305-329.

a. Using the Decision-Making Model on page 312, SAFE manual, perform a method/media analysis on each learning step or a sequence of learning steps to determine the requirements based on the nature of the learning activities. This analysis can be performed quickly once you practice using the Decision-Making Model.

b. In Column 3, Form K-2, list the methods/media alternatives which can be used for the learning step or a sequence of steps. The alternatives might be those which you know about now. You might also wish to investigate others which are available in the Media Center or which are commercially available--both of which can be screened to determine if they meet the requirements for your population. Another possibility is that the Media Center might develop something, if nothing exists to meet your requirements.

In the last column, indicate your recommended selection, or final selection can be made during the management planning step.

Curriculum _____

Course/Unit Title _____

ACTUAL SIZE 8½" X 14"
TERMINAL LEARNING REQUIREMENTS

FORM I-2

Curriculum Analyst _____

Date _____

Terminal Performance Objectives	Criterion Statement	Criterion Measure
No.	No.	No.

ACTUAL SIZE 8½" X 14"

FORM J-2

COGNITIVE/PSYCHOMOTOR/AFFECTIVE ANALYSIS
FOR
TERMINAL PERFORMANCE OBJECTIVE

Course/Unit: _____

T.P.O # _____

Level of Mastery: _____

Refer to: Taxonomies--SAFE Manual, pps. 143-46
Handouts on Taxonomies

RECALL (Memory)	COMPREHENSION (Explanation)	APPLICATION (Apply to simulated or real situation)	ANALYSIS (Break down into parts)	SYNTHESIS (Pull together elements/ solve problems)	EVALUATION (Make judgments)

Course/Unit: _____

T.P.O. # _____

ACTUAL SIZE 8½" X 14"
LEARNING SEQUENCE

FORM K-2

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION

Curriculum _____

Course/Unit Title _____

TERMINAL LEARNING REQUIREMENTS

FORM I-2

Curriculum Analyst _____

Date _____

Terminal Performance Objectives	Criterion Statement	Criterion Measure
No. Nursing Judgement: Related to All Vocational Nursing Laboratory Classes 1. Given simulations to test nursing judgement, the student will develop appropriate plans of action 75% of the time. The simulation must include: a. Word picture or visual representation with verbal explanation encompassing relevant and irrelevant observations so that the student must choose with discrimination b. Any information needed to help the student's selective recall--information, both necessary and distracting, which would be available in real life situations c. Any conditions under which the judgement would be attempted in the real life situation 2. In deciding whether the plan of action is appropriate, the scorer must make allowances for the students' individual approach to nursing care	No.	No.

Vocational Nursing
Nursing Judgement: Related to All V.N. Laboratory Classes

COGNITIVE/PSYCHOMOTOR/AFFECTIVE ANALYSIS
FOR
TERMINAL PERFORMANCE OBJECTIVE

RECALL	COMPREHENSION	APPLICATION
The student will know the facts in a situational word picture of visual representation.	The student will be able to choose between relevant and irrelevant situational data.	Given simulations to test nursing judgement, the student will develop appropriate plans of action.
The student will know the theoretical and practical background information.	The student will be able to choose between necessary and distracting elements.	
The student will know other conditions under which the judgement would be attempted in real life situations.		

Vocational Nursing
Course/Unit: Decision Making: Related to All Lab Classes
T.P.O. # _____

LEARNING SEQUENCE

FORM K-2

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
1. Know facts presented in word picture or visualization. Know other conditions in which information exists. Know theoretical principles. Draw upon previous experience. Choose between relevant and irrelevant data. Choose between necessary and distracting elements.	1. Paper-pencil tests. 2. Verbalization. 3. Practice performance.	Media: Role Playing. Slide/Cassette. Video tape of nursing performance with nursing instructor present to explain decision making process as it is going on. Structured situations which will allow the student to: 1. Observe situation 2. Recall theory and practical experience 3. Draw conclusions. Situations structured so that: 1. Observations include facts in word pictures or visual representation or real life situations, including relevant and irrelevant situational data and necessary and distracting elements. 2. Student recall of theoretical data and practical experience must be selective and pertinent. 3. Decision or conclusion made by the student must be appropriate and within the context of the situation.	Video tape of nursing performance with nursing instructor present. Student/instructor in the hospital setting. Slide/tape presentation. Written description of nursing situation with written response by student.

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Vocational Nursing

Course/Unit: Decision Making: Related to All Lab Classes / LEARNING SEQUENCE FORM K-2

Page 2

T.P.O. # _____

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
		Method: Small group instruction with nursing instructor present. Role playing by the student in the classroom setting. Teacher/student 1:1 in the hospital setting.	

Curriculum _____

Course/Unit Title _____

TERMINAL LEARNING REQUIREMENTS

FORM I-2

Curriculum Analyst _____

Date _____

Terminal Performance Objectives	Criterion Statement	Criterion Measure
No. Homeostatis, Unit II, #1	No.	No.
1.1 On a paper and pencil test, the student will describe in general terms and with 75% accuracy how the body regulates or maintains balance of: intracellular, extracellular and intravascular fluids; serum oxygen and carbon dioxide; blood levels of wastes and foreign substances vs. detoxification and excretion; thirst, hunger and satiety		
1.2 Without the use of reference material and with 75% accuracy, the student will describe the role of the autonomic and hormonal systems in the regulation of these balances		

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Vocational Nursing
Unit II, #1, Homeostatis

COGNITIVE/PSYCHOMOTOR/AFFECTIVE ANALYSIS
FOR
TERMINAL PERFORMANCE OBJECTIVE

RECALL	COMPREHENSION	APPLICATION
1.1 The student will be able to define the following terms: intracellular, extravascular, serum oxygen, serum carbon dioxide, serum waste material, serum foreign substance, detoxification, excretion, thirst, hunger, satiety.	1.1 The student will be able to describe how the body regulates or maintains balance of: extracellular, intracellular and intravascular fluids; serum oxygen and carbon dioxide; blood levels of wastes and foreign substances vs. detoxification and excretion; thirst, hunger and satiety.	
1.2 The student will be able to define the following terms: autonomic system, parasympathetic system, sympathetic system, hormone, endocrine glands.	1.2 The student will be able to describe the role of the autonomic and hormonal systems in the regulation of homeostasis.	
The student will know the organs controlled by the autonomic system, and endocrine gland secretions and functions.		

Course/Unit: _____

T.P.O. # _____

LEARNING SEQUENCE

FORM K-2

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
Unit II, #1			
1.1 Define terms intracellular, extracellular, serum oxygen, serum carbon dioxide, serum waste material, serum foreign substance, detoxification, excretion, thirst, hunger, satiety. Describe body balance of body fluids, serum oxygen and serum carbon dioxide, blood levels of wastes and foreign substances/ detoxification and excretion, thirst, hunger and satiety.	1.1 Paper-pencil test. Verbalization.	1.1 Media: Slide/cassette Individual charts for student which compare and contrast extracellular, intracellular, extravascular fluid mechanisms, serum oxygen and carbon dioxide blood levels, blood levels of wastes and foreign substances vs. detoxification and excretion, thirst, hunger, and satiety Method: Small group instruction with teaching assistant	1.1 Individual charts for student use with teaching assistant Slide/cassette
1.2 Define terms autonomic, parasympathetic, sympathetic systems, hormone, endocrine glands. Know organs controlled by autonomic system and endocrine gland secretions and functions.	1.2 Paper-pencil test. Verbalization.	1.2 Combine with 1.1 above.	1.2 Combine with 1.1 above.

Curriculum _____ TERMINAL LEARNING REQUIREMENTS FORM T-2

Course/Unit Title _____ Curriculum Analyst _____

Date _____

Terminal Performance Objectives	Criterion Statement	Criterion Measure
No. Microscopic View, Unit II, #3	No.	No.
23.1 After viewing prepared microscopic slides of microorganisms, human cells, saliva, blood, human hair, the student, with 75% accuracy will: a. explain the following terms: sterile, clean, contaminated, surgical asepsis, medical asepsis. b. demonstrate an understanding of medical asepsis by correct handwashing technique. c. Demonstrate an understanding of surgical asepsis by correct gloving technique.		

COGNITIVE/PSYCHOMOTOR/AFFECTIVE ANALYSIS
FOR
TERMINAL PERFORMANCE OBJECTIVE

RECALL	COMPREHENSION	APPLICATION
Unit II, #23, Microscopic View		
23.1 The student will define the following terms: sterile, clean, contaminated, surgical asepsis, medical asepsis.	23.1 Given several different "fields" the student will be able to differentiate among sterile, clean and contaminated.	23.1 The student will be able to demonstrate proper handwashing and gloving technique.

Course/Unit: _____

1.P 0.1 _____

LEARNING SEQUENCE

*FORM K-2

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
Unit II, 423 23.1 Define terms: sterile, clean contaminated, surgical asepsis, medical asepsis. Differentiate among sterile, clean and contaminated fields. Demonstrate proper handwashing and gloving.	23.1 Paper-pencil test. Verbalization. Differentiate among special "fields." Demonstrate handwashing and gloving.	23.1 Media: Simulate "fields" to differentiate among sterile, clean, contaminated, using commonly used nursing supplies Method: Demonstrate handwashing and gloving technique Student to have supervised lab practice under direction of teaching assistant	23.1 Simulated "fields." Lab demonstration of handwashing and gloving. Supervised practice by the student.

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Curriculum _____

Course/Unit Title _____

TERMINAL LEARNING REQUIREMENTS

FORM I-2

Curriculum Analyst _____

Date _____

Terminal Performance Objectives	Criterion Statement	Criterion Measure
No. Mitosis, Unit II, #4	No.	No.
4.1 With 75% accuracy and without the aid of reference material, the student will identify on a pictorial representation the following structures of the human cell: a. cell membrane b. cytoplasm c. nucleus d. chromatin material e. nucleolus		
4.2 With 75% accuracy on a teacher-made test, the student will define the terms chromosome, gene and mitosis.		
4.3 In general terms and with 75% accuracy, the student will explain the process of mitosis.		
4.4 In general terms, the student will discuss the relationship between the process of mitosis and human cell reproduction and pathogenesis.		

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Vocational Nursing
Unit II, #4, Mitosis

COGNITIVE/PSYCHOMOTOR/AFFECTIVE ANALYSIS
FOR
TERMINAL PERFORMANCE OBJECTIVE

RECALL	COMPREHENSION	APPLICATION
4.1 The student will be able to define the following terms: cell membrane, cytoplasm, nucleus, chromatin material, nucleolus.		
4.2 The student will define the following terms: chromosome, gene and mitosis.	4.2 The student will be able to explain the process of mitosis.	
4.3 The student will be able to define the term pathogenesis.	4.3 The student will be able to discuss the relationship between the process of mitosis and human cell reproduction and pathogenesis.	

Course/Unit: _____ LEARNING SEQUENCE FORM K-2

T.P.O. # _____

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
Unit II, #4			
4.1 Define: cell membrane, cytoplasm, nucleus, chromatin material, nucleolus.	4.1 Paper-pencil test. Verbalization.	4.1 Media: Slides/cassette Film Individualized charts Use of microscope with prepared slides to identify cellular structures Overhead transparencies Method: Small group instruction with Teaching Assistant	4.1 Slides/Cassette Overhead transparencies Individualized chards Use of microscope with prepared slides
4.2 Define: chromosome, gene and mitosis.	4.2 Paper-pencil test. Verbalization.	4.2 Combine with 4.1.	4.2 Combine with 4.1.

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Curriculum _____ TERMINAL LEARNING REQUIREMENTS FORM I-2

Course/Unit Title _____ Curriculum Analyst _____

Date _____

Terminal Performance Objectives	Criterion Statement	Criterion Measure
No. Movement of Substances Through Membranes, Unit II; #5 5.1 On a paper and pencil test and with 75% accuracy, the student will describe the processes of the movement of substances through a semipermeable membrane, filtration, osmosis, diffusion, and active transport	No.	No.

Vocational Nursing
Unit II, #5:
Movement of Substances Through Membrane

COGNITIVE/PSYCHOMOTOR/AFFECTIVE ANALYSIS
FOR
TERMINAL PERFORMANCE OBJECTIVE

RECALL	COMPREHENSION	APPLICATION
5.1 The student will define the following terms: semipermeable membrane, filtration, osmosis, diffusion, active transport, hypertonic, isotonic, hypotonic, solute, solvent.	5.1 The student will describe the processes of the movement of substances through a semipermeable membrane, filtration, osmosis, diffusion, active transport.	

Course/Unit: _____

T.P.D. # _____

LEARNING SEQUENCE

FORM K-2

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
Unit II, #5 5.1 Define terms: semipermeable membrane, filtration, osmosis, diffusion, active transport, hypertonic, isotonic, solute, solvent. Describe the movement of substances through semipermeable membrane, filtration, osmosis, diffusion, active transport.	5.1 Paper-pencil test. Verbalization.	5.1 Media: Simulation developed by chemistry department, keeping in mind the student's background and vocabulary level Method: Small group instruction with teaching assistant present	5.1 Simulation

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Curriculum _____

Course/Unit Title _____

TERMINAL LEARNING REQUIREMENTS

FORM I-2

Curriculum Analyst _____

Date _____

Terminal Performance Objectives	Criterion Statement	Criterion Measure
No. Pathogenesis, Unit II: #15	No.	No.
15.1 The student will define the term pathogen with 75% accuracy.		
15.2 Without the aid of reference material and with 75% accuracy, the student will identify the following organisms: streptococcus, staphlococcus, diplococcus, bacillus, amoeba and protozoa.		
15.3 On a teacher-made test and with 75% accuracy, the student will give an example of a disease condition caused by each of the above organisms.		
15.4 In general terms and with 75% accuracy, the student will explain the difference between a bacteria and a virus.		
15.5 In general terms and with 75% accuracy, the student will explain the laboratory procedure of culture and sensitivity.		

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Vocational Nursing
Unit IV, #15, Pathogenesis

COGNITIVE/PSYCHOMOTOR/AFFECTIVE ANALYSIS
FOR
TERMINAL PERFORMANCE OBJECTIVE

RECALL	COMPREHENSION	APPLICATION
15.1 The student will be able to define the term pathogen.		
15.2 The student will be able to identify the following organisms: streptococcus, staphylococcus, diplococcus, bacillus, amoeba and protozoa.		
15.3 The student will be able to give an example of a disease condition caused by each of the above organisms.		
15.4 The student will be able to define the terms bacteria and virus.	15.4 The student will be able to explain the difference between a bacteria and a virus.	
15.5 The student will be able to define the terms culture and sensitivity.	15.5 The student will be able to explain the laboratory procedure of culture and sensitivity.	

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
15.1 Define pathogen. 15.2 Identify organisms: streptococcus, staphylococcus, diplococcus, fungi, bacillus, amoeba, protozoa. 15.3 Give examples of disease caused by each of above organisms. 15.4 Define bacteria, virus. Explain difference between bacteria and virus. 15.5 Define culture and sensitivity. Explain laboratory procedure of culture and sensitivity.	Paper-pencil tests. Verbalization.	15.1-5 Media: Film emphasizing pathogen, streptococcus, staphylococcus, diplococcus, fungi, bacillus, protozoa, virus, bacteria, culture, sensitivity, common disease conditions caused by each of above organisms. Should also include laboratory procedure of culture and sensitivity. Prepared slides. Individualized charts. Overhead transparencies: Field trip to laboratory under supervision of nursing instructor. Bring agar plates to classroom. Allow student to prepare plate from hand swab. Bring in (sealed) agar plate prepared for culture and sensitivity test. Method: Small group instruction under the guidance of nursing instructor to relate observations to nursing practice.	15.1-5 Supervised field trip to lab. Bring in agar plates to classroom. Film. Individualized charts.

Curriculum _____

Course/Unit Title _____

TERMINAL LEARNING REQUIREMENTS

FORM I-2

Curriculum Analyst _____

Date _____

Terminal Performance Objectives	Criterion Statement	Criterion Measure
No. Blood Clotting, Unit II, #30	No.	No.
30.1 Without the aid of reference material and with 75% accuracy, the student will explain the three major steps involved in the blood clotting mechanism: 1) formation of prothrombin activator; 2) conversion of prothrombin into thrombin; 3) conversion of fibrinogen into fibrin threads and clot formation.		
30.2 Without the aid of reference material and with 75% accuracy the student will be able to diagram the blood clotting mechanism.		

COGNITIVE/PSYCHOMOTOR/AFFECTIVE ANALYSIS
FOR
TERMINAL PERFORMANCE OBJECTIVE

RECALL	COMPREHENSION	APPLICATION
Unit II, #30, Blood Clotting		
30.1 The student will be able to define the following terms: coagulation, bleeding time prothrombin, prothrombin activator, thrombin, fibrinogen, fibrin, clot, prothrombin time.	30.1 The student will be able to explain the three major steps involved in the blood clotting mechanism: a) formation of prothrombin activator; b) conversion of prothrombin into thrombin; c) conversion of fibrinogen into fibrin threads and clot formation.	30.1 The student will be able to diagram the blood clotting mechanism.

Vocational Nursing

Course/Unit: II. #30

T.P.O. # _____

LEARNING SEQUENCE

FORM K-2

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
30.1 Define coagulation, bleeding time, prothrombin activator, thrombin, fibrinogen, fibrin, clot prothrombin time. Explain three major steps involved in blood clotting: 1. release of prothrombin activator 2. prothrombin and calcium salts catalyst formation of fibrinogen 3. enzyme action of fibrinogen to form fibrin threads thus formation of a clot. Diagram the blood clotting mechanism.	30.1 Paper-pencil test. Verbalization.	Media: Film, slide/cassette emphasizing coagulation, bleeding time, prothrombin activator, thrombin, fibrinogen, fibrin, clot, prothrombin time. Individualized charts emphasizing above information. Method: Small group instruction with teaching assistant.	30.1 Film. Slides/cassette. Individualized charts.

Curriculum _____

Course/Unit Title _____

TERMINAL LEARNING REQUIREMENTS

FORM I-2

Curriculum Analyst _____

Date _____

Terminal Performance Objectives	Criterion Statement	Criterion Measure
No. Feedback, Unit II, #52	No.	No.
52.1 Without the aid of reference material and with 75% accuracy, the student will be able to describe in general terms the principle of feedback.		
52.2 On a teacher-made test and without the aid of reference material, the student will be able to explain the feedback mechanism involved in the release of pituitary and ovarian hormones in the menstrual cycle, achieving 75% accuracy.		

Vocational Nursing
Unit II, #52, Feedback

COGNITIVE/PSYCHOMOTOR/AFFECTIVE ANALYSIS
FOR
TERMINAL PERFORMANCE OBJECTIVE

RECALL	COMPREHENSION	APPLICATION
52.1 The student will be able to define the term "feedback."	52.1 The student will be able to describe the principle of feedback. 52.2 The student will be able to explain the feedback mechanism involved in the release of pituitary and ovarian hormones in the menstrual cycle.	

Course/Unit: _____

T.P.O. # _____

LEARNING SEQUENCE

FORM K-2

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
Unit II. #52			
52.1 Define feedback. Describe principles of feedback. Explain feedback mechanism.	52.1 Paper-pencil test. Verbalization.	52.1 Media: Slide/cassette with many examples at student's level Individualized charts for student use Charts on time line or wheel (wheel for clarification of term "cycle") Mock-up models Transparency overlays Method: Small group instruction	52.1 Slides/cassette Individualized charts

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Curriculum _____

Course/Unit Title _____

TERMINAL LEARNING REQUIREMENTS

FORM I-2

Curriculum Analyst _____

Date _____

Terminal Performance Objectives	Criterion Statement	Criterion Measure
No. Chemical Reactions, Unit II, #76	No.	No.
76.1 Without the aid of reference material, the student will, with 75% accuracy, define the following terms: element, ionization, electrolyte; chemical reaction, compound, catalyst, enzyme, acid, base pH, buffer		
76.2 In general terms and with 75% accuracy, the student will describe on a teacher-made test the functions and characteristic symptoms of acidosis and alkalosis		
76.3 On a teacher-made test, the student will list the principle electrolytes (Na, K, Cl, CO_2, Cal, Phos) with 75% accuracy		

Course/Unit: _____

T.P.O. # _____

LEARNING SEQUENCE

FORM K-2

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
Unit II, #76			
76.1 Define element, ionization, electrolyte, chemical reaction, compound, enzyme, acid, base, pH, buffer.	76.1 Paper-pencil test. Verbalization.	76.1 Media: Simulation developed by chemistry department on the basis of the student's background, using familiar terms and substances Film presentation which emphasizes the terms: element, chemical reaction, compound, ionization, electrolyte, catalyst, enzyme, acid, base, pH, buffer Method: Small group instruction, with teaching assistant available to individuals	76.1 Simulation to be developed by chemistry department
76.2 List electrolytes.	76.2 Paper-pencil test. Verbalization.	76.2 Combine with 76.1	76.2 Combine with 76.2
76.3 List characteristic symptoms of acidosis and alkalosis.	76.3 Paper-pencil test. Verbalization.	76.3 Media: Slides/cassette/film depicting signs and symptoms of patients with both acidosis and alkalosis Individual charts comparing signs and symptoms Series of pictures showing signs and symptoms of these conditions Method: Small group instruction Individualized instruction Student to identify signs and symptoms from series of pictures--teaching assistant present	76.3 Series of pictures of patients with symptoms of acidosis and alkalosis (picture series available for student notebook) Film/slides/cassette

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Curriculum _____

Course/Unit Title _____

TERMINAL LEARNING REQUIREMENTS

FORM I-2

Curriculum Analyst _____

Date _____

Terminal Performance Objectives	Criterion Statement	Criterion Measure
No. Approximate Equivalents and Posology, Unit III, #27	No.	No.
27.1 Given a list of measurements of weights and volume in each of the systems (household, apothecary and metric), the student will convert to the other two with 90% accuracy		
27.2 Given problems in which the doctor's orders and on-hand medication strength are provided, the student will find the correct dosage measurement with 90% accuracy		

Vocational Nursing
Unit III, #27
Approximate Equivalents

COGNITIVE/PSYCHOMOTOR/AFFECTIVE ANALYSIS
FOR
TERMINAL PERFORMANCE OBJECTIVE

RECALL	COMPREHENSION	APPLICATION
27.1 The student will know weights and volumes in the household, apothecary and metric systems.	27.1 The student will be able to convert from one system of weight and volume to the other two systems.	
27.2 The student will know how to solve a proportion involving an unknown quantity.	27.2 Given problems in which the doctor's orders and on-hand medication strength are provided, the student will find the correct dosage.	

Course/Unit: _____

T.P.O. # _____

LEARNING SEQUENCE

FORM K-2

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
Unit III, #27			
27.1 Know weights and volumes in household, apothecary and metric systems. Ability to convert from one system to the other two.	27.1 Paper-pencil test. Verbalization.	27.1 Media: Demonstrate weights and volumes of liquids and solids by utilizing measures of the three systems Method: Simulation--using substances and equipment in "hospital" setting, i.e., measuring drugs and solutions, weighing food, measuring liquids in medicine glasses/syringes	27.1 Simulation using real world supplies and equipment Individualized instruction with teaching assistant present
27.2 Know how to solve proportion involving an unknown quantity. Be able to calculate the correct dosage for doctor's order and the "on-hand" medication.	27.2 Paper-pencil test. Verbalization.	27.2 Media: Simulated doctor's order sheets with sample orders requiring calculation of dosages Method: Have student work problems in which doctor's orders and "on-hand" medications strength are provided, using mock solutions and medications--have student pour or draw up the required dosage. Paper-pencil simulations of doctor's order sheet--have student calculate required dosage	27.2 Simulation involving doctor's order sheet with doctor's orders and mock medications as "on-hand" drugs--have student pour or draw up required medication dosage.

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FORM I-2

Curriculum _____ TERMINAL LEARNING REQUIREMENTS Curriculum Analyst _____

Course/Unit Title _____ Date _____

Terminal Performance Objectives	Criterion Statement	Criterion Measure
No. Functional vs. Organic Disease, Unit IV, #7	No.	No.
7.1 Without the aid of reference material and with 75% accuracy, the student will be able to differentiate among the following terms: functional, organic, psychogenic.		
7.2 Given a list of various diseases, the student will be able to identify which are functional, organic or psychogenic with 75% accuracy and will also be able to write a supportive statement defending his/her choice.		

FORM J-2

COGNITIVE/PSYCHOMOTOR/AFFECTIVE ANALYSIS
FOR
TERMINAL PERFORMANCE OBJECTIVE

Course/Unit: V.N., Unit IV, #7, Organic Disease- Functional vs.

T.P.O # _____

Level of Mastery: _____

Refer to: Taxonomies--SAFE Manual, pps. 143-46
Handouts on Taxonomies

RECALL (Memory)	COMPREHENSION (Explanation)	APPLICATION (Apply to simulated or real situation)	ANALYSIS (Break down into parts)	SYNTHESIS (Pull together elements/ solve problems)	EVALUATION (Make judgments)
7.1 The student will be able to define the following terms: functional, organic, psychogenic.					
7.2 The student will be able to identify diseases which are functional, organic, or psychogenic.	7.2 The student will be able to explain the difference among functional, organic and psychogenic diseases.	7.2 Given case histories of three patients, the student will identify each disease condition as functional, organic, or psychogenic.	7.2 Given a list of various diseases, the student will be able to identify which are functional, organic, or psychogenic and will be able to write a supportive statement defending his/her choice.		

Vocational Nursing

Course/Unit: _____

T.P.O. # _____

LEARNING SEQUENCE

FORM K-2

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
7.1 Define functional, organic, psychogenic. 7.2 Identify diseases which are functional, organic or psychogenic. Explain difference among functional, organic and psychogenic diseases.	7.1 Paper-pencil test. Verbalization.	7.1 Media: Film, slide/cassette. Individualized charts. Overhead transparencies. Structured case histories. Method: Structured case histories of patients with functional, organic or psychogenic disease. Material should contain only relevant data as to signs and symptoms and lab test results so student can relate theory principles in a structured situation. Given lists of diseases, the student will identify the diseases which are functional, organic or psychogenic. Student will write supportive statement defending choice. Small group instruction with teaching assistant present.	7.1 Film charts Written case history presentation in small group with teaching assistant present.

Curriculum _____

Course/Unit Title _____

TERMINAL LEARNING REQUIREMENTS

FORM I-2

Curriculum Analyst _____

Date _____

Terminal Performance Objectives	Criterion Statement	Criterion Measure
No. Foreign Body Reactions, Unit IV, #21	No.	No.
21.1 Without the aid of reference material and with 75% accuracy, the student will define the following terms: antigen, allergy, sensitization, tissue rejection, atopy, histamine, antihistamine, autoimmunity.		
21.2 On a teacher-made test, the student will explain the antigen-antibody reaction with 75% accuracy.		
21.3 On a teacher-made test, the student will explain the signs and symptoms of allergic reactions with 75% accuracy.		

Vocational Nursing
Unit IV, #21,
Foreign Body Reactions

COGNITIVE/PSYCHOMOTOR/AFFECTIVE ANALYSIS
FOR
TERMINAL PERFORMANCE OBJECTIVE

RECALL	COMPREHENSION	APPLICATION
21.1 The student will be able to define the following terms: antigen, antibody, allergy, sensitization, tissue rejection, histamine, antihistamine, autoimmunity.		
21.2 The student will be able to list the signs and symptoms of allergic reactions.	21.2 The student will be able to explain the antigen-antibody reaction.	

Vocational Nursing

Course/Unit: IV, #21

T.P.O. #:

LEARNING SEQUENCE

FORM K-2

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
21.1 Define: antigen, antibody, allergy, sensitization, tissue rejection, histamine, autoimmunity. 21.2 List signs and symptoms of allergic reactions. 21.3 Explain antigen-antibody reaction.	21.1-3 Paper-pencil tests. Verbalization.	Media: Slides/cassette, film emphasizing allergy, sensitization, tissue rejection, histamine, anti-histamine, autoimmunity and signs and symptoms of allergic reactions. Individualized charts for student notebook. Method: Small group instruction with teaching assistant present.	Film, slides/cassette.

FORM 1-2

Curriculum _____ TERMINAL LEARNING REQUIREMENTS Curriculum Analyst _____

Course/Unit Title _____ Date _____

Terminal Performance Objectives	Criterion Statement	Criterion Measure
No. Nutrients, Unit V #4	No.	No.
4.1 On a teacher-made test and without the use of reference material, the student will define the words Carbohydrate, Protein, Fat, Minerals and Vitamins with 75% accuracy		
4.2 Without the aid of reference materials, the student will be able to list sources and functions of carbohydrates, protein and fats with 75% accuracy		
4.3 Without the aid of reference materials, the student will be able to list sources and functions of nutritionally important minerals and vitamins with 75% accuracy		
4.4 Without the aid of reference material the student will be able to briefly explain the digestive process of carbohydrate, protein, fat		
4.5 Without the aid of reference materials, the student will be able to explain the importance of the types of carbohydrates, protein and fats with 75% accuracy		

Vocational Nursing
Unit V, # 4, Nutrients

COGNITIVE/PSYCHOMOTOR/AFFECTIVE ANALYSIS
FOR
TERMINAL PERFORMANCE OBJECTIVE

RECALL	COMPREHENSION	APPLICATION
4.1 The student will define the words carbohydrate, protein, fat, minerals and vitamins.		
4.2 The student will list sources and functions of carbohydrates, protein, and fats.		
4.3 The student will list sources and functions of nutritionally important vitamins and minerals.		
4.4 The student will know where digestion of CHO, PRO and fat takes place. The student will know the names of the enzymes involved in the digestions of CHO, PRO, Fat. The student will know the processes of salivation, churning, peristalsis and absorption.	4.4 The student will be able to briefly explain the digestive process of CHO, PRO, Fat.	
4.5 The student will define the types of CHO, PRO, Fat. The student will know the functions of CHO, PRO and fats.	4.5 The student will explain the importance of the types of CHO, PRO, and fats.	

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Final Product 1/6/78

Course/Unit: (Page One)

T.P.O. #

LEARNING SEQUENCE

FORM K-2

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
Unit V, #4			
4.1 Define carbohydrate, protein, fat, minerals, vitamins.	4.1 Paper-pencil tests. Verbalization.	4.1 Media: Slides/cassette of carbohydrate, protein, fat, minerals and vitamins Method: Individualized instruction, self-paced instruction. Small group instruction with teaching assistant present: take group to cafeteria for "real-world" experience of choosing carbohydrate, fat, proteins, and minerals (outside the classroom)	4.1 Teaching assistant with small group to cafeteria for real experience of choosing carbohydrate, fats, protein, vitamins and minerals Slides/cassettes available to small group or individual student for self-paced instruction Teaching assistant to attend all regular class sessions, then be available to individual student or small group
4.2 List sources and functions of carbohydrates, proteins, and fats.	4.2 Paper-pencil tests. Verbalization.	4.2 Media: Chart of sources and functions of carbohydrate, protein, and fat Overhead transparencies Individual reproductions Slides/cassette showing sources and functions of carbohydrate, protein, and fat Method: Same as 4.1 Small group instructions using real examples of foods to identify sources and functions	4.2 Individualized charts for student notebook Slides/cassette available to small group or individual student for self-paced instruction, with teaching assistant present. Have supply of foodstuff for classroom work

Course/Unit: Unit V, #4 (Page Two)

T.P.O. #

LEARNING SEQUENCE

FORM K-2

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
4.3 List sources and functions of nutritionally important vitamins and minerals.	4.3 Paper-pencil test. Verbalization.	4.3 Media: Chart of sources and functions of nutritionally important vitamins and minerals Overhead transparencies Individualized charts Method: Small group instruction or individual instruction with teaching assistant	4.3 Individualized instruction Small group instruction with teaching assistant Individualized charts for student notebook

Course/Unit: _____

T.P.O. # _____

LEARNING SEQUENCE

FORM K-2

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
Unit V, #4			
4.4 Know where digestion takes place. Know enzymes involved in digestion. Know process of salivation, churning, peristalsis and absorption. Explain the digestive process.	4.4 Paper-pencil test. Verbalization.	4.4 Media: Film showing digestion of carbohydrate, protein and fat; names of digestive enzymes; process of salivation, churning, peristalsis, and absorption (verbatim transcript of film dialogue with key pictures from film available to each student) Individual charts for notebook Method: View films with teaching assistant present	4.4 View film in small groups with teaching assistant present (transcript of films and key pictures available to each student)
4.5 Define types of carbohydrate, protein, and fat. Know the functions of carbohydrates, protein and fat. Explain the importance of the types of carbohydrates, protein and fats.	4.5 Paper-pencil tests. Verbalization.	4.5 Media: Slides/cassette showing functions of carbohydrates, protein and fats Method: Individualized and small group instruction; viewing of slides with teaching assistant present.	4.5 Slides and cassette viewing in small groups or for individual student with teaching assistant present Individual charts for students

Curriculum _____

Course/Unit Title _____

TERMINAL LEARNING REQUIREMENTS

FORM I-2

Curriculum Analyst _____

Date _____

*Terminal Performance Objectives	Criterion Statement	Criterion Measure
No. Metabolism, Unit V #9	No.	No.
9.1 Without the use of reference materials, the student will define the words Metabolism, Catabolism, Anabolism, Exogenous and Endogenous with 75% accuracy		
9.2 Given a teacher-made test, the student will trace the route of sugars, fats, and protein from ingestion to the individual cell with 75% accuracy		
9.3 Without the aid of reference materials, the student will be able to name the end products of the chemical breakdown of glucose, amino acids and fatty acids		
9.4 On a teacher-made test, the student will be able to state the number of calories yielded upon metabolizing carbohydrate, protein, fat and alcohol		

COGNITIVE/PSYCHOMOTOR/AFFECTIVE ANALYSIS
FOR
TERMINAL PERFORMANCE OBJECTIVE

Vocational Nursing
Unit V, #9, Metabolism

RECALL	COMPREHENSION	APPLICATION
9.1 The student will define the words metabolism, catabolism, anabolism, exogenous, endogenous.		
9.2 The student will trace the route of sugars, fats, and protein from ingestion to individual cell.		
9.3 The student will be able to name the end products of the chemical breakdown of glucose, amino acids and fatty acids.		
9.4 The student will be able to state the number of calories yielded upon metabolism of CHO, PRO, and fat.		

Course/Unit: _____

T.P.O. # _____

LEARNING SEQUENCE

FORM K-2

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
Unit V, #9			
9.1 Define the words metabolism, anabolism, catabolism, exogenous, endogenous.	9.1 Paper-pencil test. Verbalization.	9.1 Media: Demonstration-simulation of anabolic-catabolic process (must be substance familiar to student; process must be visual during anabolic and catabolic phase) Film-slide/cassette containing explanation of metabolism, anabolism, catabolism, exogenous, endogenous Individual charts of these processes for each student Overhead transparencies Method: Small group instruction with teaching assistant present	Classroom simulation of anabolic-catabolic process
9.2 Trace the routes of sugars, fats, and protein from ingestion to individual cell.	9.2 Paper-pencil test. Verbalization.	9.2 Media: Film-slide/cassette-charts (must show route realistically; terminology must be carefully screened to match student level; transcript of dialogue with key pictures available to each student) Method: Viewing of these materials in small groups with teaching assistant present Availability of materials for viewing by the individual student	9.2 Film, with realistic discussion of route of sugars, fats, protein from ingestion to cell Must have simple-concrete examples

Unit V, #9 (Continued)

Course/Unit: _____

T.P.O. # _____

LEARNING SEQUENCE

FORM K-2

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
9.3 Name the end products of chemical breakdown of glucose, amino acids, and fatty acids.	9.3 Paper-pencil test. Verbalization.	9.3 Media: Animated film showing end products of glucose, fat and protein at cellular level (must be simple, concrete and with emphasis on the development of CO_2, nitrogenous wastes and heat) Transcript of dialogue with key pictures available to student Method: Small group viewing with teaching assistant	9.3 Film shown in small group with teaching assistant present

Course/Unit: _____

T.P.O. # _____

LEARNING SEQUENCE

FORM K-2

LEARNING STEPS	RESPONSE/EVALUATION	ALTERNATE METHODS/MEDIA	METHOD/MEDIA SELECTION
Unit V, #9 9.4 State the number of calories yielded upon metabolism of carbohydrate, protein and fat.	9.4 Paper and pencil test. Verbalization.	9.4 Media: Method: Individual student to calculate the number of calories derived from previous meal eaten Calculate calories represented by one pound of body fat Calculate how many calories less student must eat to achieve ideal weight Individualized instruction	Paper and pencil calculations of yielded calories eaten by student

RESEARCH AND DESIGN

PROJECT: MOBILITY

STEPS OF CURRICULUM ANALYSIS

STEP 5

THE FINAL STEP TAKEN BY THE TEAM IS TO PULL TOGETHER ALL THEIR FINDINGS AND RECOMMENDATIONS INTO ONE DOCUMENT. THIS DOCUMENT, IN COMBINATION WITH THE METHODS/MEDIA ALTERNATIVES IDENTIFIED IN STEP 4 WILL BE THE BASIS FOR SPECIFIC PROGRAM CHANGES TO BE IMPLEMENTED IN PHASE I-II OF THE RESEARCH AND DESIGN PROJECT. IN COMBINATION WITH THE OTHER PORTIONS OF THE PROJECT, I.E., COUNSELING AND GUIDANCE, MANAGEMENT PLANS, EVALUATION AND AUDIT SYSTEMS, THE CURRICULUM DESIGN RECOMMENDATIONS SHOULD ELIMINATE THE HURDLES TO SUCCESS BEING ENCOUNTERED BY DISADVANTAGED AND/OR HANDICAPPED VOCATIONAL EDUCATION STUDENTS. IF THEY DO NOT, THEY WILL BE REANALYZED AND REVISED UNTIL THEY DO.

STEP 5:

A) DEFINE SPECIFIC RECOMMENDATIONS OF PROGRAM/COURSE CHANGE TO ELIMINATE THE IDENTIFIED PROBLEMS AND PRODUCE THE REQUIRED MASTERY.

RESEARCH AND DESIGN PROJECT
LICENSED VOCATIONAL NURSING

General Recommendations

I. Development of New Methods/Media

In our assessment of the Licensed Vocational Nursing curriculum, we have identified approximately 40 areas in the first semester containing critical and difficult concepts relating to Licensed Vocational Nursing. The general requirement shared by these areas is to make more concrete their abstract elements. This, we believe, can be done through the utilization of more visual reinforcement and structured simulation.

It is the recommendation of the Committee, therefore, that self-directing A-V programs and simulations for these areas be obtained or developed for use by the disadvantaged LVN student. All development must include close coordination between the certified nursing instructors and any outside experts involved in the development process.

It is also recommended that a media search be conducted specific to the 40 areas identified to locate any pre-existing programs that may be responsive to the problems identified.

Also of assistance would be the translation of selected films and slide cassette programs into written transcripts, with key visuals, which the students could review if required.

Suggested sources of possible media would include:

a) University of California, San Francisco
b) Community Hospital Medical Library Computer Service
c) Drug companies
d) Audio Learning Limited (46 Lafayette Ave., New Rochelle, New York)

II. Licensed Vocational Nursing Teaching Assistant

Part of the difficulty of being responsive to the unique needs of the disadvantaged Licensed Vocational Nursing student is the limitation on available time and freedom for the instructor. Because of these limits, the instructor cannot spend the amount of personalized time necessary to solve each of the problems of the disadvantaged student as they occur.

It is the recommendation of this Committee, therefore, that a qualified teaching assistant be made available to the LVN faculty and students to increase the personalized attention available to the students and free the LVN instructor to work more intimately with the students.

The qualifications of this person include:

a) that he/she be a Licensed Vocational Nurse or a Registered Nurse;
b) that he/she be recommended and approved by the LVN faculty;
c) that the person have graduated from an approved nursing curriculum within the past five years;
d) that the person be able to closely coordinate with the classroom teacher