

DOCUMENT RESUME

ED 285 016

CE 048 086

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 TITLE Competency-Based Nursing Career Ladder Model. Final Report.  
 SPONS AGENCY Texas Coll. and Univ. System, Austin. Coordinating Board.  
 PUB DATE Aug 87  
 GRANT 87-1030-A-6  
 NOTE 63p.  
 PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC03 Plus Postage.  
 DESCRIPTORS \*Articulation (Education); Associate Degrees; \*Bachelors Degrees; \*Career Ladders; \*Competency Based Education; \*Curriculum Development; Demography; High Schools; Models; \*Nursing Education; Postsecondary Education

ABSTRACT

An open-entry/open-exit competency-based nursing career ladder model was developed to demonstrate the articulation process from high school through licensed vocational nursing (LVN), associate degree nursing (ADN), and baccalaureate degree-level nursing (BSN) programs. The model was based on data obtained from a review of the literature on (1) demographic and other characteristics of students currently enrolled in the health programs at the various educational levels and (2) professional socialization. The model that was eventually developed was based on the premises that nursing education is a linear process that can begin and end at specified educational points, that the nursing process is an example of a problem-solving process, and that nursing is a human service that focuses on the interactions and relationships between the person and the environment in relation to health and nursing. The proposed model calls for 10 health careers prenursing courses at the high school level (in addition to requirements for a high school diploma), 21 general education and 26 nursing semester hours for LVN programs, 60 semester hours of general education requirements for ADN and BSN programs, and 34 nursing semester hour requirements each for ADN and BSN programs. (Overviews of each of the proposed required courses and a selected bibliography are also provided in this document.) (MN)

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COORDINATING BOARD  
TEXAS COLLEGE AND UNIVERSITY SYSTEM

COMPETENCY-BASED NURSING CAREER LADDER MODEL

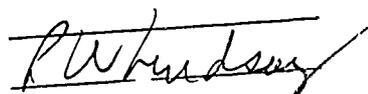
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Final Report  
of the  
Project Staff

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Curriculum Development, Series PVEP-1030

August, 1987

CE 04/8086

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August 1, 1987

Dr. Natica "Tish" Petrossian  
Director of Federal Projects  
Texas Higher Education Coordinating Board  
P.O. Box 12788, Capitol Station  
Austin, Texas 78711

Dear Dr. Petrossian:

On behalf of the project staff members and the entities involved, I am pleased to submit the report "Competency-Based Nursing Career Ladder Model". It has been my privilege to serve as principal investigator for this project.

The broad goal of the project was to design a rudimentary model that "identifies open entry/exit points of the program under study". Subcontractors were selected to accomplish the purposes of the project. Characteristics of students of the different levels, broad program objectives of the entities involved, and critical objectives of selected courses offered by the entities involved were identified. Data were collected from the literature, the entities involved, and site visits to appropriate educational institutions.

Nursing education must ensure that well-educated nurses are prepared for present as well as future changing roles. At the same time, to make nursing education cost-effective, needless duplication of effort must be eliminated. We believe the Coordinating Board can do this by encouraging implementation of the model after its refinement based on recommendations from the educational, service, regulatory, and professional agencies affected.

The project staff members--Doris Pierce, RN, MSN and Anna Leach, RN, PhD--and members of the entities involved who contributed to this project join me in thanking you for the opportunity to assist in the goals of the Coordinating Board to facilitate articulation. We hope to be able to continue the project through refinement and dissemination of the model and assisting in the implementation and evaluation processes.

Sincerely,



Janie Menchaca Wilson, RN, PHD  
Professor and  
Principal Investigator

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DEFINITION OF TERMS

## DEFINITION OF TERMS

For the purpose of this project the major terms used were defined as follows:

Associate Degree Program--A program leading to an Associate Degree in Nursing, conducted by an educational unit in nursing, within the structure of a college or university.

Baccalaureate Degree Program for Registered Nurses--A program leading to a Bachelor's Degree in Nursing, that admits only registered nurses.

Client--A system who engages the professional advice or services of another.

Community--A unified body of individuals; a group of people with common characteristics and interests living together within a large society.

Concept--An abstraction that conveys general notions, ideas, or thoughts.

Conceptual Framework--A group of concepts, ideas, or theories that are related, but in which the relationship is not clearly defined.

Course--A specific set of learning experiences organized to meet a group of objectives within a stated time period. A course involves an organized subject matter and related activities. A clinical nursing course includes both theory and a clinical component taught concurrently.

Curriculum--The content and learning experiences designed to facilitate student achievement of the objectives of the program.

Diploma Program--A program leading to a diploma in nursing conducted by a single purpose school usually under the control of a hospital.

Entities Involved--The educational agencies involved in this project--Health Careers High School of the Northside Independent School District, San Antonio College, and Incarnate Word College.

Generalist--One whose skills and knowledge extend to several different fields.

Goal--A desired outcome of the program in general, rather than the more specific outcome of the instructional process.

Holistic--A theory that the universe, and especially living nature, is seen correctly in terms of interacting wholes that are more than the mere sum of elementary particles.

Humanities--The branches of learning having primarily a cultural character.

Interpersonal--The interactional forces, changes, and/or relationships operating between two or more clients.

Levels of Health Care:

Primary--Nursing care directed toward providing health care services for the purpose of illness prevention and the promotion of optimal health maintenance; it is provided upon client's entry into the health care system or as a continuous health monitoring service.

Secondary--Nursing care focused on cure and restoration after a pathological process has been identified. It includes early diagnosis and prompt assistance to halt the disease process. The goal at this stage is to assist the client attain "normal" functioning as soon as possible.

Tertiary--Consists of nursing actions to assist in restoring clients to their maximal state of functioning once disease and disability occur. At this level, the goal of nursing is to assist in rehabilitation and restoration at the optimal level of functioning.

Natural Sciences--A study of any of the sciences (physics, chemistry, or biology) that deal with matter, energy, and their interrelations and transformations; or with objectively measurable phenomena.

Nursing Assistant--An individual prepared at the high school level to provide basic patient care under the direct supervision of a registered nurse.

Objective--A stated, assessable outcome of the instructional process.

Philosophy--A set of beliefs and value statements about the practice of nursing, developed by faculty, providing direction for implementation of the curriculum.

Process--A series of actions or operations leading toward a particular result.

Professional Nurse--An individual prepared at the baccalaureate level with a major in nursing, and who, upon completion of the degree, is eligible to write the NCLEX-RN Examination administered by the Board of Nurse Examiners for the State of Texas.

Professional Socialization--The practice whereby the values and roles of a profession are internalized through reinforcement from certain factors in the social environment.

Program--The educational and/or administrative unit providing planned studies.

Purpose--Something set up as an objective or end to be attained.

Social Science--A branch of science dealing with the institutions and functioning of human society and with the interpersonal relationships of individuals as members of society.

Sub-Concept--Of or relating to a concept; a vehicle utilized to help explain the phenomenon of an abstract concept.

System--A set of interacting or interdependent components forming a unified whole.

Technical Nurse--An individual prepared at the associate degree level with a major in nursing, and who, upon completion of the degree, is eligible to write the NCLEX--RN Examination administered by the Board of Nurse Examiners for the State of Texas.

Theory--A way of relating concepts through the use of definitions assisting in developing significant interrelationships to describe or clarify approaches to practice. The part of a course dealing with principles and methods, as distinguished from practice.

Vocational Nurse--An individual prepared in a high school, hospital, or community college to take the NCLEX-LPN administered by the Board of Vocational Nurse Examiners for the State of Texas.

INTRODUCTION, STATEMENT OF NEED

## INTRODUCTION

The project staff members support the principle of facilitating the educational process through articulation of programs. The increasing cost of education makes articulation essential to prevent students from needless repetition of previously learned subject matter. In nursing, this is particularly relevant for two reasons. First, the desired entry level for registered nurses to function at the professional level is the baccalaureate degree (BSN). Although many students are entering BSN programs for their basic education, there are still many registered nurses (RNs) with diplomas and associate degrees who need and want to make the transition to professional nursing. Second, there is currently a shortage of available RNs in the work force. It is crucial that RNs be able to obtain a BSN with a minimum of repetition. Thus, the project staff members support the concepts of articulation, career mobility, and flexibility in the educational process.

## STATEMENT OF NEED

During the past two decades the demand, both from within nursing and from without, to provide better career mobility for nurses has continued to pose great challenges for nursing education. The number of RNs returning for baccalaureate degrees continues to grow. In 1985, 42,940 RNs were pursuing baccalaureate degrees in nursing. Of these, 22,812 were enrolled in generic programs and 20,128 in BS-RN programs. The enrollments in BS-RN programs have grown over 8 percent since 1984, whereas the number of RNs in generic programs grew 1.3 percent during the same time. Fifty seven percent of the RN graduates from baccalaureate programs previously held associate degrees, 43 percent had diplomas (Rosenfeld, 1987, p.2).

In the Institute of Medicine (1983) study of nursing and nursing education it was reported that although many educational programs have responded to the need of nurses for educational advancement by facilitating credit transfers or providing for advanced placement, many others still do not actively pursue this objective. Based on these findings the committee recommended that "licensed nurses at all levels who wish to upgrade their education so as to enhance career opportunities should not encounter unwarranted barriers to admission" (p. 7). It further recommended that efforts be made for developing policies and programs to minimize loss of time and money by students moving from one level or program to the other.

Based on the above identified needs, the result of this project was a model curriculum demonstrating the articulation process from high school through the LVN, ADN, and BSN. The concepts of program commonalities, validation of previous learning, and transfer credit were utilized where appropriate. The model curriculum will be available as a guide for the various programs statewide. Hopefully the result will be a flexibility in education, increased career mobility, and a greater number of registered nurses prepared at the baccalaureate degree level.

THE PROJECT--PURPOSE, OBJECTIVES, SPECIFIC STEPS

## THE PROJECT

## Purpose:

The purpose of this project was to develop an open entry/exit competency-based nursing career ladder model. The project identified those points or times in the respective curricula that lend themselves to articulation among the high schools, community colleges, and the senior colleges or universities.

## Objectives:

The specific objectives of the project were to:

1. Identify the desired competencies required to participate in the nursing career ladder and to qualify for employment at the various exit points.
2. Describe opportunities for self-pacing within the career ladder.

## Specific Steps:

The specific steps in this project were:

1. Identify characteristics of students of:
  - a. Health Careers High School
  - b. LVN
  - c. ADN
  - d. BSN
2. Identify broad program objectives of the entities involved.
3. Identify critical objectives and/or competencies of selected courses offered by the entities involved.
4. Select a panel of users.
5. Select a panel of educators.
6. Design a rudimentary open entry/exit competency-based nursing career ladder model.

SPECIFIC STEPS

DEMOGRAPHIC CHARACTERISTICS OF STUDENTS  
and  
PROFESSIONAL SOCIALIZATION

## DEMOGRAPHIC CHARACTERISTICS OF STUDENTS

### Introduction

Demographic characteristics of students from the various types of preservice nursing educational programs were examined to determine implications in developing an open entry/exit nursing career ladder curriculum. Data from the literature as well as from students enrolled in the entities involved were examined and analyzed. To provide a comprehensive data base the literature review was divided into two areas: (1) demographic and other characteristics of health careers high school, LVN, RN, and BSN generic students, and (2) professional socialization.

### Review of Literature

#### Health Careers High School Students

A review of the literature revealed a paucity of studies concerning demographic characteristics of students enrolled in health careers high schools or of graduates of those programs. This is probably due to the relatively recent development of those programs. The only data the project staff members were able to obtain, with any certainty, were those characteristics of the students enrolled in the Northside Independent School District Health Careers High School, San Antonio, Texas. Students in this sample included 52% Hispanic, 43% white, 4% Black, and 1% Asian. Many of the students were "honor roll" students, testing high in courses such as math, reading, and writing. Additionally, the students were "highly motivated" and could not enter the program unless they desired to enter the health careers field. In 1986-87 students enrolled in the program were representative of 16 school districts in Bexar County. Table 1 presents the characteristics of those students.

TABLE 1  
HEALTH CAREERS HIGH SCHOOL  
STUDENT CHARACTERISTICS

Participating School Districts in Bexar County

<u>1984-85</u>	<u>1985-86</u>	<u>1986-87</u>
Edgewood	Boerne	Alamo Heights
East Central	Edgewood	Boerne
Harlandale	East Central	East Central
Judson	Harlandale	Edgewood
Northeast	Judson	Harlandale
Northside	Medina Valley	Judson
Private Schools	Northeast	Medina Valley
San Antonio	Northside	Northeast
South San	Private Schools	Northside
Somerset	San Antonio	Private Schools
Southwest	South San	Poteet
	Somerset	San Antonio
	Southwest	Somerset
		South San
		Southside
		Southwest

<u>Ethnic Breakdown</u>	<u>A &amp; B Honor Roll</u>	<u>Sex</u>
Asian 1%	9th Grade 25%	Male 37%
Black 4%	10th Grade 17%	Female 63%
Hispanic 52%	11th Grade 34%	

Test Results

		<u>(MATH)</u>	<u>(READING)</u>	<u>(WRITING)</u>
1984-85	TEAMS	100	97	95
1985-86	TEAMS	99	98	94
1986-87	JR. TEAMS	100	100	

Vocational Nursing Students

Although there has been considerable research reported on the characteristics of Licensed Vocational Nurses (LVNs)/Licensed Practical Nurses (LPNs), the more recent reports have focused on preservation of these characteristics by retaining LVNs/LPNs as vital members of the health care team. According to Maloney (1980), LVNs/LPNs emerged after World War II because of a shortage of nurses and they have continued to epitomize the public's image of the "nurse". Several authors (Beaver, 1980; Micali, 1980; & Montag, 1980) supported the historical

perspective of the LVNs/LPNs alluding to the concept that nursing originated with the "trained practical nurses".

Micali (1980) described demographic characteristics of students enrolled in a LVN/LPN program as predominantly female (90%), of an average age of 29 years, educationally prepared at the high school level, and from lower middle class origins. Metcalf (1982) expanded on those characteristics by stating "the typical LVN is markedly similar to the typical RN". According to Metcalf, typical RNs and LVNs have been employed in a hospital one year or more, are 25 to 30 years old, and have a total work history of 2-5 years as full-time employees.

Of particular importance to this project was the statement by Beaver (1980) that LVNs were an integral part of nursing and that educators must provide educational programs for this identified population. According to Beaver, the key to graduate competency is for educators to provide a "sound" curriculum, qualified faculty who prepares the graduates to function in a wide variety of areas, and provision for career mobility:

#### ADN, Generic, and RN Students

Characteristics of the associate degree and diploma students were often included in studies comparing and contrasting RN students who were returning to the academic setting with "typical" generic undergraduate students or with college students enrolled in other majors. Perhaps this is due to the increasing number of associate degree and diploma RNs desiring to enter baccalaureate nursing programs.

A number of the studies alluded to the "unique" characteristics of the RN students as adult learners (Baj, 1985; Hale, 1981; King, 1986; Sullivan, 1984; Zorn, 1980). The authors contrasted the RN students against the generic students and concluded that the RNs possessed characteristics of adult learners as described by Knowles (1973). These students were characterized as (1) having concepts of self-directedness, (2) having past experiences as a resource for future learning, (3) being ready to learn things consistent with adult roles and tasks, and (4) being interested in immediate applicability of learning within a problem-centered framework (Knowles, 1973).

Gortner (1968) studied the characteristics of nursing students compared to "other" college students. She reported that nursing students in "general" were more cautious, nonimpulsive, and realistic in their measured behaviors than were other students enrolled in various colleges or universities. Additionally, students in a nursing major had a "tendency" to adhere to religious and socially acceptable norms of behavior.

Hale (1981) reported that RNs, compared to other students were from upper lower and lower middle class origins, had graduated from small high schools, and had taken general education programs while in high school. He reported the RNs were "adult learners", with concepts of self-directedness and who had problem-centered approaches to learning.

Baj (1985) and King (1986) provided support for this frame of reference. Each expanded on the adult learner by describing other specific demographic characteristics. For example, Baj reported that RNs were more likely to have been married or divorced, less likely to receive financial aid, more likely to have dependent children, were in excellent health, and worked full-time, usually in a hospital medical-surgical unit. In contrast, generic students were described as typically single, tended to be younger, likely to receive financial aid, attended school full-time, and were not working. Baj (1985) stated that both groups of students "maintained a B average, and the majority were enrolled in state schools about three to one over private programs" (p. 235). King explained that in addition to demographic differences between these students, there were fundamental differences between the two groups in "respect to life stage and ego development". For example, she elaborated that the generic students were in the "early adult transition" stage, focusing on separating oneself from the pre-adult world to one forming an adult identity. She described the generic students as having boy-friends, pending marriage, about ten years younger than the RN students, having graduated from a large high school, and entering college as a "natural" step after completing high school. For comparison, King described RNs as about age 30, in the "mid-life transition" stage, typically married or divorced, having a family, working, tending to be struggling with family and work responsibilities, and returning to school for "personal" growth and achievement.

#### PROFESSIONAL SOCIALIZATION

Another area of concern in reviewing comparative studies of RN students who were returning to the academic setting was the area of professional socialization. The following section presents a review of the literature from that perspective.

The need for resocialization of graduates from a technical orientation to a perspective that is professional in nature is of great curricular concern when attempting to facilitate articulation of ADN and BSN programs. The issue of socialization, the reorientation occurring during the

transition from technical to professional nurse has implications for the development of a model curriculum.

A review of socialization literature yielded several aspects that were particularly relevant to this project. Socialization of RN students has been addressed as a concern since the 1930's (NLN, 1980). Throughout the literature there appear to be several commonly held beliefs regarding the process of socialization. For example, King (1986) stated that RN and generic students have differing perceptions and expectations due to differences in demographic characteristics and life stage development. Sullivan (1984) asserted that previous knowledge and behavior "may interfere with new learning, attitudes, values, and concepts". RNs are also different due to prior nursing experience, fear of failure, and the need to function in multiple roles.

Suggestions that have been proposed to facilitate socialization include decreasing obstacles--by allowing validation and transfer of credit, by better coordinating curriculum offerings, and by increasing the ease of validation (Zusy, 1986). It has also been proposed that programs need to be more readily available (Tiffany & Brown, 1986), "bridge" courses, buddy systems, or support groups be used (Blatchley & Stephan, 1985), and that programs be more flexible in offering part-time study (MacLean, et al, 1985). Finally, Queen (1984) stated that resocialization should be a vertical thread in the curriculum with the use of role modeling and varied clinical experiences for RN students.

Primary implications for the model developed for this project include:

1. Articulation is essential.
2. Prior knowledge/skills should be acknowledged and credited.
3. "Bridge" or transition courses allow socialization to continue through the curriculum.
4. Demographic characteristics may be important factor to consider in providing educational experiences for individual students/groups.

In summary, a review of the literature related to the characteristics of health careers high school, LVN, RN, and generic students begins to elucidate the differences among those students. These findings support a primary premise of this project that the distinguishing characteristics of the students are not only visible differences, but also have major implications for development of a model curriculum.

In addition to characteristics reported in the literature, demographic characteristics of the nursing students enrolled in the entities involves--San Antonio College and Incarnate Word College--were reviewed. The findings are discussed below.

### San Antonio College

San Antonio College is a state supported institution offering the Associate Degree in several different disciplines, one of which is nursing. The data collected for this project included demographic characteristics of students enrolled in the ADN program during 1983. The sample included 466 students. Table 2 presents the frequency distribution and percentages of demographic variables related to age, ethnicity, and gender.

Almost one-half (48.7%) of the students were under the age of 29 years, 35.2% were between 30 and 39 years, and the remaining 12% were over 40 years of age. When compared to the "typical" generic students at Incarnate Word College (see Table 3) the associate degree students were approximately five years older. A majority (40.6%) of the students were Anglo American, with the next highest percentage (33.1%) being Hispanic.

TABLE 2  
SAN ANTONIO COLLEGE  
STUDENT CHARACTERISTICS  
1983--N=466

Characteristic	Student Responses	
	Number	Percent
<b>AGE</b>		
Under 29	227	48.7
30-39	164	35.2
40-49	49	10.5
50-59	6	1.3
Over 60	0	0
Non-respondents	20	4.3
TOTAL	466	100.0
<b>RACIAL/ETHNIC ORIGIN</b>		
Anglo	189	40.6
Black	83	17.8
Hispanic	154	33.1
Native-American	2	0.4
Pacific Asian (Oriental)	3	0.6
Non-respondents	35	7.5
TOTAL	466	100.00
<b>SEX</b>		
Female	379	81.3
Male	74	15.9
Non-respondents	13	2.8
TOTAL	466	100.0

### Incarinate Word College

Incarinate Word College is a Catholic private College offering the baccalaureate and masters degree in a number of different disciplines. The division of nursing offers three tracks: (1) the generic or four year track leading to the BSN, (2) the alternate pathway track for RNs only leading to the BSN, and (3) the masters degree in nursing. For the purpose of this project, data relating to the students seeking a masters degree were not included.

Demographic variables of both the generic and alternate pathway students are presented in Table 3. The RNs were older than the generic students (mean 37 versus 24.5 years). The generic students had a higher GPA (mean of 3.13 and 3.05) than did the RN students (mean of 2.76 and 2.82). This may reflect the differences, as reported in the literature that typically RNs work full time whereas the generic students do not work. In both groups of students the overwhelming majority were female (85% and 89% versus 11% and 15% male). Ethnically, 55% and 57% of the students were Anglo American, 26% and 27% were Hispanic, 17% and 13% were Black, and 2% and 3% were of "other" ethnic origins.

TABLE 3  
INCARNATE WORD COLLEGE  
STUDENT CHARACTERISTICS

Characteristic	Generic		Alternate Pathways		Total	
	Range	Mean	Range	Mean	Range	Mean
AGE						
1982-83	19-47	24	24-59	37	19-59	30
1983-84	20-49	25	25-61	37	20-61	31
SEX	Male	Female	Male	Female	Male	Female
1982-83	5(10%)	48(90%)	7(12%)	53(88%)	12(11%)	101(89%)
1983-84	8(11%)	63(89%)	15(17%)	71(83%)	23(15%)	134(85%)
ETHNIC PROFILE	Number	%	Number	%	Number	%
Anglo (82-83)	28	50	36	60	64	55
(83-84)	34	48	56	65	90	57
Black (82-83)	6	11	14	23	20	17
(83-84)	9	13	11	13	20	13
Hispanic (82-83)	20	36	10	17	30	26
(83-84)	25	35	18	21	43	27
Other (82-83)	2	3	0	0	2	2
(83-84)	3	4	1	1	4	3
MEAN GPA						
(82-83)	3.13		2.76		2.95	
(83-84)	3.05		2.82		2.94	

In summary, the characteristics of students enrolled in the entities involved correspond to those reported in the literature. Analysis of the data from both sources indicates that students at different levels do indeed have different demographic characteristics. For example, the RN students were somewhat older, possessed characteristics of adult learners, were more advanced financially, more likely to have a family, and were probably working full-time. Characteristics of the LVNs, as reported in the literature, were similar to those of RNs. Health careers high school, associate degree, and generic students tended to be younger, needed financial aid, were single, and were attending school on a full-time basis. In all of the groups the majority were female.

Based on the findings related to student characteristics the following implications for curriculum development were considered for this project:

1. RNs may require less financial aid but must have flexibility in scheduling to permit continued employment in order to continue financial independence.
2. RNs will require part-time study because of their required multiple roles. Evening, home-study modules, televised instruction, or other innovative techniques for study should be considered.
3. RNs will require teaching strategies different from those of the health careers high school, associate degree, or generic students. Strategies consistent with adult learning as described by Knowles (1973) should be considered.
4. Health careers high school, associate degree, and generic students may require a more "structured" curriculum and teaching strategy since these students have not reached the "mid-life adult stage" as described by King (1986).
5. A "bridge" or transition course or courses should be considered as the student moves from one level to the next.
6. Career mobility without repetition of previous learning seems appropriate for all groups of students. Included in this concept would be transfer of credit and/or validation of previous knowledge and skills.

PROGRAM OBJECTIVES OF THE ENTITIES INVOLVED

## BROAD PROGRAM OBJECTIVES

The broad program objectives of the entities involved in the project--Health Careers High School, San Antonio College, and Incarnate Word College--are presented below:

Health Careers High School

Students have the opportunity to:

1. Become adequately prepared to pursue a post-secondary education.
2. Develop a high level of career awareness in the health field.
3. Make informed, realistic career-related decisions relative to employment and further education.
4. Begin to develop a marketable skill in the health field.
5. Relate subject matter in academic areas to career preparation in health professions where appropriate.
6. Participate in community-based experiences in the health field.
7. Become an informed consumer of health resources.
8. Develop decision-making skills that employ analyzing, organizing, and synthesizing processes.
9. Enhance and improve written and oral communication skills.
10. Enhance and improve reading skills.
11. Develop and expand useful knowledge of science and mathematics.
12. Develop an awareness and appreciation for literature and the fine arts.
13. Become familiar with existing economic, social, and cultural differences in the community.

San Antonio College Department of Nursing Education

Upon completion of the program, the graduate will be able to:

1. Utilize knowledge from nursing and the physical, biological, behavioral, and social sciences in providing highly skilled nursing care to patients and their significant others.
2. Utilize the nursing process to conserve the wholeness of man within the secondary health care settings.
3. View man as a dynamic individual capable of adapting holistically to his environment.
4. Contribute to the health care team through managing, organizing, communicating, and coordinating care for optimal health care delivery.
5. View self as an accountable member of the profession of nursing.
6. Determine means of maintaining personal competence as a technical nurse through self-assessment and continued education.

Incarinate Word College Division of Nursing

1. Provide a framework upon which students can structure knowledge from the humanities, social, and physical sciences for application to nursing practice problems and their solutions.
2. Provide educational experiences designed to promote an appreciation of and skills necessary for critical thinking.
3. Provide opportunities for the development of a generalist practitioner of nursing capable of utilizing a valid concept of nursing to assist clients of varying socio-cultural backgrounds in any setting.
4. Promote responsibility and accountability for the continuing development of self as person and as professional nurse.
5. Provide an educational foundation for graduate study in nursing.
6. Promote development of a philosophy of life that values the dignity of the individual and serves as a guide for making ethical-moral decisions.

CRITICAL OBJECTIVES AND/OR COMPETENCIES OF SELECTED COURSES  
OFFERED BY THE ENTITIES INVOLVED

## COMPETENCIES OF SELECTED COURSES

In nursing there has been a long-standing need to identify learning outcomes or competencies of graduates of the four types of nursing education programs. In response to this concern, in 1978 the National League for Nursing Board of Directors appointed a Task Force on Competencies of Graduates of Nursing Programs. The project staff members support the use of the NLN program competencies as a standardized measure of requirements for each level. Specific program and course objectives should be developed, as were for the model curriculum, using these competencies as a guide.

The following objectives are presented as examples of "the critical objectives/competencies of selected courses of the entities involved".

### Health Care Science--Health Careers High School

Health Care Science is a theoretical program of study designed to assist the student to develop competencies needed to make educated decisions about career goals. This is a one-year course offered at the tenth grade level.

The purpose of this course of study is to provide the student an opportunity to:

1. Develop an understanding of basic medical principles and concepts.
2. Develop concepts of good interpersonal relationships.
3. Develop a working vocabulary relative to multiple health care disciplines.
4. Practice the essential elements of a safe environment.
5. Recognize the importance of neatness and cleanliness.
6. Identify ethical procedures and behaviors in health care delivery systems.
7. Describe legal responsibilities of the health care worker.
8. Master a range of skills--cognitive, affective, and psychomotor--required in the health care delivery system.
9. Demonstrate knowledge of basic concepts of illness and wellness.
10. Demonstrate knowledge of basic medical aseptic techniques.
11. Apply basic verbal and nonverbal communication techniques to health care procedures.
12. Demonstrate basic first aid procedures including cardiopulmonary resuscitation.
13. Demonstrate proper techniques for taking vital signs.
14. Demonstrate knowledge of human physiology as it relates to vital signs.
15. Utilize proper body mechanics.

16. Demonstrate knowledge of the four basic food groups and relate their importance to the wellness/illness concept.
17. Identify methods of coping with stress.
18. Distinguish between acceptable and non-acceptable behavior.
19. Demonstrate knowledge of the functions of a medical office.
20. Relate the importance of math to the health care delivery system.

Medical/Surgical Nursing I--San Antonio College

Course Objectives:

After completion of this course, the student will be able to:

1. Analyze the commonalities and differences of health problems for children and adults.
2. Evaluate the individual's adaptive patterns to conserve energy; and structural, personal, and social integrity.
3. Utilize the nursing process in providing comprehensive nursing care for patients in all developmental stages.
4. Establish priorities in implementing nursing care.
5. Perform nursing skills necessary to provide safe care for patients of all ages.
6. Correlate therapeutic modalities to disturbances of homeorhesis.
7. Assist the patient and family to adapt holistically to the environment.
8. View self as an effective member of the health care team.

Objectives for one unit:

1. Discuss diagnostic tests utilized in identification of neurological dysfunction and the nursing implications for those tests.
2. Discuss etiology, signs and symptoms, and treatment of right and left hemisphere hemorrhage, thrombosis, and embolism.
3. Formulate a plan of care to maximize adaptation for the patient with a cerebrovascular accident (acute phase).
4. Formulate a plan of care to assist the patient and family to cope with the emotional lability accompanying cerebral vascular accident.

5. Formulate a plan of care to assist a patient in setting realistic rehabilitation goals following a cerebral vascular accident.
6. Identify factors that may occur during the prenatal period, birth process, and postnatal period that may result in cerebral palsy.
7. Identify behaviors, which children might exhibit during infancy and childhood, that may indicate cerebral palsy.
8. Describe the characteristics of the different types of cerebral palsy.
9. Discuss the treatment modalities utilized for a child with cerebral palsy.
10. Plan initial, intermediate, and long-term nursing care for a child with cerebral palsy.
11. Differentiate between primary and secondary epilepsy.
12. Compare and contrast signs and symptoms of types of epileptic seizures.
13. Prioritize nursing actions for an adult or child having a convulsion and state the rationale for each action.
14. Plan nursing actions to assist a patient and family in coping with the stigma of epilepsy or cerebral palsy.
15. Describe the etiology, signs and symptoms, and medical treatment for the following neurological conditions; multiple sclerosis, myasthenia gravis, Parkinson's disease.
16. Formulate a plan of care for a patient with the following neurological conditions: multiple sclerosis, myasthenia gravis, Parkinson's disease.
17. Describe the therapeutic modalities commonly utilized to treat neurological conditions.

#### Maternal/Child Nursing--Incarnate Word College

##### Central Objective:

Utilizing a general concept of nursing and articulating knowledge from the behavioral, natural, and medical sciences, the student will investigate solutions to nursing problems of individuals in which the ability to engage in self-care or dependent-care is limited by selected health disorders, life cycle events, and developmental state.

Contributory Objectives:

1. Analyze the self-care requisites arising from the following factors and conditions and their diagnostic and treatment modalities.
  - a. selected aspects of hormonal dysfunction
  - b. selected aspects of cell proliferation
  - c. selected aspects of surgical intervention
  - d. selected aspects of the life cycle event of childbearing
  - e. selected aspects of the neonatal state of development
2. Analyze the impact of biological, cultural, religious, and socioeconomical variances upon the individual and/or family's ability to meet selected self-care requisites.
3. Analyze manifestations of psychological stress that may result from selected health disorders or the life cycle event of childbearing.
4. Apply research findings that provide solutions to selected nursing problems.
5. Apply knowledge from nursing, psychosocial, and biophysical sciences to support rationale for therapeutic self-care practices and nursing assistance.
6. Predict the usual range of client agency necessary to meet these self-care requisites.
7. Predict the usual range of nurse agency needed to assist these clients to meet self-care requisites.

PROPOSED OPEN ENTRY/EXIT COMPETENCY-BASED  
NURSING CAREER LADDER MODEL

## PROPOSED OPEN ENTRY/EXIT CURRICULUM MODEL

As previously stated in the purpose and objectives of this project, the project staff members collected and analyzed relevant data from the literature, site visits, telephone conversations, and the entities involved. The proposed open entry/exit competency-based nursing career model is based on those findings. The proposed model allows for mobility at any point along the continuum. Progress is individualized, limited only by availability of course offerings at a given time, or by retention policies of the degree-granting institution.

The following section of the report includes the philosophy, the objectives of the model program, the conceptual framework, and the proposed curriculum model. Table 4 presents a curriculum schema for the High School Health Careers, the LVN, the ADN, and the BSN.

### PHILOSOPHY

The rapid and evolving changes in the health care needs of society dictate that the educational programs of the future be different from those of today. Changes--particularly those related to health care settings, technology, age groups, and health disorders--have implications for curriculum content, clinical learning sites, development of specialized competencies, and opportunity for educational mobility. The goal of the project staff members was to design an articulation model within a conceptual framework that promotes educational mobility and prepares the nurse to competently meet the nursing care needs of society. The design of the conceptual model was influenced by the members' beliefs about the person, society, health, nursing, and nursing education.

The person is a unique and complex biopsychosocial, cultural, and spiritual being who possesses intrinsic dignity and worth. As an integrated being, the person acts and reacts to continuous environmental changes and forces as each strives to attain and maintain optimal levels of health.

The health of the person is individualized and is viewed as changing biopsychosocial, cultural, and spiritual levels of well-being. It is influenced by and encompasses the needs of the person, capabilities, life experiences, and interactions with societal and environmental changes and forces.

Society is an aggregate of individuals, families, groups, and communities that form a complex system. It is characterized by a variety of cultures and subcultures, each with its own traditions, beliefs, and value systems. Society encompasses the social, economic, political, cultural, religious, and environmental changes during reciprocal interactions and relationships.

Nursing is a human service occupation, which throughout history, has evolved its practice in response to societal needs. Education for the occupation of nursing ranges from trades-level (nursing assistant), vocational level (LVN/LPN), technical level (ADN/diploma), professional level (BSN), and graduate work at both the masters and doctoral levels. Human beings, regardless of age or setting, are the recipients of nursing care that has as its goals the promotion, maintenance, and restoration of well-being; illness prevention; and care and support throughout illness and or/the dying process.

Educational preparation for nursing practice is provided in a college or university with collaboration between student and faculty from many disciplines. It is based upon content from the natural sciences, the social sciences, humanities, and nursing. This broad base provides for self-enrichment, the creative use of knowledge in decision-making, and the implementation of skills in practice.

Learning is goal-directed and a life-long process. It is a progressive and cumulative experience that results in measurable and permanent change in behaviors. Faculty promotes student learning by designing a curriculum that emphasizes the concepts and processes identified as essential content for nursing practice and by providing learning experiences that progress from the simple to the complex.

A curriculum for nursing provides for educational mobility through the nursing education system without unnecessary repetition of previous learning experiences. Basic educational preparation for nursing includes mastery of all phases of the nursing process in planning and providing safe, humanistic care focused on the health and well-being of all individuals and of society.

#### CONCEPTUAL FRAMEWORK

The conceptual framework developed for this project is eclectic in nature and draws on the concepts identified in the philosophy. Those concepts are: nursing, nursing education, person, health, environment, nursing process, learning, change, and society. Principles of adult learning were used to interrelate these concepts and to create

relationships among concepts for purposes of curriculum development. Major premises of the curriculum are as follows:

1. Nursing education is a linear process that can begin and end at specified educational points.
2. Nursing process, as an example of a problem-solving process, is applicable throughout the educational process.
3. Adult education requires an individualized educational system to facilitate independence and critical thinking.
4. The study of nursing focuses on interactions and relationships between the person and the environment in relation to health and nursing.
5. Nursing is a human service that includes illness, wellness, and support care for individuals, families, groups, and communities in a variety of practice settings.

Definitions of major concepts were selected for the purpose of this project. Concepts and the corresponding conceptual definitions include:

**CHANGE**--To make different; to transform or convert.

**ENVIRONMENT**--The aggregate of surrounding things, conditions, or influences. The arena within which nurse and patient interact.

**HEALTH**--Changing biopsychosocial, cultural, and spiritual levels of well-being.

**LEARNING**--A progressive and cumulative experience resulting in measurable and permanent change in behaviors.

**NURSING**--Nursing is the action, performed by a nurse, for a person with a particular need who is located in a particular setting (Yura & Walsh, 1973, p. 17).

**NURSING EDUCATION**--The formal acquiring of nursing-related general education and nursing knowledge and skills that occurs in a college or university. Nursing education is based on a foundation from the natural sciences, social sciences, and humanities. Nursing curriculum emphasizes the concepts and processes identified as essential content for nursing practice.

**PERSON**--A unique and complex biopsychosocial, cultural, and spiritual being who possesses intrinsic dignity and worth.

PRE-NURSING--The formal acquiring of knowledge and skills foundational to nursing that occurs in the high school.

PROFESSIONAL NURSE--A registered nurse who is a graduate of a baccalaureate nursing program.

SOCIETY--An aggregate of individuals, families, groups, and communities forming a complex system.

TECHNICAL NURSE--A registered nurse who is a graduate of an associate degree nursing program.

Interrelationships developed among the concepts include:

1. Nursing education:
  - foundation for practice
  - a linear process
  - based on/around nursing process
  - to produce professional/technical nurse
  - continual process allows career mobility
2. Nursing process is the structural focus for the nursing educational curriculum. The application of nursing process varies, depending on the curriculum and the program's conceptual framework.
3. High school education in the magnet health careers high schools provides a pre-nursing base for students who continue with a college/university-based nursing program.

#### OBJECTIVES OF THE PROPOSED MODEL

1. Deliver nursing care that attends to the biopsychosocial, cultural, and spiritual needs of all clients of nursing.
2. Demonstrate through nursing practice a broad base of knowledge of the environmental changes and forces affecting the health status of clients as they strive to maintain optimal levels of health.
3. Demonstrate an awareness of the socioenomic, political, cultural, religious, and environmental influences on the present and future practice of nursing.
4. Utilize theoretical and empirical knowledge from the natural and social sciences and the humanities with nursing theory and practice.

5. Utilize effective communication skills to collaborate with the client system and members of the interdisciplinary health team to assist in the promotion of optimal states of health for all clients of nursing.
6. Utilize the nursing process to assess the health status and health potential of all clients throughout the life cycle; mutually plan, implement, and evaluate nursing care for the individual, family, group, or community client.
7. Evaluate research findings to determine their applicability to nursing practice and improvement of client care.
8. Accept individual responsibility and accountability for nursing practice in a variety of roles and diverse settings.
9. Utilize management-leadership skills through involvement with others in identifying community and societal health needs and in designing nursing care to meet those needs.
10. Engage in continuing development of the self as a person and as a professional.
11. Practice nursing within the domains of professional standards, client rights, and legal statutes.

#### VALIDATION OF PREVIOUS LEARNING

As stated in the philosophy and the conceptual framework the project staff members support the position that a multiple entry/exit nursing education program builds upon the knowledge base and skills attained in a lower division nursing program, or at a lower educational level. The staff members recognize that some educational requirements may vary depending on the degree-granting institution; however, the concept of multiple entry/exit curriculum is applicable for all nursing programs. In fact, the members consider the concept of acknowledging previous education and clinical experience of vital importance to the success of unifying and coordinating the various types and levels of nursing programs in Texas. The project staff members recommend that students be given the opportunity to earn many credit hours through validation of previous learning and/or by transfer of credit (in equivalent courses) from other accredited academic institutions. Recommendations concerning credit transfer and/or validation of previous learning for the high

school health careers, the LVN, the ADN, and the diploma graduates are described in the following paragraphs.

### Health Careers High School

The review of the literature was not very productive in reporting existing mechanisms for facilitating validation of previous learning or providing transfer credit for courses taken at the high school level. The project staff members recommend that high schools, together with colleges and universities establish mechanisms to ensure such facilitation. In addition, the members recommend that an examination using a standard technique, such as the NLN Nursing Mobility Profiles I and II (NLN, 1983,1987) be developed to validate nursing knowledge acquired at the high school level.

### Licensed Vocational Nurse

The project staff members acknowledge that many individuals who have completed or are participating in a hospital-based, private school, or college LVN/LPN program have the potential and motivation to succeed at a higher educational level. RECOMMENDATIONS from the project staff members include the following:

1. Develop an articulation system between the local LVN/LPN programs and the community colleges/universities.
2. Expedite the process of moving all current LVN/LPN program course work into a college or university system (allowing for transfer of credit).
3. Colleges/universities grant transfer credit for equivalent courses taken at other accredited academic institutions.
4. Graduates who have passed the National Council Licensure Examination for Licensed Practical Nurses (NCLEX-LPN) be given the opportunity to earn transfer credit by examination. The amount of credit be arranged on a local and individual basis. For standardization of examination technique, the National League for Nursing Mobility Profile I be utilized.

### Diploma Registered Nurse

1. Develop an articulation system between the local diploma programs and the community colleges/universities.
2. Expedite the process of moving all current diploma program course work into a college or university system (allowing for transfer of credit).

3. Colleges/universities grant transfer credit for equivalent courses taken at other accredited academic institutions.
4. Graduates who have passed the National Council Licensure Examination for Registered Nurses (NCLEX-RN) and who are currently registered nurses in the State of Texas be given the opportunity to earn transfer credit by examination. The amount of credit should be arranged on a local and individual basis. However, the diploma graduate should be given the opportunity to validate course work common for the technical (AD) level of nursing knowledge and skills. For standardization of examination technique, the National League for Nursing Mobility Profile II be utilized.

#### Associate Degree Nurse

The project staff members recommend that the Coordinating Board disseminate a curriculum model upon which all nursing programs in the State of Texas are based. After standardization, the members recommend that Associate Degree Nurse graduates (from an accredited college or university) be allowed direct transfer of credit into a baccalaureate degree in nursing program. Until such a date, recommendations are as follows:

1. Colleges and universities develop articulation programs allowing for direct transfer of credit and avoiding repetition of previous learning.
2. For institutions requiring validation of previous learning, the National League for Nursing Mobility Profile II be utilized.

#### National League for Nursing Examinations

The National League for Nursing Mobility Profiles I and II (NLN, 1983, 1987) are nationally standardized examinations for licensed vocational nurses seeking placement in associate degree nursing programs and for registered nurses seeking placement in baccalaureate degree nursing programs. The profiles are designed to evaluate previous learning and experience and to provide the higher degree granting institution with a mechanism for awarding transfer credit toward the respective degrees.

Mobility Profile I examines the licensed vocational applicant's knowledge in three basic areas:

1. Foundations of nursing. Includes content related to nursing care to meet basic physiological and psychosocial needs.
2. Nursing care during childbearing.
3. Nursing care of the child.

Mobility Profile II examines the registered nurse applicant's knowledge in four areas:

1. Care of the adult client.
2. Care of the child.
3. Care of the client during childbearing.
4. Care of the client with mental disorder.

Questions on the Profiles are representative of health problems commonly encountered in the respective areas of nursing practice and reflect content taught in associate and baccalaureate nursing programs. Emphasis is placed on normal findings, deviations from the normal, treatment modalities, and nursing interventions. There is a National League for Nursing guide that assists students in preparing for the examination.

#### RECOMMENDED CURRICULUM REQUIREMENTS

In order to facilitate career mobility for nurses in Texas the project staff members propose a transition multiple entry/exit program focusing on integration of the students' previous knowledge base within the confines of standardized and quality education and practice. Table 4 presents the overall curriculum schema listing the proposed requirements for the degree(s) and the order in which the courses are taken. Following the table, each proposed course is briefly described.

TABLE 4  
CURRICULUM SCHEMA

General Education Requirements (LVN)	Semester Hours
English.....	3
Chemistry.....	3
Introduction to Psychology.....	3
Developmental Psychology.....	3
Human Anatomy and Physiology.....	6
Nutrition.....	3
 SUBTOTAL	 <hr style="width: 10%; margin-left: auto; margin-right: 0;"/> 21

General Education Requirements (ADN & BSN)	Semester Hours
* English.....	6
* General Chemistry.....	3
* Introduction to Psychology.....	3
* Developmental Psychology.....	3
* Introduction to Sociology.....	3
* Human Anatomy and Physiology.....	6
* Microbiology.....	4
* Nutrition.....	3
** United States History.....	6
* Texas and United States Government (3 @ ADN level)...	6
Mathematics (Statistics).....	3
Literature.....	3
Computer Literacy.....	3
Physical Education.....	2
Electives.....	6
 AD Level--31	 <hr style="width: 10%; margin-left: auto; margin-right: 0;"/> 60

\*Pre-requisites for admission to AD and BSN Levels

\*\*State legislative requirements for graduation from a state college or university.

General education requirements may vary depending on degree-granting college or university.

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**High School Health Careers Pre-Nursing Requirements**


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Psychology  
 Sociology  
 Child Growth and Development  
 Human Anatomy and Physiology  
 Chemistry  
 Health Careers Exploration  
 Health Care Science  
 Patient Care Services  
 Patient Care Skills Laboratory  
 Patient Care Skills Internship

**NOTE:** Above in addition to requirements for high school diploma

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**LVN Level Nursing Requirements** **Semester Hours**


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Vocational Nursing: Concepts and Processes.....	2
Fundamentals in Nursing: Concepts and Technologies.....	4
Introduction to Pharmacology.....	1
Medical-Surgical Nursing I.....	6
Nursing Care of Child-Bearing Family.....	6
Introduction to Child Health Nursing.....	2
Introduction to Mental Health Nursing.....	2
LVN Advanced Skills and Practices.....	3
 SUB TOTAL	26
GRAND TOTAL	47

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**ADN Level Nursing Requirements** **Semester Hours**


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Technical Nursing: Concepts and Processes.....	3
Fundamentals in Nursing: Concepts and Technologies.....	4
Introduction to Pharmacology.....	1
Nursing Roles: Associate Degree Nursing.....	2
Medical-Surgical Nursing I.....	6
Medical-Surgical Nursing II.....	4
Mental Health Nursing.....	4
Nursing Care of Child-Bearing Family.....	6
Child Health Nursing.....	4
 SUB TOTAL	34
GRAND TOTAL	65

<u>BSN Level Nursing Requirements</u>	<u>Semester Hours</u>
Professional Nursing: Concepts and Processes.....	3
Psychosociocultural Components of Health.....	3
Health Promotion throughout the Life Cycle.....	4
Pathophysiology: Advanced.....	4
Health Assessment.....	3
Issues in Nursing.....	2
Research in Nursing.....	3
Community Health Nursing.....	4
Professional Nursing: Leadership and Management.....	5
Elective.....	3
 SUB TOTAL	 34
GRAND TOTAL	128

## OVERVIEW OF COURSE DESCRIPTIONS

### LVN, ADN, BSN General Educational Requirements

English--Study of the principles of correct and effective oral and written standard English expression. Extensive practice for the development of reading and writing skills.

General Chemistry (with lab)--Fundamental principles of organic and inorganic chemistry; modern atomic theory, chemical bonding, states of matter, solutions, stoichiometry, other topics and selected laboratory material.

Introduction to Psychology--The principles of behavior and variables that affect behavior. Topics include history and systems, scientific methods, the biological foundations of behavior, perception, learning, memory, motivation, emotion, development, and personality.

Developmental Psychology--Maturational, social, emotional, cognitive, neurological, perceptual, sexual, and conditioning factors in human development.

Introduction to Sociology--Designed to achieve insights into the development and working of society. Includes cultural factors underlying social change, social organization, socialization, stratification, social institutions, and social issues.

Biology (Human Anatomy and Physiology with lab)--The gross structure and functions of the human organism. The laboratory component serves to clarify material from the corresponding lectures.

Microbiology (with lab)--Morphology, metabolism (bioenergetics and biosynthesis), immune response, and pathogenicity of viruses, bacteria, and fungi. Laboratory applications on concepts covered in the lecture.

Nutrition--Principles of normal nutrition. Nutritional needs throughout the life cycle, including major nutritional problems; the relation of nutrition to mental and physical development; food habits and the cultural, social, and psychological influences upon them.

History of the United States I--A general survey of United States history from the discovery of America through the Civil War era.

History of the United States II--A general survey of United States history from the Civil War era to the present.

American Government I (National, State, and Local)--Comparison of Texas and U. S. Constitutions, federalism, citizenship, voting, and local government with emphasis of Texas (if the degree-granting institution is a State college or university system this course must be taken before the student is permitted to graduate at the Associate Degree level).

American Government II--A general survey of American government covering the theories and concepts of government, politics, political opinion, parties, human rights, problems, and functions of national, state, and local government (if the degree-granting institution is a State college or university system this course and the one described above must be taken before the student is permitted to graduate at the baccalaureate level).

Statistics--Introduction to probability theory, techniques of statistical inference including sampling theory, estimation procedures, and hypothesis testing.

Literature--Study of the masterpieces of classical, medieval, and modern periods.

Computer Literacy--Study of the computer and its social impact with emphasis on microcomputers in the home and business applications. Specific topics to include system capabilities and limitations; evaluation, selection, and use of hardware and software; and an introduction to computer programming in BASIC.

Physical Education--Constructive health habit formulation and knowledge of fitness procedures, life-long fitness, and recreation; and knowledge and appreciation of physical activity.

### Nursing Educational Requirements

#### High School Health Careers

Health Careers Exploration--Provides the student with information that will facilitate career decision-making during and after high school. Helps develop a complete understanding of the life of a person dedicated to the world of science, health, and service to human beings.

Health Care Science--Assists the student to develop competencies needed to make educated decisions about career goals. Includes content such as attitude development, medical terminology, patient management, dosages and solutions, metrics, interpersonal relationships, communication, and nutrition.

Patient Care Services--Includes basic skills necessary for employment in a hospital, nursing home, physician's office, and/or clinic. Higher level skills relating to patients with disorders in a particular body system, as well as basics of observation, sterilization, and medication are included.

Patient Care Skills Laboratory--Opportunity to practice basic patient care skills in a campus laboratory setting.

Patient Care Skills Laboratory--Opportunity to practice basic patient care skills and interact with clients, families, and other members of the health care team in a patient care setting.

NOTE: The health careers curriculum was designed to provide the high school graduate with a preparatory foundation for entrance into a health career field. The possibility exists for the student to exit at this point, prepared for employment at the nursing assistant level.

### Vocational Nursing Curriculum

Vocational Nursing: Concepts and Processes--An introduction to the roles, functions, and responsibilities of a licensed vocational nurse (LVN). Topics include the historical developments in nursing; contemporary legal, ethical, moral, and educational concerns; roles of the LVN; and personal and professional development of the self.

Fundamentals in Nursing: Concepts and Technologies (Theory: 2 semester hours; Practicum: 2 semester hours)--An introduction to the concepts of nursing as a human assisting service within the health care system. It provides the student the foundational body of knowledge describing the dimensions of nursing as a practice discipline. Additionally, it prepares the student to utilize the nursing process. Selected psychomotor and communication skills required in fulfilling various nursing roles are presented theoretically and practiced in an on-campus laboratory.

Introduction to Pharmacology--Introduction to the basic principles of pharmacology. Emphasis is placed on examining the essential therapeutic actions of medications, pharmaceutical classifications, and the standard measurement systems used in dosage calculations.

Medical-Surgical Nursing I (Theory: 3 semester hours, Practicum: 3 semester hours)--Emphasis is placed on utilization of the nursing process for adults who are experiencing acute non-life-threatening, chronic stable, or chronic exacerbating health deviations. Includes concepts of anxiety, stress, chronicity, immobility, pain, and health problems arising from alterations in major biological systems. Clinical correlations focus on application of the concepts covered in theory with adult clients in a hospital setting.

Nursing Care of the Child Bearing Family (Theory: 3 semester hours; Practicum: 3 semester hours)--Focus is on nursing interventions facilitating client and family needs in relation to the life cycle event of childbearing and the neonatal stage of development. Includes normal and complicated pregnancy and family dynamics. Practicum is provided in the campus laboratory, in the labor and delivery suite, post-partum unit, and the normal newborn nursery.

Introduction to Child-Health Nursing (Theory: 1 semester hour; Practicum: 1 semester)--An introduction to the role of the LVN in the nursing care of children experiencing non-life-threatening or "common" illnesses. Clinical component applies the knowledge and skills presented in theory.

Introduction to Mental Health Nursing (Theory: 1 semester hour; Practicum: 1 semester)--Designed to introduce the concepts of mental health nursing. Topics include human behavior and its meaning, situational and developmental effects on behavior, awareness of self and others, therapeutic communication techniques, psychic disequilibrium and selected treatments, and application of the nursing process. The practicum provides application of the knowledge and skills presented in theory.

LVN Advanced Skills and Practices (Practicum: 3 semester hours)--Provides for continued clinical practice under the supervision on an instructor. With instructor discretion, the student may be permitted to advance to more complex skills or practice in a selected area.

NOTE: The curriculum for the Vocational Nurse was designed to provide the graduate with the knowledge and skills necessary to practice competent bedside nursing. Emphasis is on the performance of basic skills under the supervision of a registered nurse. The possibility exists for the graduate to exit at this point, prepared for employment at the vocational nurse level.

### Associate Degree Nursing Curriculum

Technical Nursing: Concepts and Processes--An introduction to the roles, functions, and responsibilities of the Associate Degree Nurse (ADN). Topics include historical developments in nursing; contemporary legal, ethical, moral, and educational concerns; roles of the ADN; and personal and professional development of the self.

Fundamentals in Nursing: Concepts and Technologies--as described for LVN.

Introduction to Pharmacology--as described for LVN.

Nursing Roles: Associate Degree--An investigation of the roles and parameters of nursing practice for the ADN. Includes an investigation of the roles as caregiver, organizer, communicator, and a member of the health care team.

Medical-Surgical Nursing I--as described for LVN.

Nursing Care of the Child-F orming Family--as described for LVN.

Medical-Surgical Nursing II (Theory: 2 semester hours; Practicum: 2 semester hours)--Utilization of the nursing process for adults experiencing complex and/or life threatening health problems. Clinical correlations focus on application of the concepts covered in theory with adult clients in a hospital setting.

Mental Health Nursing (Theory: 2 semester hours; Practicum: 2 semester hours)--Provides the theoretical content necessary for utilization of the nursing process in the care of the person experiencing chronic or acute mental health problems. The clinical component provides the student the opportunity to apply the knowledge and skills presented in theory within a mental health facility.

Child Health Nursing (Theory: 2 semester hours; Practicum: 2 semester hours)--Emphasis is placed on theoretical content and utilization of the nursing process for children experiencing acute and chronic deviations in health. Clinical practicum provides the student opportunities to apply knowledge and skills in caring for ill children in a hospital setting.

NOTE: The nursing curriculum for the Associate Degree Nurse was designed to provide the nurse with the knowledge and skills necessary to practice competent technical nursing at the secondary level of nursing. The possibility exists for the graduate to exit at this point, prepared for employment at the associate degree nurse level.

### Baccalaureate Degree Nursing Curriculum

Professional Nursing: Concepts and Processes--A transitional course designed to facilitate the resocialization process for the registered nurse who is returning to the academic setting. The student is introduced to the concepts of the professional nursing role, the nursing process, and the relevance of theoretical approaches to nursing practice. Selected conceptual models in nursing are examined for their applicability to the nursing process. Opportunity to validate previous nursing knowledge and skills is provided.

Psychosociocultural Components of Health--Examines the cultural patterns of diverse populations and the socioeconomic, religious, and other interrelated variables influencing health beliefs, behaviors, and practices. Designed to improve communication and understanding between the professional nurse and the client so that the nurse can assess, plan, implement, and evaluate nursing care that is culture specific and congruent with the client.

Health Promotion Throughout the Life Cycle (Theory: 2 semester hours; Practicum: 2 semester hours)--An overview of the health needs of individuals during each life cycle. Establishes a framework for health promotion and develops a body of knowledge for utilization of the nursing process with essentially well individuals. Major periods covered are childhood, adolescence, adulthood, and senescence. Clinical experiences are provided in day care centers, senior citizen homes, and other ambulatory health promotion settings.

Pathophysiology: Advanced (Theory: 3 semester hours; Practicum: 1 semester hour)--Provides the RN student the opportunity to gain additional knowledge in pathophysiological processes and their impact on body systems, as well as develop skills used in the care of the acutely ill child or adult. The practicum provides the opportunity to utilize the nursing process in the care of the client and the family in an acute care setting.

Health Assessment (Theory: 2 semester hours; Practicum: 1 semester hour)--Emphasis is on acquiring knowledge and skills for a systematic approach to health assessment. Includes the skills for obtaining a comprehensive biopsychosocial, cultural, and spiritual health history, and performing a physical assessment for the adult and child. Learning experiences are structured to provide a conceptual base, practice in a campus laboratory setting, and practice in an ambulatory health care setting.

Issues in Nursing (3 semester hours)--Provides an opportunity to explore current issues and trends in health care the implications for nursing and society. Issues include the historical developments in nursing; contemporary legal, ethical, moral, and educational concerns; emerging roles for nurses; legislation; and others.

Research in Nursing (3 semester hours)--Introduction to the research process, critical analysis of research reports, and the application of research findings to nursing practice. Emphasis is placed on the roles and functions of the nurse as researcher and consumer of research findings.

Community Health Nursing (Theory: 2 semester hours; Practicum: 2 semester hours)--Provides an insight into the delivery of health care when the community is the client. Focus is on the epidemiological approach to identification of community health problems, analysis of community factors influencing the ability to meet health care needs, and community resources available to assist with meeting those needs. Clinical experiences take place in a variety of community primary and tertiary settings.

Professional Nursing: Leadership and Management (Theory: 2 semester hours; Practicum: 3 semester hours)--Focuses on the development of the role of the professional nurse manager. Provides concepts and theories needed for effective management of client care. Introduction to the roles of leader, manager, change agent, staff developer, personnel manager, and advocate. Included are managerial strategies such as organizational methods, conflict resolution, motivation, and evaluation methods. The practicum provides a flexible approach to learning permitting practice of nursing management in a clinical setting of particular interest to the student.

NOTE: The nursing curriculum for the Baccalaureate Degree Nurse was designed to provide the graduate with the knowledge and skills necessary to practice professional nursing at the "generalist" level.

PANEL OF USERS  
PANEL OF EDUCATORS

Due to time constraints, selection of panels of users and educators to review the model was deferred. This review was considered a nonessential component to the development of a RUDIMENTARY model. These panels will be selected for the second phase of the development of the model.

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

## SUMMARY

The purpose of the project was to design an open entry/exit competency-based nursing career ladder model. Included in the report were definitions selected by the project staff members; an introduction and need for the project; the purpose, objectives, and specific steps of the project; elaboration of the specific steps; and a proposed open entry/exit competency-based nursing career ladder model. The model was based on the findings of data collected from site visits, telephone conversations, and enrollees and offerings of the entities involved. Conclusions and recommendations follow.

## CONCLUSIONS

The following conclusions were derived from this project:

1. There is an existing need for articulation.
2. Articulation is feasible from the High School to the Associate Degree to the Baccalaureate.
3. Demographic characteristics of students should be considered when developing a curriculum for articulation.
4. Duplication of effort should be kept at a minimum through validation of previous learning and transfer credit to decrease educational costs and to meet student needs.
5. A curriculum is presented for refinement and ultimately to guide statewide planning for articulation programs in nursing.

## RECOMMENDATIONS

Based on the findings, the project staff members present the following recommendations:

1. Continue with the development of the model--select panels of educators and users to review the model.
2. Refine the model based on recommendations of educators and users.
3. Disseminate the model statewide to education, service, professional, and regulatory agencies.

4. Further refine the model based on statewide recommendations.
5. Disseminate the model statewide as a guide for implementation of articulated nursing programs.
6. Assist/consult with program implementation statewide to develop/revise programs using the proposed articulation model.
7. Implement the model at the local level among the entities involved in the project--Health Careers High School of the Northside Independent School District, San Antonio College, Incarnate Word College.
8. Evaluate the outcomes of the articulation programs.

REFERENCES  
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SELECTED BIBLIOGRAPHY

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- American Association of Colleges of Nursing. (1986). Essentials of college and university education for professional nursing. Washington, D. C.: Author.
- American Nurses' Association. (1981). Educational preparation for nursing: A source book. Kansas City, MO: Author.
- Arlton, D., & Miller, M. (1987, March). RN to BSN: Advanced placement policies. Paper presented at the American Association of Colleges of Nursing. Washington, DC.
- Austin, B. J. (1984). An alternative management experience for RN-BSN students. Journal of Nursing Education, 29, 204-206.
- Baj, P. A. (1985). Can the generic curriculum function for the returning RN student. Journal of Nursing Education, 24, 69-71.
- Baj, P. A. (1985). Demographic characteristics of RN and generic students: implications for curriculum. Journal of Nursing Education, 24, 230-236.
- Barrell, L. M., & Hamric, A. B. (1986). Education and service: A collaborative model to improve patient care. Nursing and Health Care, 7, 497-503.
- Beaver, K. W., Lynch, S. R., & Micali, J. E. (1980). Practical nursing: Curricula and competencies (Publication No. 38-1820). New York: National League for Nursing.
- Blatchley, M. R., & Stephan, E. (1985). RN students in generic programs: What do we do with them? Journal of Nursing Education, 24, 306-308.
- Borst, B. B., & Walker, W. J. (1986). A locally-based baccalaureate nursing program for registered nurses. Journal of Nursing Education, 25, 168-169.
- Brown, E. L. (1986). The economics of change: Associate degree education today and tomorrow. Nursing & Health Care, 7, 147-150.
- Coordinating Board, Texas College and University System. (1974). Allied health project: A multiple entry and exit curriculum model in nursing (CB Study Paper 19). Austin, TX: Author.

- Field, W. E., Dreher, M., Gallmann, L., & Nicholson, R. (1984). Clinical competencies of baccalaureate students. Journal of Nursing Education, 23, 284-293.
- Forni, P. R. (1986). Changing needs of society and the response of nursing education. Journal of Nursing Education, 25, 258-260.
- George, J. B. (1980). Nursing theories: The base for professional nursing practice. New Jersey: Prentice-Hall.
- Gortner, S. R. (1968). Nursing majors in twelve western universities: A comparison of registered nurse students and basic senior students. Nursing Research, 17, 121-128.
- Gray, J. E., Murray, B. L., Roy, J. F., & Sawyer, J. R. (1977). Do Graduates of technical and professional nursing programs differ in practice? Nursing Research, 26, 368-373.
- Griffith, J. W., & Christenson, P. J. (1982). Nursing process: Application of theories, frameworks, and models. St. Louis: Mosby.
- Hale, S. L. & Boyd, B. T. (1981). Accomodating R.N. students in baccalaureate nursing programs. Nursing Outlook, 29, 535-540.
- Hart, S. E., & Sharp, T. G. (1986). Mobility programs for students and faculty. In S. E. Hart & T. G. Sharp (Eds.), Looking beyond the entry issue: Implications for education and service (Publication No. 41-2173). New York: National League for Nursing.
- Herrscher, B. R. (1984). Competency-based education: A framework for developing competencies in college students. Professional Development Journal, 3, 1-2.
- Institute of Medicine. (1983). Nursing and nursing education: Public policies and private actions. Washington, D. C.: National Academy Press.
- Jobe, M. E. (1986). Designing a curriculum model to facilitate articulation: Secondary to post secondary. American Technical Education Journal. 12-13.
- King, J. E. (1986). A comparative study of adult developmental patterns of RN and generic students in a baccalaureate nursing program. Journal of Nursing Education, 25, 366-371.

- Knowles, M. (1973). The adult learner: A neglected species. Houston: Gulf.
- Kramer, M. (1981). Philosophical foundations of baccalaureate nursing education. Nursing Outlook, 9, 224-228.
- Lange, L. L. (1986). Recruiting, advising, and program planning for RN/BSN students. Western Journal of Nursing Research, 8, 414-430.
- Lenburg, C. B. (Ed.). (1975). Open learning and career mobility in nursing. Saint Louis: Mosby.
- MacLean, R. B., Knoll, G. H., & Kinney, C. K. (1985). The evolution of a baccalaureate program for registered nurse. Journal of Nursing Education, 24, 53-57.
- McCain, N. L. (1985). A test of Cohen's developmental model for professional socialization with baccalaureate nursing students. Journal of Nursing Education, 24, 180-185.
- Micali, J. E. (1980). On the competencies of practical nursing graduates. New York: National League for Nursing.
- Moloney, M. M. (1986). Professionalization of nursing: Current issues and trends. Philadelphia: Lippincott.
- National League for Nursing. (1978). Competencies of the associate degree nurse on entry into practice (Publication No. 23-1731). New York: Author.
- National League for Nursing. (1978). Role and competencies of graduates of diploma programs in nursing (Publication No. 16-1735). New York: Author.
- National League for Nursing. (1980). Baccalaureate nursing education for registered nurses: Issues and approaches (Publication No. 15-1812). New York: Author.
- National League for Nursing. (1982). Competencies of graduates of nursing programs: report of the NLN task force on competencies of graduates of nursing programs. New York: Author.
- National League for Nursing. (1983). Nursing mobility profile I: Information bulletin. New York: Author.
- National League for Nursing. (1987). Nursing mobility profile II: Information bulletin. New York: Author.

- Perkins, J. (1983). Associate degree education: Are the parameters real? Southern Regional Educational Board (SREB), 9, 1-6.
- Peterson, C. J., Broderick, M. E., Demarest, L., & Holey, L. (1979). Competency-based curriculum and instruction. New York: National League for Nursing.
- Queen, P. S. (1984). Resocializing the degree-seeking RN: A curriculum thread. Journal of Nursing Education, 23, 351-353.
- Richardson, Sharon. (1986). Articulation and baccalaureate entry to practice; The Canadian context. Nursing Papers, 18(3), 47-58.
- Rosenfeld, P. (1987). Nursing student census with policy implications 1986 (Publication No. 19-2175). New York: National League for Nursing.
- Ryan, M. C. (1985). Assimilating the learning needs of RN students into the clinical practicum. Journal of Nursing Education, 24, 128-130.
- Scales, F. S. (1985). Nursing curriculum: Development, structure, function. Norwalk, CT: Appleton-Century-Crofts.
- Seyler, S., Morgan, B., Datillo, J., & Luke, C. S., (1984). RNs in an integrated curriculum: credit by competency examination. Journal of Nursing Education, 23, 169-171.
- Southern Regional Education Board. (1985). Creative alternatives within existing frameworks of clinical instruction. SREB, 8, 1-20.
- Stevens, B. J. (1979). Nursing Theory. Boston: Little, Brown.
- Sullivan, E. (1984). The registered nurse baccalaureate student: Different at entry; different at exit. Journal of Nursing Education, 3, 6-15.
- Sullivan, E., Brye, C., Koch, C., Olson, J., & Shabel, W. R. (1984). RN to BSN: A quality alternative program. Journal of Nursing Education, 23, 156-158.
- Sweeney, M. A., Hedstrom, B., O'Malley, P., & Regan, P. (1980). Essential skills for baccalaureate graduates: Perspectives of education and service. Journal of Nursing Administration, 10 (10), 37-44.

- Texas Nurses' Association. (1987). 'Entry-level planning document' in development. Texas Nursing, 3, 6-15.
- Tiffany, J. C. & Birson. J. Z. (1986). Baccalaureate nursing education at extension sites: A survey. Journal of Nursing Education, 25, 124-126.
- Thomas, K. J., & Thomas, H. K. (1987). Legislated articulation of credits: Initial impact on mandated career upward mobility in Arkansas nursing programs. Journal of Nursing Education, 27, 78-80.
- Warmbrod, C., & Long, J. (1986). College bound or bust: Ten principles for articulation. American Association of Community & Junior Colleges Journal, 29-31.
- Waters, V., & Limon, S. (1987). Competencies of the associate degree nurse: Valid definers of entry level nursing practice (Publication No. 23-2172). New York: National League for Nursing.
- Whelan, E. G. (1984). Role orientation change among RNs in an upper-division level baccalaureate program. Journal of Nursing Education, 23, 151-155.
- Yura, H., & Walsh M. (1973). The nursing process: Assessing, planning, implementing, evaluating (2nd ed.). New York: Appleton-Century-Crofts.
- Young, W. B. (1987). Introduction to nursing concepts. Norwalk, CT: Appleton & Lange.
- Zorn, J. (1980). A research profile of today's baccalaureate nursing student. The Journal of Continuing Education in Nursing, 27, 78-80.
- Zusy, M. L. (1986). RN to BSN: Fitting the pieces together. American Journal of Nursing, 86, 394-397.