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ABSTRACT This report, resulting from a project to develop a health occupations teacher education program (HOTEP) within the University of Wisconsin system, is presented in five sections and contains data and materials providing evidence to support the need for such a program. Section I discusses national health care needs and trends. Some existing HOTEPs are described in Section II. Colleges and universities giving information on their present programs included details pertaining to types of degrees and course offerings. Section III presents an estimate of the need for teachers of health occupations education at the secondary and postsecondary levels of instruction, along with a statement of the need for health care workers. Potential financing for HOTEP is discussed in Section IV, and recommendations and suggestions for the program are listed in Section V. Statistical data on Wisconsin health care education and employment are appended. (MF)

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Summary of Findings, Conclusions and Recommendations

for

Project No.
19-003-155-135

Health Occupations Teacher Education Planning

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The Center for Studies in Vocational and Technical Education
University of Wisconsin - Madison

June 30, 1975

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PREFACE

The problem of securing teachers to provide instruction in health occupations education is not a new one. Such need is being experienced nationally and, as a result, many programs to provide educational opportunities for the training of such personnel have been established. New programs continue to evolve across the country as this need for health occupations teachers becomes critical to the ever increasing demand for well trained health workers. Both the Wisconsin Board of Vocational, Technical and Adult Education and the Department of Public Instruction are presently experiencing such a need for these kinds of teachers. As a result of this need, this project was supported by a small grant from the Wisconsin Board of Vocational, Technical and Adult Education. Its purpose was to evaluate the need for pre-service teacher education programs to train persons for teaching in the health occupations areas in Wisconsin and to recommend procedures to implement such a program dimension within the University of Wisconsin System if such need were demonstrated.

An ad hoc planning committee was formed with representation from the University of Wisconsin-Madison, the Wisconsin State Board of Vocational, Technical and Adult Education, and the Department of Public Instruction. Members of this committee were: Ruel Falk, Director, Bureau for Career and Manpower Development, Department of Public Instruction; Frank Larson, Acting Dean, School of Allied Health; John R. Palmer, Dean, School of Education; Valencia N. Prock, Dean, School of Nursing; Harland Samson, former Chairman, Department of Continuing and Vocational Education, School of Education and present Associate Dean of the School of Education; Camilla

Schloemer, Health Occupations Consultant, Wisconsin State Board of Vocational, Technical and Adult Education; Sigurd R. Sivertson, Assistant Dean, School of Medicine; and Warren Southworth, Professor, Health Sciences, School of Education. Their support of this project and their active participation illustrate their concern for the establishment of meaningful programs for the University of Wisconsin System. Also appreciated are the efforts extended by those who contributed to the information gathered and to the data used in this report. A special thanks is extended to the principal investigator, Marion E. Franken, for collecting, analyzing and writing this final report as well as for her activities involving various coordinating procedures.

Merle E. Strong, Director
Center for Studies in Vocational
and Technical Education

INTRODUCTION

This project was designed to determine the need for pre-service teacher education programs to train personnel for teaching in the health occupations areas within public secondary schools and vocational, technical and adult post-secondary schools. For purposes of this project, health occupations will include those areas known as nursing and allied health.

The principal goal of this project was to develop alternative strategies and initial plans for the development of a health occupations teacher education program within the University of Wisconsin System. To accomplish this, certain specific objectives were met: data was collected and analyzed which was thought relevant to the general and specific needs for a health occupations teacher education program. Possible financial resources were investigated and reported. Alternative strategies for the development and implementation of such a program were identified and recommendations were jointly made pursuant to this effort by the committee established who monitored the processes and progress of this report.

As a result of this project, it is hoped that a contribution can be made to increasing the number of qualified health occupations teachers in Wisconsin and that they will become available for the ever expanding enrollments in health occupations preparation. Secondly, it is hoped that society's needs for better and more equitably distributed health care services will be more completely satisfied. It is also desired that a planning grant be facilitated to provide logical, valid and detailed plans for the development and implementation of a health occupations teacher education program.

Such planning would result in a realistic and equitable distribution of course offerings leading to certification of instructors for secondary and post-secondary instructors in the state. The resultant effect of this program would then ultimately expand and improve existing programs at this level and would tend to lead to the development of new programs for the developing and emerging health occupations of the future.

The total effect of this program at the university level would then markedly contribute to the improvement of health care delivery systems for all of the citizens of the State of Wisconsin.

METHODOLOGY

Initially an ad hoc advisory committee was formed composed of representatives from the Wisconsin State Board of Vocational, Technical and Adult Education, the Wisconsin Department of Public Instruction and faculty members from the University of Wisconsin-Madison who, it was thought, could most appropriately lend their individual expertise to the impending project.

In order to meet the objective of the proposal, data and materials were collected from a variety of sources. Those sources, providing appropriate evidence to support the need for a Health Occupation Teacher Education Program, have been cited and directly credited throughout the body of the text. After careful consideration of the evidence expressed in the report, recommendations and suggestions were written. These were approved by the ad hoc advisory committee members.

Section I

This section deals with national health care needs and trends and was prepared with few references to published documents. Rather, the statements made have been the observations of this writer who has had direct experience in the health care field as a medical technologist and who has read and attended conferences and workshops related to health occupations and health care trends within the past two years.

Section II

In an effort to provide information concerning current Health Occupation Teacher Education Programs existing in the nation, the colleges and universities cited in this section were contacted directly by phone and were asked to send information regarding their present programs. A short synopsis of each school's program is provided preceding the more detailed program information. However, since strategies of an operational nature were requested, such things as entrance requirements and specific details pertaining to the types of degrees and course offerings were included.

Section III

Since one of the main concerns of the ad hoc committee and to future planners and implementors of a Health Occupation Teacher Education Program within the University of Wisconsin System was documentation of health occupation teacher needs, this section addressed itself to expressing such needs. Persons working directly with health occupation programs were contacted to submit information regarding existing programs, the prospect of developing programs, and programs of future interest. They were asked to submit information regarding the past two years of their on-going programs (i.e. class enrollments, graduates, full-time teachers, full-time personnel, part-time teachers, certification and provisionally certified teachers). In an effort to be democratic, they were asked their opinions as to where a HOTEPE program should be located within the University of Wisconsin System and the reasons for their choice. This information provided by the 16 V.T.A.E. District Health Occupation Directors is of central importance to the report.

Section IV

Any new program dimension adopted by a university system must be funded. In an effort to find possible financing for a Health Occupation Teacher Education Program, initial contacts in Washington, D.C. were suggested by a V.T.A.E. staff member who works with this aspect of management. The initial contacts suggested still other agencies of the Federal Government which may be of some assistance in the future.

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NATIONAL HEALTH CARE NEEDS AND TRENDS

As we approach the 1980's, projections indicate that we will experience a new and hopefully improved type of health care delivery. With the prospect of some type of national health insurance, health care will be for all citizens and will ideally be available to all peoples within the United States. To accomplish this ideal, most certainly one of the first prerequisites must be the economic reality of being able to afford such services as a consumer. To accomplish the delivery of health care on such a vast scale, however, it will require the training of increased numbers of health workers and, more importantly, the distribution of these trained individuals to all areas of the country so that, indeed, all citizens may share in the right to modern medical care.

Presently it is fairly common knowledge that there are many areas in our nation where health care is inadequate or completely lacking. Those areas most often cited are the slums of our nation's large metropolitan centers, rural America, large sections of Appalachia and regions which are in general remote from the medical training centers usually located in the more dense population areas. It is said that even now some suburban communities are experiencing the effects of unavailability of medical care. Modern medical care for so many is simply not a reality.

The omission of proper planning and implementation of services, limited by appropriations for such procedures, takes its toll on the too often neglected poor who should expect to share in the rights of citizenship. Increasingly, the concept of health care is being looked upon as just such a right.

The need for trained physicians in this country has existed for years. This need continues today as it can be witnessed that there is an annual influx of foreign physicians entering this country. While their services are needed here and are welcomed it is perhaps appropriate to reflect on the people who are being deprived of health care from whence these doctors come. The word *humanitarian* does not seem appropriate to describe such proceedings.

Medical schools have become more numerous in the past thirty years, but not dramatically so. Class limitations continue to restrict those who could be trained and become dedicated practitioners. There are undoubtedly many reasons for such restrictions. However, when done in the name of quality medicine, it seems to this writer to be undesirable. What has occurred because of this restriction in medical school class size is a population of well paid overworked men. For, only recently has the profession welcomed women in any meaningful percentage.

The body of humanity these physicians tend to aid is usually near centers of quality medical care. This is where training takes place and consequently doctors come to rely on the best of facilities and that professional interaction which leads to accurate diagnosis and the best treatment available.

The Federal Government has realized that many citizens find medical care wanting. Because of this, medical students have been provided loans and in some cases these loans have been forgiven in part or in total to those physicians who would practice in areas lacking sufficient medical health care delivery. At the state level, all citizens should share as recipients of medical care since they are

contributors to tax supported public university systems where much of the medical training of the nation takes place. Many young physicians attempt to go to remote areas to practice, but too many of them do not remain. Perhaps a contributing factor to the decision to leave is a lack of stimulating social interaction in addition to the lack of modern facilities, equipment and technologies already mentioned. It therefore seems reasonable to conclude that innovative methods of health care delivery must be established to provide for the demand and need of medical care if health care is indeed a right.

Professional health care workers are being asked to make a commitment to practice in areas deficient or lacking in medical care before they are admitted to programs in institutions of higher education. Because of great need, persons with less than full physician status are being trained to serve in these areas and are actually diagnosing and treating certain maladies. While this may not be common practice, it does exist in some regions of the United States. Nurse practitioners are being trained for just such purposes. Such need in our own State of Wisconsin exists. This is substantiated by the attitude expressed in the Final Report on Health Occupations Education Programs in the Wisconsin System of Vocational, Technical and Adult Education prepared by Camilla R. Schloemer, Ph.D., R.N. and Martha Hoffmaster, OTR in 1974:

Program objectives which embrace the concept of outreach and mobility, within each district, relating to planning and utilization of appropriate clinical experiences for students, encourage them, upon graduation to consider practicing where a real need for service exists.

Out of necessity to serve those who need health care, new occupations are continually being created. As new advances are made in medicine,



1-4

technologies develop which give rise to still more occupations. Because of rising costs in medical care and the number of patients who must be seen and treated, physicians are giving over some tasks to the teams of medical personnel trained to perform certain tasks with competence. Many occupations will be of a highly specialized nature and will require the type of person, as teacher, who possesses certain professional competencies and the ability to pass these competencies on to others in an effective manner.

It has been accepted as a matter of tradition to allow persons to teach who have earned certain degrees. The degree itself implied competence in a subject area. This criteria, in fact, has existed for years in choosing teachers to instruct in institutions of higher education. Vocational education, on the other hand, has traditionally placed emphasis on competence and experience rather than on the degree one might possess in any specific service area. However, neither the competence nor the experience a person may have is a guarantee that the person hired to teach can actually do so effectively. It would seem that what is needed then is a meld of the competence and experience in a subject area and the ability to transmit this knowledge of subject to students in an effective manner. Recently, certain professional schools in institutions of higher learning have given much attention to this fact. Some have revised their curriculum and have given attention to better preparation of their instructors, more specifically, to their ability to teach.

Career and vocational education continue to expand in both secondary and post-secondary institutions of education. As new and emerging occupations present themselves, they will for the most part probably be

taught within these institutions. Many of the new occupations in health care delivery require much specialization, yet, require a comparatively short period of time in actual training preparation. This would then seem to indicate that those persons who have these specialties are often less than college graduates.

Nationally states vary as to their requirements for certification of teaching personnel within secondary and post-secondary institutions of learning. In Wisconsin, the Wisconsin State Board of Vocational, Technical and Adult Education (VTAE) is quite specific as to the educational course requirements of their full time teaching personnel. Their two-year provisional certificate requirements for full time instructional staff indicate a Bachelors Degree or equivalent. Their occupational subject teachers are to have 12 months as fully qualified workers in each training area. A five-year certificate for full time personnel requires 24 months as a fully qualified worker in each instructional area of their occupational subject. In addition, specific education course requirements exist as follows: Philosophy of VTAE in Wisconsin, 2 cr.; Teaching Methods, 2 cr.; Curriculum or Course Construction, 2 cr.; Educational Evaluation, 2 cr.; Guidance and Counseling, 2 cr.; and a Bachelors Degree or equivalent.

What becomes apparent is that less than degreed health occupation specialists would, if they became educators in secondary and post-secondary schools, require undergraduate courses in education. They would seek an undergraduate degree in education as the specific degree if it were available to them. As an example one could take the case of an R.N. who has experience in the nursing field and desires to teach or to administrate

in one of the district vocational districts. This person could become provisionally certified for a full-time position, but would have to leave the system if he or she could not earn a degree. The degree most desired, seemingly, would be one in post-secondary education since this is the work the person has chosen.

In contrast to this is the degreed health professional who might desire a similar teaching position, but in a more complex or more advanced occupational specialty. Such a person would most likely seek a graduate degree in education in addition to the existing medically related competencies and experience.

Some may be traditional enough to believe that our degreed health occupation professionals can teach all the new and emergent specialties. However, because of some of the unique specialties, it may be more advantageous and more economical if some of these specialties were passed on from non-degreed personnel (i.e., ~~non-degreed in their health occupation specialty~~). A cytotechnologist for instance would be taught by a pathologist or a medical technologist who holds a specialty in that area. A cytotechnologist would, with the proper teaching credentials, teach others to view slides and look for abnormal cells and that person could become a cytology technician. If a "ladder concept" were adopted, this person might eventually be able to become a cytotechnologist with further training by other professionals in that field.

The point to be made, however, is that both undergraduate and graduate degrees need to be offered in education to prepare teachers who have specific health occupation specialties. While this represents the body of persons who must be instructed to become educators, the question that

remains to be answered is: Where does this responsibility for training of health occupation teachers lie?

As cited from a document entitled "The Preparation of Teachers for Vocational Education" by Gordon I. Swanson, Ph.D. in a Project Baseline Supplemental Report dated September 30, 1974, there is agreement that teacher education for vocational education in the health areas have expanded markedly, from a figure of 3,429 in 1965 to 14,552 in 1972. He goes on to state the following:

Vocational teacher education program quality is a matter that is largely internal to the suppliers of teacher education. Certification requirements are flexible, and accreditation norms for vocational teacher education are essentially nonexistent.

He further states:

The management of vocational teacher preparation is largely the responsibility of State education agencies. The management functions include planning, allocating, reviewing, evaluating, and monitoring. Much of the management also occurs within teacher education institutions and in local education agencies.

State education agencies are limited to specified vocational programs authorized under Federal and State legislation. Not included are programs operated in States by prime sponsors authorized by the Comprehensive Employment and Training Act, or most other programs coordinated by State Manpower Planning Committees.

In 1972, four years after the enactment of the Vocational Amendments of 1968, States began preparing supplements to State plans covering professional development. Many plans consisted of minimum descriptions of the intended use of funds allocated under Section 553 (Part F) of the 1967 Education Professions Development Act. Other States developed elaborate plans, including long-term master plans for teacher education and professional development. Many of the States assumed leadership for developing new programs or significant variations in existing programs of teacher education.

All States now have begun to implement responsibilities for the management of teacher education. Much of the emphasis has been on in-service education, with special attention to project oriented activities associated with such efforts as career education, competency-based instruction, and curriculum development.

It is important to note that the expansion of the role of State agencies is just beginning. Its continued growth may lead to a fully functioning concept of professional development, which may increasingly serve all State and local programs engaged in training in the present and future work force.

These statements are consistent with what has occurred in the nation as regards health occupations education as can be observed by reading Section II of this report.

Conclusion

National trends in health care delivery seem to indicate the need for more nursing and allied health personnel. To serve the health care needs of the nation's citizens, these health care workers will have to serve in areas which have in the past been neglected to a great extent. Realizing the need for such personnel and the expanding roles to be played by these fields as they broaden still further into new and emerging occupations as our technologies become more complex, it becomes obvious that teachers will be needed to prepare these individuals. The preparation of these teachers has been for the most part conducted by state supported institutions of higher learning in cooperation with other state agencies involved in learning processes and preparation of skilled workers.

SOME EXISTING HEALTH OCCUPATIONS TEACHER EDUCATION PROGRAMS

As the need for health occupations teachers continues to grow within the nation, several universities and colleges have recognized the need to develop Health Occupations Teacher Education Programs (HOTEP). A brief description of some of the known programs accompanied by their individual entrance requirements and a description of course requirements follows:

University of Alabama

Janet Redford, Ph.D.
School of Education
Department of Vocational Education
University of Alabama
Birmingham, Alabama

Two degrees are offered at this university in the area of health occupations. They are the B.S. degree which gives a "B Certification" with the State Department of Public Instruction and the M.S. which gives "A Certification". Certification is not required to teach in post-secondary institutions, only in elementary and secondary public schools. A third certification, "AA certification", is pending approval. This would require the graduate student to complete thirty credit hours beyond the master's degree. This is not a degree but it does help the teacher to gain increases in salary.

Anyone may enter this program to become a teacher of health occupations whether they have a health occupations background or not. If they come to the teacher's education program with such a background, they are given credit for this learning experience and it will constitute their minor for the B.S. degree. If they have no health

occupation background, they will be introduced to the entire health field through proper course work at the university.

A strong interest is shown in secondary health occupation education in Alabama. In the tenth and eleventh grades orientation takes place. In the twelfth year, the students concentrate in two or three health occupations of particular interest to them. A Licensed Practical Nurse Program may be started in high school and certification is granted as early as the thirteenth year in school.

REQUIREMENTS FOR CLASS B SECONDARY PROFESSIONAL CERTIFICATE IN HEALTH OCCUPATIONS EDUCATION

<u>SUBJECTS</u>	<u>QUARTER HOURS</u>	<u>SEMESTER HOURS</u>
<u>General Education</u>	67	44
Communicative Arts (must include at least one course in English and Composition, Literature, Speaking)	21	14
Social Science (must include three of the following: Economics, Sociology, Anthropology, History or Geography)	18	12
Science (must include a full-year course in Cellular and Organismal Biology. The remaining credits should be Physical Science related to Human Environment)	18	12
General Mathematics	5	3
General Psychology	5	3
<u>Professional Education</u>	43	27
Human Growth, Development and Learning Principles, Philosophy, and Foundations of Education	5	3
Occupational Information	5	3
Materials and Methods of Teaching Health Occupations	9	6
Student Teaching or Sequential Experiences In Health Occupations	9	6
Foundations of Vocational Education	5	3
Methods of Teaching Reading	5	3

Allied Health	60	39
Related Physical and Biological Sciences	9	6
Related Social Sciences	5	3
Related Environmental Sciences	5	3
Related Psychology	9	6
Medical Terminology	5	3
Hematology (May be incorporated under Directed Laboratory Clinical Experiences)	5	3
Health Delivery Systems	5	3
Orientation to Allied Health Professions	5	3
Directed Laboratory (Clinical) Experiences to include a minimum of five health career categories	12	9

Options

- a. A Bachelor's Degree in a Health Occupations specialty field plus required hours of professional education and three semester hours (five quarter hours) of Health Occupations teacher education.
- b. A Secondary Professional Certificate with a Major in Home Economics Education plus twenty-one (21) semester hours of Allied Health, including Orientation to Allied Health Professions (three semester hours) and Directed Laboratory (Clinical) Experiences in Health Occupations (nine semester hours).
- c. As a part of the competency based concept of teacher education, provision for fifty (50) percent of professional education and/or Allied Health requirement may be met through approved validation.

This Class B Professional Certificate may be continued for an additional period of eight years from its expiration date upon submission of proof of successful experience as a teacher in the area and level for which the certificate is issued for at least four years during the valid period of the certificate, by earning nine quarter hours or six semester hours of credit in the upper division or on the graduate level with a standard institution. The credits must be earned within the valid period of the certificate. The proof of teaching experience, submitted by the employing authority, must be sent on the state-prescribed form.

If this certificate is not continued on date of lapse, it may be reinstated for a period of eight years on submission of nine quarter or six semester hours of credit earned in the upper division or on the graduate level with a standard institution. This credit must be earned within three years of the date the new certificate is to bear.

CLASS A SECONDARY PROFESSIONAL CERTIFICATE IN
HEALTH OCCUPATIONS EDUCATION

A Class A Secondary Professional Certificate authorizes the holder to teach in grades seven through twelve and is valid for ten years. This certificate may be issued to a person who meets the following requirements:

1. Either holds or meets requirements for the Class B Secondary Professional Certificate.
2. Has been awarded a master's degree by a standard institution accredited by a regional and/or national accrediting agency to offer graduate degrees. In the master's degree program, the total graduate credit submitted for this certificate must include a minimum of 18 quarter hours or 12 semester hours in the person's teaching fields and 18 quarter hours or 12 semester hours in professional education appropriate for secondary teachers of Health Occupations.

This certificate may be continued for a period of ten years from its expiration date upon submission of proof of successful experience as a teacher in the subject or subjects approved on the certificate and on the level for which the certificate is issued for at least five years during the valid period of the certificate or by earning 9 quarter hours or 6 semester hours of upper-level (junior or senior) credit with a standard institution. The credits must be earned within the valid period of the certificate. The proof of teaching experience, submitted by the employing authority, must be sent on the state-prescribed form.

If this certificate is not continued on date of lapse, it may be reinstated for a period of ten years upon submission of 9 quarter hours or 6 semester hours of graduate credit earned with a standard institution. This credit must be earned within three years of the date the new certificate is to bear.

CLASS AA SECONDARY PROFESSIONAL CERTIFICATE IN
HEALTH OCCUPATIONS EDUCATION

A Class AA Secondary Professional Certificate authorizes the holder to teach in grades seven through twelve and is valid for twelve years. This certificate may be issued to a person who meets the following requirements:

1. Either holds or meets requirements for the Class A Secondary Professional Certificate.
2. Has completed a sixth-year program of graduate study, with a minimum of 45 quarter hours or 30 semester hours, subsequent to the completion of all requirements for the master's degree, in a standard institution approved for graduate programs beyond the master's degree.

This certificate may be continued for a period of twelve years from its expiration date upon submission of proof of successful experience as a teacher in the subject or subjects approved on the certificate and on the level for which the certificate is issued for at least six years during the valid period of the certificate or by earning 9 quarter hours or 6 semester hours of graduate credit with a standard institution. The credits must be earned within the valid period of the certificate. The proof of teaching experience, submitted by the employing authority must be sent on the state-prescribed form:

If this certificate is not continued on date of lapse, it may be reinstated for a period of twelve years, upon submission of 9 quarter hours or 6 semester hours of graduate credit earned with a standard institution. This credit must be earned within three years of the date the new certificate is to bear.

GUIDELINES FOR ADVISEMENT OF STUDENTS

DEGREE: BS IN EDUCATION

MAJOR: SECONDARY EDUCATION

TEACHING EMPHASIS: HEALTH OCCUPATIONS EDUCATION

1. General Education

English and Speech

EH 1 and EH 2

EH 5 and EH 6

SPC 1 or SPC 3

Humanities Electives

SPC 22/PHL 1/Other

Social Sciences

SOC 1

SOC 2

ANTH/ECON/GOVT/OTHER (ELECTIVES) (6)

14

4

12

PY 3	3
MATH 9	3
<u>Natural Sciences</u>	6
BY 3 and BY 4 (RECOMMENDED)	
<u>Physical Sciences</u>	6

Professional Educational Courses

Required:

ED 62 - Foundation of Educational Thought	3
ED 63 - Educational Psychology	3
ED 97 - Secondary School Student Teaching	9
EDV 104 - Foundations of Vocational Education	3
EDV 171 - Curriculum Development for Health Occupations Education	3
EVD 176 - Teacher's Role in Classroom for Health Occupations Education	3

3. Health Occupations Education

PY 165 Human Development	3
MR 50 Medical Terminology	3
EDV 172-173-174 Directed Lab. Experiences	9
EDV 170 Orientation to Health Occupations Health Delivery System	3
Recommnd: Courses from SCAHR or Nursing Related Physical and/or Biological Sciences	6
Related Environmental and/or Social Sciences	3
EDV 177 - H. O. E. Seminar	3

Minor can be another content area (18 hours) or Occupational Competency credit (20 hours) for persons working satisfactorily for at least two years in a Health Occupation area requiring at least nine months formal education.

DEGREE: MA IN EDUCATION

MAJOR: SECONDARY EDUCATION

TEACHING EMPHASIS: HEALTH OCCUPATIONS EDUCATION

AREA I - Education Foundation Courses (9 hours minimum)

Student must complete at least two courses from list on page 146 of graduate bulletin. The third course may be selected from same list or a basic course from other than their own area of specialization.

AREA II - Major Area (Secondary Education) (6 hours minimum)

Courses should be in secondary education. One can be methods course in individual's particular teaching area.

AREA III - Cognate Area (Health Occupations' Education) (12 hours minimum)

At least two courses in content courses in health occupations education. Other two courses may be in general vocational education courses.

*Must take EDV 104 if not taken at undergraduate level.

AREA IV - Electives - (6 hours)

If student has completed all requirements for "B" certification in first 15 hours toward MS degree then student upon completion of above requirements shall be eligible for "A" Certification.

COURSE REQUIREMENTS

The program leading to the Certificate of Advanced Study in Education is flexible enough to meet the specific professional needs of the individual and to accomplish the general purposes set forth above. Three specific requirements regarding program content and structure will be observed:

1. No credit toward the Certificate of Advanced Study in Education may be earned in undergraduate courses.
2. A minimum of at least nine semester hours must be taken in advanced graduate courses (300-level courses) not open to master's level students.
3. A minimum of 6 semester hours of graduate credit must be earned in the teaching discipline area (cognate) in the case of secondary education majors, and a maximum of 21 semester hours may be required to meet the goals of the students. This will vary according to the goals of the student and his academic background with respect to those goals. Thus the format for the program leading to the Certificate of Advanced Study in Education is as follows:

AREA I	Professional Courses	9 hours minimum
AREA II	Cognate Area Courses	6 hours minimum
AREA III	Elective Courses	15 hours minimum

TERMINAL REQUIREMENTS

In addition to the regular examinations taken with coursework, the student must pass an oral or written examination of a comprehensive nature before he will be recommended for the Certificate of Advanced Study in Education. The form of the examination is to be decided by the student's program adviser. The student's program also may include a terminal project or written assignment, if his adviser deems this appropriate.

No semester hours of credit may be allowed for this assignment. When this is required of the student, he must be advised of its nature, purpose, and content by his adviser prior to his having completed 18 semester hours of coursework in his program.

CENTER FOR IN-SERVICE TEACHER EDUCATION AND FIELD SERVICES

The school of education operates a center designed to work closely with school systems and teachers in in-service and re-education programs.

Central State University - Edmond, Oklahoma

Fred D. Mack, Jr. Ed. D.
 Teacher Educator
 Health Occupations Education
 Department of Vocational and Technical Education
 School of Education
 Central State University
 Edmond, Oklahoma 73034

While the health occupations program originates at Central State University they do deliver courses out to the state. At present all of the courses are at the bachelor's level. They are interested in the health occupation workers who have associate degrees or who are diploma nurses. Some of the latter pursue a B. S. N. and others entering the teaching field receive a B. S. Degree in Allied Health Education upon completion of twenty-five hours in Education course work.

Many of these individuals go on to teach in the K-12 system in health careers education. However, others teach in their health specialty such as in the area of dental hygiene. Many of the nurses teach in the practical nursing programs at the secondary and the post-secondary levels.

The teacher education program in Allied Health Education at Central State University is designed to prepare qualified individuals for professional education positions in local public schools, area vocational and technical schools, community junior colleges and other public educational agencies and institutions. The program is planned to enable the individuals to complete requirements for a Standard Certification which would prepare them to enter the area of teaching others to become qualified health practitioners. The program is open to students who have developed technical competencies in one of the many Allied Health areas.

There are many Allied Health practitioners currently teaching that do not have a formal education background. In

some instances, many of these individuals have proven to be successful. But, in most cases, there is an observed lack of formal education preparation. A principle (sic) aim of the program is to provide each student with learning experiences which will permit him to develop competencies required for effective teaching in his own field.

The curriculum of the Allied Health Education program is administered jointly by the Department of Vocational Education and the College of Education and leads to the degree of Bachelor of Science in Allied Health Education. A basic foundational principle is that the Health Occupations teacher should be both a professional educator as well as a competent, experienced technician in his or her own right. Central State's program is planned to allow each student opportunities to develop his teaching skills, to broaden his general education, and to complement, advance and up-date technical competencies. Allied Health graduates would be expected to assume responsibilities for planning, organizing, implementing and evaluating educational programs and their technical areas. Furthermore, each graduate should be capable of participation in guidance procedures, consultation, and be an active member and exhibit community service to the area in which he resides.

OBJECTIVES OF THE PROGRAM

The Allied Health teacher is an individual who needs to understand education as well as his respective occupational area and be able to discuss and integrate them into terms effective for preparing other individuals to become Allied Health professionals. The Allied Health educator must have a vocational attitude which stresses occupational competency. He must be capable of a broad view and merge his program objectives with those of the total educational program. He must be skilled in public and human relations and be able to bring to a common cause leaders in the business and health care delivery systems and members of the school administration.

The following are stated objectives of the Allied Health Education program, designed for the purpose of providing the Allied Health Educator with the above stated qualities.

- A. To provide the Allied Health teacher with a background in general education which will assist him or her in seeing the role of the individual in the total educational process.
- B. To prepare Allied Health education teachers who are knowledgeable in many areas of Allied Health.

and who are constantly aware of changes and innovations within these areas.

- C. To prepare Allied Health education teachers who will be able to
 - 1. Improve the efficiency of our health care delivery service
 - 2. Make both the health care delivery system and the public aware of their economic and social responsibilities which are inherent in engaging in such services.
- D. To equip the teacher with the necessary skills and attitudes for
 - 1. Teaching secondary, post-secondary, and adult education students who are employed or who anticipate employment as teachers in the various Allied Health professions in the state of Oklahoma and elsewhere.
 - 2. Recognizing and meeting the increasing educational needs of youth and adults in both large cities and small communities; needs which have been brought about by the accelerating rate of change in our social, economic, and health care delivery system.
- E. To assist Allied Health education teachers with an understanding in human relations and communications skills which will facilitate working with consultative committees, employers, parents and organizations important to the education program.
- F. To assist teachers in cultivating an interest in and understanding of those to be taught and in mastering the ability to select and use learning activities that are appropriate in developing behavior needed in the Allied Health professions.

ADMISSION REQUIREMENTS

Students who desire to earn a Bachelor of Science Degree in Education with an Allied Health emphasis may do so by fulfilling the following requirements:

- A. Complete at least twelve (12) months, one full year, in an approved AMA school or possess an A.A. or A.S. Degree or its equivalent from an accredited junior community or senior institution in one of the occupations identified in the AMA Approved Registry.
- B. Possess and file with the University a professional vocational credential issued by or acceptable to the State of Oklahoma in one of the occupations identified in the AMA Approved Registry. This

standard must be met before the work at Central State University is begun.

- C. Complete all pertinent degree requirements of Central State University, i.e. at least thirty (30) hours of residence including the last eight (8); at least forty (40) hours numbered in the 3000 and 4000 series taken during the junior or senior year, including at least ten (10) hours in upper-division work in the major and at least an overall average grade of "C", including an average of "C" in the major.
- D. Have two or more years of work experience in the area of the professional credential. This experience may be gained by employment in the area of the professional credential, through military service or through a combination of the two. One year of this experience must have been completed within the last three year period immediately preceding the granting of the degree.

GENERAL EDUCATION

50 CREDIT HOURS

The fifty (50) credits needed to meet this requirement must include:

- 8 hours English
- 9 hours Social Studies, including American National Government.
- 6 hours Health and Physical Education
- 8 hours Science
- 5/6 hours Humanities

Further, it must include work in basic courses from two of the following areas: (for a total of five (5) hours).

Mathematics	Foreign Language	Fine Arts
Psychology		Practical Arts

Where applicable, ten (10) hours of the fifty (50) general education hours may count as part of the major, except in the Elementary Education program.

TEACHING AREA MAJOR

36 CREDIT HOURS

The thirty-six (36) hours needed to meet this requirement must include ten (10) hours from 3000 and 4000 level courses. This requirement may be met as follows:

1. Upon validation by the passing of Department administered Advanced Standing Examinations, preparation in and graduation from an AMA approved school of Allied Health leading to a Vocational credential may fulfill part of these thirty-six (36) hours as follows:

- A. One full year in the AMA school -maximum 10 hours
- B. Two full years in the AMA school -maximum 20 hours
- C. Three full years in the AMA school -maximum 30 hours

Work received and validated from AMA schools will be designated for record in accordance with its academic content, i.e., Science, Health, Clinical Practice, etc.

2. General requirements for all specialization-Six (6) Hours

- A. Education 4403--Problems in Cooperative Education
- B. Education 4143--Curriculum Development in Health Occupations.

3. Elect sufficient hours from the following or equivalent courses to total thirty (30) hours in the area of specialization.

- A. Education 4242--Organization and Administration-- Health Occupations.
- B. Education 4921 4 Directed Readings in Education
- C. Education 4931 4 Individual Study in Education
- D. Education 4162--Principles of Guidance
- E. Sociology 3303--Sociology of Health and Medicine
- F. Sociology 2303--Social Psychology
- G. Sociology 3202--Racial & Ethnic Relations
- H. Psychology 4733--Psychology of Personality
- I. Psychology 4722--Psychology of Exceptional Children
- J. Biology 3503--General Micro-Biology
- K. Biology 4403--Advanced Micro-Biology
- L. Health 3403--Value Formation Related to Health Problems
- M. Health 4202--Organization and Administration of Community Health

Note: The applicant shall have a minimum of two years of appropriate work experience as demonstrated by gainful employment in a Health Occupations specialty. This experience may be gained by employment, through military experience or by a combination of the two. One year of this experience must have been within the three year period immediately preceeding the granting of the certificate.



PROFESSIONAL TEACHER EDUCATION23 CREDIT HOURS

A minimum of twenty-three (23) hours is required. The following courses can be completed to fulfill this responsibility.

Education 4203--History & Philosophy of Vocational Education	3 Hours
Education 3183--Educational Measurement & Evaluation	3 Hours
Education 3173--Adolescent Psychology	3 Hours
Education 3092--Educational Psychology	2 Hours
Education 3601--Audio Visual Education	1 Hour
Education 4863--Methods of Teaching Health Occupations	3 Hours
**Education 3568--Directed Observation & Student Teaching	8 Hours

**Elective education courses may be taken in lieu of the eight (8) hours of student teaching if the student has completed three years of teaching, one year of which must have been during the last five years immediately preceding the filing of application for standard certification.

FREE ELECTIVES TO TOTAL124 CREDIT HOURS

It is recommended that a portion of these hours be taken from the Natural Sciences, Social Sciences and/or the Health Sciences.

Ferris State College - Big Rapids, Michigan

Paul Hoeksema, Director
Health Occupations Education
School of Education and Learning Resources
Ferris State College
Big Rapids, Michigan

(Contact was William Kerwin, Admissions Counselor)

This institution is the largest trainer of vocational teachers in the State of Michigan. Programs exist in the service areas of Trade and Industry, Business, and Health Occupations. Within the School of Allied Health Education as many as twenty-one separate programs are offered. Their strongest areas are in mathematics and sciences.

Unique to this institution is the "Ladder Concept". This means a student may enter a specific program. After one year they could receive certification in an occupation. If they chose to go on, in two years they could receive an associate degree in this area. Staying for courses over a period of four years would allow them to graduate with a Bachelor of Science degree. Sixty percent of their programs are of the one- and two-year variety. In a way they are a combination of post-secondary and higher educational institutions.

It is possible to receive a B.S. Degree in Allied Health, Education from the School of Education and Learning Resources. Persons with associate degrees in the allied health field are accepted to become prepared as health occupations teachers in their specific area of competence.

FOUR WAYS TO ENTER THE PROGRAM

Students planning to major in Allied Health Education may enter the program in one of four ways:

1. A high school senior planning to become an Allied Health teacher might choose to enroll at Ferris as one of the college's Allied Health fields. After completing that program, the student is eligible for admission to the Allied Health Education Program.
2. A student may transfer from another accredited institution—a community college for example— if he or she has the Associate Degree and Allied Health credentials in his or her professional field.
3. A credentialed health professional is eligible for admission with advanced standing. The number of credits awarded is dependent on professional experience and the health area involved.
4. A student currently enrolled in another Ferris curriculum can change his curricular choice.

SIGNIFICANT FEATURES OF THE FERRIS PROGRAM

The Ferris Allied Health Education program requires the equivalent of four years of college study. It leads to a Bachelor of Science Degree in Allied Health Education and a recommendation for a State Secondary Provisional Certificate with vocational endorsement.

Graduates of the program are competent in the subject matter and skills of their respective health technologies; and in the most effective methods of teaching. They are skilled in human relations; in testing and evaluation procedures; in laboratory organization and management; and in instructional media development.

University of Georgia--Athens, Georgia

Mary Elizabeth Milliken, Ed. D.
 Division of Vocational Education
 College of Education
 University of Georgia
 Athens, Georgia 30601

This is an innovative program which received approval in September of 1972. It is designed to provide pre-service and in-service education for health professionals teaching in health occupations education programs. In their words:

The Health Occupations Education Program recognizes the knowledge and skills of a health professional as

- (1.) the substantive content of post-secondary vocational education programs preparing health workers at the assisting and technical levels, and
- (2.) the essential base for planning and implementing secondary level programs concerned with the health occupations component of career education.

The Program is designed to aid the health professional, who is already competent in regard to subject matter content, develop those additional competencies needed for planning, implementing, and evaluating an occupational education program.

The Program was developed in response to: (1) A request from the Georgia State Department of Education to provide assistance to health occupations teachers through resources of the University of Georgia; (2) Request from health occupations teachers for courses designed to meet their unique needs; (3) Recognition of the rapid increase and extension of health occupations programs in Georgia, including the initiation of programs at the secondary level; (4) Emergence of health occupations at the national level as a

distinct service area of growing importance to education, the health field, and society.

Approaches to teacher education for health professionals were studied by means of catalogues and personal contact. All health occupations teachers employed in Georgia for the academic year 1971-1972 were included in a survey to elicit their perceptions of educational needs. The views of national leaders in health occupations education were obtained; and a number of publications on the subject were studied to derive guidelines. Finally, the tentative program was modified to incorporate recommendations of (1) a committee of Georgia health occupations educators and (2) department heads in the Division of Vocational Education.

Two degrees are available and specific to the health professional who seeks a degree in the College of Education. One is a Bachelor of Science in Education which may include a major in Health Occupations Education. The applicant in this case must hold credentials as a health practitioner. Prior education of the individual is carefully evaluated as a basis for planning a program of study. Up to ninety quarter hours of transfer credit is permitted. Advanced standing may be gained through the College Level Equivalency Program, Scholastic Aptitude Test Score exemptions and course challenges.

DESCRIPTION OF PROGRAM BEING SUBMITTED FOR APPROVAL

The program of study is designed to lead to the Bachelor of Science in Education and certification at the T-4 level in Vocational Education, with specialization in Health Occupations Education. The program is designed for persons who are credentialed as health professions practitioners and are making a career change to function as educators. It is therefore assumed that the entering student possesses teaching field competence acquired through the basic preparatory program in the health specialty and through experience as a practitioner.

A minimum of 195 quarter hours is required for graduation.

Area I. General Education

A. Humanities		20qh
1. English 101, 102	10qh	
2. Electives (English, foreign language, philosophy, religion, fine arts)	10qh	
B. Mathematics and Science		25qh
1. Math 100	5qh	
2. Laboratory Science (Biology 101, 102; Chemistry 111, 112, 121, 122; Geology 125, 126; Physics 101, 127, 128; Geography 104, 120, 121) and/or Health-related Science (anatomy and physiology; microbiology; bacteriology; pathology; nutrition and diet therapy)		
C. Social Science		20qh
Political Science 101; History 111, 112; History 251, 252; Economics 105, 106; Anthropology 102; Sociology 105; Psychology 101, 258		
D. Physical Education		6qh
Subtotal		71qh

MAJOR IN HEALTH OCCUPATIONS EDUCATION (70 to 80 quarter hours)

Occupational Competence: 25
 Occupational competence will be determined by proficiency examination.* Credit is limited to 25 quarter hours, recorded as follows:

- EVO 525 Basic theory in Vocational Education
- EVO 526 Advanced theory in Vocational Education
- EVO 527 Basic skills in Vocational Education
- EVO 528 Intermediate skills in Vocational Education
- EVO 529 Advanced skills in Vocational Education

*In addition, transcripts from preparatory programs in health specialties would reflect at least 250 instructional hours related to occupational competence.

Clinical Science: 15 - 45
 Credit for clinical sciences will be based on formal course work in excess of that pertaining to basic competence. Credit may not exceed 15 quarter hours per academic year of the basic preparatory health program, up to a maximum of 45 quarter hours for a three-year program. Credit will be recorded as follows:

EHO 410,411,412 Basic Clinical science
 EHO 420,421,422 Intermediate Clinical science
 EHO 430,431,432 Advanced Clinical science.

Electives:

From health-related and/or behavioral science 30 - 0
 Subtotal 70 - 70

Professional Education (50 to 60 quarter hours)

SPC 108 or 109 Speech 5
 EAV 400 or 500 Use of audiovisual materials 5
 HFD 400 Health education (special problems) 3
 EPY 304 Learning and motivation 5
 EHO 335* Curriculum planning for health occupations 5
 EHO 336** Teaching procedures in health occupations 5

Electives, selected from the following 26

EHO 400 Special problems in Health Occupations
 EHO 500 Performance specification in health occupations
 EHO 502 Health occupations program design
 EHO 545 School practicum in health occupations education
 EHO 546***)
 EHO 547) Internship in teaching health occupations
 EHO 548)
 EHO 503 Instructional Planning: health occupations education
 EHO 501 Instructional strategies for health occupations education
 EHO 505 Problems in teaching: health occupations
 EHO 503**** Coordination of cooperative vocational education programs
 Subtotal 54

TOTAL REQUIRED FOR GRADUATION 195 q.h.

- * With approval of advisor, EHO 503 may be substituted.
 ** With approval of advisor, EHO 501 may be substituted.
 *** Required for secondary teachers and others who wish to obtain a teaching certificate.
 **** Recommended for Co-op teachers as a preservice course.

Master of Education in Health Occupations Education is available to individuals who complete the graduate school requirements. This leads to the degree and a five-year certification in Vocational Education with specialization in Health Occupations Education. This program is individualized in an attempt to fit the long-range goals of students and to encourage concern for trends and issues. Graduates of this program will be qualified to assume leadership positions in Health Occupations Education, either in relation to instruction, supervision, administration, or research.

Teachers for health occupations programs are drawn from practitioners in the various health specialty areas (e.g. nursing, medical technology, medical office assisting, dental hygiene, dental assisting, dental laboratory technology, and dentistry). Teachers are selected by school systems for a high level of competence as a practitioner, with full recognition that they have not been educationally prepared for teaching. There is, then, an urgent need to provide opportunities for health professionals to learn to function within the educational system.

Purposes of Health Occupations Teacher Education are to help health personnel (1) develop competence as teachers in classroom, clinical and community settings; (2) relate to their health specialty areas as a teaching field rather than as an area of practice; (3) adapt to the role of educator; (4) function effectively within the educational agency; and (5) serve as a force for coordinating cooperative planning between two distinctly different societal institutions.

DESCRIPTION OF THE PROGRAM

The program of study outlined below is designed to lead to the Master of Education degree and a five-year professional certificate in Vocational Education, with specialization in Health Occupations Education. The program is designed to provide optional means for completing requirements for the Master of Education: Plan A--eleven courses (55 quarter hours) including ERS 601 and EHO 965; Plan B--twelve courses (60 quarter hours) including ERS 601.

Students entering the program should have a baccalaureate degree, should be credentialed for practice in one of the health specialty areas, and/or should have a minimum of one year's work experience in the health field. They should be eligible for the T-4 certificate; otherwise, the graduate program should provide for achieving eligibility for the T-4 before receiving the Master's, unless the student knowingly elects not to qualify for the T-4 certificate in Georgia.

The areas of study with recommended courses are listed below. All courses, unless otherwise indicated, carry five quarter hours of credit.

Area A: Studies dealing with the learner, the learning process, and individual differences (5 to 10 quarter hours)

EPY 706 Classroom learning problems of disadvantaged children
 EPY 815 Advanced educational psychology
 EPY 318* Psychology of classroom learning
 PSY 653* Individual differences
 SOC 685* Sociology of occupations
 SOC 728* Sociology of education

* One of these required

Area B: Studies concerned with public education, curriculum and the instructional program (15 to 20 hours)

EAD 705 Methods in adult education
 EAV 700* Utilization of audiovisual materials
 ECP 600 Interpersonal communications (Special Problems in...)
 ECS 804 Theory in Curriculum and Instruction
 EHO 705 Problems of teaching in the health occupations
 EPY 672* Programmed instruction
 EPY 700* Tests and measurements
 EVO 703 Coordination of cooperative vocational education programs
 EVO 707 Adult vocational education
 EVO 806 Administration and supervision of vocational education programs
 EVO 902** Evaluation in vocational education

*Any two of these required

**Required

Area C: Subject matter or content supplementing the teaching field (25 to 40 hours)

- EHO 600 Special problem in health occupations education
- EHO 700* Performance specification: Health occupations
- EHO 701* Instructional strategies for health occupations programs
- EHO 702* Health occupations program design
- EHO 703* Instructional planning--health occupations education
- EHO 746)
- EHO 747) Internship in teaching health occupations
- EHO 748)

*Any three of these required

Area D: Studies dealing with research (5 to 10 hours)

- EHO 699 Research seminar in health occupations education
- ERS 601* Methods of research in education
- EHO 965 Applied project in health occupations education

*Required

(It should be noted that because of the leadership at the University of Georgia, it has become the center for Conferences on Health Occupations Education Programs for the Southeastern part of the United States related more specifically to Allied Health and Nursing.)

Southern Illinois University at Carbondale

Richard F. Bortz, Associate Professor :
 Department of Occupational Education
 Southern Illinois University at Carbondale
 Carbondale, Illinois 62901

It was this writer's impression that there is no health occupations program as such. Rather, education course requirements are set to satisfy state certification requirements at the secondary and the post-secondary level. These offerings are at the undergraduate level only. The secondary option provides the prospective teacher with the requirements necessary to teach at either the secondary or post-secondary level of instruction. The post-secondary option only allows the teacher to instruct at the post-secondary level of instruction. Since in many occupational areas no teaching jobs exist at the secondary level, those additional hours needed for secondary certification can be spent in other beneficial ways.

The emphasis here is to prepare teachers to instruct in any of a variety of occupational areas without regard to health occupations as a separate field. It is felt that more is gained from the interaction of persons varying in vocational background as they proceed to learn educational subject matter together. A sense of the problems and a better understanding of the various occupational fields are shared as the students seek to learn educational skills.

B.S. IN SECONDARY SCHOOL OCCUPATIONAL TEACHING

1. Occupational Specialty 42
 Three kinds of experiences satisfy this requirement:
 - A. Occupational Education 258 Occupational
 Experience 2-30
 Credit for documented experience in a

teachable occupation or family
of occupations

B. Occupational Education 259 Occupational
Subjects 2-48

Credit for occupational study in
accredited and selected other programs.
Credit from the school of Technical
Careers, occupational programs in
community junior colleges, technical
institutes, proprietary schools, and
military schools, is evaluated.

C. Occupational Education 319 Internship 3-24

Experience includes job skills and
knowledge, management-worker relations,
supervised instruction conferences and
evaluations.

The student and his advisor will determine what previous
experiences shall apply and what remaining experiences
shall be incorporated into the individual program.

2. General Studies Requirements* **

Area A: Man's Physical and Biological
Inheritance

9 sem hrs

101-3 Physics in the Environment,
106-3 Chemistry for Non-Science
Majors, 115-3 Introduction to Biology.

Area B: Man's Social Inheritance and Social
Responsibilities

9 sem hrs

202-3 Introduction to Psychology,
212-3 Introduction to American
Government and Politics, and one
other discipline.

Area C: Man's Insights and Appreciations 9 sem hrs

A 200 or 300 level English course,
and courses in two other areas.

*See Undergraduate Bulletin for information concerning
applicability of Associate in Arts degree, CLEP, and pro-
ficiency examinations to General Studies

**Certain substitutions of General Studies courses will be
permitted on approval by your OE advisor. Care must be
taken to assure meeting teacher certification requirements.

Areas A, B, and C: 30 total sem hrs
 Satisfied by additional work from any one of Areas A, B, or C or by any combination of work from Areas A, B, and C.

Area D: Organization and Communication of Ideas 11 sem hrs
 English Composition: GSD 101-3 and one of GSD 117-2, 118-2; or 119-2 5 sem hrs
 GSD Speech or other oral communications as offered in Area D. 2 sem hrs
 GSD Math: GSD 107-4 or equivalent, or 4 semester hours from GSD 113-2 and either GSD 110-2 or 112-2 4 sem hrs

Area E: Human Health and Well Being 4 sem hrs
 GSE 201-2 and any GSE for 2 hrs

3. Professional Requirements 33
- Education 301, Human Growth, Development, and Learning 2
 Deals with factors involved in the teaching-learning process including: cognitive development, socio-personal characteristics, socio-cultural characteristics, motivation for learning, and principles of school learning.
- Education 302, Basic Techniques and Procedures in Instruction. 2
 Techniques and procedures applicable to effective teaching including the topics: planning for instruction, strategies for instruction, assessment and evaluation, and classroom management.
- Education 303, School and Society: Historical, Sociological, and Philosophical Perspectives. 2
 A requirement in the Professional Education Sequence. Fulfills the minimum State Certification requirement in the area of history and/or philosophy of education. Assists students in developing and understanding of the organization, function, and role of schools in the United States.
- Education 304, Career Education Individualization in Professional education. One course must be selected as part of the Professional Education sequence requirement. 12

a--Audiovisual Methods in Education. Selection and utilization of audiovisual materials in the learning environment, elementary through secondary level. Audiovisual machine laboratory is required.

- b--Career Education. Principles and practices of career education K-adult. Classroom, study, and field experiences. Understanding administration and curricular organizations various levels and in various agencies. Field trip fee \$10.00.
- c--Construction and Use of Evaluation Instruments. Construction and use of evaluation instruments intended to assess learning especially in the public school settings.
- d--Teaching in the Middle and Junior High School. The role of the middle and junior high school in the present school structure. A focus on the curriculum, learning and instruction patterns unique to this area.
- e--Teaching the Special Needs Learner. Emphasizes an understanding of special needs learners (e.g., educationally disadvantaged youth) and the development of strategies which are effective in teaching them.
- f--Teaching and Affective Education. The affective domain of educational objectives. Emphasis given to a theory of values and strategies for the clarification of values; the process of valuing as an operation of teaching.

Occupational Education 485, Principles and Philosophies of Vocational and Technical Education 3

Nature and purposes of practical arts, vocational and technical education, their relationships and differences, and the place of each in preparing people for the world of work.

Occupational Education 489, Defining and Developing Occupation Programs 3

Identifying, compiling and organizing occupational data necessary to development and preparation of occupationally related learning experiences.

Occupational Education 490, Preparing Occupational Course Materials 3

Development and preparation of occupationally related learning experiences.

Student Teaching Semester Education 350-3 Semester in Professional Education 15

Education 400-4 Education 401-8 Student Teaching in Secondary Schools.

4. Other Requirements

Minimum hours to graduate 120

Minimum hours Senior Institution 60

Minimum hours in Residence at SIU 90
 or if last earned. 30
 U.S. Constitution, American History, or Gov't.
 and English Proficiency established by
 College of Education.

B.S. IN OCCUPATIONAL EDUCATION

1. Occupational Specialty 54
 Three kinds of experiences satisfy this requirement:
- A. Occupational Education 158 Occupational Experience 2-30
 Credit for documented experience in a teachable occupation or family of occupations.
- B. Occupational Education 259 Occupational Subjects 2-48
 Credit for occupational study in accredited and selected other programs.
 Credit from the School of Technical Careers, occupational programs in community junior colleges, technical institutes, proprietary schools, and military schools, is evaluated.
- C. Occupational Education 395 Internship 3-24
 Experience includes job skills and knowledge, management-worker relations, supervised instruction conferences and evaluations.

The student and his advisor will determine what previous experiences shall apply and what remaining experiences shall be incorporated into the individual program.

2. General Studies Requirements* 45
- Area A: Man's Physical and Biological Inheritance 9 sem hrs
 101-3 Physics in the Environment,
 106-3 Chemistry for Non-Science Majors,
 and one other discipline.
- Area B: Man's Social Inheritance and Social Responsibilities 9 sem hrs
 202-3 Introduction to Psychology;
 212-3 Introduction to American Government and Politics, and one other discipline.

*See Undergraduate Bulletin for information concerning applicability of Associate in Arts degree, CLEP, and proficiency examination to General Studies.

Area C: Man's Insights and Appreciations 9 sem hrs
 Courses in three disciplines such as philosophy and literature.

*Areas A, B, and/or C 3 additional sem hrs
 Satisfied by additional work from any one of Areas A, B, or C or by any combination of work from Areas A, B, and C.

*NOTE: Previous credits which apply to A, B, or C may be substituted for the above courses specified by Occupational Education

Area D: Organization and Communication of Ideas 11 sem hrs
 English Composition: GSD 101-3 and one of GSD 117-2, 118-2, or 119-25 sem hrs
 GSD Speech or other oral communication as offered in Area D.2 sem hrs
 GSD Math: GSD 107-4 or equivalent, or 4 semester hours from GSD 113-2 and either GSD 110-2 or 112-2.4 sem hrs

Area E: Human Health and Well Being 4 sem hrs
 Any combination of GSE courses to total 4 semester hours.

3. Professional Requirements 21

Education 301, Human Growth, Development, and Learning 2

A requirement in the Professional Education Sequence. Deals with factors involved in the teaching-learning process including: cognitive development, socio-cultural characteristics, socio-cultural characteristics, motivation for learning, and principles of school learning.

Occupational Education 485, Principles and Philosophies of Vocational and Technical Education 3

Nature and purposes of practical arts, vocational and technical education, their relationships and differences, and the place of each in preparing people for the world of work.

Occupational Education 489, Defining and Developing Occupational Programs 3

Identifying, compiling and organizing occupational data necessary to development and preparation of occupationally related learning experiences.

Occupational Education 490, Preparing Occupational Course Materials 3

Development and preparation of occupationally related learning experiences

Education 302, Basic Techniques and Procedures in Instruction. 2

A requirement in the Professional Education

Sequence. Techniques and procedures applicable to effective teaching including the topics: planning for instruction, strategies for instruction, assessment and evaluation, and classroom management. Occupational Education 419, Occupational Teaching Internship 8

Experience in working with special and post-high school technical training programs in approved centers. The intern will follow the program of the supervisors of the primary specialization in both regular and extra-class activities.

4. Other Requirements

Minimum hours to graduate

120

University of Illinois at Urbana-Champaign

Lloyd J. Phipps, Chairman
Department of Vocational and Technical Education
College of Education
University of Illinois
Urbana, Illinois 61801

The University of Illinois at Urbana-Champaign offers Health Occupations Education as an option of the Technical Education Specialties Curriculum for the degree of Bachelor of Science in Occupational and Practical Arts Education. The curriculum is designed for the student who is a graduate of an approved technical level program in a specific health field. Most generally this is a graduate of a post-secondary program of at least two years in length in a field such as radiologic technology.

The program attempts to prepare the student for a variety of teaching functions: (1) To function as a teacher-coordinator in a secondary Health Occupations program directed toward exploration or career entry; (2) To teach within a specific health area in a specialized secondary Health Occupations program; (3) To teach within a specific health area in a specialized post-secondary Health Occupations program, or (4) to teach in a health agency which offers in-service education programs.

Because of this type of flexibility it becomes crucial that the student carefully plan, with his advisor, the program that will allow the student to reach his goal with consideration of the student's background and work experience in a specific health field.

While there are general course requirements, emphasis is placed on the development of a teacher who is competent. One who has an understanding of the learning process, the educational system, and the philosophy of education is desired as the product. Skill in teaching is stressed and the majority of education credits are taken in this area.

There is difficulty in communicating with people who are interested in earning this type of degree. They are often under the impression that what is meant by a degree in Health Occupations Education is a degree in their health specialty where, in fact, it is a degree in the educational aspect of the occupation. Actual recruiting is a problem in that it is difficult to interest and to actually have health occupations workers and professionals attend the university in preparation to become teachers. According to the Final Report 1973-74 Health Occupations Education, early recruitment efforts resulted in a pool of students primarily from the Urbana-Champaign area and who generally desired employment in that area. However, later recruitment efforts brought in students from outside of the area and persons who were willing to accept teaching positions outside as well.

It should be mentioned that in addition to the undergraduate degree a Master's Degree in Health Occupations Education is also offered which emphasizes the same things, but is offered to health occupation professionals already possessing a degree in one of the health fields.

BACHELOR'S DEGREE PROGRAM
IN HEALTH OCCUPATION EDUCATION

B.S. in Occupational and Practical Arts Education

Prerequisites for Admission to the Program

- Graduation from an approved technical level program (of at least two years) in a specific health field.
- Post-graduation employment experience in that specific health field
- Acceptance into the University of Illinois College of Education according to admissions standards
- Interview with a health occupations faculty member
- Desire to teach in the health field

General requirements

Rhetoric and Speech	6 semester hours
General Psychology	3 semester hours
Natural Science	6 semester hours
Humanities	6 semester hours
History of the United States	3 semester hours
American Government	3 semester hours
Health and/or Physical Education	3 semester hours

Professional Education Requirements

History and Philosophy of Education	2 semester hours
Educational Psychology	3 semester hours
Principles of Occupational and Practical Arts Education	2 semester hours
Introductory Student Teaching Experience	2 semester hours
Methods of Teaching (Health Occupations)	3 semester hours
Cooperative Education (Health Occupations)	2 semester hours
Student Teaching (Health Occupations)	5 semester hours

SUMMARY

Total:	128 semester hours
General:	30 semester hours
Professional Education:	19 semester hours
Health:	48 semester hours
Approved electives:	To make up 128 semester hours total

Students in the Health Occupations Teacher Education Program take their student teaching experiences in a variety of settings. However, there are certain essential experiences that are more readily available in secondary schools than in other types of educational institutions. Therefore, the two-week Educational Practice 250 experience will concentrate on these experiences in order to increase the insight of Health Occupations Education students in the following areas.

Area	Learning Experiences
1. The organization of the high school and its effect upon students, teachers, and the community	PTA meetings, assemblies & faculty meetings, school board meetings, activities of the administrative office (such as attendance, cumulative record keeping, etc.)
2. The multiple demands placed upon the secondary school teacher	Extracurricular activities, homeroom, study hall, corridor control
3. The unique student-teacher interactive process at the secondary level	Classroom observations, student-teacher conferences
4. Discipline problems related to adolescent development	Use of sociograms, critical incidents, etc., detention
5. Problems of classroom management; motivation and ability to relate to learning; disruptive behavior	Classroom observation, cumulative records
6. Services provided in the school system to enhance the instructional program	Guidance services, special education services, reading labs.

Indiana University - Purdue University at Indianapolis

Mary Lee Siebert, Director
Health Occupations Education
Division of Allied Health Sciences
Indiana University - Purdue University
Indianapolis, Indiana

This program is open to those students who have completed a health occupations course at an accredited school or a recognized program of training and/or on-the-job experience. It is primarily designed to prepare competent teachers of health occupations who will be qualified to teach in community colleges, secondary schools, post-secondary vocational-technical institutes and hospital based schools.

The Bachelor of Science in Health Occupations Education is administered jointly by the Division of Allied Health Sciences and the Division of Education. The contention is that the health occupations teacher should be a professional educator and a competent experienced technician. Therefore, the goal of the curriculum is to develop teaching skills, broaden general education, and advance and update technical competencies. Graduates of this program will be expected to function in a variety of ways: (1) assume responsibilities for planning, organizing, implementing and (2) participating in guidance, consultation, and community service.

Specifically, the curriculum is designed to permit students to develop the following competencies:

1. Ability to participate in the formulation and implementation of the purposes and philosophy of the educational program.
2. Ability to identify and clearly define learning outcome on terminal behavior expected in teaching.
3. Skill in structuring learning experiences within the vocational educational unit while the care of the patients/clients is safeguarded.

4. Skill in selecting and using teaching methods and materials appropriate to the level of the learner and in light of the educational objectives.

5. Ability to use appropriate tools, such as observation, conferences, and paper-pencil tests to determine learners' progress.

6. Sensitivity to understanding the principles of human relations, including an awareness of one's own attitudes.

The Master of Science in Education is also administered jointly by the Division of Allied Health Sciences and the Division of Education. It was established in response to the increased demand for qualified educators in the allied health field. The preparation of teachers who are allied health specialists and who will teach in academic, clinical or laboratory settings is the primary aim of the program. Prerequisite to entrance is a baccalaureate degree from a nationally accredited institution, board certification or other qualifications in one of the professions related to health. Career opportunities for these graduates are typically found in colleges and universities, vocational schools, clinical teaching centers and programs which sponsor continuing and inservice education in the many fields of allied health.

Because the student will be expected to assume responsibilities within the community, in his profession and for the institution which he serves, the curriculum focuses on independent activity, opportunities for individualized experiences and an in-depth exploration by the student of his field under qualified guidance. The student is given exposure which provides formal and informal experiences as a teacher in both out of classroom and in-classroom functions. Advanced education

in the content area of his allied health specialty is also provided.

Areas of specialization at this degree level are: Cytotechnology, Dental Hygiene, Dietetics, Medical Records, Medical Technology, Occupational Therapy, Physical Therapy, Radiologic Technology and Respiratory Therapy. (These are areas, all of which may not seem typical, in which one might earn a Master's level degree.)

More specifically, the curriculum is designed so that the student achieves the following objectives:

1. Understands the purposes, functions, and structure of professional education within the context of American higher education.
2. Develops ability to assume the faculty role within an educational setting with the responsibilities of teaching, consultation, service, and research.
3. Comprehends and values a sound rationale for curricular planning, implementation, and evaluation.
4. Promotes and insures effective teaching-learning process on both group and individual basis.
5. Develops skill in establishing positive interpersonal relationships with students and faculty.
6. Strengthens his professional competency.

ADMISSION REQUIREMENTS.

To be considered for admission to the program, the applicant should submit evidence of certification, registration, or current licensure in a health field by the American Medical Association, American Dental Association, State Board of Nurses' Registration, or other appropriate professional organization. Where certification, registration, or licensure is not available in the health field, competency will be established on the basis of (a) written examination, (b) letters from employers.

CONDITIONAL ADMISSION

Applicants who are eligible for, but have not yet taken licensure, certification, or registry examinations or graduates of foreign programs may be admitted conditionally.

DEGREE REQUIREMENTS

A candidate for the Bachelor of Science in Education with a major in Health Occupations Education must meet the following requirements:

1. Qualify for matriculation in the University.
2. Qualify for admission to the program.
3. Remove all departmental conditions or probation.
4. Qualify for admission to the Teacher Education Program (see Undergraduate Bulletin, School of Education).
5. Complete a minimum of two semester hours of Elementary Composition with a grade of C or better.
6. Complete a minimum of 30 of the last 60 credit hours of work in residence at any Indiana University campus or combination of campuses.
7. Complete 12 semester hours or more in one semester on a single campus, or two 6 semester hour summer sessions. The 6 semester hours must be taken in a continuous calendar period, but may consist of two separate courses taken in sequence with no calendar break between the two. Student teaching must be supervised through the IUPUI campus and does not apply toward fulfilling this requirement.
8. Obtain an average of C or better in all work taken at Indiana University, in all work taken in the Teaching Area Major, and in all courses taken that have an education prefix.
9. Complete a total of 124 semester hours of academic credit, including 35 semester hours of junior and senior courses (courses numbered higher than 299) distributed as described below.

GENERAL EDUCATION

The 50 credits needed to meet this requirement must include 16 semester hours in the Humanities; 14 semester hours in the Social and Behavioral Sciences; and 14 hours in the Life and physical sciences. Students may select courses accordingly from the following areas of study:

Humanities: (16 cr.) Afro-American Studies, Classics, Comparative Literature, English, Fine Arts, Folklore, Foreign Language, Philosophy, Religion, Speech, Theatre and Drama, Musicology and Music History.

Social and Behavioral Sciences: (14 cr.) Anthropology, Economics, History, Geography, Linguistics, Political Science, Psychology, and Sociology.

Life and Physical Sciences: (14 cr.) Anatomy, Biology, Botany, Chemistry, Geology, Mathematics, Microbiology, Physical Geography, Physics/ Physiology, Zoology.

TEACHING AREA MAJOR

Students must select additional courses in the area of their technical specialty or in areas which support, compliment, or extend their technical preparation if they lack 52 semester hours of earned credit in their technical area. Thirty (30) semester hours of technical specialty course credit may be awarded on the basis of prior certification, licensure, or registration in a health occupations specialty as described in the admission requirements. An additional ten (10) semester hours may be granted for completion of a minimum of three years validated occupational experience in the health occupations specialty.

PROFESSIONAL TEACHER EDUCATION (minimum 22 credits) required courses.

Introduction to Teaching F100	2-3 cr.
Human Development and Learning P280	5 cr.
Methods of Teaching in Health Occupations Education M477	3-5 cr.
Principles and Purposes of Health Occupations in Vocational Programs S497	3 cr.
Student Teaching in Health Occupations Education Programs M486	8 cr.

APPLICATION FOR DEGREE

At least one semester before the semester in which requirements are completed, the student must file an Application for the Bachelor of Science in Education degree. This application may be obtained from and should be returned to the Program Director. The Division of Education will not be responsible.

TRANSFER OF CREDITS

No credit will be allowed at Indiana University for courses the student has received a grade of D or lower at another institution. In any case, only acceptable credit hours acquired at another institution by a student will be transferred to Indiana University. Grade points earned at another school cannot be used with those earned at Indiana University to compute grade point averages.

MASTER'S PROGRAM IN ALLIED HEALTH SCIENCES EDUCATION

For the following courses refer to the Graduate Bulletin of the Division of Education: H504, H520, H530, H538, P510, and P525.

AHLT P500 Interdisciplinary Care of the Multihandicapped Child (1-3 cr.)

Introduction to functions of an interdisciplinary team in providing optimum care for multihandicapped children.

AHLT Z526 Workshop on Selected Problems in Allied Health Sciences (3 cr.)

Individual and group study dealing with current problems or procedures for improving teaching and practice in allied health fields.

AHLT Z590 Research in Allied Health Sciences (cr. arr.)

Individual research in an allied health field. Research may be of educational, laboratory, or clinical nature.

AHLT Z594 Management Procedures in Allied Health Sciences (3 cr.)

Techniques of office management, management of funds, accounting, records and reports, and purchasing applied to allied health services. Principles of effective organization, supervision, and administration.

AHLT Z650 Readings in Allied Health Sciences (3 cr.)

Selected readings.

AHLT Z780 Seminar in Allied Health Sciences (3 cr.)

Individual and group study focusing upon research relevant to allied health sciences. Critique of research problems and methodology, with correlation and integration of knowledge to develop theoretical bases to guide treatment or education.

EDUC T501 Introduction to Scientific Inquiry (3 cr.)

Analysis and interpretation of data, introduction to theory of advanced statistical techniques, and principles of research design appropriate to clinical setting.

EDUC T507 Evaluation in Allied Health Sciences Education (3 cr.)

Principles of construction and interpretation of written achievement tests and other evaluative procedures applied to allied health sciences education in academic, laboratory, and clinical settings. Project is required to apply the principles involved.

EDUC T525 Curriculum and Instruction in Allied Health Sciences (3 cr.)

Principles of curricular construction, content, material, and methods of instruction in allied health sciences.

EDUC T561 Allied Health Sciences in Community Health (3 cr.)

Introduction to public health and functions of voluntary and official health agencies. Personal and community

health needs and trends influencing education, practice, and future developments in allied health fields.

EDUC T599 Master's Thesis (6 cr.)

Individual investigation in the form of an organized scientific contribution or a comprehensive analysis in a specified area related to an allied health field.

EDUC T695 Practicum in Teaching (3 cr.)

Relating educational theory to practice through supervised teaching experience in an allied health setting. Emphasis upon planning, structuring and evaluating learning experiences.

University of Iowa

Lewis D. Holloway, Associate Professor
 Colleges of Medicine and Education
 363 Medical Laboratories
 University of Iowa
 Iowa City, Iowa 52242

(The source of information for this report was Mr. Rzonca.)

The program of study at the University of Iowa is designed to prepare teachers and educational leadership personnel for the health-field. Its interest is in preparing the individual, who through specific preparation or work experience has developed the competencies needed to function in a health specialty. Considerable benefit is believed to be gained through the interaction among the individuals in the Health Careers Education courses because of their varied specialties, educational backgrounds and goals. Eligibility is based upon acceptance by the Graduate College. In general, the applicant must have an appropriate degree, or its equivalent, for entrance. In addition, the individual must possess the professional licensure, registration, or certification necessary for professional practice.

Three degrees are offered in Health Careers Education all of which are at the graduate level:

The Master of Arts Degree is a non-thesis program which is not intended to prepare the individual for teaching a specific health specialty. The degree is of particular benefit to those who are planning a role change to work across a variety of health careers. Examples of such roles are that of curriculum specialist hospital-wide inservice educator, and department head in a community college.

The primary purpose of the Educational Specialist Degree is to prepare those who have a master's degree, or its

equivalent, in a health specialty area to serve as teachers in higher education institutions. It is an application oriented degree and includes considerable interaction between the student and a host department where the individual applies what is learned through regular course work to the "real world" of the teaching-learning process. Cooperative arrangements have been established with various health specialty colleges and departments to facilitate this relationship.

The Ph. D. Degree serves to prepare teachers, researchers, and administrators for the health field, primarily at the university level. The program includes a general concentration in Higher Education as well as the specialization in Health Careers Education. The opportunity is available to establish a working relationship and interactions with an individual's particular health specialty area.

A proposal was submitted which called for an "inverted" degree at the baccalaureate level for teachers in emerging occupational specialties, specifically health-related occupations. In this program all the requirements for the major are completed first, followed by the core distribution requirements. This can be accomplished without any change in college requirements. The inverted degrees could be offered in one of two ways: (1) as a program in the College of Liberal Arts leading to the B.A., B.S., or B. G. S. degrees (for the B.A. or B.S. degree it calls for a new major in Health Occupations Education), and (2) as a program in the proposed University College leading to a Bachelor of Occupations Education degree (B.O.E.) in a specialty area such as Health Occupations.

NON-THESIS MASTER OF ARTS (M.A.) DEGREE

ADMISSION REQUIREMENTS:

The candidate must meet the requirements for entrance to the Graduate College and to the Higher Education sequence of the College of Education. This includes a previous grade

point of 2.5 for unconditional acceptance and a 2.3 for conditional status. In addition, the candidate must take the Aptitude Test of the Graduate Record Exam. Application materials must meet the criteria established by the review committee.

DEGREE REQUIREMENTS: (minimum 32 S.H.)

1. Required Courses: The following or appropriate equivalents. 11 s.h.
 - a. Basic Core

7H:100 Problems and Policies of Higher Education	3
7F:117 Philosophies of Education*	2
7P:131 Educational Psychology, or	
7P:231 Adult Learning*	3
7P:143 Introduction to Statistical Methods	3

*Equivalent undergraduate courses may allow for additional electives.
 - b. Curriculum and Instruction Concentration 6 s.h.

7P:150 Educational Measurement for the Classroom Teacher	3
7H:315 Curriculum Development in Higher Education	3
 - c. Health Careers Educational Specialization 9 s.h.

50:161 Designing Learning Programs for Health Careers Education	3
50:262 Facilitating Learning in Health Careers Education	3
50:273 Health Careers Education and the Health Service Industry	3
2. 7H293 Individual Instruction to Higher Education 3 s.h.
Research Paper - Topic to be selected from specialty area as it is related to higher education.
3. Electives (To be approved by advisor) 1-6 s.h.
4. 7H333 Practicum in Higher Education 2-4 s.h.
Practicum may be waived for students with appropriate professional experience, allowing for additional electives.
5. Comprehensive Examination
Two three-hour examinations, one in higher education and one to include student's area of concentration and specialization.

THE EDUCATIONAL SPECIALIST (ED.S.) DEGREE

ADMISSION REQUIREMENTS:

The candidate must meet the requirements for entrance to the Graduate College and to the Higher Education sequence of the College of Education. This includes a previous grade point average of 2.7 for unconditional acceptance and a 2.5 for conditional status. In addition, the candidate must take the Aptitude Test of the Graduate Record Exam. The candidate's application materials must meet the criteria established by the review committee.

DEGREE REQUIREMENTS: (Minimum 60 s.h. post-baccalaureate)

1. Required Courses:
 - a. Area of Specialization 28 s.h.
Specialization credit may be earned prior to or concurrently with this program. (Examples of areas for which the 28 s.h. credit are accepted include: M.S. or M.A. in nursing, medical technology, dental hygiene; PH. D. in anatomy, biochemistry; and the M.D. or D. D. S.)
 - b. Professional Education and Related Fields 20 s.h.

7H:100 Problems and Policies in Higher Education	3
50:161 Designing Learning Programs for Health Service Industry	3
50:262 Facilitating Learning in Health Careers Education	3
50:273 Health Careers Education and the Health Service Industry	3
7H:333 Practicum in Higher Education (3 s.h.)	6
7H:364 Seminar: Health Careers Education (1 s.h.) May be repeated up to 2 s.h.)	2
2. Research Report:

7H:395 Educational Specialist Research in Higher Education	4 s.h.
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An applied study and report, usually related to the practicum
3. Electives - to be approved by the candidate's advisor 8-10 s.h.
4. Comprehensive Examinations: One 3-hour examination in Higher Education, a 3-hour examination in the area of specialization and an oral examination.

THE DOCTOR OF PHILOSOPHY (PH.D.) DEGREE

PURPOSE:

To prepare professional teachers, researchers and administrators for higher education positions related to the preparation of health specialty personnel. Within the Higher Education Program of the College of Education the student concentrates in Curriculum and Instruction and specializes in Health Careers Education. The graduate may prepare for several different types of positions including: faculty member in a university based health specialty program, department chairman, dean, consultant, teacher educator, hospital-wide in-service educator and health science curriculum specialist.

ADMISSION REQUIREMENTS:

Candidates must satisfy the requirements of the Graduate College for admission and meet the criteria for grade point average and Graduate Record Examination scores established by the admissions review committee in Higher Education.

DEGREE REQUIREMENTS:

(Minimum 72 s.h. - Most students take 90-100 s.h. including their master's degree credits.)

1. Required Courses: The following or appropriate equivalents:

- a. Common Core Educational Foundations: Students ^{16 s.h.} (minimum) should have demonstrated a general level of competence in basic history and philosophy, and other social and behavioral sciences prior to entering this program. They should seek the counsel of their advisor in planning any basic course work in these areas. In some instances, credit toward the degree may be granted for such courses.

Higher Education:

7H:220	History & Philosophy of American Higher Education	3
7H:222	Educational Policies and Programs in American Higher Education	3
7H:224	Organizational Analysis of American Higher Education	3
7H:226	Higher Education Management	3
7H:401	Higher Education Pro Seminar (1 s.h. repeated)	4

- b. Curriculum and Instruction Concentration 6 s.h.
- 7H:315 Curriculum Development in Higher Education 3
 - 7P:255 Construction and Use of Classroom Tests 3
- c. Health Careers Education Specialization 17 s.h.
- 50:161 Designing Learning Programs for Health Careers Education 3
 - 50:262 Facilitating Learning in Health Careers Education 3
 - 50:273 Health Careers Education and the Health Services Industry 3
 - 7H:364 Seminar: Health Careers Education (1 s.h. repeated) 4
 - 7H:293 Individual Instruction in Higher Education 4
2. Research: 6 s.h.
- Complete or otherwise demonstrate competence equivalent to two graduate courses in educational statistics or other behavioral science statistics. Other competencies appropriate to a dissertation will be developed by the student and his advisor. Each student is responsible for developing research competence and perspective in a field to be utilized in his doctoral dissertation.
3. Related field or minor: 9-12 s.h.
- Each student will complete a related field or minor outside of Higher Education. For most students in the Health Careers Education Specialization previous graduate work in a health specialty field serves as their related field.
4. Electives: 9-12 s.h.
- With the assistance of his adviser the student will select appropriate work to gain additional depth in special and related interest areas. This may include experiences in: the behavioral and social sciences; curriculum and instruction; philosophy, including analytical philosophy; further work in subject fields; measurement and evaluation; and administration.
5. Practicum: 0-6 s.h.
- Each student shall complete at least three semester hours of 7H:333 Practicum in Higher Education, or shall give evidence of similar administrative experience elsewhere.

6. **Comprehensive Examinations:**
Each student will write three three-hour examinations, including a general examination in higher education, an examination in the field of specialization within higher education, and an examination in the related field or minor.
7. **Dissertation:** } 9-15 s.h.
An original research project to be developed in area of higher education:

COURSES OFFERED IN HEALTH CAREERS EDUCATION

- 7H:161 Designing Learning Programs for Health Careers 3 s.h.
50:161 Education

Emphasis is placed on the development and evaluation of educational programs. Suggested planning procedures and typical curricula are analyzed and practical application is gained. Activities are individualized to meet various backgrounds, needs and objectives.

Major topic areas include: (1) analyzing an occupation or subject to determine subject matter for inclusion; (2) preparation of educational objectives; (3) identification of content; (4) organizing and sequencing curricula (including core curricula and career mobility); preparation of curricular materials; and, (5) evaluating learning programs.

- 7H:262 Facilitating Learning in Health Careers Edu- 3 s.h.
50:262 cation

The role of the health careers educator as a leader and learning facilitator is explored in detail. The student experiences a wide variety of learning strategies through readings, discussion, observation, and microteaching. Prerequisite 7H:161, 50:161 or equivalent.

Major topic areas include: (1) the role of the teacher in health careers education; (2) human relations and communication in education; (3) selecting learning strategies; (4) using live (lecture, discussion, role play, etc.) and mediated (programmed instruction, self-directed learning, etc.) strategies; (5) diagnosing learning problems; and (6) evaluating the effectiveness and efficiency of learning strategies.

50:273 Health Careers Education and the Health Service Industry 3 s.h.

A comprehensive overview of the health service industry, particularly as it relates to both the initial preparation and continuing education of health career personnel.

Major topic areas include: (1) the health service industry - historical development, present status (structure, payment for services and utilization of personnel) and conditions influencing change; (2) the preparation of personnel; (3) program accreditation and the certification, registration and licensure of personnel; (4) organizations and agencies relating to the industry and to personnel; (5) the process of health planning; and (6) the funding of health careers education.

7H:364 Seminar: Health Careers Education 1 s.h.

A forum for examining issues and special problems in health careers education, exchanging ideas, and for relating academic studies to the role of the health careers educator. May be repeated. Prerequisite, consent of instructor.

7H Designates Higher Education Program, College of Education
50 Designates Nondepartmental, College of Medicine

The University of Michigan - Ann Arbor

Daniel E. Vogler, Coordinator
 Undergraduate Occupational Teacher Education Program
 The University of Michigan
 School of Education
 Corner East and South University Avenues
 Ann Arbor, Michigan 48104

The University of Michigan offers an undergraduate degree in Occupational Teacher Education. The program is defined as being comprehensive and across-the-board. By this it is meant that the traditional categories found in vocational education are blended together. Emphasis is placed on teaching students an occupation rather than teaching an occupation to students. It is felt that this is advantageous for a number of reasons: (1) It provides a delivery system which is consistent with non-categorical legislation and funding. (2) It provides students with a broad exposure to occupational education. (3) It provides a valuable prelude for preparation of occupational education leaders. (4) It places emphasis on the student's profession rather than on his trade. (5) It provides for emphasis on the teaching/learning aspect rather than on the occupational content. (6) The delivery system is efficient and capable of producing teachers in highly specialized, rare, or emerging occupations.

It is believed that occupational teachers should be prepared in two ways. (1) They should possess occupational knowledge, skills and attitudes which will enable them to provide educational experiences for students studying an occupation under them. (2) They should possess teaching competencies which will enable them to extend their knowledge and skill. The assumption challenged among others is:

"The qualities and skills necessary to teach one occupation differ from those necessary to teach another occupation."

We are recruiting outstanding community college vocational-technical graduates who are interested in teaching.

The program is designed to prepare you to teach your occupational background. This will require you to complete approximately two years of course work at the University of Michigan. Approximately one year of course work will be devoted to professional education. The remaining year will be devoted to meeting group and minor requirements. The 124 semester hour program will culminate with a Bachelor's Degree in Education, and teaching certification for vocational-technical education.

UNDERGRADUATE OCCUPATIONAL TEACHER EDUCATION PROGRAM

The admissions requirements for this program are outlined below:

1. College transfer credit consisting of at least 55 semester hours.
2. Grade point average of 2.50.
3. Minimum of 20 semester hours of non-vocational credits.
4. Recommendations of the community college through a person designated to assume this responsibility. This recommendation should attest to your technical competence and to your estimated ability to graduate from the University of Michigan.
5. Transfer admission policies of the School of Education.

Students with a minimum of fifty-five semester hours of transfer credit and letters of recommendation enter the program as juniors and can complete the requirements in two years. Baccalaureate degrees are earned and graduates are qualified for general and vocational teacher certification.

One hundred thirty-seven competencies form the basis of the curriculum content for the University of Michigan's program. The competencies are chosen from the 384 competencies identified in the "Model Curricula for Vocational and Technical Teacher Education" project at The Center for Vocational and Technical Education, The Ohio State University. Competence is developed through a variety of learning experiences. These learning experiences include the development of professional competence in areas given minimal attention in many other teacher education programs; e.g., teaching the socio-economically disadvantaged, development of student-centered instructional techniques, and self evaluation

through directed teaching. The curriculum schedule described as functional course titles is outlined in Figure I-1. The starting point within the schedule depends upon the entry skills possessed by the student. The competencies to be developed are grouped according to courses.

Semester 1 Courses

Methods¹
 Micro-Teaching and A-V¹
 Educational Psychology¹
 Educational Sociology¹
 On-Site Aid/Observation
 Structured Work Experience

Semester 2 Courses

General Education
 Minor Requirements
 Foundations of Occupational Education
 Electives

SUMMER

Structured Work Experience

Semester 3 Courses

General Education
 Minor Requirements
 Electives

Semester 4 Courses

Directed Teaching¹

Figure I-1: Curriculum Outline Described by Functional Course Titles

¹ Required for teacher certification.

² Required by Occupational Education Program.

³ Courses and semesters may be interchanged with the limitation that directed teaching must be done with senior standing.

State University of New York at Buffalo

Charles W. Ford, Ph.D.
Assistant Professor and Coordinator
College Teacher Preparation Program
Department of Health Sciences Education and Evaluation
State University of New York at Buffalo
260 Winspear Avenue
Buffalo, New York 14214

This university has three programs of interest to future health occupations educators. The first of these is a ten-month academic program designed for qualified allied health professional practitioners who are interested in teaching in two-year colleges. These practitioners would come from such fields as dental hygiene, inhalation therapy, dental assisting, and radiologic technology. Besides possessing professional practice in his specific field the applicant must have at least three years of professional experience in his specific allied health field.

Second, persons wishing to obtain an undergraduate degree in Health Occupations Education may do this as well.

A third program for the educator is one which offers a Master of Science Degree. In addition to the admission requirement, the candidate must necessarily possess a baccalaureate degree from an accredited school. Emphasis is placed on education courses as well as on professional courses related to the student's allied health professional discipline area.

The goal is to develop skills in teaching within the student, incorporating innovative instructional technique, especially the new audio-visual developments, and to develop skills in curriculum design.

The affiliation within the university for granting degrees and for certification is rather unique:

The Department of Health Sciences Education and Evaluation,

established in 1969, is located in the School of Health Related Professions which is an integral part of the Faculty of Health Sciences. The Faculty of Health Sciences also includes the School of Medicine, the School of Dentistry, the School of Pharmacy, and the School of Nursing.

The School of Health Related Professions is composed of five departments: Physical Therapy, Medical Technology, Occupational Therapy, Laboratory Animal Science, and Health Sciences Education and Evaluation.

Department of Health Sciences Education and Evaluation
Certificate - Undergraduate

I. Background

The Community College Teacher Preparation Program consists of a ten-month certificate course of study. The main goal of the program is to prepare professionally competent individuals for allied health faculty positions in two-year colleges. It is available for both degree holding and non-degree individuals practicing in allied health fields. The rationale for such recruitment is based upon the assumption that two-year colleges hire faculty on an individual basis, considering professional proficiency and expertise of the individual rather than formal academic preparation. Individuals from such allied health areas as dental hygiene, dental assisting, radiation technology, respiratory therapy, and ophthalmic assisting are considered as well as personnel from other health fields.

II. Program

The Community College Teacher Preparation Program consists of a series of integrated courses which are developmental in design. Building upon the assumption that a successful classroom teacher must have a combination of theoretical and practical tools, the program begins with a base of instructional methodologies, teaching learning processes, and evaluation procedures as prerequisite knowledge to be applied in a teaching intern setting in a local community college or hospital education program.

The instruction utilizes team teaching. The entire faculty plan and implement each of the units under the coordination of a unit leader who is a faculty member who has a particular interest in the area.

The courses are 400 level courses (upper division) and earn undergraduate credit. Qualified students have the option of working toward a bachelor's degree in addition to earning the Community College Teacher Preparation Program Certificate.

III. Curriculum

<u>Course No.</u>	<u>Course Title</u>	<u>Semester Hours</u>
HSE 410	Introduction to Allied Health Teaching	4
HSE 411	Teaching-Learning Process	4
HSE 412	Methods and Materials	4
HSE 413	Evaluating Student Learning	4
HSE 414	The College Student	2
HSE 418	Curriculum Development	4
HSE 416	Organization and Administration	4
HSE 415	Interpersonal Communication Processes	2
HSE 403	Controlled Experience Teaching	6
HSE 499	Independent Study	1-6
HSE 420	Special Topics in Allied Health Education	1-4

IV. Course Descriptions

A. HSE 410--Introduction to Allied Health Teaching - 4 credits

This course is designed to orient the student to allied health concepts. It deals specifically with core curriculum, health maintenance and the changing roles of allied health professionals in the delivery of health care.

B. HSE 411--Teaching-Learning Process - 4 credits

This course is designed for prospective college teachers who are concerned with the ways students learn and the ways the teacher can contribute to the process. Emphasis is placed on the teaching-learning model.

C. HSE 412--Methods and Materials - 4 credits

The course is designed for prospective college teachers who are concerned with the variety of materials available to the classroom teacher and the methods which can be employed in using the materials with particular attention to use of audio-tutorial methods in allied health and to microteaching skills.

D. HSE 413--Evaluating Student Learning - 4 credits

This course is designed for teachers in allied health education who are concerned with the evaluation of student progress. Major emphasis is placed on the problem in measuring and evaluating student achievement and progress in both classroom and clinical settings.

E. HSE 414--The College Student - 2 credits

This course is designed for prospective community college teachers who are concerned with understanding the student population they are responsible for educating. Special attention will be given to various subcultures within the academic settings.

F. HSE 418--Curriculum Development - 4 credits

This course is designed for teachers in allied health who are concerned with the process of curriculum development and the many forces both extra-institutional and intra-institutional which exert influences on this development.

G. HSE 416--Organization and Administration - 4 credits

This course is designed for prospective community college teachers who are concerned with the variety of ways institutions of higher education are organized and administered. Emphasis will be upon understanding the community college teaching faculty's and department chairmen's roles within the organizational structure. In addition health care organizations will be examined for their role and function in the society.

H. HSE 415--Interpersonal Communication Processes - 2 credits

This course is designed for allied health teachers in order to provide a theoretical and applied perspective with regard to establishing and maintaining meaningful interpersonal relationships for professionals in the health care fields.

I. HSE 403--Controlled Experience Teaching - 6 credits

This course is designed for prospective community college teachers in order to provide them with a variety of opportunities to experience observations and teaching in a classroom situation in an allied health program of a community college or hospital program.

J. HSE 419--Clinical Field Experience - 1-6 credits

This course provides opportunities to implement planned self study experiences in order to acquire depth in allied health professional discipline via clinical settings.

K. HSE 499--Independent Study - 1-6 credits

With permission of the academic advisor, the student may elect 1-3 hours of independent study in an area of allied health education.

L. HSE 420--Special Topics in Allied Health Education - 1-4 credits

In-depth study of selected topics in allied health education chosen on the basis of interest and need.

ALLIED HEALTH MASTER OF SCIENCE TEACHER
PREPARATION PROGRAM

The program is designed for qualified allied health professional practitioners interested in teaching in either two-year or four-year colleges. Practitioners from such fields as dental hygiene, medical technology, physical therapy, occupational therapy, medical record administration, radiologic technology, and inhalation therapy are eligible.

The twelve-month academic program, individually tailored to the needs of the student, is designed with two major emphases: (1) an allied health instructional core which introduces the students to teaching, evaluation, and curriculum planning, including a guided student-teaching experience, and (2) selected graduate courses designed to complement and extend the participant's professional expertise through a planned program of study in either his particular professional field or in a closely related field.

Selection of students is based on the following criteria:

1. Baccalaureate degree: Each applicant must possess a baccalaureate degree from an accredited school.
2. Experience: Each applicant must have at least two years professional experience in his specific allied health field. Previous teaching experience is not a necessary requirement.
3. Professional Credentials: Where applicable the applicant must possess professional licensure, registration, or certification necessary for professional practice in his specific field.

MASTER OF SCIENCE
in
PREPARATION OF ALLIED HEALTH TWO-YEAR COLLEGE TEACHERS

HSE 503 Supervised Teaching (1-3) Staff

A supervised teaching experience in an allied health educational program appropriate to the allied health background of the student.

HSE 510 Introduction to Allied Health (2) Higley and Staff

An exploration of the current trends and issues in allied health education. Analysis of the present and projected health care delivery system will be included. Efforts will be made to provide a basic understanding of allied health practice and education for the specialized and more intensive study in advanced courses in allied health education. Course open to non-majors.

HSE 517 Seminar in Instruction (2) Staff

This course is designed to offer the prospective allied health educator the opportunity to understand and develop skills in the decision-making processes of classroom and clinical teaching. It deals with the study of various methods and instructional media applied to the planning and implementing of allied health instructional programs.

HSE 518 Allied Health Learning Environment (2) Staff

An examination of current research on theories of learning as they apply to the college learner. Practical aspects to allied health teaching will be stressed. The student will be expected to analyze and apply the theories to the classroom and clinical setting.

HSE 519 Seminar in Helping Relationships (2) Staff

Includes an in-depth consideration of teacher and clinical practitioner in a helping relationship role with students and patient. It focuses on consideration of contemporary theories of motivation and behavior. Included is an analysis of the research on the contemporary college student.

HSE 520 Allied Health Organization and Administration (2) Staff

This seminar is concerned with the organization, administration and characteristics of institutions of higher education and institutions responsible for providing health care. Administrative and leadership at the departmental level will be explored with emphasis on maintaining effective teaching programs, which includes personnel management, program development and budget control.

HSE 523 Curriculum in Allied Health (2) Higley and Staff

This course is designed to study curriculum theory and the development of programs in allied health. Emphasis is on the many intra and extra-institutional forces which influence the structure of allied health education. New concepts on core curriculum, equivalency and proficiency testing and accreditation and licensure are considered.

HSE 524 Advanced Clinical Field Experience (2-6) Staff

This field experience is individually designed to provide clinical work experiences at local area hospitals or public health agencies to fit special clinical interests of the student. The work will be directly co-supervised by an appropriate member of the professional faculty and by a member of the department staff.

HSE 525 Graduate Project (2-6) Graduate Faculty Staff

A teaching project in the student's professional area requiring evidence of ability to investigate a specific allied health educational problem.

HSE 530 Topics in Allied Health Teaching (1-3) Staff

In-depth study of selected topics in allied health education chosen on the basis of the groups' interest and need may be taken by the student on an elective basis.

HSE 554 Evaluation for Allied Health Education (2) Staff

Analysis of the process of evaluation as it applies to both classroom and clinical allied health teaching as well as to curriculum development. Included will be an understanding of the procedures for construction and analysis of tests.

HSE 599 Independent Study (1-3) Staff

With permission of the advisor, the student may elect 1-3 hours of independent study in an area of allied health education.

Other Health Occupations Education Programs

The University of California at Los Angeles certifies people to teach at the secondary level in the areas of trade, technical and health occupations. Two years are required (an associate degree in a health occupation specialty) plus five years work experience in the student's professional area. Students must complete twenty-two hours of education courses and then are granted a life certification to teach.

A program in health occupations education at Western Kentucky University at Bowling Green is in the second year of development. This is being modeled very much after the already existing program which is at the University of Georgia.

The University of Oregon at Eugene is developing a new program after a recent study indicated a need for such a program in their state.

Conclusion:

In the foregoing, an attempt was made to briefly summarize program offerings found within the United States in the preparation of health occupation teachers. Following this brief introduction an indepth record of registration requirements and courses requirements was presented. This was done in an attempt to illustrate the rumerous approaches or strategies being engaged in throughout the nation.

It can readily be observed that each of the programs are different, yet, certain commonalities appear to exist. Organizational structure of each of the institutions does not permit parallel comparison of these strategies. However, it does appear that six health occupation teacher education programs are found within Schools or Colleges of Education. Two

of these programs are found to exist in some combination of efforts of a School of Education and a School of Allied Health Sciences. One is found in a combined arrangement with a School of Health Sciences and yet another with a School of Medicine. These cooperative efforts exist for certification and degree granting purposes and may well have come to exist in this manner due to initial grant requirements demanded by Federal grant giving agencies. Observation shows that most programs are offered by well known universities all of which are tax supported institutions.

(Note: All quotations were taken from material sent to this writer by persons from the colleges and universities contacted. Most of the material came from conversations, letters, informal publications and school bulletins which have no author, publication dates, or titles.)

STATE NEEDS FOR HEALTH OCCUPATIONS TEACHERS

It is the purpose of this section of the report to estimate the need for teachers of health occupations education at the secondary and post-secondary levels of instruction. However, before these needs are addressed, it may be fitting to demonstrate the general need for health care workers since this need reflects, at least in part, the need for health education teachers.

Need for Health Care Personnel in the State of Wisconsin

In a study conducted by the Wisconsin Department of Industry, Labor and Human Relations entitled Work Force 1980 Occupational Projections and dated August 1974, projections were given for post-secondary teacher needs. (See Appendix E). This table indicates that by 1980 there will need to be an 84.7% increase in Health Occupations Instructors (Health Specialists) by the year 1980 if teaching needs are to be met. As can be observed this is the highest job vacancy area of any of the post-secondary instructors with the exception of the broad area of adult education instructors.

In a recent term project report written for Professor Harland Samson by a student named Jacqueline Izyk, an attempt was made to determine existent shortages in some of the major health career fields in the State of Wisconsin. A questionnaire was sent to 629 health facilities of which 453 responded. This represents a 72% response. She asked the question: "If they applied tomorrow, how many would you hire in the following fields?" She listed several health careers. However, not

surveyed were physicians' offices. While Public Health Departments were surveyed and shortages were recognized to exist, they were not included in the summation of her figures because they could not hire personnel due to shortages in their budgets. The health career personnel she chose to inquire after are representative of only a portion of the true state need for health care workers. However, in viewing her figures with corresponding graduates in A.M.A. accredited educational programs, it would seem to indicate that we are negligent in the preparation of some allied health personnel while overproducing in others. (See Appendix B for this comparison). The health career vacancies she found to exist are the following: Dietician 66, ECG Technician 11, EEG Technician 10, Hospital Pharmacist 33, Inhalation Therapist 53 1/2, Lab. Assistant 34, Medical Assistant 6, Medical Records Librarian 59, Medical Record Technician 54, Medical Secretary 76, Medical Social Worker 67, Medical Technologist 73, Nurse Anesthetist 43, Nursing Assistant 1,314, Nutritionist 1, Occupational Therapist 110, Operating Room Technician 63, Orderly 178; Occupational Therapist Assistant 112, Practical Nurse 681, Physical Therapist 125, Psychiatric Social Worker 40 1/2, Psychologist 47 1/2, Physical Therapist Assistant 73, Recreation Therapist 53, Registered Nurse 1,233, Speech Pathologist and Audiologist 48, Ward Clerk 183, and X-ray Technician 44. Because of Ms. Iznk's findings and the discrepancies in the indicated need in some health careers, it may indicate to the State of Wisconsin that a thorough investigation of need in each health career might be desired if we are to train our own citizens to fill positions which are in demand. Conversely, we could stop overtraining where indicated and concentrate training in areas of real need.

The need for teachers of health occupation education suggests

that they as well will have to have specialized training in education course work in addition to their medical specialty if they are to teach in an effective manner. It therefore seems fitting to present, as part of this discussion, certain thoughts regarding the placement of a health occupations teacher education program dimension within the State of Wisconsin. Consider the following as an attempt to present research findings and facts of pertinent note pursuant to the development of such a program dimension: 1) A number of area manpower surveys done by the Department of Public Instruction for Wisconsin Secondary Schools tend to show that of those persons who terminate formal education at or before the end of the twelfth grade, 90% will permanently settle and work within 20 miles of their point of origin. Of those persons who complete college, 90% out-migrate from their home communities. Post-secondary graduates, if trained within a twenty-mile radius of their home, will tend to remain in that area. However, 90% will not return to their point of origin if trained outside of a twenty-mile radius of their home. This would indicate that if we want persons trained at the post-secondary level to remain in their home areas we will have to train in these areas. This may well tend to eliminate some of the problems of distribution in the health care delivery systems. On the other hand, persons trained at the college level could become teachers and go to areas of need if teaching positions became available. However, this presents a problem with the logic presented. In telephone conversations with a number of health occupation coordinators throughout the State of Wisconsin, their indication was that we need to offer courses required for certification in addition to specific health occupation education curriculum if we are to meet their need for teachers at the post-secondary level. This makes a great deal of sense because

the University System, it would seem, can understand two main reasons for their conclusions: a) experienced health workers working in or near a community having a vocational school are often married and are frustrated because they want to teach and yet cannot fulfill course requirements or courses which would improve their health occupation teaching methods in or near their community; b) when practice teaching for certification at the secondary level of instruction, training could, and perhaps should, be done locally and concurrent with employment. In this sense the University System would exist for the people of the State, not the other way around. 2) If college training is offered in an area where jobs are available, graduates will tend to remain in this area after graduation. This simply substantiates the above argument. If we want teachers dispersed throughout the State, then we will have to train them in or near their home communities. 3) Most programs at the national level in health occupations education are found in Schools of Education and within Departments of Vocational Education. (This is verified in Section II of this report.) 4) Some programs are conducted in cooperation with Schools of Allied Health and Sciences. (See Sections II and IV of this report.) The latter will indicate that, in several cases, cooperation between Schools of Allied Health and Schools of Education is a requirement for the granting of Federal funds for program development.) 5) Of those schools identified in Section II, all programs in health occupations education are found to be tax supported. 6) These health occupations education programs are found at colleges or universities which also provide health occupation training. (See Section II for verification.) 7) Health occupation education programs are located at institutions which can and do affiliate with health care facilities within their immediate geographical area.

Because of the preceding statements, it can be concluded that the responsibility for developing and maintaining a program dimension in health occupations education would most appropriately rest with the University of Wisconsin System. The question which remains to be answered is just where in the system should such a program be located to meet the needs of the students and the State. On the basis of the foregoing statements it would seem to this writer that the University of Wisconsin-Madison should take on this responsibility. This statement will not be well received by many who feel that everything of importance is located in the Southeastern portion of this State. Indeed, one can sympathize with these thoughts. But there is a defense to this position and a way to meet the needs of all potential students if this program dimension is handled in a fair and responsible manner.

It can be said that many students come to Madison in pursuit of studies in health occupations. While Madison is able to provide many job opportunities, these become saturated and persons would then have an opportunity to return to their points of origin or perhaps to areas of need to seek employment. But, this approach may well be unrealistic. For consultants at the VTAE District level have conveyed that the teachers they want are the experienced people in their health profession. They desire the experienced. As stated before, these people have settled in a community and they can't commute to classes in the city of Madison without serious inconvenience to themselves and their families. Nevertheless, Madison is the only campus with a School of Education and Department of Continuing and Vocational Education which could affiliate with the School of Allied Health for degree granting purposes or for the possible securing of Federal Grants. (See Appendix A.) Central administration resides at the

Madison Campus and they have seen to it that health professionals are able to continue in their efforts to improve and keep pace with modern medicine through the University of Wisconsin-Extension Health Sciences Unit. They are presently offering this year the following: 151 Institutes, 6 Conferences in Health Systems Administration, 11 Extension Services in Pharmacy, 95 Program Offerings in the Department of Nursing, 16 in the Department of Continuing Medical Education, 43 in Community Health, and 42 in Continuing Education in Mental Health. In addition, telephone conferences are available along with tapes, films, publications, and independent or group study materials and services. To do this job well, they have a faculty of 61 members who are certified teachers at their level of instruction. (This does not reflect the certification discussed and needed as a result of this report.) For further information describing these offerings consult the publication *Continuing Education in the Health Professions and Related Sciences, 1974-75 Offerings*, University of Wisconsin--Extension, Room 415, 610 Langdon Street, Madison, Wisconsin 53706, (608) 262-3480. The point to be made is that so many are being served in the State and these activities are being provided by the University of Wisconsin-Madison. What is needed then for a health occupations program dimension is administration that will reach out to students where the need occurs in the State while having the administration of the program at Madison for affiliation and funding purposes.

Need for Post-Secondary Health Occupations Teachers

Again citing the Final Report on Health Occupations Education of the VTAE, the following indicates the expansion of the Health Occupations Education Programs at the post-secondary level:

Enrollment growth in selected health occupations education preparatory programs in SY 1973-74 over SY 1972-73 reflected a 12% increase.

This increase does not include figures for the short-term nursing assistant pre-service program which accounts for another 2,025 students. The 1973-74 total enrollment in this pre-service program area alone represents a 78% increase over the previous year continuing to reflect the shift from the 120 hour basic extension program to the 180 hour pre-service.

When comparing yearly enrollments for only associate degree and one-year vocational programs in HOE, the increase in enrollment of 1973-74 over 1972-73 is 10%.

The overall increase in enrollments for HOE of 30% continues to be the highest rate of increase of any of the disciplines in the VTAE system and is significantly above the overall state estimated increase of 8% for the same period.

Projected enrollments for the 1974-75 SY anticipate a rate of increase which will again substantially exceed the overall estimated increase in state VTAE enrollment of 8%.

Health Occupation Education Programs at both the secondary and post-secondary levels of instruction constitute 11% of the total student enrollment in the State. The VTAE State Plan has identified a deficit of 48 HOE teachers for this past year. There is an approximate need for 40 to 50 new faculty each year for the next five years. (See Appendix D for the latest figure which doubles this approximation.) Yet, no State educational institution provides pre-service teacher training in the broad area of Health Occupations Education. (See Appendix A.) It should be noted that while many of the campuses offer Allied Health Programs many of them are only in Medical Technology. These programs are perhaps offered because the requirements for Medical Technology are close to the requirements needed by pre-dental and pre-medical students. However, in the majority of cases the actual technology is taught in a

hospital situation. These hospitals are accredited for this purpose by the American Society of Clinical Pathologists. The instructors in such an affiliated hospital are not certified teachers nor is it the concern of this report whether they are or not.

New programs in Health Occupation Education are most desired and are being anticipated at the post-secondary level. (See pages 3-11 and 3-12 of this section.) However, possibly one of the main limitations of program expansion other than facilities is the insufficient numbers of trained and certified Health Occupation Teachers. In an effort to determine this need, the VTAE Districts were surveyed directly at the request of the ad hoc advisory committee. Initially, Health Occupation Program Coordinators were contacted directly by phone. This effort was followed by a letter, a data sheet and instructions for filling out the data sheet. (These items are included as Appendix C of this report.) Preceding the tables is a map of the State of Wisconsin showing the VTAE Districts by their representative numbers.

Needed for the interpretation of the following tables are these abbreviations and what they symbolize:

* anticipated figures, not actual true figures

FT those teachers who are under contract and who teach full time in the district

FPT those employees who are working full time for the district under a contract but who may have other duties other than course instruction (i.e. administrative duties).

PT those teachers hired for only part time teaching and who are not under contract with the district indicated. (i.e. They may come in for only one or two classes or may come in for a period of several weeks to provide instruction.)

ENR Students enrolled

GRAD Students graduated

NI None or not indicated

The tables speak for themselves. However, a note of caution is appropriate. The reader must keep in mind that programs begin and end at different times during any one year. Some programs may take more time to complete than others. The number of instructors within any one program is very dependent upon whether they give classroom, laboratory or clinical instruction. This consideration is important because dependent upon the teaching situation the student to teacher ratio fluctuates. This makes a determination of student to teacher ratio impossible to calculate.

For convenience, a Summary Table is included which indicates State Totals in the areas under consideration. All other tables represent district totals, individual program totals and State Totals.

Included as part of this section is a listing of programs which may develop in the future.

Considering the increase in enrollments due to increased program development and anticipated growth and expansion of such programs, more health occupations teachers will correspondingly be needed to teach related courses.

ANTICIPATED HEALTH OCCUPATIONS PROGRAMS

Programs Submitted to V.T.A.E. and Approved:	District
Patient Service Worker	2
Practical Nursing	3
Physical Therapy Assistant	4
Respiratory Technician	4, 9, 13
Respiratory Therapy	14
Nursing Technical	5
Associate Degree Nursing	11
Ward Clerk	11
Emergency Medical Technician	11
Occupational Therapy Assistant	12
Dental Hygiene	13

Programs for Which Interest is Indicated:

Associate Degree Nursing	3, 8, 11, 12, 13
Radiologic Technician	4, 5, 10, 16
Respiratory Therapy	13
Optometric Assistant	4
Nursing Assistant	16
Medical Records Technician	4
Occupational Therapy (Assoc. Degree)	4
Histologic Technician	4
Dental Assistant	12
Dental Hygiene	6
Para-Legal Aide	8
Central Service Technician	8
Medical Laboratory Technology	15
Medical Records Technician	8
Radiologic Technology	9
Nursing Technical	10
Nuclear Medicine Technician	11
Visit Dose Pharmacy Aide	11

Programs of Future Interest (not submitted or requested):

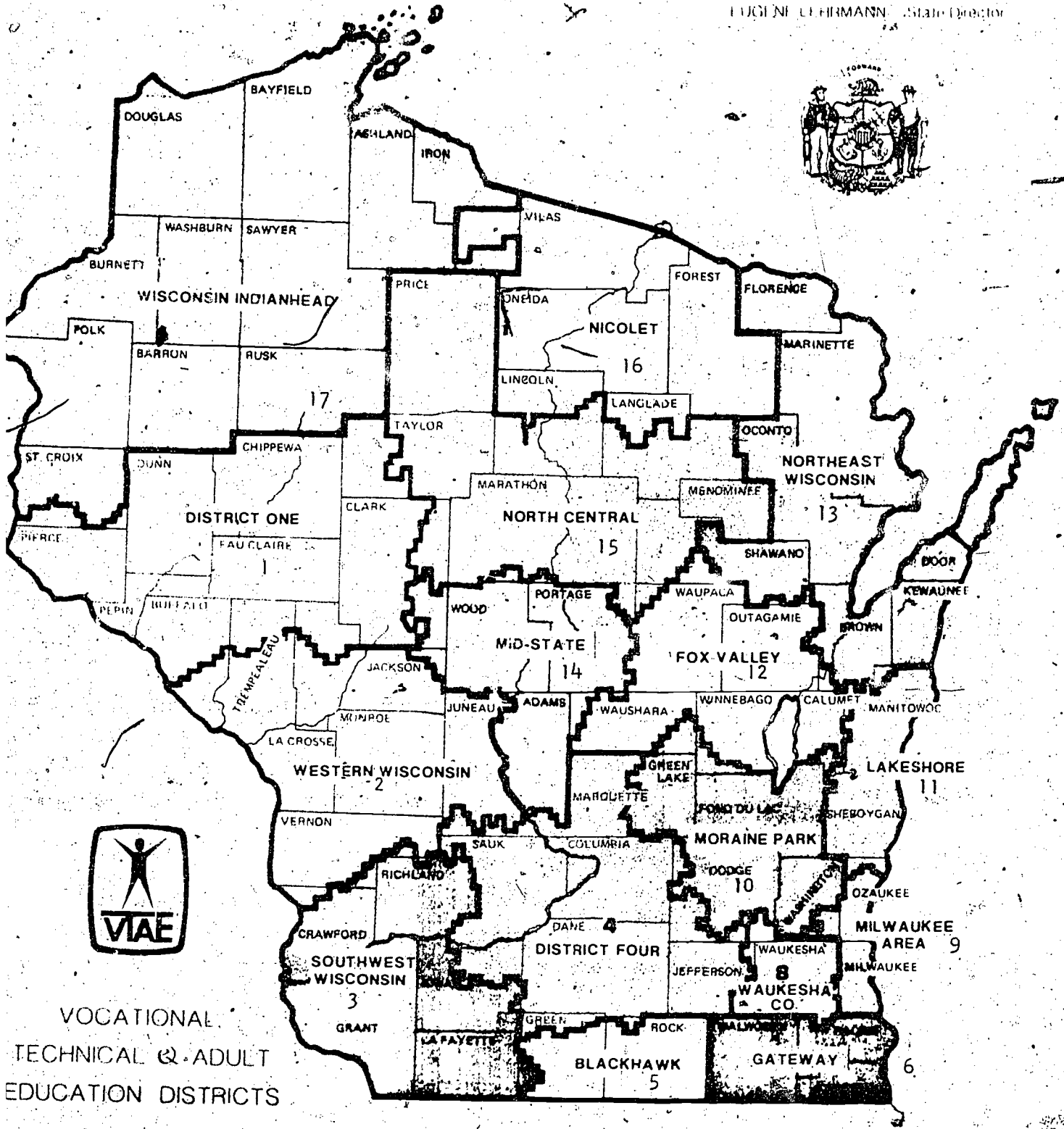
Physical Therapy Assistant	1, 8
Occupational Therapy Assistant	1, 8
Nuclear Medicine Tech.	2
Orthopedic Assistant	2
Dental Assistant	3, 5, 15
Dental Hygiene	5
Respiratory Therapy	6, 8
Human Services Aide	8
School Health Aide	8, 12
Psychiatric Aide	8
Ward Clerk	9
Ward Manager	9
Home Health Aide	12
Medical Assistant	15
Mental Health Assistant	15, 17/18
Medical Laboratory Technician	15
Nursing Assistant	15 (continued)
Emergency Medical Technology	15
Nursing Technical (ASN)	17/18

(Note: Information concerning anticipated health occupation programs at the post-secondary level was received thru direct survey of the V.T.A.E. Districts in Wisconsin.)

State of Wisconsin

BOARD OF VOCATIONAL, TECHNICAL & ADULT EDUCATION

EUGENE LEHRMANN, State Director



VOCATIONAL
TECHNICAL & ADULT
EDUCATION DISTRICTS

Table 1

HEALTH OCCUPATION PROGRAMS IN WISCONSIN POST-SECONDARY SCHOOLS 1973-74

	1		2		3		4		5		6		8		9	
	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD
Nurs. Technical (ADN)			30	0			90	35			5	35			36	150
Nurse, Practical (PN)	40	35	40	28			138	121			120	88	148	98	19	122
Nursing Assistant (Pre-Service)	260	253	158	135	118	104			183	165	149	116	131	114	75	55
Nursing Assistant (In-Service)																
Operating Room Assistant			24	20			15	12			17	14	25	18	26	16
Ward Clerk			29	25	9	8			26	22	21	16	22	12		
Electroencephalographic Technician			10	3 (ass't.)												
Medical Assistant			36	28			40	37	27	23	32	21	24	17	46	26
Medical Laboratory Assistant																
Medical Laboratory Technician	48	37	16	11											25	7
Medical Records Technician	12	7	13	7												
Occupational Therapy Assistant							30	21								
Occupational Therapy Assistant (Tech.)																
Optometric Assistant																
Physical Therapy Assistant (Tech.)															26	6
Radiologic Technician	12	10	16	15												
Respiratory (Inhalation) Therapist															57	19
Dental Assistant			35	26							38	29			48	27
Dental Hygienist							22								48	18
Dental Laboratory Technician															38	15
DISTRICT TOTAL	312	352	407	298	127	112	357	248	236	210	427	319	350	259	954	461

Table 1 continued

	10		11		12		13		14		15		17/18		STATE TOTAL	
	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD
Nurse, Technical (RN)											60	50			595	270
Nurse, Practical (PN)	72	61	64	56	81	73	61	54	44	42			80	74	1086	852
Nursing Assistant (Pre-Service)	134	120	192	176	119	114			78	59			270	224	1867	1635
Nursing Assistant (In-Service)							160	136							160	136
Operating Room Assistant	15	13			14	14	28	20	17	15	13	7			196	149
Word Clerk	15	12			26	23	11	9					10	7	169	134
Electroencephalograph Technician															10	3
Medical Assistant			32	11			35	27	26	19			27	22	325	231
Medical Labor Assistant																1
Medical Laboratory Technician													89	55	178	110
Medical Records Technician															29	14
Occupational Therapy Assistant					34	26									64	47
Occupational Therapy Assistant (Tech.)																
Optomeric Assistant			24	15											24	15
Physical Therapy Assistant (Tech.)															26	6
Radiologic Technician											16	3			44	28
Respiratory (Inhalation) Therapist															57	19
Dental Assistant			28	48			36	31							185	131
Dental Hygienist															92	40
Dental Laboratory Technician															38	15
DISTRICT TOTAL	236	206	340	276	274	250	331	277	165	135	69	60	476	382	5141	3835

3-15

Table 2

HEALTH OCCUPATION PROGRAMS IN WISCONSIN POST-SECONDARY SCHOOLS 1974-75

	1		2		3		4		5		6		8		9	
	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD
Nurse, Technical (ADN)			40	24			110	47			64	33			348	149
Nurse, Practical (PN)	80	38	40	29			140	119			120	67	159	111	176	120
Nursing Assistant (Pre-Service)	NI	NI	55	138	178	159			160	149	197	155	180	152	70	64
Nursing Assistant (In-Service)									52	48					135	125
Operating Room Assistant			24	22			16	13			17	8	25	20	43	40(1/76)
Ward Clerk			31	24	11	9			30	24	21	8	48	40		
Electroencephalographic Technician			16	4												
Medical Assistant			36	25			40	38	28	22	37	27	26	20	48	29
Medical Laboratory Assistant																
Medical Laboratory Technician	48	33	18	13			14	0							30	12
Medical Records Technician	12	10	12	10												
Occupational Therapy Assistant							30	20								
Occupational Therapy Assistant (Tech.)															18	0
Optometric Assistant																
Physical Therapy Assistant (Tech.)															30	12
Radiologic Technician	13	10	18	12												
Respiratory (Inhalation) Therapist							35	13							46	15
Dental Assistant			31	27			48	43			34	25			42	34
Dental Hygienist							49	26							46	16
Dental Laboratory Technician															31	12
DISTRICT TOTAL	153	91	421	328	189	168	482	319	270	243	490	323	438	342	1063	628

*1974-75 figures entered are estimates

Table 2, continued.

	10		11		12		13		14		15		17/18		STATE TOTAL	
	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD	ENR	GRAD
Nurse, Technical (ADN)											51	43			613	296
Nurse, Practical (PN)	78	67	64	54	82	69*	68	NI	44	43			80	74	1131	791
Nursing Assistant (Pre-Service)	164	139	200	185*	157	151	NI	NI	155	137			307	261	1923	1690
Nursing Assistant, (In-Service)															187	173
Operating Room Assistant	15	13			14	8	25	NI	17	14	13	10			209	148
Ward Clerk	13	7	12	6	14	13	24	NI	32	25			14	9	250	167
Electroencephalographic Technician															16	4
Medical Assistant			78	19*			38		21	16			22	18	374	214
Medical Laboratory Assistant																
Medical Laboratory Technician															110	58
Medical Records Technician	15	0													39	20
Occupational Therapy Assistant															30	20
Occupational Therapy Assistant (Tech.)					32	30									50	30
Optometric Assistant			82	21											82	21
Physical Therapy Assistant (Tech.)															30	12
Radiologic Technician											8	11			39	33
Respiratory (Inhalation) Therapist					10	10	12	NI							103	38
Dental Assistant			78	18*			37	NI							267	147
Dental Hygienist															95	42
Dental Laboratory Technician															31	12
DISTRICT TOTAL	285	228	511	303	309	281	204	NI	269	235	72	64	423	362	5579	3916

3-17

Table 3

HEALTH OCCUPATION TEACHERS IN WISCONSIN POST-SECONDARY SCHOOLS 1973-74

3-18

	1			2			3			4			5			6			8			9				
	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT		
Nurse, Technical (ADN)				4						9*						8	1							31	1	2
Nurse, Practical (PN)	3	2		7	1					17*	2*					8	1	3	10	6			22	0	2	
Nursing Assistant (Pre-Service)				1	6		1	1	2				1	7				8	2	2			1	0		
Operating Room Assistant				2	1					2*	1*					1	1		2	1			3	0		
Ward Clerk				1			1						1				1		1							
Electroencephalographic Technician				1																						
Medical Assistant				2						1*	1*	3*	1		1	1		2					2	0		
Medical Laboratory Assistant	1	2																								
Medical Laboratory Technician				3						2*	1*	1*											4	0		
Medical Records Technician	1	1		3																						
Occupational Therapy Assistant										2*	1*															
Optometric Assistant																										
Physical Therapy Assistant (Tech.)																							2	0		
Radiologic Technician	1	1		2	2																					
Respiratory (Inhalation) Therapist										3*	1*	2*											4	0		
Dental Hygiene										5*	1*	8*											4	1	7	
Dental Assistant				2						5*	1*	10*			1	1							3	0		
Dental Laboratory Technician																							3	0		
DISTRICT TOTAL	6	6	0	28	10	0	1	2	2	46*	8*	25*	0	3	7	19	6	11	17	9	0	80	2	11		

*1973-74 figures were not available

100

101

Table 3 continued

	10			11			12			13			14			15			17/18			STATE TOTAL		
	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT
Nurse, Technical (ADN)															10	3						62	5	2
Nurse, Practical (EN)	6	10	4	6		2	6	1	2	6	3		6		1				5		1	102	26	15
Nursing Assistant (Pre-Service)			7	1		3	1		6			9							1		20	76	26	49
Operating Room Assistant	2						1			1		2	2	0	1	1						17	5	2
Ward Clerk							1			1									1			5		1
Electroencephalographic Technician																						1	0	0
Medical Assistant				1		2						2	1	0	2				1		1	11	0	7
Medical Laboratory Assistant																						1	2	0
Medical Laboratory Technician																						9	1	1
Medical Records Technician			7																			4	8	0
Occupational Therapy Assistant																						2	2	4
Optometric Assistant				1		1																1	1	0
Physical Therapy Assistant (Tech.)																						2	0	0
Radiologic Technician																			2			5	3	0
Respiratory (Inhalation) Therapist																						7	1	2
Dental Hygiene																						9	2	15
Dental Assistant				2						2	2											15	4	10
Dental Laboratory Technician																						3	0	0
DISTRICT TOTAL	9	17	12	11	1	7	9	8	6	9	19	0	9	0	6	13	3	0	2	21		264	96	103

3-19

Table 4

HEALTH OCCUPATION TEACHERS IN WISCONSIN POST-SECONDARY SCHOOLS 1974-75

	1			2			3			4			5			6			8			9		
	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT
Nurse, Technical (ADN)				6						9						8	1					31		2
Nurse, Practical (PN)	4	4		4						17	2					8	1	3	8	7		22		2
Nursing Assistant (Pre-Service)	NI	NI		1	7		1	1	3				1	6				9	2	3		1		1
Operating Room Assistant				2	1					2	1					1	1		2	1		4		
Ward Clerk				1				1					1				1		1					
Electroencephalographic Technician				1																				
Medical Assistant				2						1	1	3		1		1	1		2			2		
Medical Laboratory Assistant																								
Medical Laboratory Technician	1	3		4						2	1	1										4		
Medical Records Technician	1	1		2																				
Occupational Therapy Assistant										2	1											2		
Optometric Assistant																								
Physical Therapy Assistant (Tech.)																						2		
Radiologic Technician	2			3	2																			
Respiratory (Inhalation) Therapist										3	1	2										4		
Dental Hygiene										5	1	8										4	1	7
Dental Assistant				2						5	1	10				1	1					3		
Dental Laboratory Technician																							3	
DISTRICT TOTAL	8	8	0	28	10	0	1	2	3	46	8	25	0	3	6	19	6	12	15	11	0	85	3	12

Table 4 continued

	10			11			12			13			14			15			17/18			STATE TOTAL		
	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT
Nurse, Technical (ADN)															10	5						66	8	7
Nurse, Practical (PN)	6	7		5	3		6	1		6	3		6						5	1		97	25	9
Nursing Assistant (Pre-Service)			9	1	3		1	9			9			4						1	20	7	31	55
Operating Room Assistant	2						1			1	2		2	2	1							18	7	2
Ward Clerk	1			1			1			1			1	1	1							8	6	1
Electroencephalographic Technician																						1		
Medical Assistant				2	1					2			2	2	1				1	1	1	13	8	6
Medical Laboratory Assistant																								
Medical Laboratory Technician																						11	4	1
Medical Records Technician			7																			3	8	
Occupational Therapy Assistant							1															4	2	4
Optometric Assistant				1	1																	1	1	
Physical Therapy Assistant (Tech.)																						2		
Radiologic Technician																2						7	2	0
Respiratory (Inhalation) Therapist							1	3		1	2											9	6	2
Dental Hygiene																						9	2	15
Dental Assistant				1	1					2	4											14	6	11
Dental Laboratory Technician																						3		
DISTRICT TOTAL	9	14	9	11	1	8	10	14	4	10	23	0	11	6	7	13	5	0	7	2	22	273	116	108

3-21

PROVISIONALLY CERTIFIED HEALTH OCCUPATIONS TEACHERS IN WISCONSIN POST-SECONDARY SCHOOLS 1973-74

	1			2			3			4			5			6			8			9			
	FT	EPT	PT	FT	EPT	PT	FT	EPT	PT	FT	EPT	PT	FT	EPT	PT	FT	EPT	PT	FT	EPT	PT	FT	EPT	PT	
Nurse, Technical (ADN)																1									
Nurse, Practical (PN)	1			(NI)			(NI)			(NI)						2			(NI)						
Nursing Assistant (Pre-Service)	1											1	2												
Operating Room Assistant																									
Ward Clerk																									
Electroencephalographic Technician																									
Medical Assistant																									2
Medical Laboratory Assistant																									
Medical Laboratory Technician																									3
Medical Records Technician	1																								
Occupational Therapy Assistant																									
Occupational Therapy Assistant (Tech.)																									
Optometric Assistant																									
Physical Therapy Assistant (Tech.)																									2
Optometric Assistant	1																								
Physical Therapy Assistant (Tech.)																									
Radiologic Technician																									
Respiratory (Inhalation) Therapist																									
Dental Assistant																									
Dental Hygienist																									1
Dental Laboratory Technician																									
DISTRICT TOTAL	0	4	0	0	0	0	0	1	2	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	20



Table 5 continued.

	10			11			12			13			14			15			17/18			STATE TOTALS			
	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	
Nurse, Technical (ADN)																						1			
Nurse, Practical (PN)	4			2			6			(NI)			2			(NI)			1			15	1	2	
Nursing Assistant (Pre-Service)				3																	17		2	22	
Operating Room Assistant																						3			
Ward Clerk																					1				
Electroencephalographic Technician																									
Medical Assistant						2							1						1	1	1	4	2	3	
Medical Laboratory Assistant																									
Medical Laboratory Technician																						3			
Medical Records Technician																							1		
Occupational Therapy Assistant							1		1													1		1	
Occupational Therapy Assistant (Tech.)																									
Optometric Assistant				1		1																1		1	
Physical Therapy Assistant (Tech.)																						2			
Radiologic Technician																								1	
Respiratory (Inhalation) Therapist																							4		
Dental Assistant				1																			5		
Dental Hygienist																							1		
Dental Laboratory Technician																							1		
DISTRICT TOTAL	4	0	0	2	0	8	7	0	1	0	0	0	3	0	0	0	0	0	0	3	1	18	42	7	29

Table 6

PROVISIONALLY CERTIFIED HEALTH OCCUPATIONS TEACHERS IN WISCONSIN POST-SECONDARY SCHOOLS 1974-75

3-24

	1			2			3			4			5			6			8			9		
	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT
Nurse, Technical (ADN)															1							20		
Nurse, Practical (PN)	1	1		()	()								()	()								9		
Nursing Assistant (Pre-Service)			1				1		3						2									
Nursing Assistant (In-Service)																								
Operating Room Assistant																1						3		
Ward Clerk																								
Electroencephalographic Technician																								
Medical Assistant																						2		
Medical Laboratory Assistant			1														1							
Medical Laboratory Technician																						3		
Medical Records Technician																								
Occupational Therapy Assistant																						2		
Occupational Therapy Assistant (Tech.)																								
Optometric Assistant																								
Physical Therapy Assistant (Tech.)																						2		
Radiologic Technician			1																					
Respiratory (Inhalation) Therapist																						4		
Dental Assistant																						1		
Dental Hygienist									1													4		
Dental Laboratory Technician																						1		
DISTRICT TOTAL	1	5	0	0	0	0	1	0	3	1	1	0	0	0	0	3	2	0	0	0	0	51	0	0

112

113



Table 6 continued

	10			11			12			13			14			15			17/18			STATE TOTAL		
	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT	FT	FPT	PT
Nurse, Technical (ADN)															4	2						25	2	0
Nurse, Practical (PN)	4				3		4			(NI)			2						1			21	1	3
Nursing Assistant (Pre-Service)															1					20		4	1	26
Nursing Assistant (In-Service)																								
Operating Room Assistant	1						1								1							5	1	
Ward Clerk	1			1															1			3		
Electroencephalographic Technician																								
Medical Assistant				1		1													1	1	1	5	1	2
Medical Laboratory Assistant																						1	2	
Medical Laboratory Technician																							3	
Medical Records Technician																						1	1	
Occupational Therapy Assistant (Tech.)							1		1													3		1
Optometric Assistant				1		1																1		1
Physical Therapy Assistant (Tech.)																						2		
Radiologic Technician															2							2	1	
Respiratory (Inhalation) Therapist							1															5		
Dental Assistant						1																1		1
Dental Hygienist																						4	1	
Dental Laboratory Technician																						1		
DISTRICT TOTAL	6	0	0	3	0	9	7	0	1	0	0	0	3	0	0	8	2	0	3	1	21	87	11	34

TABLE 7

SUMMARY OF POST-SECONDARY SCHOOL HEALTH OCCUPATION PROGRAMS

Health Occupations Teachers:	1973-74	1974-75	
Full Time	264	273	
Full-Part Time	96	116	
Part Time	108	108	
TOTAL	468	497	Increase: 29
Provisionally Certified:			
Full Time	42	87	
Full-Part Time	7	11	
Part Time	29	34	
TOTAL	78	132	Increase: 54*
Certified:			
Full Time	222	186	
Full-Part Time	89	105	
Part Time	79	74	
TOTAL	390	365	Increase: 375*
Students Enrolled:	5141	5579	
Students Graduated:	3835	3916*	

*Number based on incomplete data.

Need for Secondary Health Occupations Teachers

Presently there are forty funded health occupations programs at the secondary level of instruction. In addition to these there are from five to eight programs which are not funded.

Interest has been shown by the Department of Public Instruction (DPI) in developing guidelines and certification standards by the fact that they provided funds to sponsor Project S.H.O.W. (Secondary Health Occupations Workshop) which dealt directly with these issues. An advisory committee was newly formed at D.P.I. which addressed itself to program guidelines and certification standards. Further work was done on the certification standards by Professors Samson and Southworth and by Margaret Strauss, the acting consultant in Health Occupations Education at D.P.I. While acceptance of these standards is indeterminate, an acceptable set of standards will most probably be acted upon shortly. With these standards it will be possible for institutions of higher education in the state to include proper courses within their education segment of the preparation of health occupations teachers. The presence of these certification standards will make the development of new programs in health occupations education an easier task for any secondary administrator who would like to develop such program opportunities for his students.

Currently, there is a Health Occupations Curriculum Project that has developed an initial curriculum guide which is being piloted at four schools in the state. The final phase of this project recently resulted in a week long workshop to evaluate and to pursue curriculum development to serve as a guide for the state health occupation programs at the secondary level.

The existence of certification standards and trained teachers who meet these standards will create a demand for health occupations programs. It has been estimated that there will be an increase in these programs at the rate of 12 to 15 programs per annum for the next five years. This implies that at least one teacher will be needed for each program. The total number of secondary health occupations programs and teachers within the state at the secondary level would then be approximately 120 in the year 1980.

Conclusion

This section of the report has attempted to establish the need for additional health occupation workers. Health care personnel for continuing and expanding programs would seem indicated especially in those medical specialties showing deficiencies. To provide such programming, both at the secondary and post-secondary levels of instruction, teachers of health occupations education will be needed to supply effective instruction.

The responsibility for health occupation teacher education lies most appropriately with the state supported institutions of higher education. Within the State of Wisconsin this responsibility lies with the University of Wisconsin System. In this writer's opinion, the most optimum place for such a program dimension would be at the University of Wisconsin-Madison campus in view of the argument presented. This program should seek to serve those future teachers of health occupations in or near their local communities. In serving them, hopefully better health occupations education will occur benefiting their students. It would be hoped that these trained health workers would benefit all citizens of the state by providing them with equitably distributed health care delivery.

POTENTIAL FINANCING FOR HEALTH OCCUPATIONS TEACHER EDUCATION PROGRAMS

Certainly one of the main concerns in planning and initiating any new program for any university system is the question of financial support. This is true even more so today as we face ever increasing inflationary trends within the nation. The immediate consequence of this inflation has been an attempt by the government to limit spending. This may sound discouraging for those persons interested in providing better health care delivery through better instruction of health occupation personnel. Yet, according to persons in Washington who direct financial assistance for various projects, this should not be the case. The persons contacted, the agencies they represent, and the information forwarded to this writer shall be presented below in an attempt to stimulate a more encouraged frame of mind for those responsible for program initiation at the university level, as well as for those who are concerned and have the realization that health occupations education is the one greatest need in health care today if future demands in health care delivery are to be met.

(1.) Dr. Floyd Clum
The Allied Health Training Grants Programs
Division of Associated Health Professions
Bureau of Health Resources Development, HRA
9000 Rockville Pike
Bethesda, Maryland 20014 Phone: (202) 496-5655

In conversation with Dr. Clum it was learned that any program his agency would fund must be operated in cooperation with the School of Allied Health. In order to receive funding, persons involved would of necessity have to possess a degree in one of the allied health professions. This then implies that the degree they would be seeking in the

area of education would be at the master's level. However, there are exceptions to this condition such as when the time of preparation has involved only two years of study to become a professional health worker. Examples of these cases can be found in such fields as Dental Hygiene and Inhalation Therapy. At no time will this agency become involved in the support of programs to prepare teachers in health occupations for less than professional personnel when professional persons are available and willing to pursue a career in health occupations education. For instance, they will not help to train a medical technician to be a teacher when medical technologists are available who are far more competent in their preparation.

It is of interest to note that at no time will they support the education of secondary teachers.

Dr. Clum indicated that there may be monies for the support of programs next year although President Ford has allocated nothing in his budget for this purpose. In the fall of 1975, the Roger's Bill and the Kennedy Bill will be presented to the United States Congress. If passed, it would provide funding much the same as was realized for the fiscal year of 1975 for this agency.

Competitive applications were accepted through the 25th of March in the four areas described below:

SPECIAL IMPROVEMENT GRANTS - Grants are awarded to accredited public or private non-profit institutions providing basic professional training in allied health curriculums. The purpose of this grant program is to provide, maintain or improve the specialized function of allied health professions training centers including enrollment expansion, curriculum improvement, program coordination, and programs for special groups. Institutional support is available for items such as staff salaries, teaching equipment and limited building renovations.

SPECIAL PROJECT GRANTS - Grants are awarded to public or private non-profit institutions to establish, demonstrate, or develop a broad range of projects that will contribute to the improvement and strengthening of allied health professions training programs; teaching methods, curriculums; evaluation techniques; recruitment, retraining, and retention methods; new types of health manpower; institutional interrelationships; or programs for special groups. Institutional support is available for items such as staff salaries; teaching equipment and limited building renovations.

ADVANCED TRAINEESHIP GRANTS - Grants are awarded to public or private nonprofit institutions which offer advanced training programs to prepare allied health professions personnel for leadership roles as educators, administrators, supervisors or non-research specialists. Individuals who have completed the basic professional preparation for an allied health preparation apply directly to the institution for a traineeship; the institution selects the trainee.

GRANTS FOR TRAINING INSTITUTE - Grants are awarded to public and private nonprofit institutions to provide intensive post-professional training opportunities of less than one academic year to increase leadership capabilities of allied health professions personnel as educators, administrators, supervisors, and non-research specialists. Continuing education programs, correspondence courses, regular academic courses usually given for credit, and in-service training courses designed only for employees of a single agency, institution, or organization are ineligible for support. Individuals who have completed the basic professional preparation for an allied health profession apply directly to the institution for a traineeship; the institution selects the trainee.

(2.) Ethyl Payne, Director
 Health Manpower
 Bureau for Health Manpower Education
 Region V Office
 Chicago, Illinois Phone: (312)353-1761

It was indicated that there are no monies available at this time for program support in health occupations teacher preparation. However, monies may become available after the legislature acts this year on appropriate bills now pending introduction.

(3.) Mr. Thomas Hatch, Division Director
 Division of Associated Health Professions
 Bethesda, Maryland 20014 Phone: (301) 496-6975

In eight to ten months from now there may be program support available under Special Project Authority. Again this depends on the Congress and what is decided. Thus far President Ford has indicated that he is opposed to categorical funding.

~~It should be recognized that the program in Buffalo, New York~~
 under the direction of Warren Perry did receive money under a special project grant to support faculty and to provide for special equipment.

This past December the House and Senate voted to continue to support individuals in the health occupations teacher education area. However, most of this support was given at the master of science level with only limited funds available to those attempting to earn a baccalaureate in education. The reason given for this is that a person should achieve an occupational specialty as a prerequisite for such funding.

(4.) Annita F. Allen, Director
 Advanced Institutional Development Branch
 #3 4921 Regional Office Building
 7th and D Streets S. W.
 Washington, D.C. 20202 Phone: (202)245-8710
 Mr. Larry Kozar Phone: (202)245-2443

Under Title III of the Higher Education Act of 1965 there is a part known as "Strengthening Developing Institutions". This agency is not curriculum oriented. The purpose of their programs is to lend support to help out small colleges which are having financial difficulty. This means that campuses about the size of 5,000 or so are the most likely one to become recipients of such assistance.

(5.) Corrine Rieder
 Assistant Director for Education and Work, N.I.E.
 Phone: (202) 254-5310

She indicated no funds were available at this time and that there was no support for research and development.

Gary Mc Daniels
 Assistant Director for Teaching and Curriculum, N. I. E.
 Phone: (202) 254-3415

In a return call to this writer, he also indicated that no funds were available at this time. He suggested we try to obtain funding from the Division of Vocational Education.

Dr. Richard Harbeck
 Branch Chief of Teaching and Curriculum, N.I.E.
 Phone: (202) 254-7946

He felt reasonably confident that within the next two months the Congress of the United States would be appropriating monies for them to distribute. He cautioned that they are primarily involved in research and initial development. Program funding of the nature which ours seems to be is not the priority of this agency. They do, however, fund teacher pre-service and in-service education both at the elementary and secondary levels. As these monies become available there will be notices published in the Federal Register as well as the Commerce Daily for requests for proposals (R.F.P.). Dr. Harbeck commented that perhaps a good contact for us might be the Department of Labor since it was his belief that they had quite a lot of money to distribute at this time.

(6.) Virginia B. Smith, Director
 Fund for the Improvement of Postsecondary Education
 Department of Health, Education and Welfare
 400 Maryland Avenue, S.W.
 Washington, D.C. 20202 Phone: (202) 245-8091

This agency had eleven million dollars to distribute during fiscal year 1975. Four million of which went to new and innovative curriculum development type programs. Their interest is to support programs which stimulate the educational development of post-secondary students. Examples of such funding would be:

Eighteen of this year's awards, totalling \$1.6 million, will support institutions attempting to formulate educational goals in terms of the competencies students are expected to acquire. Students at these institutions will be granted degrees for achievement of defined objectives rather than the accumulation of a given number of credits.

The Center for Human Potential in Illinois will assist paraprofessional workers at a mental health hospital, to attain new opportunities for educational degrees.

Many of this year's grant support activities include new types of inter-institutional cooperative arrangements. In Arkansas, six vocational-technical schools are joining with Henderson State College to provide expanded educational options for students.

It should be noted that this Fund seeks to encourage the development, implementation, and assessment of effective educational options which are not presently generally available.

Conclusion

The above cited sources of possible funding available for the development of health occupations teacher education programs are only some of those available at the Federal level. Private foundations can also be researched to see if they would be interested in this type of a program. It should be remembered that they generally are interested in innovation as well as initial development. Since there are a number of health occupations teacher education programs already available across the nation, our development of such a program within the University of Wisconsin System

does not imply creativity or uniqueness when compared to these already functioning programs.

It could thus be concluded that where innovation is a prerequisite for program support, outside sources of funding may not be the answer to program development within the university structure. Funds for this purpose may well have to come from the funding provided the State Board of Vocation Technical and Adult Education through the Vocational Act of 1963 as amended in 1968. The funding pattern for instructional staff health occupations teacher education programs, in a number of states, includes as much as 50% support from vocational education funds. In Wisconsin, vocational funds have not traditionally been used in this way. However, it is a possibility.

Special funding from a source outside the university is obviously desirable, but there is no guarantee that such funding can be secured. It is possible that the University of Wisconsin should consider funding this new program dimension to meet this important need.



RECOMMENDATIONS

1. A program of professional teacher education should be provided in Wisconsin designed to prepare personnel to teach the health occupations areas at secondary and post-secondary levels of instruction.

Both at the State and V.T.A.E. District levels, a need for certifiable health occupation instructors has been expressed. This report has substantiated this specific need.

There also has been expanded interest in the development of health occupations education at the secondary level of instruction. Teacher certification standards are now in the process of being established at the Department of Public Instruction. A recent project sponsored by the D.P.I. resulted in curriculum development for the State's secondary health occupations programs.

2. The Health Occupations Teacher Education Program (HOTEP) should be located at the University of Wisconsin-Madison; however, component parts might be located on other campuses.

Each of the thirteen University of Wisconsin Campuses has a Department of Education and seven of these campuses offer courses relative to vocational educator development and the established post-secondary teacher certification requirements. However, the Madison Campus is unique in that it has a School of Allied Health. The national pattern would seem to indicate Federal funding has been available to developing Health Occupation Teacher Education Programs if the university system involved has established an affiliation between their School of Education and a School having a professional medical component such as a School of Allied Health Sciences.

It would be hoped that a Health Occupation Teacher Education Program with the focal point on the Madison Campus could extend itself to all areas of the State of Wisconsin, much as the University of Wisconsin-Extension Health Sciences Unit has done for practicing health professionals. This would ultimately benefit all teachers in search of relevant course work leading to the baccalaureate or master's degrees and/or teacher certification requirements of the Wisconsin State Board of Vocational, Technical and Adult Education and the Wisconsin Department of Public Instruction.

3. A professional education certification requirement component for health occupation teachers should be developed.

Presently certification requirements exist for post-secondary health occupation instructors. Secondary teacher certification requirements have yet to become finalized. While the type of teacher desired at each of these levels varies because of different goals and objectives of their programs; it would be hoped that many commonalities in course requirements could be found. In particular, this approach would serve to assist a person having a degree in a health occupation by giving him/her greater flexibility and mobility to teach in either the secondary or post-secondary systems.

4. Provision should be made for the evaluation of the technical training of certified or licensed health personnel toward the requirements of the Baccalaureate Degree for those who do not have a Baccalaureate Degree.

As new and emerging health occupations of a specialized nature come into existence dictated by new health care delivery systems, there will become a need for lesser than degreed health occupation personnel to pass on what they know to others who would follow them in their areas of specialization. Academic evaluation and appropriate granting of credit for specific health occupation specialties at the university level seems an imperative procedure and will, of necessity, become prerequisite to the attainment of a Baccalaureate Degree in Education for the prospective teacher of certain specific health occupations.

5. Professional education courses, to meet certification requirements, should be provided at the Master's Degree level for those who already have a Baccalaureate Degree in a health occupation. Consideration should be given to designing joint programs at the graduate level with Schools and/or Colleges of the University.

As often occurs, persons earn Baccalaureate Degrees in nursing or one of the allied health areas. Some may wish further exposure within their areas of health care specialization and yet desire teaching credentials at either the secondary or post-secondary level of instruction. If this is the case, joint programming between the School of Education and one of the professional Schools providing further preparation in a specified health care area, this should also be provided. Either of these options would promote better teaching of health occupations programs and/or better administration of such programs within our secondary and post-secondary educational structures.

6. *Sources of funding for the implementation of a Health Occupation Teacher Education Program within the University of Wisconsin System should be investigated.*

Within the past few years, Federal as well as State funding of numerous projects have, in general, experienced severe reductions. The possibility of implementation of a Health Occupations Teacher Education Program within the University of Wisconsin System supported by Federal monies designated for specific projects of the type mentioned, seemingly are slim. Health Occupation Teacher Education Programs are no longer unique within the nation and as has been the case in the past, new and innovative program approaches in education are the ones which have been funded. Some universities have received monies from the private sector of our society, but because of the condition of our economy, these sources of money no longer seem tenable. It should be noted that other university systems have more traditionally financed half of HOTEV while the other half was supported by their local State Boards of Vocational Education.

7. *A program in Health Occupations Teacher Education should be implemented as soon as possible.*

This report substantiates the need for health occupation teachers within the State of Wisconsin. The responsibility for such a program most appropriately lies with the University of Wisconsin System. In view of existing teacher shortages in the health occupation area and the realization that expanding programming both at the secondary and post-secondary levels of instruction does exist, it is imperative that implementation of a Health Occupation Teacher Education Program commence promptly after appropriate and well thought out planning provides leadership for effective and equitably distributed educational opportunities are completed.

SUGGESTIONS

1. Teacher education services should be located in the Department of Vocational Education with a working relationship developed with Colleges, Schools and Departments offering specific instruction related to the technical aspects of health occupations education.
2. An alternative to the above suggestion would be to jointly establish a program with the School of Allied Health Sciences. This would provide the advantage of a tighter organizational relationship with a School providing technical training and might enhance opportunities for outside funding. However, it would provide a more complex organizational structure.
3. The position, "Teacher Educator for Health Occupations Education" should require credentials and demonstrated competencies in at least one of the health occupations and qualifications in an area such as research, curriculum and instruction, or learning theory and in addition, at least one of the educational foundation areas.
4. Interested representatives from the State Board of Vocational, Technical and Adult Education System, the Wisconsin Department of Public Instruction and the University of Wisconsin System should be involved in planning the Health Occupation Teacher Education Program to meet the needs of existing and potential health occupation teachers.

UNIVERSITY OF WISCONSIN CAMPUSES OFFERING EDUCATION AND HEALTHCAREER EDUCATION

(This information was taken from individual University of Wisconsin catalogues and from a task force report to the Board of Regents from the Center for Health Sciences, 1975)

	Education	Medicine	Nursing	Pharmacy	Allied Health	Medical Tech.	Physical Therapy	Occupational Therapy	Physician Assistant	Nuclear Medicine Technology	Medical Records	Speech Pathology & Audiology	Communication Disorders
Madison	x	x	x	x	x	x	x	x	x			x	x
Stout	x												
Platteville	x				x	x							
River Falls	x				x	x							
Stevens Point	x				x	x							
Whitewater	x				x	x							
Eau Claire	x		x		x	x		x					x
Green Bay					x	x							
LaCrosse	x		x		x	x	x			x	x		
Milwaukee	x	x	x		x	x		x				x	
Oshkosh	x		x		x	x							x
Parkside	x				x	x							
Superior	x				x	x							

UNIVERSITY OF WISCONSIN CAMPUSES OFFERING VOCATIONAL STAFF DEVELOPMENT

(This information was taken from the State Plan of the Wisconsin Board of Vocational, Technical and Adult Education, 1974-1979)

	Administration	Trade and Industry	Agricultural Education	Technical Education	Distributive Education	Industrial Arts	Home Economics	Business Education	Office and Business	Industrial Technology	Guidance
Madison	x		x		x		x		x		
Stout		x		x	x	x	x				x
Platteville			x							x	
River Falls			x								
Stevens Point							x	x			
Whitewater					x			x			
Eau Claire								x			
Green Bay											
LaCrosse											
Milwaukee											
Oshkosh											
Parkside											
Superior											

	Assist. to Primary Care Physician	Cyto Technologist	Histologic Technician	Laboratory Assistant	Medical Assistant	Medical Record Technician	Medical Technologist	Nuclear Medicine Technician	Nuclear Medicine Technologist	Occupational Therapist
<u>No. Programs Nat'l</u>	43	104	25	181	73	40	715	17	47	41
Appleton							1			
Beaver Dam										
Beloit										
Cudahy							1			
Eau Claire		1	1				2			
Fond Du Lac							1			
Green Bay							1			
Kenosha							2			
La Crosse					1	1	1			
Madison		1	1	1			3	1		1
Marshfield	1	1					1			
Milwaukee		1					10		1	1
Neenah							1			
Oshkosh							1			
Racine							2			
Rhineland										
Sheboygan					1					
Stevens Point							1			
Waukesha							1			
Waupun				1						
Wausau										
West Allis							1			
West Bend				1						
Wisconsin Rapids				1						
Wood			1				1			
<u>No. Programs in WI TOTAL</u>	1	4	3	4	2	1	32	1	1	2
<u>*No. Programs in WI</u>	.02	.04	.12	.02	.03	.03	.04	.06	.02	.05
<u>No. Programs in Nation</u>										
Student Capacity	25	24	12	51	177	35	348	12	6	102
1973 Enrollment (approx.)	38	17	7	47	176	37	271	10	4	93
1973 Graduates	12	14	7	37	139	13	247	5	3	56
Izkn report shows need for:				34	6	54	73			110



Appendix B

A.M.A. ACCREDITED EDUCATIONAL PROGRAMS IN ALLIED HEALTH IN WISCONSIN

Physical Therapist	Radiation Therapy Technologist	Radiologic Technologist	Respiratory Therapist	Respiratory Therapy Technician	Specialist in Block Bank Technology	Total	Number of Areas
66	39	1010	126	5	59	1	1
		1				1	1
		1				1	1
		1				2	2
		2				6	4
		1				2	2
		1		1		3	3
		1				3	2
1		1	1			4	4
		3				13	9
		1				4	4
1	1	10	2		1	28	9
		1				2	2
		1				2	2
		2				4	2
		1				1	1
						1	1
						1	1
		1				2	2
						1	1
		1				1	1
						1	1
						1	1
		1				3	3
2	1	31	3	1	1	90	16/24
.03	.03	.03	.02	.20	.02		
75	6	590	55	-	3		
85	5	501	86	6	2		
59	3	213	31	3	2		
125			53½				

(Taken from the Allied Medical Education Directory, American Medical Association, 1974. Greaves, Donna; et.al.

*All calculated figures on this table were done by the principal investigator based on the approximated figure that Wisconsin has 2% of the nation's population.

CENTER FOR STUDIES IN VOCATIONAL AND TECHNICAL EDUCATION

UNIVERSITY OF WISCONSIN-MADISON, 321 EDUCATION BUILDING, 1000 BASCOM MALL, MADISON, WISCONSIN 53706, TEL. 608-263-3696

May 20, 1975

Dear :

In contacting each of the coordinators of health occupations programs in each of the sixteen VTAE districts in our state it has become obvious that some may be confused as to just what has been requested. In an effort to be consistent in the data, a data sheet is enclosed along with directions for filling it out so that state totals can be determined.

For those of you who have already tried to supply the information I requested via phone last week, I hope you will persevere and fill in this data sheet. I personally apologize if you have already made out another form of the data requested.

Please remember that this data will be used in our report to be entitled: Summary of Findings, Conclusions and Recommendations for Health, Occupations Teacher Education Planning.

The purpose in adding the data requested from you is to further substantiate the need for a Health Occupations Teacher Education Program within the University of Wisconsin System. This data will be shared with Dr. Camilla Schloemer who has requested it. You will be included on our mailing list of this report so that you may share in our findings.

Any other information or particular problems you face relating to health occupations teacher education would be helpful to us.

If you have any questions regarding the information requested please feel free to contact me. Hopefully, you will be able to complete the enclosed form and mail it back to me in the enclosed self addressed envelope within one week.

Thank you for your effort on behalf of the Center and for the future of what hopefully will be better health occupation teacher education.

Sincerely,

Marion E. Franken
Project AssistantMEF/bjs
Enclosures (3)

Directions for filling in the data sheet entitled:

HEALTH OCCUPATIONS EDUCATION PROGRAMS IN THE V.T.A.E. DISTRICTS IN WISCONSIN

1. Enter the number of the district and the name of the district.
2. Enter the name of each health occupation taught in your district preferably in the order in which they appear in the 1974 Report on Health Occupations Education Programs prepared by Dr. Camilla Schloemer and Martha Huffmaster. (p. 20-23)
3. Check the figures in the above mentioned report and enter them correctly for the true enrollment (ENR.) and the true graduation (GRAD.) figures realized. Also enter the figures for this year. Enter an (*) next to these figures if they can only be anticipated.
4. For each of the school years indicated fill in the information concerning the teachers who instruct in your health occupations program:
 - Full time teachers = those under contract who teach full time in the district.
 - Full time.(part time) = those who are working full time for the district under contract but who may instruct or have other duties (i.e. administrative).
 - Part time = those teachers hired for only part time teaching and who are not under contract with the district, i.e. they may come in for only one or two classes or may come in for a period of several weeks to provide instruction.
 - D = Total teachers in each area.
 - U = Number of teachers in area without being counted more than once.
5. I have the information about all programs except those labeled: Programs of Interest in Future (not submitted or requested). You may fill this in if you wish.
6. Considering the great need in the state for a health occupations teacher education program at one of the campuses of the University of Wisconsin System, indicate the one which you feel would best serve the majority of students of the state. (Realize if such a program is to begin within our state's borders it is most likely that only one campus will be chosen for this initial effort.) Please feel free to enter any other statements about health occupations education which you feel are important to those persons responsible for development, planning and initiation of such a program.

HEALTH OCCUPATIONS EDUCATION PROGRAMS IN THE V.T.A.E. DISTRICTS IN WISCONSIN

District No. _____ District Name: _____

TYPE OF H.O.

PROGRAM

YEAR

ENR.

GRAD.

FULL TIME TEACHERS

CERTIFIED TEACHERS

FULL TIME TEACHERS

FT.

PT.

PT.

FT.

PT.

PT.

73-74

74-75

73-74

74-75

73-74

74-75

73-74

74-75

73-74

74-75

73-74

74-75

73-74

74-75

73-74

74-75

73-74

74-75

73-74

74-75

73-74

74-75

TOTAL

TOTAL

TOTAL

73-74

74-75

D - U

D - U

D - U

D - U

136

Prepared by: _____

Date: _____

Position: _____

PROVISIONALLY CERTIFIED TEACHERS

FULL TIME TEACHERS

PROGRAMS SUBMITTED TO VTAE & APPROVED: DATE: _____

FT. PT: PT.

PROGRAMS IN WHICH INTEREST IS INDICATED: DATE: _____

PROGRAM PROPOSALS REQUESTED BY VTAE: DATE: _____

PROGRAMS OF INTEREST IN FUTURE
(NOT SUBMITTED OR REQUESTED)

Where do you think the University of Wisconsin System should initiate a program in Health, Occupations Teacher Education Campus? _____

Why? _____

TOTAL

D - U - - - -

D - U - - - -

ACTUAL AND PROJECTED DEMAND FOR HEALTH PERSONNEL PREPARATION AND DEVELOPMENT

Year	Staff Required				Personnel Available 2/				Additional Personnel Needs (A)				Projected Supply of New Personnel (B)				Status 7/											
	S	P	A	T	S	P	A	T	Replacement 3/	New Staff 4/	Pre-Service 5/	Other 6/	S	P	A	T	S	P	A	T	Deficit							
-76	25	407	92	524	18	346	76	442	3	30	7	40	4	31	7	42	0	6	0	6	5	44	14	63	2	11	0	13
-77	30	433	95	558	22	376	83	481	3	33	7	43	5	24	5	34	0	6	0	6	5	41	12	58	3	10	0	13
-78	34	459	97	590	27	400	85	512	3	36	7	46	4	23	5	32	7	6	0	13	0	43	12	55	0	10	0	10
-79	37	477	99	613	31	423	88	542	3	38	7	48	3	16	4	23	6	5	0	11	0	41	11	52	0	8	0	8
-80	40	490	101	631	34	439	90	563	3	39	8	50	3	12	3	18	6	5	0	11	0	38	11	49	0	8	0	8

S = Secondary
P = Post-Secondary
A = Adult
T = Total

te: These figures were obtained originally from district plans submitted to the State Board of Vocational-Technical and Adult Education. Totals of these figures appear on pages 9.0a to 9.0f of the State Plan for Vocational Education in Wisconsin for fiscal years 1976-1980 (Draft Copy) April, 1975. Breakdown of these figures was given to the Center by John Bryl (SPVTAE).

Pre-service refers to persons completing initial vocational preparation who have not entered upon the vocational education activities for which they are preparing.

Inservice refers to persons under contract for employment in a vocational education activity.

- 1/ Personnel counted only once even though responsible for two or more programs.
- 2/ Personnel currently employed and those expected to be employed by a school system as of June 30 for following school year.
- 3/ Personnel who will not be available from previous year due to attrition and who must be replaced.
- 4/ Additional positions for which personnel are needed due to growth and expansion.
- 5/ Numbers of prospective graduated from the state teacher education programs for entire year who are expected to enter the state system.
- 6/ Includes those expected to be available from all sources other than those referred to in footnote 5/.
- 7/ The column under "Status" indicates the need for, or excess of, personnel. This is determined by subtracting the total Projected Supply (B) from the total Additional Personnel Needs (A).

DEFINITION OF CODES

- D. Unmet Demand for Workers
 - 1. Small Shortage (5 to 10 percent)
 - 4. Shortage Constant
- S. Excess Supply of Workers
 - 1. Small Surplus (5 to 10 percent)
 - 2. Moderate Surplus (11 to 20 percent)
 - 3. Large Surplus (over 20 percent)
 - 4. Surplus Constant
 - 5. Surplus Decreasing
 - 6. Surplus Increasing
- B. Relative Demand-Supply Balance
- E. High degree of post-secondary educational substitution possible
- F. Replacement rate inflated due to large numbers of labor force withdrawals of young women
- G. Dependent on government support or action
- H. Government support has been reduced or withdrawn
- J. Counterbalancing changes in occupational category
- K. Heterogeneous unit of measure
- N. Wide range of skill levels

WISCONSIN OCCUPATIONAL EMPLOYMENT SUMMARY

1970 AND PROJECTED 1980

Census Code ^{6/}	Occupation ^{7/}	1970 ^{1/} Employment	1980 ^{2/} Employment	Openings Due ^{3/} To Growth 1970 - 1980		Replacement ^{4/} Needs 1970 - 1980		Total Ten ^{5/} Year Job Openings 1970 - 1980	
				No.	% of 1970	No.	% of 1970	No.	% of 1970
	Post Secondary Instructors, Professors and Teachers	15,170	17,550	2,380	15.8	4,710	31.1	7,090	46.9
141	Adult Education Instructors (E, G)	1,110	1,660	550	49.6	420	37.8	970	87.3
102	Agriculture Instructors (B, G)	190	190	--	--	40	21.1	40	21.1
123	Art, Drama and Music Instructors (G, S2 & 4)	960	960	--	--	360	37.6	360	37.6
103	Geophysical Science Instructors (Atmos- pheric, Earth, Marine) (B, G, J)	150	180	30	20.0	10	6.7	40	26.7
104	Biology Instructors (S2 & 4)	550	690	140	25.5	150	27.3	290	52.7
115	Business and Commerce Instructors (B, E, N)	430	510	80	18.6	160	37.2	240	55.8
105	Chemistry Instructors (S2 & 4)	470	490	20	4.3	100	21.3	120	25.5
124	Coaches and Physical Education Instructors (J, S2 & 4)	400	440	40	10.0	60	15.0	100	25.0
116	Economics Instructors (H, S2 & 6)	280	310	30	10.7	60	21.4	90	31.4
125	Education Instructors (H, J, S2 & 6)	220	200	20	9.1	80	36.5	60	27.4
111	Engineering Instructors (S1 & 5)	550	580	30	5.5	80	14.5	110	20.0
126	English Instructors (S3 & 4)	1,120	1,060	60	5.4	350	31.3	290	25.8
130	Foreign Language Instructors (B, J)	660	730	70	10.6	260	39.5	330	50.0
113	Health Occupations Instructors (Health Specialists) (B, E, G, J, N)	850	1,190	340	40.0	380	44.7	720	84.7
120	History Instructors (S3 & 6)	450	370	80	17.8	90	20.0	10	2.2
131	Home Economics Instructors (B, F)	230	250	20	8.7	110	47.8	130	56.5
132	Law Instructors (B, E)	70	80	10	14.3	10	14.3	20	28.6
112	Mathematics Instructors (H, S1 & 4)	730	780	50	6.9	140	19.2	190	26.0
110	Physics Instructors (H, S3 & 4)	320	270	50	15.6	20	6.4	30	9.4
114	Psychology Instructors (H, S2 & 6)	320	420	100	31.2	90	28.1	190	59.4
121	Sociology Instructors (H, J, S2 & 4)	220	290	70	31.8	40	18.3	110	50.0
122	Social Science Instructors, NEC (B, J)	410	530	120	29.2	100	24.5	220	53.7
133	Theology Instructors (B)	140	170	30	21.4	60	42.9	90	64.3
134	Trade, Industrial and Technical Instruc- tors (D1 & 4)	160	230	70	43.8	60	37.5	130	81.3
135, 140	Post Secondary Instructors, NEC (H, J, K, N, S1 & 6)	4,180	4,970	790	19.0	1,480	35.5	2,270	54.4
143	Pre-School and Kindergarten Teachers (F, G, J, S2 & 6)	2,090	2,210	120	5.7	1,170	55.9	1,290	61.7
142	Elementary School Teachers (H, S1 & 6)	32,630	30,350	-2,280	-7.0	18,090	55.4	15,810	48.4
142	Secondary School Teachers (H, S2 & 6)	23,500	21,670	-1,890	-8.0	7,960	33.8	6,070	25.8
142	Teachers, NEC, Except Post-Secondary (B, J, K, N)	3,150	3,950	800	25.3	1,970	62.6	2,770	87.9

Appendix B



CENTER FOR STUDIES IN VOCATIONAL AND TECHNICAL
EDUCATION, UNIVERSITY OF WISCONSIN-MADISON

The Center for Studies in Vocational and Technical Education at the University of Wisconsin-Madison was reorganized with the support of the Wisconsin Board of Vocational, Technical and Adult Education within the School of Education in 1971. The function of the Center is to serve the State of Wisconsin in a unique way by bringing the resources of the University to bear on identified problems in the delivery of vocational and manpower programs—vocational education, technical education, adult education, career education, manpower training—to citizens of all ages in all communities of the State. The Center focuses upon the delivery of services including analyses of need, target groups served, institutional organization, instructional and curriculum methodology and content, labor market needs, manpower policy, and other appropriate factors. To the extent that these goals are enhanced and the foci of problems widened to encompass regional and national concerns, the Center engages in studies beyond the boundaries of the State.

Merle Strong, Director
Roger Lambert, Associate Director

*For further information on this or
other Center activities, contact:*

*Center for Studies in Vocational
and Technical Education
321 Education Building
1000 Bascom Mall
Madison, Wisconsin 53706*

608-263-3696