COMMITTEE FOR THE STUDY OF PHYSICAL FACILITIES

FOR THE HEALTH SCIENCES

Preliminary Report of the Ancillary Professions Subcommittee

Subcommittee members: Frederic J. Kottke, Chairman, Eleanor M. Anderson, Anna Hampel, Ruth Hovde, John A. Johnson, William G. Kubicek, Arnold Lazarow, Elizabeth A. Whitney.

The charge to the Ancillary Professions Subcommittee at the time that it was established left undefined the extent of its responsibilities in studying the need for physical facilities for the health sciences. "Programs for which this subcommittee is to be responsible include but are not restricted to: occupational therapy, physical therapy, medical technology, and x-ray technician."

"We are interested, initially, in how you envision the future activities in the ancillary professions area and what you think the optimal program ought to be. Once this information is in hand, we would expect to receive recommendations regarding space needs, location, student numbers, etc."

This subcommittee first considered the variety of possible ancillary health programs which might fall within the scope of its consideration based on activities within the Medical School, suggestions from a number of people to members of the committee, and review of the allied health professions and services listed by the American Medical Association. The advice of Dean Howard also was sought regarding the training programs for ancillary personnel which should be included in the report of this subcommittee. The following factors were considered in the selection of any discipline for inclusion in the study of this subcommittee:

1. Professions and services needing University training.
2. Services needed by the Medical School in order to function most efficiently.
3. National need for more personnel in that health profession or service.
4. Need for space for the teaching program by that ancillary discipline.
5. Need for obligation of faculty time to teach that discipline.

A questionnaire was prepared regarding the current and projected needs of each teaching program over the next twenty years for space, faculty, non-academic personnel and students. Each program was requested to relate these needs to its major or primary teaching curriculum, any service courses taught to other units or for continuation education and research. Each program was also requested to estimate future growth and needs relating to anticipated new activities. Description of the interrelationship with other departments, and the desired location of the space was also requested.

After a preliminary review of the questionnaires which were returned, the following basic principles were proposed by the sub-committee to be recommended to the committee:

The College of Medical Sciences should be involved in the establishment and teaching of courses leading to baccalaureate or graduate degrees.

Technical training and sub-collegiate courses, as a generality, should not be carried out by the University except when special facilities or personnel preclude such programs elsewhere.

The College of Medical Sciences may initiate a sub-collegiate course as a pilot or research program to develop the requirements for such a course.

Under certain circumstances it may be necessary for the the College of Medical Sciences to establish certain sub-collegiate courses in order to meet its own or community needs. Insofar as possible this should be avoided or constitute only a temporary service.

The subcommittee has divided the ancillary disciplines into three categories:

A. Established teaching programs in which the College of Medical Sciences now participates.

1. Medical technology
2. Occupational therapy
3. Physical therapy
4. Radiologic technology
5. Vocational rehabilitation counseling
6. Speech pathology and audiology
7. Clinical psychology

B. Teaching programs which should be established, or in which the College of Medical Sciences should play a larger role.

8. Bioengineering
9. Biomedical data processing and information retrieval
10. Electroencephalography technicians
11. Inhalation therapy
12. Medical art
13. Medical record librarians
14. Medical social work

C. Teaching programs which the College of Medical Sciences may be requested to accept.

15. Mortuary Sciences

The subcommittee has attempted to survery these programs. The information which has been received regarding some is still

incomplete. Several of these programs have reported to other subcommittees. It may be that certain disciplines or services which fulfill the criteria listed above have not come to the attention of the subcommittee.

Table 1 summarizes the data received to date regarding size and requirements for space for each of the programs surveyed by this subcommittee. In the following section is a brief summary of the needs, estimated growth and estimates of priority of need for each of the programs. The appendix to this report contains the reports which have been received regarding these programs.

Summary and Evaluation of the Teaching Programs Studied by the Ancillary Professions Subcommittee.

A. Established teaching programs in which the College of Medical Sciences now participates.

1. Medical Technology

Of the established programs, Medical Technology has the most urgent need for increased space. Baccalaureate, graduate, and sub-collegiate technical programs are taught. The demands for all types of personnel far exceed the supply. Medical technologists and medical laboratory assistants are employed by almost all of the departments in the clinical and basic sciences. The present space of 1600 square feet needs to be more than doubled immediately and by 1985 should be 12,000 square feet. Over the next 20 years it is estimated that the number of students will be tripled.

There are a number of specialty areas of technology which in the years to come will require the establishment of formal training programs. The necessity for such programs will become apparent as the years progress and more and greater needs for the required skills emerge. One of these fields is the technology of electron microscopy. Another is cytogenetics and still another is radioisotope technology. The skills and knowledge required in all three areas are such as to require advanced training. It would not be worthwhile to establish a training program at an undergraduate level. A variety of skills and knowledge are required including chemistry, histology and physics. It would, therefore, seem to be wise to plan to establish a training program at a post-baccalaureate level. It appears that a one-year training program would be required which would include a certain amount of formal training both by lecture and laboratory means. Individuals with a Bachelor's degree, preferably a Bachelor of Science in Medical Technology, might be admitted to the training program. Since the program in this area will have many aspects of "on-the-job" training and is at the post-

baccalaureate stage of education. This advanced training may need to be supported by stipends though this may be a difficult thing to accomplish.

2. Occupational Therapy

Occupational therapy is fortunate to have newly constructed teaching space designed for a maximal class size of 24 students. If the class size exceeds 30 students, split classes will be necessary with a corresponding increase in faculty. At the present time the number of qualified pre-occupational therapy students does not exceed this class size. However, the demand for occupational therapists throughout the country far exceeds the supply.

3. Physical Therapy

The space available for the physical therapy curriculum is newly constructed to provide for a maximal class size of 24 students. If the class size exceeds 30 students, split classes will be necessary with a corresponding increase in faculty. There is a tremendous unmet demand for physical therapists in hospitals throughout the United States. There is urgent need to increase the number of students accepted into this course as rapidly as qualified candidates are available.

The graduate program in physical therapy should also be expanded to provide more physical therapists qualified for academic careers.

These plans appear feasible without a greatly increased need for space.

4. Radiologic Technology

This program does not have specific teaching space assigned to it at the present time. Lectures to classes of 100 students are presented in various large classrooms throughout the Medical School. As the class size is increased to 300-400 students, a lecture hall of adequate size will become a greater problem. There is also need for a classroom large enough for 40-50 students in the department. The technical aspects of training and practice are carried out using the facilities of the Department of Radiology.

5. Vocational Rehabilitation Counseling

Graduate students in Vocational Rehabilitation Counseling of the Department of Psychology, CLA, receive the core of the program in clinical practice and counseling psychology in the Rehabilitation Center. No space was planned for this teaching when the Rehabilitation Center was built

in 1954 and the lack of space handicaps the program. Rooms for psychological testing and interviewing of patients are urgently needed. At the present this must be done in any room or office temporarily vacant. Specially constructed student interview rooms which allow observation and recording would increase the efficacy of the teaching. Adequate space for teaching conferences and facilities for closed circuit television are also needed. The additional space which is needed is not large but it should be in, or immediately adjacent to, the Rehabilitation Center.

6. Speech Pathology and Audiology

A questionnaire was sent to Dr. Frank Lassman requesting information on the current use of space and future needs for the graduate programs in speech pathology and audiology. He requested a delay in his reply until August 15 but no report has been received. It is understood that Dr. Lassman has presented his needs to the Subcommittee on Clinical Medicine.

7. Clinical Psychology

A questionnaire was sent to Dr. Starke Hathaway requesting information on space utilization and needs of clinical psychology. He replied that he was already working with the Subcommittee on Clinical Medicine.

B. Teaching programs which should be established, or in which the College of Medical Sciences should play a larger role.

8. Bioengineering

To date, it has not been possible to obtain the desired data regarding current or future needs for teaching or research space in bioengineering. Although there has been much interest in such a program for a number of years, and several years ago a cooperative plan was developed between the College of Medical Sciences and the Institute of Technology to build a facility for teaching and research in bioengineering, that plan was shelved and the committee dissolved. At the present there seems to be no unified activity nor planning.

An attempt will be made, however, to obtain more specific information and estimates.

9. Biomedical Data Processing and information retrieval.

This program is just in its developing stages. However, computer technology has developed to the point that it appears that data processing and retrieval will

rapidly become an essential part of all activities in the medical school. Therefore space for this activity and for training personnel associated with this activity rate top priority.

The current estimated need for space in 1966 of 14,200 square feet will probably need to be doubled by 1970.

10. Electroencephalography Technicians

Information was recently requested from Dr. A. B. Baker by the subcommittee regarding the need for training electroencephalography technicians and has not yet been received. At the present these technicians are trained on an apprenticeship basis at the rate of approximately one per year. Since all neurologists today utilize electroencephalography technicians, it is the estimate of Dr. Baker that at least as many electroencephalography technicians as neurologists should be trained each year.

More information regarding specific needs will be submitted shortly.

11. Inhalation Therapy

Inhalation therapists are needed to aid anesthesiologists, surgeons and others. The Department of Anesthesiology would like to develop a teaching program in inhalation therapy. The estimated needs for space are modest.

12. Medical Art and Photography

At the present time the Department of Medical Art is a service department. The demands on the department exceed its capacities for service. Mr. John Parker, Director, stated that he would be very interested in developing a graduate program as soon as possible. He has anticipated the development of such a program within the next two years. He states that he has not discussed this with anyone except Miss Gilman. He anticipates that the curriculum would be planned for only three students in the beginning and that it would be a two-year program. Therefore, eventually six students at a time would be receiving a graduate program in the Department of Medical Arts. This program would include preliminary courses n in Anatomy, Histology, Neuroanatomy and Pathology.

This program would need an additional classroom and additional space and equipment for students', drafting desks, photography rooms, publications department etc. Research would be indicated for the students and therefore additional space is necessary in this future p nning.

This program, at the moment, is service only. He does anticipate the need for more space especially in the photo studio which provides space for three different service areas. This means considerable manipulation of equipment and space to take care of the immediate requests in the department.

Specific estimates of need are in appendix.

13. Medical Record Librarians

Information which has been requested has not yet been received.

14. Medical Social Work

The Social Service Department operates primarily as a service department to the hospital and the clinical services. In its work it also participates in teaching medical, nursing, hospital administration and other students. The major need for increasing space is anticipated to relate to the increases in the medical curriculum. There will also be increased training of graduate students in medical social work.

It is estimated that these staff will double in size over next 20 years and the need for space will quadruple.

C. Teaching programs which the College of Medical Sciences may be requested to accept.

1. Mortuary Sciences

At the present time the course in Mortuary Sciences is a non-degree program taught under the Extension Division. There has been pressure to make this a four-year course offering a degree. A University committee has been appointed to consider the problem and also the college under which the program should be administered. If the course in Mortuary Sciences should become a part of the College of Medical Sciences, it would have a need for a total space of 1500 square feet with an anticipated increase to 4600 square feet by 1985.

SUGGESTED OUTLINE FOR PROGRAMMING
A SCHOOL OF DENTISTRY

May, 1964

Manpower and Education Branch
Division of Dental Public Health and Resources
Public Health Service

We believe that only by setting down on paper the ideas and concepts of the individuals responsible for the planning of new dental school facilities, can a project be carried to successful completion. We further feel that the act of documenting ideas and seeing these ideas in print, materially helps clarify and crystalize thinking. Remember it is easier to change a word on paper than to change the location of a cinder block partition. The more detailed information you can furnish at this stage, the greater will be the saving in planning and construction time, and the fewer the change orders.

1. Title Page

   Name and Location of School

   Indicate as title "A Narrative Description Including an Architectural Program with Space Schedules."

2. Credit Page

   Names of Authors

   Date

   University Authorization

3. Index

PART ONE

This part, which should be completed before starting Part Two, can be prepared by the Planning Committee, and usually will not necessitate the assistance of the university architect.

Section A

1. Short history of the university (1/2 page)

2. Short history of the school (1/2 page)

3. Justification: Prepare a short statement describing the basis for decision to undertake this project.

4. Objectives of the school.

5. Educational philosophy.

Section B

1. Organizational Structure.

   Describe the proposed overall organizational structure and relationship to other university components.

   Describe briefly services that will be furnished or provided the dental school by other university components.

   Similarly, describe the services that the dental school will provide other university components.

   Describe possible changes in organizational structure in the future.

Section C

Describe briefly the curriculum and how it meets the school's objectives.

Indicate class size for each program, proposed and future.

Section D

For each program or department briefly describe, narratively and by tables, in sufficient detail to determine the space and facilities required. Consider this section as "What" and "How." In this section, do not describe facilities. The "Where" and "With What" should be discussed in Section B and C of Part II.

Include such information as:

(1) The program or department.
(2) General scope of each course.
(3) Methodology of teaching.
(4) Hours per week to be spent by the student in the various instructional settings.
(5) Staffing of department.
(6) On-the-floor ratio of instructors to students in the clinics and laboratories.
(7) Relationship to other departments.

It is suggested that material be organized in the following categories and identified to facilitate reference:

a. Undergraduate (Dental Students)

(1) Basic Science
(2) Preclinical Dental Science
(3) Clinical Science

b. Graduate Program

(1) Basic Sciences
(2) Dental Sciences (Dental Materials, Dental Anatomy, etc.)
(3) Clinical Sciences

c. Continuing Education

(1) Graduate Program

A planned sequence of courses leading to an advanced degree, such as M.S., M.S.D., or Ph.D., granted by a recognized educational institution.

(2) Postgraduate Program

A planned sequence of courses that does not lead to a degree, but one for which the student may be awarded a certificate.

(3) Refresher Courses.

Specially designed short courses, not organized on the same formal basis as the graduate or postgraduate study.

d. Research Program

(1) Basic
(2) Clinical
(3) Sociological
(4) Educational

3. Dental Auxiliary Program

(1) Dental Hygienist
(2) Dental Assistant
(3) Dental Laboratory Technician
(4) Relationship of junior college training programs and community college

PART TWO

This part should be correlated with the narrative description in Part I. It undoubtedly will require the assistance of the university architect or architectural firm commissioned to design the building.

Section A

Describe size and character of proposed site, including information on space for future expansion, availability of transportation facilities, parking, faculty and student housing. If available, attach a small scale location map, area development plan and campus master plan.

Section B

Describe the present criteria used by the university for space determination.

Section C

Describe the facilities and equipment for each room required to accomplish the objectives and, in accordance with the methodology previously described. Use numbering system corresponding with Section D of Part I. The following information should be included for each room: Net square foot area, number of occupants, percent utilization research for both medical and dental, percent utilization for other programs, itemization of major equipment, special requirements relative to utilities and mechanical features, etc. Include common facilities such as lecture room, library, and CCTV. Include such special facilities as animal quarters and shops. Include general supporting facilities, i.e., administration, student facilities and general maintenance. Indicate these pages as "Space Schedules (Space Description Forms)." (See page 88 of the publication, "Dental School Planning.")

Section D

Summary of total net square foot areas for teaching, research and other programs.

Section E

Prepare an analysis (Class Schedules) showing how programs of PART ONE will be accommodated in facilities described in PART TWO. Indicate how provision has been made for future changes in programs and enrollment.

Section F

(Applicable to replacement, renovation, rehabilitation or addition to present structure)

Describe present physical plant, gross and net square foot areas; general condition of present building, structural and fire hazards (if any), age and condition of equipment. Describe how this project(s) will forestall curtailment of enrollment and quality of instruction.

Section G

Describe the following:

(a) General Construction
(b) Heating, Ventilating and Air Conditioning
(c) Plumbing (including gas and compressed air)
(d) Electrical Work
(e) Trash and Garbage Removal
(f) Communication Facilities
(g) Custodial Services
(h) Rest Rooms

Section H

Prepare an estimate of:

(a) Annual Income and Support, and
(b) Annual Cost of Operation and Maintenance

Section I

Prepare a capital budget for the project, including estimated construction costs, fees and estimated cost of equipment. Indicate source of funds available for this project, such as (a) cash, (b) bonds, (c) appropriations, etc. Prepare a Construction Schedule, indicating starting and completion dates, estimated amount of work to be accomplished in each fiscal year, and how this work will be phased into school's present operations.

Section J

The application for federal aid under Public Law 88-129 will require schematic drawings. Reduced size prints can be included with the narrative description for a clearer understanding of the project.

REVIEW OF BUILDING PROJECTS IN THE MEDICAL CENTER (Cont'd)

PROPOSED (cont'd)

Wangensteen--Phillips Research Building

Outpatient Clinic Building

Pharmacy

Eustis Wing--Pediatrics Wards

Radiation Therapy

Kitchens

New Intensive Care Unit

Respiratory Ward

VCHH--additional 3 floors

① Como Storage
② Dental Clinic - 500,000.

ADDENDUM

Completed in 1965

Hospital Elevators
North Clinic $30,000
Service elevator in Eustis $27,000

In Progress in 1966

Hospital Elevators
OPD Wing (2) $34,000

Proposed

Hospital Elevators
Psychiatry (Christian area) $25,000
Elliott $25,000

Airconditioning and ventilation of OR

Emergency Power for Hospital

Conversion to 13.5 KV feeder lines $150,000

Appendix I

Ancillary Professions Subcommittee - Health Sciences

Title (Profession)	Medical Technology				
Director of Unit — Name	U. of M. Address			Telephone	
Ruth Hovde	C205 MAYO			2601	
Year	1965	1970	1975	1980	1985
Total sq. ft.	1590	4000	8100	10000	12000
Laboratory space sq. ft.	800	2400	5600	6000	7000
Classroom space sq. ft.	400	800	1200	2400	2500
Other space (describe) sq. ft. Office Area, Student Activities	390	800	1300	1600	2500
No. on staff (full time equivalent) — Academic	12½	15	20	25	30
TA	13	6	10	15	20
Non-Academic	3½	5	10	15	20
Number of Students — 1st & 2nd Year Undergraduate	170	250	325	400	475
3rd,4th & 5th Yr.	105	150	200	250	300
Graduate	6	10	20	25	30
MLA	60	60	60?	60?	60?

List or describe equipment and other facilities required for the periods indicated above, (use additional sheets if necessary)

Describe briefly:

1. Desired location of space requested

   Clinical Laboratories

2. Department of closest affiliation

   Laboratory Medicine Clinical Laboratories

3. Interrelationship with other departments

   CLA--
   Medical Science-Basic Sciences
   Clinical Services

MEDICAL TECHNOLOGY

I. Present Programs.

1. B.A. Degree Program (4 Years).
   The student enrollment in the third and fourth years has increased by 40% in the past five years. This is the basic program in the division, so continuing efforts to improve quality will be made.

2. M.L.A. Program (1 Year).

   At present time, the classes are limited to two classes per year of 30 students each. This limit is determined largely by the number of places available for our students for clinical experience in the affiliated hospitals.

3. M.S. Degree Program.
   The present enrollment is six students in the graduate program. This enrollment is limited to this number primarily by availability of space and faculty.

II. Anticipated Basic Needs.

1. B.S. Degree Program.
   a) With the pressing need for laboratory personnel and the trend for increasing enrollments, it is anticipated that the basic program will continue to be needed and continue to grow as estimated.

   b) With the changing nature of laboratory methods, it is anticipated that changes in teaching and learning experiences will be modified to require separate but adjacent teaching facilities for the Service Laboratory unit. In turn, these changes will make more demands on and will change concepts of the responsibilities for the present service and teaching personnel. These considerations are included in the estimates of space and personnel as submitted.

   c) With the complexities and growth of knowledge in laboratory methodology, it is anticipated that a need for specialty training in our area will be acutely needed. It is anticipated that an additional year (a 5th year) of training might be one answer to this problem. Again, this type of program requires space and faculty. The estimate, as submitted, likewise reflects the needs in this type of program.

2. M.L.A. Program.
   The need for auxiliary laboratory personnel is acute. Until other agencies or institutions can meet the needs for training such sub-professional personnel, the University will have to maintain this function. It is not anticipated, however, that this program be expanded beyond the present; but, rather hopefully, may be discontinued as other agencies take over this function.

3. M.S. Degree Program.
   One of the acute problems in Medical Technology is the need for personnel with additional graduate training to fill the need for teaching, administration, and research activities. It is anticipated that serious efforts to strengthen and expand the present program will be made. This program carries the first priority in future plans of the division.

III. Other Considerations.

1. Additional needs for laboratory personnel, histologic technicians, cytotechnicians, other sub-professional personnel in specialized areas, and refresher training courses.
   Certainly the needs for the above are present, but the question of the responsibility of the College of Medical Sciences in these areas will have to be resolved. It seems appropriate that some of these programs could be handled by "on-the-job training" or in other hospital situations. The only one of the above that could come into our responsibility is the provision for refresher training for qualified technologists. At the present time, this division does offer this service to our graduates only. However, a more formalized approach with wider opportunities for all laboratory personnel is needed for service to the community.

2. Continuation Education and Community Service.
   It is anticipated that more will have to be done and more will be asked of us in these areas over what we are offering in present programs and services.

3. Research Activities.
   It is anticipated that this area, along with expansion of graduate programs, will be receiving top priority. At the present time, we are able to offer only minimal opportunities in this area because of lack of funds, space, and faculty. This is, perhaps, the most critical lack in the total divisional activities at the present time.

IV. Summary in Order of Anticipated Emphasis.

1. Development and strengthening of the M.S. degree program and research activities.

2. Continuation of present basic degree program with changes in teaching methods and curriculum to meet demands of changing methodology.

3. Specialty training programs as a fifth year of the college program.

4. Expanded services to the community by continuation education courses and refresher training programs.

5. Training programs for sub-professional personnel in specialty fields and limited areas.

MEDICAL TECHNOLOGY EDUCATION

I. Basic Considerations

1. Increasing needs for personnel in health fields with related increase in service demands.

The President's Commission on Heart Disease, Cancer, and Stroke, Recommendation 25, deals with a proposal for greatly increased effort and investment in the recruitment and training of health technicians and other paramedical personnel whose skills are essential to the control of heart disease, cancer, and stroke. The Commission estimates that by 1975 there will be a need for 172,000 additional medical technicians for laboratory work alone. The expansion of laboratory service which this personnel estimate indicates is reflected in the growth of laboratory procedures which our own service laboratories perform, not only in numbers but also in kinds and complexity of tests. Dr. Evans has documented these growth patterns and problems in greater detail in other communiques to you. I shall not elaborate further but merely emphasize that this growth has created problems in the training of medical technologists. It is no longer possible, or desirable, that technologists be exposed to the full battery of clinical laboratory procedures. Nationwide, and to a certain extent it is true of our training program, student medical technologists have been trained by an apprentice-type system. To a large extent this system has persisted because of the combined teaching-service function that hospital laboratories perform. Although some exposure to a service routine can be a useful learning device for a student, we have long recognized that the increasing burden of service requests has seriously compromised the student teaching in the clinical laboratories. Please understand that our present system does provide the necessary training for today's level of good to excellent laboratory service and detects the 1% of technologists who become leaders in education and further development of laboratory science. However, the present system cannot meet the demands which the federal program proposes. To provide the estimated numbers of qualified laboratory personnel will require some experimentation, evaluation, and implementation of different teaching methods. It is this role of pioneering which we envision a University medical center fulfilling.

2. Teaching facilities and space.

Our present teaching laboratories (B207 & B209 Mayo) provide 800 square feet of floor space with bench facilities designed for 16 students. By using auxillary bench space and crowding the students, the rooms are used by as many as 25 students in one session. Adequate supervision of the students under such conditions of crowding is difficult.

The two rooms are used at present for the following:

QUARTER	STUDENTS	HOURS/WEEK	STUDENTS
Summer	MLA	34	35
Fall	MLA	32	70
Winter	MLA	28	35
	Med T junior	4	50
	Medical (soph.)	4	150
Spring	Med T junior	26	50
	Graduate course- Lab Med	6	10

No preparatory space is provided and storage space is seriously compromised. Because both rooms are used to overcapacity, preparation for a succeeding class must be done at a remote location and transported in a relatively short period of time between the various laboratory classes.

More than one laboratory section for our classes must be held. This results in inefficient repetition and duplication of effort for the teaching staff.

With teaching laboratory space already committed to full occupancy, it is not possible to use these facilities to separate service and teaching exercises for the senior students. It is becoming increasingly clear that new programs with physical separation of teaching and service will be the pattern emerging from the present methods in order to accomplish the objective of more efficient use of personnel and facilities as well as better learning experiences for students. (See item III-I)

The one conference room (C295) that is assigned to our department holds an absolute maximum of 30 students. Therefore, many of our classes have to be scheduled elsewhere.

3. Enrollment.

The figures below are self-explanatory. It can be predicted that the increase in numbers of students in Medical Technology will parallel the general increase in total University enrollment.

Students in BS program MT

	Fresh.	Soph.	Jr.	Senior	Total	Total Univ. enrollment	%
1959-60	70	51	34	28	183	26,500	0.70
1964-65	109	68	55	50	282	38,400	0.78
1969-70					400	50,000 (?)	

II. Present Curricula in this Division.

1. Medical Laboratory Assistants

In 1953, the University of Minnesota pioneered a training program for Medical Laboratory Assistants. The national Certified Laboratory Assistant program is a direct result of this effort. There are now seventy-seven approved CLA programs in the country. Following the pattern of the University there are four other MLA programs in the state: Hibbing Area Technical Institute; Alexandria Area Technical School; The Duluth Area Technical School; and St. Mary's Junior College. It is anticipated that the establishment of an area vocational school in St. Paul and of junior colleges in the Twin Cities area will provide further opportunities for training programs. The future role of the University of Minnesota Medical School in the training of subprofessional laboratory personnel should be considered. We originally undertook the assignment as a state service since we were best equipped in terms of teaching experience and personnel to begin such a venture. Now that the program is well established in the state and nationwide it may well be that the University can reduce the extent of its participation in such training.

2. B.S. Degree Program

The present program is good and probably is the best in the country but we can foresee that our present system will soon not be able to handle the educational needs of the students in terms of expanding technical and scientific knowledge. In fact, with present space problems and with the increasing service demands the teaching functions of laboratory personnel under our present system of "apprenticeship" are becoming overburdening and inefficient. In an attempt to provide a deeper experience for high ability students, we have initiated an honors program for selected students. These students spend a period of 14 weeks during which they concentrate in one area on an investigative problem.

3. M.S. Degree Program

To date four students have successfully completed the Masters program since its initiation in 1960. These graduates are presently in teaching institutions in Kentucky, Illinois, North Dakota, and South Dakota. The program is progressing slowly because of lack of space and facilities and lack of faculty with available time for graduate students. Perhaps the greatest deterrent is lack of training fellowships for Medical Technologists for post-graduate education. This school with its long record of excellence in Medical Technology undergraduate education is now being looked to for leadership in graduate education to help solve the critical shortage of scientists and leaders in this profession. Therefore, we must increase our efforts and energies to find ways and means to augment and improve our graduate program.

III. Tentative plans

1. Separation of teaching and service functions.

The minimum requirements for AMA approved training in Medical Technology are three years of academic work plus one year of clinical experience in an approved hospital laboratory. In most training programs these two requirements have resulted in a dichotomy of effort; essentially no correlation exists between the academic and clinical years. We have attained some success in providing correlation by introducing the students to some clinical aspects during the junior year. We are hampered in the full utilization of reinforcement exercises by lack of adequate student laboratory facilities.

Ideally, each major area of laboratory medicine should have teaching facilities in addition to the service areas. The availability of more adequate teaching facilities will permit smaller sections during the junior year, better supervision, better learning conditions, and consideration of minor laboratory exercises at the sophomore year level to reinforce the didactic work. It is during the senior year, however, that the greatest advances in teaching would accrue. It is envisioned that students in small groups working with competent instructors who have no service responsibilities would review and correlate basic principles to the application in laboratory medicine, practice and become proficient in technique, apply technique and theory to practice and later patient specimens, and terminate their experience with a brief rotation in the service laboratories. Under our present system students are taught on an individual basis by technologists who carry considerable service responsibility. Group teaching is more efficient than individual, and permits exchange between fellow students and their instructor.

An improvement in efficiency of the service function should be an added bonus to separation of service and teaching. Automation can be carried to its practical limit whereas today we refrain from complete automation to supply necessary teaching experience for the students. Any laboratory where students are performing tests is subject to more errors (because students must be permitted to err) and these would largely be eliminated. The simple elimination of the physical presence of the students will also aid in more efficient operation.

The real benefit, however, will be to the student. Students would not be required to have their hours coincide with the hours of the service laboratories. The age-old concept that medical technology students must be in the clinical laboratories from 8 to 5 has no real correlation to learning and is a reflection of the apprenticeship-service oriented philosophy of training.

Under the proposed arrangement, more flexibility in aiding the exceptional and/or the slow student will be possible. With separate teaching facilities it will be possible to give all but the slowest students an opportunity to investigate a method, e.g., a group of students would explore colorimetry-spectrophotometry; as practical exercises each would be given separate procedures which would be investigated, established, and discussed with their peers and instructors.

Our emphasis would be on quality not quantity. Although a certain number of our graduates will, by ability and inclination, perform valuable function as line technologists, we should rescue a larger percentage than the 1% cited above who will become leaders. The great number of general laboratory personnel will need to come from other institutions but the leaders in teaching and methodology should be supplied by medical, not hospital schools. The present 780 hospital oriented training programs will continue and laboratory assistant courses are being established.

In view of the fact that complete exposure and competency in all phases of laboratory work is a practical impossibility, agencies employing our graduates will need to supply in-service training to orient the employee to the specific techniques and needs of the institution. Successful in-service training is possible when basic fundamentals are secure in the student's preparation.

2. Training in specialties (Clinical Chemistry, Diagnostic Microbiology, Hematology, Immuno-hematology)

The majority of the hospitals are under 150 bed capacity and the laboratory service in such hospitals cannot economically or practically support a staff of specialists so the general Medical Technologist will still be a key person for years to come. However, need for specialization will surely expand simply as a natural consequence of increasing technical and scientific knowledge and instrumentation. There will certainly be a demand for personnel with more knowledge and at greater depth in each of the sub-specialities of Medical Technology. Provision for speciality programs will have to be made not to the exclusion of the basic B.S. program but rather as complementary or supplemental to this. Perhaps the best way to handle this is by a program for additional training with a stipend at the 5th year level. Such a year of training could combine learning experiences in techniques related to speciality and academic study in certain related and specific courses together with some service responsibility.

3. Cytotechnology training program

Is such a program our responsibility? It could be considered purely a terminal type of training program. The present requirement for entrance to Cytotechnology programs is two years of college.

However, the President's Commission specifically comments on the need for increased training of specialists essential to the detection and treatment of cancer. In Minnesota there is only one program for training of cytotechnologists at the Mayo Clinic. We have the qualified physician and cytotechnologist personnel to develop an excellent program. Again, lack of space has prevented any positive steps in this direction.

IV. Questions to be resolved

1. Should affiliation with Ancker, General, and the V.A. Hospitals be reconsidered for clinical experience?

2. Should numbers of students admitted into the third and fourth years be limited?

3. Should specialty programs be introduced and training expanded to a five year program?

4. How can we best handle training for the exceptional and gifted student?

5. How can we encourage more of our bright, intelligent young people to enter into graduate programs?

6. Should refresher training be expanded for those former graduates who want to return to the labor market? How far does our responsibility as a State University extend in this matter?

Ruth Hovde, Director
Medical Technology

Appendix 2

Ancillary Professions Subcommittee - Health Sciences

Title (Profession)	Occupational Therapy				
Director of Unit	Name	U. of M. Address			Telephone
	Borghild Hansen	860 Mayo			Hospital 2721
Year		1965	1970	1975	1980	1985
Total sq. ft.	Course in occupational therapy	3,143				
	Shared with P.T.	2,243				
Laboratory space sq. ft.	(Research and Teaching)	2,764				
Classroom space sq. ft.		1,053				
Other space (describe) sq. ft.	Shared with P.T. locker rooms, storage, sec. office, offices for faculty	1,190 380	adequate for projected needs. 630	 755	 880	 1005
No. on staff (full time equivalent)	Exclusive of Educational Director Academic	3	5	6	7	8
	Non-Academic Secretarial	1/2	1	1	2	2
Number of Students	Class Size Undergraduate	26	30	36	42	50
	Graduate	0	0	4	6	10

List or describe equipment and other facilities required for the periods indicated above, (use additional sheets if necessary)

Describe briefly:

1. Desired location of space requested Office space on 1st floor, Children's Rehab Center, as staff increases. Classroom space to accomodate 75 students by 1975 and 100 students by 1985.
2. Department of closest affiliation

Physical Medicine and Rehabilitation

3. Interrelationship with other departments: Anatomy, Psychology, Psychiatry, Neurology, Pre-professional: Ind. Ed., Art Ed., and Physiology - Affiliated hospitals for clinical training of students, University of Minnesota Hospitals, O.T. Clinics.

If you have questions about this form, contact Dr. William Kubicek X2696, Dr. Anna Hampel 373-3255, or Dr. John Johnson 373-2910.

Course in Occupational Therapy

I. Programmatic activities

A. Teaching

1. The major program is the 4 1/4 year's Course in Occupational Therapy. The students spend the first 2 years in the College of Liberal Arts and as freshmen are assigned to advisers who are on the O.T. teaching staff. Three faculty members each counsel and advise approximately 40 students every quarter which requires about 1 hour per student. Juniors and seniors may at times require more frequent interviews with advisers. The occupational therapy director interviews prospective students and carries on considerable correspondence with persons inquiring about the course from the United States and abroad.

The present facilities for counseling students is adequate as each instructor has his own office. When enrollment increases and supplementary staff is hired, additional office space should be provided to insure privacy for interviews, counseling and required work.

2. The present space for teaching laboratory courses is satisfactory and will be in 20 years if 2 sections of a course are arranged. This will necessitate an increase in the teaching staff. For combined occupational and physical therapy lecture courses, classroom space for 75 students in 1970 to 100 students in 1985 should be made available in the Medical School area.

At the present time, service courses to other units of the University include 3 pre-occupational therapy courses offered to any student enrolled at the University. Participation in the program for medical students, summer clerkships in Physical Medicine and Rehabilitation is also offered. Members of the faculty are called upon at times to give special lectures and demonstrations to other departments such as Nursing and Public Health. Staff members planned a program for a graduate student registered in Educational Psychology providing her with supervised teaching experiences in occupational therapy.

3. Members of the staff have participated in continuation of education courses. The University was cosponsor for a 3-day workshop for certified occupational therapy assistants. Recently, a short course was conducted for registered occupational therapists on The Consultative Process. The educational director is an adviser to the St. Mary's Hospital, Occupational Therapy Assistants' Course, and participated in planning an orientation program for occupational therapists who will supervise the assistants. Nursing Home Administrators call upon staff to contribute to their annual short courses. There will be need for a refresher course in

occupational therapy for therapists wishing to return to work after a number of years of retirement due to raising families. This will have to be given at a time when regular classrooms and laboratories are adequate for teaching such a course.

B. Research

Research has been carried on by senior students under the direction of academic staff with the assistance of other Physical Medicine and Rehabilitation personnel. Present space should be adequate in the future for this work if 2 sections are offered in 1980 and 1985.

II. Goals and objectives of the program

A. With the anticipated growth in enrollment of 50,000 at the University by the year 1975, there will be a correspondingly greater number of students selecting a major in occupational therapy. There is also a great demand for occupational therapists to work in hospitals and rehabilitation centers. It is estimated that there are positions for 10,000 therapists at the present time. By 1970, one instructor should be mainly responsible for arranging clinical affiliations. With this increase in enrollment it will be necessary to develop affiliations with other good centers in addition to those we use, for training students. As more students are accepted, additional class sections will be required as well as faculty. We estimate that by 1985, there will be a need for 8 staff members plus the educational director.

B. The American Occupational Therapy Association conducted a curriculum study which indicated there was a need for changes in emphasis in teaching, such as more courses in the behavioral sciences. The association recommended to the American Medical Association, Council on Medical Education, that there be 6 months of clinical training instead of 9. If this is approved, we shall have the seniors on campus an additional quarter for classes.

New activities will include refresher and short courses, the development of instructional methods and materials including manuals, movies, slides, film loops and other audio-visual aids. A post-graduate program in occupational therapy by 1975 with a qualified person directing the program should be considered for the future.

Borghild Hansen, Director
Course in Occupational Therapy

Ancillary Professions Subcommittee - Health Sciences

Title (Profession)	Physical Therapy				
Director of Unit — Name	U. of M. Address			Telephone	
Wilbur L. Moen, R.P.T.	860 Mayo			Hosp 2721	
Year	1965	1970	1975	1980	1985
Total sq. ft. Course in P.T. Alone	2,446	Space should remain adequate for anticipated increase in enrollment. See note regarding inc. in faculty.			
Total sq. ft. Shared with O.T.	2,243				
Laboratory (Research and Teaching) space sq. ft.	1,890	Adequate for projected needs.			
Classroom space sq. ft.	1,053	Adequate for projected needs.			
Other space, shared with O.T. (describe) sq. ft.	1,190	Adequate for projected needs.			
Office space & rooms for student research	556	800	800	1,600	1,600
No. on staff (full time equivalent) (Exclusive of Educ. Administrator) Academic	4	5	6	8	8+ *
No. on staff (full time equivalent) Non-Academic Secretarial	½	1	1	1	1
Number of Students — Class Size Undergraduate	26-30	35	40	45	50
Number of Students — Graduate	2	5	5	10	10

List or describe equipment and other facilities required for the periods indicated above, (use additional sheets if necessary)

*Anticipate use of graduate teaching assistants.

Describe briefly:

1. Desired location of space requested: Present facilities on 2nd floor, Children's Rehab. Center should remain adequate for the anticipated increase in undergraduate enrollment.
2. Department of closest affiliation
   Physical Medicine and Rehabilitation
   Also Anatomy, Pathology, Psychiatry and Neurology
3. Interrelationship with other departments
   Growth in the Course in Physical Therapy is closely related to expansion in the Dept. of Anatomy and in developing clinical practice programs in affiliating hospitals in the Twin Cities area. At the present time, required courses in the curriculum are offered in the Depts. of Pathology, Psychiatry & Neurology.

If you have questions about this form, contact Dr. William Kubicek X2696, Dr. Anna Hampel 373-3255, or Dr. John Johnson 373-2910.

COURSE IN PHYSICAL THERAPY

I. Programmatic activities:

A. Teaching

1. The major program in physical therapy at the University of Minnesota comprises 4 academic years. Students entering the program as freshmen spend 2 years in the College of Liberal Arts during which time they are assigned to an adviser who is on the instructional staff of the Course in Physical Therapy. At the present time, we have approximately 100 student advisees in the freshmen and sophomore classes. Advisers spend a minimum of 1 hour per quarter with each pre-therapy student and sometimes many more in conferences, additional personal interviews etc. depending on the student's individual needs. There were 42 students enrolled in PMed 2A, Orientation to Physical Therapy, in the spring quarter 1965. We anticipate the number will double in the next 20 years.

   In addition to our own Arts College students, the Educational Director carries on correspondence with and conducts personal interviews with other prospective students who are completing course requirements at other accredited colleges and universities. About 10-20% of our junior students have completed the first two years elsewhere.

   Our present facilities for counseling pre-therapy students are barely adequate. As enrollment increases, it will be necessary to insure that each instructor has adequate private office space for interviews. It becomes very difficult to conduct interviews, and consequently the quality of student counseling is sacrificed, when more than one instructor occupies the same small office space.

   The professional curriculum in physical therapy (the last two academic years) is made up os some 30 separate lecture and laboratory courses plus assigned clinical practice at various affiliated hospitals and clinics. Approximately 500 clock hours are spent in lecture, 700 clock hours in laboratory, and a minimum of 600 clock hours in clinical practice. Our lecture and laboratory classrooms are in use exclusively for physical therapy courses from 16-20 hours per week from September to June. This includes class time for combined O.T.-P.T. lectures. Our present space is adequate for 26-30 students and scheduling is possible to allow for proper sequence of courses.

With an anticipated increase to 50 students in the professional program by 1985, it will be necessary to offer two separate sections in laboratory courses. This will necessitate an increase in teaching staff but classroom space should still be adequate. For combined lecture courses we will have to depend on utilization of lecture classrooms within the University at large.

2. At the present time courses are taught by physical therapy faculty in the Occupational Therapy curriculum. We also participate in the University Hospital Nursing Service instruction for new aides and orderlies, Gross Anatomy for medical students, summer clerkships in Phys. Medicine, special courses for Nursing Home personnel, and other areas as the needs arise.

3. There is a growing need in the physical therapy profession for refresher courses offered to personnel returning to hospital work after a number of years out of the field. It is anticipated that such courses will be organized and offered on a regular basis in the next few years. The most practical approach may be utilization of school laboratory facilities during evenings and Saturdays. Staff could also participate freely on that basis.

   The only anticipated needs for space that is not now available would be office space for staff and graduate students participating in teaching, and for space in which to conduct student research projects as part of PMed 98 and PMed 198, Physical Therapy Problems.

B. Research

The physical therapy teaching staff will probably continue to participate in research projects within the Department of Physical Medicine with utilization of existing research laboratories and facilities.

II. Goals and Objectives of the program:

A. After this next year the present program of staff improvement in terms of graduate work and post-graduate education should be pretty well completed. At that time it is expected that staff participation will expand to many areas. As student enrollment grows from 26-30 students per class to 50 students, there will be need for additional teaching staff. It is expected that our staff needs will double in the next 20 years.

B. New activities will include refresher courses, short courses, and development of new instructional methods. Instructional movies, slides, film loops and other audio-visual materials on physical therapy techniques will need to be produced. We plan a thorough curriculum study and review in 1966 in preparation for re-survey by the APTA-AMA accrediting group. We need to develop and improve new clinical practice programs at affiliating hospitals if we are to continue increasing our yearly enrollment. It is anticipated that a faculty member will be needed to devote full time to that area in the very near future.

Wilbur L. Moen, Director
Course in Physical Therapy

Ancillary Professions Subcommittee - Health Sciences

Title (Profession)		Radiologic Technology				
Director of Unit	Name	U of M Address				Telephone
	Charles Dopking	Dept. of Radiology				FE-9-7311 Ext. 2649
Year		1965	1970	1975	1980	1985
Total sq. ft.		1210	1410	1420	3060	3620
Laboratory space sq. ft.		Hospital X-ray Department and Nursing facilities will be used for this purpose				
Classroom space sq. ft.		1150	1350	1360	3000	3560
Other space (describe) sq. ft.		60+	60+	60+	60+	60+
No. on staff (full time equivalent)	Academic	1	1	1	?1	2
	Non-Academic	22	25	35	45	50-60
Number of students	Undergraduate	100	125	175	250	300-400
	Graduate	0	?1	1	2	2

List or describe equipment and other facilities required for the periods indicated above, (use additional sheets if necessary)

Describe briefly:

1. Desired location of space requested: Large lecture hall to seat 100 students now and 300-400 by 1985 could be any place in medical school complex. Smaller room for 40-50 students should be in X-ray Dept.

2. Department of closest affiliation:

   Radiology

3. Interrelationship with other deparments:

   Nursing and all clinical departments in hospital.

RADIOLOGIC TECHNOLOGY

The present school of x-ray technology is a part of the General Extension Division of the University of Minnesota. The director of the school is Mr. Charles Dopking, who is also the Chief of Technical Services of the Department of Radiology. There is presently no space which is designated for this training program. Rooms in various parts of the Medical School complex are used at different times during the two sessions of the year when lectures are given to large groups. These rooms include, #178 Jackson Hall, Powell Amphitheater, 1405 Powell, Todd Amphitheater, the Physics Lab of the Therapy X-ray Department, and Room 125 of the Mayo auditorium. For the small group sessions of instruction the rooms of the Main X-ray Department are used primarily at night. This briefly covers the presently used areas for teaching of students.

There are two major branches of the training program in x-ray technology. The first consists of a series of lectures over a period of three months, in which, at the present time, approximately 100 students are registered. These are basic lectures in all aspects of x-ray technology and are given twice a year, usually January 1st, and July 1st. The total number of students taking these lectures for the year would than be something in the neighborhood of 200 plus. These students come to the University from all of the state of Minnesota and some of the surrounding states, where they have been accepted into two year training programs by local hospitals that are approved by the AMA for training. Since most of these hospitals do not have staff who are equipped to give them the required lectures, they fulfill these requirements by attending the lectures at the University of Minnesota.

These lectures are given by a group of nine people as follows:

Two physicians from our department give lectures on basic anatomy.

Dr. Loken is responsible for lectures in Physics.

The basic techniques of radiography are given by two technicians in the Twin City area.

Dark room and developing techniques are given by another technician in the Twin City area.

Mathematics of exposures, and so forth, are given by still another technician in this area.

Nursing techniques are given by Mrs. Smutka, of the University Nursing Department.

Mechanical and electrical aspects of equipment are given by Mr. Dopking of our department. Approximately 350 hours of lecture and laboratory time are utilized for each three-month period.

The second major training program involves those students who are obtaining their entire two-year program here at the University Hospitals. These students also take this same lecture course just mentioned, but in addition, spend 21 months on a full-time basis in the department. They are assigned in a rotating fashion to all of the registered, paid technicians, which, in a sense, would indicate that we have a faculty of about 20 to 22 technicians giving on-the-job type of training to these students. We have approximately 40 students in this capacity at the present time. At the end of their two-year training program they are eligible for the examinations given by the American Registry of Radiologic Technologists.

As to estimates for the future needs, one can only tie this to the future of medicine as a whole, and radiology in particular. There appears to be about a 10% increase in radiologic examinations every year in hospitals of this type. There is generally a shortage of technicians throughout the country at the present time. Consequently, with a 10% increase annually in the amount of work being done, and beginning with a shortage of technicians, one can only estimate that in 20 years we would, perhaps, be doing 200% more work than we are now, and perhaps, would need 300% more technicians than we are training now.

If we start with the base line of 100 students, plus, in a class at the present time, we would anticipate 300 or more students in a class 20 years from now, if we were able to recruit people into this field. It would then be very desirable to have a lecture hall of sufficient size to accommodate 300 to 400 students, and one in which all of the lectures could be concentrated.

The basic needs and requirements of the School of X-ray Technology will be directly related to the growth of medicine and Radiology over the next twenty years. We would like to have a large class room where the lectures could be centralized. For laboratory space, we would be utilizing the main department itself, and we would continue to draw instructors from the Chief Technicians in the Twin City area, plus physicians in the Department of Radiology, and assistants from the School of Nursing.

There is need for special training in the areas of Radiation Therapy. There is need for this type of training, perhaps on two or three different levels of excellence and ability. We have no such program at this time, but I would expect in the next 20 years some training program on a much smaller scale will be developed in the Division of Radiation Therapy, with perhaps five to ten students involved over a two to four year period. The demands of space for such a small group will, of course, not be significant.

Harold O. Peterson, M.D.
Head
Department of Radiology

Ancillary Professions Subcommittee - Health Sciences

Title (Profession)		Counseling Psychologist (Vocational Rehabilitation)				
Director of Unit	Name	U of M Address				Telephone
	R. E. Matthews, Ph.D.	787 Mayo			extension	2726
Year		1965	1970	1975	1980	1985
Total sq. ft.		551	1131	1201	1265	1265
Laboratory space sq. ft.		238	518	518	518	518
Classroom space sq. ft.			300	300	300	300
Other space (describe) sq. ft.						
	Offices	313	453	517	517	517
No. on staff (full time equivalent)	Academic	3	3	4	4	4
	Non-Academic	1	2	2&1/2	3	3
Number of students	Undergraduate					
	Graduate	15	22	25	27	30

List or describe equipment and other facilities required for the periods indicated above, (use additional sheets if necessary)

Describe briefly:

1. Desired location of space requested: 7th floor roof attached to Rehabilitation Center except one office with one way vision to interview room in out patient clinic.
2. Department of closest affiliation:

   Physical Medicine and Rehabilitation
3. Interrelationship with other deparments:

   Professional relationship to Clinical Psychology

VOCATIONAL REHABILITATION COUNSELING

We offer the core of the program in clinical practice and counseling psychology for psychologists working in rehabilitation with a primary focus on vocational problems here at the University of Minnesota Hospitals, Rehabilitation Center. Ninety per cent of these students are on Office of Vocational Rehabilitation grants which number 30 per year in the Psychology Department. Since only second year students are eligible for the practical training, we will expect somewhere in the neighborhood of 15 students during the present year, increasing to 45 by 1970, according to the Psychology Department, to 5 students more by 1975, to an additional 5 by 1980 and an additional 5 by 1985, making a total of 60 students on grants and about 30 available for practicum by 1985.

Maximum efficiency in clinical practice for these students would require that they put in all of their time with the rehabilitation clients. At the present time they put in half of their clinical practice with college students. We have not yet figured out a way to provide full-time clinical practice with rehabilitation clients and the following projection is based on our present scheme of offering quarter-time clinical practice with such rehabilitation clients.

At the present time we are assigned 551 square feet, 313 of which is the offices for the three counselors, 172 is a group testing room, 66 is a small room that may be used for individual testing or interviewing. This is totally inadequate for the job we are trying to do. Therefore, we use two examining rooms for interviewing rooms, if they are available at times when we can use them. This leads to the problem of having an interview interrupted because a physician needs to make a physical examination in the middle of an interview, from time to time. Other rooms, sometimes available, are the social worker's office and the speech room which also serves as an emergency corridor to the air conditioning unit on the roof. Because the speech room is an emergency corridor, frequently workmen barge through in the middle of an interview and this room is also available only part of the time, when needed. Obviously the social worker's office is available only when he is not using it. Any three of these rooms, reserved exclusively for our use as needed, would give us enough space in square feet.

The problem that we face is more in organization and built-in equipment. What we should have is interviewing rooms with one-way vision screens so that the student can be observed and listened to while he is making the interview, and the supervisor can make notes for the student to read and correlate with the playback of his interview. This has been possible only when we were in short supply of speech therapists and could use the one-way vision facilities that were developed for them.

Another problem of organization is that the secretary, who is shared with clinical psychology, is on the eighth floor, making necessary some running around, both by our professional staff and by the secretary, to get things done. Ideally, a secretary for Vocational Counseling Services would also act as receptionist and keep our schedules and keep the office covered in cooperation with the psychometrist. The psychometrist should have a window from her desk to observe the group testing room so that she can observe clients taking tests, but at the same time talk to the counselors about other clients or other problems without disturbing clients in testing. This is not possible with the present setup.

Critical, then, in our present setup is the lack of interviewing space guaranteed available for students when they want to interview clients and the lack of visual and recording possibilities for them. Also, there is no place for the student to sit down and write up his case notes or discuss his cases with other students, which would be available if we had a conference room on the seventh floor. The conference room could be used also for intake conferences and our weekly staff conferences. These functions are now spread out between 752, a large examining room, and the Director's office.

With expected increase in liaison with the Division of Vocational Rehabilitation locally, a desk and space for a liaison person with that office should be available. If the other requirements mentioned above had been fulfilled, we probably would not need additional space for him unless present more than half-time, but as we get more students an additional interviewing-size office for such a liaison person would be required.

With the expectation of participation in Out-Patient Clinic by Vocational Counseling it would be highly desirable to have a one-way vision screen and recording facilities available in the Out-Patient Clinic on those days when the counselor would be there so that the interview could be done by a student and observed by a staff person.

As soon as equipment reaches a reasonable price level for the quality required, we should have close-circuit television with recording to enable us to record on video-tape interviews to be played back for the students. Only one interviewing room would be necessarily wired in this complex way.

Over the period of time with the increase in students we would expect that we would need an assistant psychometrist who would do some clerical work, about half-time, gradually working up to a full-time assistant psychometrist, by which time we would need an additional typist. The assumption here, of course, is that as we work with more students, we will also be able to get more patients referred from the hospital for vocational help. It is also assumed that we will be working in close conjunction with the clinical psychologists in the Physical Medicine and Rehabilitation Department and sharing clerical and psychometric help with them.

From the present situation the most ideal solution would
se seem to be building space out on the seventh floor deck from the present Adult Rehabilitation Center to include not only the space that we will require but also space for the clinical psychologists, psychiatrist, and the social worker from the Rehabilitation Center and any provisions for teaching and clerical help they might need.

R. E. Matthews, Ph.D.
Assistant Professor
and Director
Vocational Rehabilitation Services

Ancillary Professions Subcommittee - Health Sciences

Title (Profession)		Inhalation Therapy				
Director of Unit	Name	U of M Address				Telephone
	F.H. VanBergen, M.D.	C596 Mayo				extension 2701
Year		1965	1970	1975	1980	1985
Total sq. ft.		0	1800	1800		
Laboratory space sq. ft.		0	1000	1000		
Classroom space sq. ft.		0	400	400		
Other space (describe) sq. ft.		0	400	400		
No. on staff (full time equivalent)	Academic	0	2	2		
	Non-Academic	0	1	3		
Number of students	Undergraduate	0	5	10		
	Graduate	0				

List or describe equipment and other facilities required for the periods indicated above, (use additional sheets if necessary)

Describe briefly:

1. Desired location of space requested:

   This should be discussed

2. Department of closest affiliation:

   Anesthesiology

3. Interrelationship with other deparments:

   Chest disease, thoracic surgery, rehabilitation

INHALATION THERAPY

I. Programmatic Activities

A. Teaching

1. Major program: Classroom didactic and demonstration presentations covering principles of physiology, biochemistry, physics, anatomy, pharmacology, pathology and therapeutics pertinent to inhalation therapy, hyperbaric oxygenation and pulmonary function. Laboratory demonstrations and practice sessions involving mechanical and electrical apparatus, peculiar to the field, as well as animal experiments in pulmonary physiology, pharmacology and therapeutics.

2. Service courses to other units of University: None planned at beginning of program.

3. Continuation education: Courses biennially with American Association of Inhalation Therapists.

B. Research

Design, testing and application of new therapy apparatus for intermittent positive pressure breathing, newborn resuscitation, humidification and drug aerosols; improvement of intensive care, post-anesthesia care and prolonged respirator care of patients; applications of hyperbaric oxygenation and decompression; improved anesthesia apparatus.

II. Goals and objectives of each program over next 20 years

A. Anticipated growth of program: Beginning without a current program, we wish in the coming years to develop training and service facilities and staff patterns which will free the physician and nurse from most aspects of Inhalation Therapy, and will extend better care to more patients. (Pulmonary complications lead in incidence of post-surgical problems.)

F. H. VanBergen, M.D.
Director of Unit

Ancillary Professions Subcommittee - Health Sciences

Title (Profession)	Department of Medical Art and Photography				
Director of Unit — Name	U of M Address				Telephone
John E. Parker	C-566 Mayo Hospitals				192-2791
Year	1965	1970	1975	1980	1985
Total sq. ft.	3000	5000	5000	5000	?
Laboratory space sq. ft.	-	1600	1600	1600	
Classroom space sq. ft.	-	400	400	400	
Other space (describe) sq. ft.	3000 all service	3000 service	3000 service	3000 service	
No. on staff (full time equivalent) — Academic	1	3 or 4	5-6	6-8	
No. on staff (full time equivalent) — Non-Academic	14	16	20	25	
Number of students — Undergraduate	0				
Number of students — Graduate	0	4	4-6	6-8	

List or describe equipment and other facilities required for the periods indicated above, (use additional sheets if necessary)

SEE ADDENDUM---to page 1

Describe briefly:

1. Desired location of space requested: Rooms with north exposure. 5th floor or 4th floor of the main hospital....not too removed from the operating rooms.

2. Department of closest affiliation: In a more active teaching relationship we would be closely affiliated with the Anatomy Department....Surgery Department....Biology (or Zoology).... Pathology.

3. Interrelationship with other deparments: Interrelationships with other departments would include Medicine, Pediatrics, Art (Applied Art....Studio Arts....Etc....) Languages, Graduate School, Audio Visual Services, Station KUOM, possibly Minneapolis School of Art, or Minneapolis Institute of Art.

MEDICAL ART & PHOTOGRAPHY

Addendum to page 1.

In order to create an effective and fully accredited teaching department in the broad field of medical communications, much thought must be given to curriculum, number of students, student-faculty-ratio, faculty selection, supporting funds, space, additional equipment, basic graduate-school requirements, proper interrelation with other disciplines, and a myriad other considerations. For a department such as this, with no previous history of teaching, it is quite difficult to predict at this time what kind of equipment, how much room, and what location we will need.

Our progress in working through these various considerations has only now reached its early infancy, at a time when you have requested so many more facts and figures than we can yet supply. In filling-out the Ancillary Professions Subcommittees' Form (recently given me by Miss Eleanor Anderson), I am only able to suggest some vague guess as to our possible future space, equipment, and personnel needs.

If, as I hope, we get into closed-circuit and/or open-circuit (or scrambled-image) television....then our already sizeable problems would be multiplied by an even greater factor: i.e.....equipment, space, faculty, and curriculum in this rapidly expanding adjunct to medical education.

I. Programmtic Activities

A. Teaching: We are anxious to develop this department to include teaching functions as well as the present service functions. This development could go in any of probably three directions.

1. We could establish a program in medical illustration to prepare graduate students for professional careers in this field.
2. We could provide elective courses for the medical school students, interns, and residents, in the proper use of medical visuals and in most recent and up-to-date methods available.
3. We could establish courses in close cooperation with the Biological Schiences for major programs in Biological Illustration.

The establishment of an accredited school of medical illustration could conceivably include the other two functions as well.

B. Research: A graduate program, such as visualized above, would necessitate graduate research in one of the Biological or Health Sciences, along with a thesis and adequate examination. We do not expect that we would ever want to carry more than two or three new students each year in a two-year program. Thus our space requirements are very real although not particularly grave. The necessity of interaction with other departments is quite obvious and much hoped for.

II. Goals and Objectives over next 20 years

A. Initial growth (from 0 to 2 students) would be infinite, but after that it should level off to rather modest proportions. However, within only the service functions of this department we will perhaps feel a strong need for additional space to house expanding services in such areas as moulage and prostheses, plastic fabrications, and model-making. The increased involvement in educational television will likely require additional space, and additional specialized staff.

In making such brief answers to such probing questions, one feels greatly concerned that the over-all impressions given will be understood in the light of the haste with which these forms had to be filled-out. You caught us at a time when we are only beginning to consider the future growth, character, and temperment of our department. We have only recently gotten over the hurdles of financial stability and customer goodwill, and are only now in a position to think ahead on new horizons.

John E. Parker,
Director
Medical Art & Photography

Appendix 14

Ancillary Professions Subcommittee - Health Sciences

Title (Profession)						
Director of Unit	Name	U. of M. Address				Telephone
	Miss Annie Laurie Baker	Social Service Department				Ext. 2610
Year		1965	1970	1975	1980	1985
Total sq. ft.		1781	2881	3641	3761	6445
Laboratory (Research and Teaching) space sq. ft.			600	Conference room of sufficient size to accommodate the full staff and students.		
Classroom space sq. ft.						
Other space (describe) sq. ft.			200	To be used as a room for students.		
No. on staff (full time equivalent)	Academic	1	3	3	4	4
	Non-Academic	24	28	32	37	40
Number of Students	Undergraduate					
	Graduate	3	6	8	12	15

List or describe equipment and other facilities required for the periods indicated above, (use additional sheets if necessary)

Describe briefly:

1. Desired location of space requested

2. Department of closest affiliation

3. Interrelationship with other departments

1. One central location for the main Social Service Department Office. Should be accessable to all parts of the Hospitals and easy for patients to locate. Other space in the areas of assignment.

2 & 3 The Social Service Staff works with all 19 Departments of Medicine, in all the out-patient clinics, the Hospital Administration & many of its departments.

If you have questions about this form, contact Dr. William Kubicek X2696, Dr. Anna Hampel 373-3255, or Dr. John Johnson 373-2910.

SOCIAL SERVICE DEPARTMENT

I. Programmatic Activities

The primary role of the Social Service Department is to assist the doctor, hospital staff and community agencies in helping the patient and his family to solve the social or personal problems which affect medical care and adjustment to disability.

The Department at the University Hospitals operates from a broad base and serves as the focal point of contact for community and social agencies concerned with the social problems of people and is a liaison between the Hospitals and areas of the state from which patients come. In doing so, the staff interprets the services of the Hospitals to community agencies and brings to the attention of the Administration those changes and developments which may affect the work of the Hospitals in providing care for people. The Department services are designed to protect and facilitate the services provided by the Hospitals staff. A large portion of the social worker's concern is directed to the life of the patient and family in his own community.

A social service department, in order to carry out its essential functions, must depend upon the cooperation of social agencies to provide services and facilities. The creative skill in casework depends upon the proper use and selection of resources. Because of the complexities of modern medical care, no community has all the resources required for the use of patients with varying conditions. A combination of resources and the creation of services becomes a part of this function of coordination resources for the benefit of patients.

A. Teaching

The Social Service Department was started to facilitate medical education and has continued in its 52 years of existence to participate in the teaching program of the medical school. The staff has been involved in the educational program to students in medicine, nursing, physical therapy, occupational therapy, hospital dietetics, and hospital administration and medical residents. The staff has also been involved in the training program of the School of Social Work. In interpreting the specific medical conditions of patients and the requirements of the medical plan to community agencies, county welfare social workers, county commissioners, township officials, court judges, etc., the Social Service Staff contributes to the education of people in the communities who are responsible for providing medical care. Periodically the Department sends material to 250 agencies on medical subjects or topics of mutual interest or concern and plans programs of special interest.

1. Major Program

   Participation in teaching medical and medical graduate students in medicine, psychiatry, child psychiatry, physical medicine and rehabilitation, comprehensive clinic and other services. Social workers also participate in courses in nursing, hospital administration and hospital chaplaincy.

2. Service Courses to Other Units of University

   School of Social Work
   215, 216, 217 Group Work

3. Continuation Education

   a. Planned programs for students in Social Work in the undergraduate sequence of private colleges in Minnesota.
   b. Programs on social service relationships for county welfare staff members.
   c. Programs on the University Hospitals contribution to the general welfare programs of the State for for county welfare boards.
   d. Programs of special interest to various groups -- county nursing boards, child welfare workers, probation officers, judges, etc.
   e. Distribution of pertinent literature on medical subjects to county welfare departments, public health nurses, vocational rehabilitation centers and selected private social service agencies.
   f. Special lectures to certain groups.

B. Research

The Department has engaged in collaborative research with the Department of Psychiatry. Over the years the staff has participated in the research projects of other departments by following the patients and handling the problems in relation to participation in projects.

II. Goals and Objectives of each program over the next 20 years.

In order to make its greatest contribution to the total University Hospital program, the functions of the Social Service Department must fit into the state welfare structure. In so doing the staff takes an active role of leadership in assisting the state welfare organizations to plan and operate medical care programs for people and fulfills the larger responsibility of all University departments to serve the people of the state. Therefore, no plan for the Department can be designed without reference to the changes and trends in mind, the role of the Social Service Department as seen at this time will be modified in the future. The primary responsibility of providing social services to patients will remain the same. There will be new knowledge, refinements of techniques, change in methods, but the core area of the practice will remain.

SERVICE OBJECTIVES

1. To provide skilled social casework services to patients whose social, personal or family problems require solution as a part of the medical care plan.
2. To assume a leadership role in helping patients obtain the maximum benefit from the medical care received, and to prevent recurrences of illness.
3. To participate with social workers and other professions in community agencies in effecting plans for patients in accordance with the medical recommendations.
4. To contribute medical, social and psychiatric social work evaluations of specific patient situations to assist the community social workers in their work with the patient and his family.
5. To provide consultative services from the field of social work, experience in community organizations and general social work knowledge to the medical and allied professions in the hospital team, allied professions and community social workers, and others involved in programs concerned with health.
6. To integrate the services of the department into the total program of the Hospitals and to take an active part in assisting the hospital administration in providing the best possible services for the people who come to us for medical care.
7. To work with the medical staff, health teams, allied medical professions in the total effort to provide good medical services for patients.
8. To provide leadership to the social welfare field in the development of resources and programs designed to serve the medical and health needs of people.
9. To stimulate the development of new services essential to good patient care.

10. To participate with community organizations, agency boards, etc., in an effort to support and strengthen programs and facilities concerned with various aspects of medical care or with the prevention of illness.

The role of the Social Service Department's participation in the educational programs of the College of Medical Sciences in the future is defined as follows:

OBJECTIVES OF THE SOCIAL SERVICE DEPARTMENT TEACHING ACTIVITIES

I. Medical Education

1. To strengthen the teaching programs of the medical school by providing knowledge about the impact of the patient's social situation upon his medical condition.
2. To assist the physician in his concerns for the total care of the patient which extend to family and community relationships.
3. To enrich the general medical education of the doctor by providing those services which will assist him to obtain maximum benefit from the medical treatment given to patients.
4. To implement the teaching program through cooperation and joint participation of services available to assist him in his work with patients through social work and social agencies.
5. To augment the medical plans through knowledge of local, state and national resources.
6. To help the physician define his role as a citizen in providing leadership in the development of health care programs.

II. Hospital Administration

To provide an educational experience directed in three different ways:

1. To broaden the administrators knowledge of social problems of patients which affect his goals.
2. To increase his familiarity with the specific operation of welfare programs, particularly those concerned with medical care.
3. To demonstrate the services the social service department performs which assist him in his administration.

III. Ancillary Medical Professions

1. To increase the student appreciation of the social problems of patients related to the medical condition.

2. To interpret the functions of the social worker as a member of the health team.
3. To augment the knowledge of resources available to assist patients or their families.
4. To broaden and extend the students general information about social welfare programs.

IV. Community Agencies

1. To offer programs of health education for social workers, county commissioners, etc., and other special groups, planned and given at the Hospitals by the staff.
2. To plan programs designed to demonstrate the services which the Hospitals can contribute in the social casework plans for people.
3. To contribute materials of special significance to county welfare departments, public health nurses, vocational counselors and other interested groups.
4. To promote inclusion of timely medical information on programs designed for people interested in the health fields.
5. To work with other groups -- public health nurses, vocational counselors, social workers and citizen groups in an effort to extend knowledge about specific medical conditions and the requirements of care and treatment.
6. To be ever conscious of the educational value of well written medical social reports on patients.
7. To initiate programs and cooperate with the other departments in the Hospitals in the recruitment of young people into the health professions.
8. To be ever mindful of the educational aspects of medical and social work practice as related to specific patients and their families.
9. To take leadership in working out institutes and conferences for social workers, particularly those employed in medical settings.

V. Research

1. To conduct independent research programs into areas of social factors as related to medical care, motivation and rehabilitation.
2. To assist the medical and paramedical field in research projects insofar as patient care is concerned.
3. To participate with the medical and paramedical professions in the areas of social work concern of research projects.

VI. Training in Social Work

The Department shares in the responsibility of participating in the training of social workers for the health fields. The responsibility to be met is as follows:

1. To offer field work experience to graduate students in social work.
2. To assist colleges offering an undergraduate sequence in social work by helping to strengthen the students understanding of medical conditions of people through conferences, tours, materials, etc.

Future Additional Space Requirements for the next 20 years.

Central Social Service Office:	Square Feet
Space for 20 desks	1500
Secretarial Office	300
Lobby	80
Dressing Room	60
Two Private Offices for Supervisors	200
Conference Room to Accomodate 40 People	600
Director's Office	180
Student Room for 6 desks	270
One Small Student Supervisor's Office	75
Clinic Area -- Out-Patient Department	
Comprehensive Clinic	100
Medical Clinic Area	80
Pediatric Clinic Area	80
Obstetrics - Gynecology	60
Surgery	100
Neurology	100
Orthopedics	60
Maternity & Child Health	50
Community Service	50
Cardiac Clinic	50
Physical Medicine	
7th floor - 2 offices	120
Rehabilitation Center - 2 offices	120
Psychiatry	
One Supervisory Office	100
11 private offices	1000
One group work office	150
Two Child Psychiatry Offices	160
In-Patient Station Areas	
In-Patient Psychiatry	
4 Social Work Offices	320
1 Room for Students	270
1 Office for Student Supervisor	75
Heart Hospital	75
Masonic	60
TOTAL	6445

(Miss) Annie Laurie Baker
Director
Social Service Department

Appendix 15

Ancillary Professions Subcommittee - Health Sciences

Title (Profession)	Mortuary Science				
Director of Unit — Name	U. of M. Address				Telephone
Robert C. Slater	114 Vincent Hall				373-3870
Year	1965	1970	1975	1980	1985
Total sq. ft.	1,500	2,894	3,400	3,800	4,600
Laboratory (Research and Teaching) space sq. ft.	600	1,325	1,500	1,700	2,300
Classroom space sq. ft.	300	600	830	1,030	1,200
Other space (describe) sq. ft. administrative, office & faculty storage, locker shower	600	970	1,070	1,070	1,100
No. on staff (full time equivalent) — Academic	4	5	6	7	8
No. on staff (full time equivalent) — Non-Academic	2	2	3	4	4
Number of Students — Undergraduate	126	140	165	190	215
Number of Students — Graduate	-	-	5	15	20

List or describe equipment and other facilities required for the periods indicated above, (use additional sheets if necessary)

Describe briefly:

1. Desired location of space requested
   In a paramedical complex closely related administratively and physically to Anatomy & Pathology.
2. Department of closest affiliation
   Anatomy & Pathology
3. Interrelationship with other departments
   Preparation of anatomical material, exchange teaching, shared laboratories and use of materials & educational aids.

If you have questions about this form, contact Dr. William Kubicek X2696, Dr. Anna Hampel 373-3255, or Dr. John Johnson 373-2910.

I. Programmatic activities

A. Teaching

1. Major program - Mortuary Science
2. Service courses to other units of the University
   The Department of Mortuary Science co-operates closely with the Department of Anatomy and the Department of Pathology both in the use of materials and in the preparation of all materials for use of the College of Medical Sciences in the study of anatomy and related subjects.

3. Continuation education
   The department has, over the course of the past 18 years, offered annually or more often continuation courses in professional education in the area of Mortuary Science. One of the very definite limitations for the continuing education of the technical aspects of the profession has been the use of space which more often than not is already utilized by regular full-time day students and is not available for continuing education purposes.

B. Research

1. Courses taught
   There are currently 26 courses taught under the supervision of the administration and staff of the Department of Mortuary Science. Of these 26 courses only 5 are of such a nature that they would not be directly connected with a paramedical relationship.

2. The size of classes as they relate to the size of classrooms and laboratories together with the number of hours of use per week of each classroom and laboratory.
   The classes currently average between 40 and 50 students which often makes it necessary to section a class into at least 2 sections. The desirable classroom size therefore for combined lecture purposes is 60 to 75 students projecting it over the period of 20 year with laboratories adaptable to 30 students per section. See the attached sheet for the classes now being offered and the number of hours per week.

3. Physical needs and facilities used
   The physical needs and facilities currently used are an example of the fact of the dire need for space. Currently we have no rooms that are adapted specifically to Mortuary Science teaching or laboratory technique. All facilities are shared with the Department of Anatomy and Pathology.

4. Interaction with other departments and hospital
   Currently all of the preparation of material and laboratory control of such material for the Departments of Anatomy and Pathology is a co-operative venture.

5. Current needs for space not now available
   Restorative Art Laboratory and Demonstration Area
   Embalming Laboratory and Demonstration Area
   Research and Study Laboratory
   Dressing and Cosmetic Area with Special Lighting
   Atmospheric Control Room

II. Goals and objectives of each program over next 20 years

A. Anticipated growth of present program

It is anticipated over the period of the next 20 years that the current enrollment will increase from 125 students to 215 students. At the present time no graduate students are enrolled in the department. It is projected over the next 20 years that approximately 20 students per year would be in a graduate status.

B. Anticipated new activities

1. Research in co-operation with the Department of Anatomy and Pathology over tissue structure and changes.

2. Restorative Art dermasurgery, cosmetology and cosmetic research and study.

3. Studies of atmospheric conditions on the preservation and structural change of tissue.

4. Experimentation and research with special lighting as involves color and design.

Robert C. Slater
Professor & Director
Mortuary Science
Department

COMMITTEE FOR THE STUDY OF PHYSICAL FACILITIES

FOR THE HEALTH SCIENCES

Ancillary Professions Sub-Committee

April 26, 1965

Minutes of Meeting April 26, 1965

Present: Frederic Kottke, chairman, Eleanor Anderson, Anna Hampel, Ruth Hovde, John Johnson, William Kubicek, Elizabeth Whitney, John Westerman

Absent: Arnold Lazarow

NEXT MEETING, THURSDAY, MAY 6, 1965, 3:30 p.m., ROOM 825, MAYO

Chairman Kottke explained the reasons for the Learn Committee, the organization of the committee, and what it hoped to accomplish. He then outlined the reasons for the Ancillary Professions Sub-committee and the charge it is working under. It was pointed out that the charge to the Ancillary group was less specific than to the other five sub-committees. It will be up to the Ancillary group to decide what programs should be considered and how the committee should proceed.

It was decided the sub-committee should consider the programs under item III, page two of Dr. Kottke's prepared list. Ancillary programs included are:

A. Occupational Therapy
B. Physical therapy
C. Medical technology
D. X-ray technicians
E. The following programs will also be considered by the sub-committee.
    1. Dietitians and nutrition interns
    2. Social workers
    3. Medical librarians
    4. Pharmacy
    5. Speech pathologists
    6. Audiologists
    7. Vocational Rehabilitation Counsellors
    8. Medical art & photography
    9. Inhalation therapists
    10. Morticians

Items A. - D. were specifically outlined by the Learn Committee. Items 1 - 10 under E. seem appropriate to consider under the charge given to the ancillary group. It was pointed out that some smaller programs fall under the ones outlined above (e.g. EEG technicians under medical technology). The ancillary group may also suggest programs the medical center should be considering.

It was decided to proceed by drafting a questionnaire, which would provide baseline data, and sending it to the program directors. After analyzing the returns, some or all of the program directors could be called before the sub-committee. William Kubicek, Anna Hampel, and John Johnson will be responsible for drafting the questionnaire. They will submit it to the group for consideration at the May 6th meeting.

Suggestions for information to collect:

A. Status of existing programs

1. Educational objectives
2. Size (number of students, number of faculty)
3. Courses
4. Physical needs and facilities used
5. Interaction with other departments and hospital
6. Strengths
7. Weaknesses

B. Goals and objectives of each program over next 20 years

1. Future activities of each ancillary profession
2. Size of teaching program to be developed
3. Optimal program
4. Space needs
5. Location and interrelationship with other departments

Respectfully submitted,

John H. Westerman
Executive Secretary

COMMITTEE FOR THE STUDY OF PHYSICAL
FACILITIES FOR THE HEALTH SCIENCES

Ancillary Professions Subcommittee

Minutes of Meeting May 6, 1965 (Meeting # 2)

Present: Frederic Kottke, Chairman, Eleanor Anderson, Anna Hampel, Ruth Hovde, John Johnson, Arnold Lazarow, Judith Furber, John Westerman

Absent: William Kubicek, Elizabeth Whitney

NEXT MEETING: At Chairman Kottke's call.

1. We will not have a determination of the programs to be studied until the Learn Committe receives our report.

2. The Ancillary group will not consider the Mortuary Science Program.

3. The whole issue of training programs for Biomedical Instrumentation Technicians needs to be examined. Dr. Kottke will ask the Learn Committee who is and/or who should be studying the need for programs in Biophysics, Bioengineering, and Computer Systems Programming?

4. The subcommittee of William Kubicek, Anna Hampel and John Johnson presented a questionnaire they drafted which would be sent to the ancillary program directors. After some discussion and modification, the Ancillary Professions Subcommittee approved the enclosed inventory form.

Respectfully submitted,

John H. Westerman
Executive Secretary

COMMITTEE FOR THE STUDY OF PHYSICAL FACILITIES
FOR THE HEALTH SCIENCES

Ancillary Professions Subcommittee

Minutes of meeting September 16, 1965.
Present: Frederic J. Kottke, Chairman, Ruth Hovde, Arnold Lazarow, William G. Kubicek, and Dean Robert B. Howard.

Committee discussed with Dean Howard the criteria to be used in determining which ancillary professions and services should be included in this subcommittee report. The following factors should be taken into consideration:

Which professions or services need University training?

What services does the Medical School need in order to function most efficiently?

Is there need for more personnel in that health profession or service on a national basis?

Further considerations which indicate the inclusion of any ancillary program in the report are:

A requirement for space for the teaching program.

Obligation of faculty time in the training program.

The committee should report the present and future needs as estimated by the faculty of the program or the persons most directly concerned in such a program. The committee should make an evaluation of this estimate in relation to the entire teaching program of the College of Medical Sciences and make specific recommendations and relative ratings regarding the various programs.

The programs to be assessed are:

(1) Established programs

Medical technology

Occupational therapy

Physical therapy

X-ray technicians

(2) Partially supported, partially developed or proposed programs

a. Audiologists

b. Bioengineers

c. Electroencephalography technicians

d. Electron microscopy technicians

e. Inhalation therapists

f. Medical artists and photographers

g. Medical librarians and information retrieval

h. Morticians

i. Social workers

j. Speech pathologists

k. Vocational rehabilitation counselors

Data has been obtained from medical technology, occupational therapy, physical therapy, and vocational rehabilitation counseling. For the next meeting Doctor Lazarow is to obtain information regarding the programs for medical librarians and information retrieval, morticians, and electron microscopy technicians. Doctor Kubicek is to obtain information regarding the program for x-ray technicians and bioengineers.

Next meeting, September 20, 1965, 3:30 p.m., 825 Mayo.

Frederic J. Kottke
Chairman

COMMITTEE FOR THE STUDY OF PHYSICAL FACLLITIES
FOR THE HEALTH SCIENCES

Ancillary Professions Subcommittee

Minutes of meeting September 20, 1965.
Present: Frederic J. Kottke, Chairman, Eleanor Anderson, Anna Hampel, Ruth Hovde, John Johnson, William Kubicek.

Absent: Arnold Lazarow, Elizabeth Whitney.

The following basic policy was proposed:

The College of Medical Sciences should be involved in the establishment and teaching of courses leading to baccalaureate or graduate degrees.

Technical training and sub-collegiate courses, as a generality, should not be carried out by the University except when special facilities or personnel preclude such programs elsewhere.

The College of Medical Sciences may initiate a sub-collegiate course as a pilot or research program to develop the requirements for such a course.

Under certain circumstances it may be necessary for the College of Medical Sciences to establish certain sub-collegiate courses in order to meet its own or community needs. Insofar as possible this should be avoided or constitute only a temporary service.

Reports in the hands of the committee:

1. Medical technology. A supplementary outline in addition to the narrative and the tabulation of data has been submitted.

2. Occupational therapy questionnaire and supplementary data submitted.

3. Physical therapy questionnaire and supplementary information submitted.

4. Vocational rehabilitation counseling questionnaire and supplementary information submitted.

5. Doctor Frederick VanBergen has indicated that he would like to submit information regarding the needs for establishing a course for inhalation therapists.

The following committee assignments were made to obtain information on the remaining programs.

Eleanor Anderson - Medical art and photography
- Social work

Ruth Hovde - Electron microscopy technicians

William Kubicek - Bioengineers
- X-ray technicians

Arnold Lazarow - Electron microscopy technicians
- Medical librarians and information retrieval
- Morticians

Frederic Kottke - Audiologists
- Speech pathologists
- Electroencephalography technicians

Next meeting, Thursday, September 30, 3:30 p.m., 825 Mayo.

Respectfully submitted,

Frederic J. Kottke
Chairman

COMMITTEE FOR THE STUDY OF PHYSICAL FACILITIES
FOR THE HEALTH SCIENCES

Ancillary Professions Subcommittee

Minutes of Meeting September 30, 1965 (#5)

Present: Frederic J. Kottke, Chairman, Eleanor Anderson, Ruth Hovde, Arnold Lazarow, Kathryn Ritzen.

Absent: Anna Hampel, John Johnson, William Kubicek, Elizabeth Whitney.

NEXT MEETING THURSDAY, October 7, 3:30 P.M., 825 Mayo.

Eleanor Anderson began by reporting on Medical Art and Photography and then on Social Work. Thought is being given to developing a graduate program in Medical Art and Photography. It would be a two-year program and would begin with three students. Medical Art and Photography needs more space for service and research as well as more equipment, and will be asked to complete a space requirement form.

It is understood that Miss Baker had submitted a Social Work report, geared to service, to the Hospital Task Force. The committee will ask Miss Baker for a report on Social Work in terms of education and will ask to have a space requirement form completed. The amount of space Social Work now has seems adequate, but in the future, with the staff participating more in the undergraduate program, staff and space increases will be necessary.

Arnold Lazarow was able to obtain information on Mortuary Science's space requirements for their unique needs as well as their needs in common with other departments. Actually, it amounts to about 2,500 square feet, but the committee will ask Mortuary Science to complete a space requirement form to indicate their past and projected growth.

Doctor Lazarow reported that information on the Biomedical Computer facility and Information Retrieval is being collected from several sources and should be available within a few days. Although the guide lines are still somewhat uncertain, it's most desirable to have a regional branch of the National Library of Medicine here at the University. A possible site for the library would be a building north of Diehl Hall, since it should be adjacent to the medical library. Information at hand indicates there has been growth in various areas of biomedical data processing and information retrieval - activities that vitally affect every aspect of the College of Medical Sciences.

Ruth Hovde shared the information she obtained from Doctor Ellis Benson on Electron Miscroscopy Technicians. A one-year training program at the postgraduate level is being established in this area, with a B.S. in Medical Technology

entrance requirement. There is some question whether this program should be combined with Medical Technology and also Ctyogenetics and Radioisotopes training. In any event it doesn't seem to be the type of program to require a tremendous amount of space.

There was some discussion of the role of the scientist and the technician today. Formerly the scientist was prepared to train his technicians. Today, the tendency is for the scientist to ask the technician to do something which he, the scientist, has not mastered. Doctor Kottke suggested that the big question is where can two scientists get together to use to advantage the individual competence of both?

The committee was concerned with the problem of job over-training for the nonmedical technician. It is still valuable to train technicians in a group, rather than individually on-the-job, but they don't necessarily have to be trained in all areas to perform one specific job competently. Some of the committee felt that too much of a woman's career time is wasted with over-education, given her limited vocational goal and limited career time. On the other hand, many girls do work an average of seven years after graduation from many technician programs.

A vital question for the committee to consider is, how much should the University be involved in training routine technicians when the University's most valuable contribution is to train on an advanced, non-routine level? As it is simply to meet the rigors of supply and demand the University is forced to use much routine in training Physical and Occupational Therapists. If there were enough medical technicians of all kinds, there would be no problem, each one would be trained in breadth and depth. But to meet all of our needs, many technicians have to be trained at the most elementary routine level.

To pursue this discussion further, how many auxillary personnel, even nurses, could have their educations pared down to the bone to actually do their jobs well and at the same time fill our needs for greater numbers of such personnel? A program to prepare personnel at this level would certainly have lower priority than our B.S. and M.S. program.

Getting back to the committee report, Doctor Kottke noted that there was no response yet from Audiology and Speech Pathology. The committee understands, however, that Audiology and Speech Pathology have given some information to the Comprehensive Clinic, requesting a tremendous amount of teaching space. Perhaps the committee should include in its report a statement acknowledging that Audiology and Speech Pathology have reported to the Comprehensive Clinic.

Doctor Kottke said he would contact Doctor Torres about Electroencephalography Technicians.

In regard to X-ray Technicians, Doctor Peterson provided some narrative information but said that the space requirement form didn't lend itself to his space requirements. However, it was agreed that committee would strive to pin down space requirements for X-ray.

Although Dr. Kubicek was not present, it was learned that he had contacted the Bioengineers concerning information for the Ancillary Subcommittee report.

Concerning the future of Mortuary Science at the University it was agreed that the Ancillary Committee should not make any definitive recommendation, since Dean Shepheard has a committee studying this very problem.

The format of the committee report was discussed and it was felt that the report should include the following:

- A tabulated summary of all the individual space requirement forms.
- A one-page general summary of all the ancillary programs.
- A list of the various areas explored and referral to individual program reports as appendices.
- The assignment of priorities in future growth.

Respectfully submitted,

Kathryn Ritzen
Research Assistant

COMMITTEE FOR THE STUDY OF PHYSICAL FACILITIES
FOR THE HEALTH SCIENCES

Ancillary Professions Subcommittee

Minutes of Meeting October 7, 1965 (#6)

Present: Frederic Kottke, Chairman, Verna Rausch for Ruth Hovde, Eleanor Anderson, Arnold Lazarow, Kathryn Ritzen.

Absent: Anna Hampel, John Johnson, William Kubicek, Elizabeth Whitney.

NEXT MEETING AT THE CALL OF THE CHAIRMAN.

The business of this meeting was to complete the collection of data for the report to be presented to the Learn Committee on October 11, 1965, and to decide what priorities of needs were to be emphasized in the report. In regard to space needs for all of the ancillary services, the Committee decided to present a tabulated sheet showing the breakdown of space needs among the various service areas, so that the Learn Committee would have the most specific data available.

It was agreed to report that inquiries to Engineering did not elicit any particular interest on their part at the time; but from the standpoint of the Medical School, many departments are interested in the development of Bioengineering.

Dr. Lazarow distributed copies of a report on space requirements for Biomedical Data Processing and Information Retrieval which was intended for inclusion in the appendix of the Ancillary Report. The main report, itself, the Committee agreed, would contain only program abstracts and the overall priorities.

Mortuary Science was discussed and reference was made to the committee under Vice president Shepherd which is studying the status of Mortuary Science. It was felt that the Ancillary Committee should make no firm recommendation until Vice president Shepherd's Committee decides what to do with Mortuary Science. However, it was tentatively agreed that, if Vice president Shepherd's Committee recommends that Mortuary Science become a baccalaureate program, the most logical home for such a program would be the College of Medical Sciences in view of the other activities included in Medical Sciences.

The four principles adopted at the September 20 meeting of this committee were agreed upon as the basis for deliberations on various programs in Ancillary Services, and would be included as such in the report to the Learn Committee.

The committee discussed the ranking of priorities in program needs and recognized that absolute ranking of priorities would be difficult to arrive at, as well as arbitrary. With that consideration in mind, the committee then agreed that programs now in existence which are terribly underspaced right at present should receive first priority. These include Medical Technology which needs about ten times its present space and will increase fivefold in numbers of students, X-Ray which requires three times its present space and will increase to three or four times as many students as it has now, and Vocational Rehabilitation requiring twice as much space for twice as many students.

The next rank of priorities includes new programs that are required but are not yet initiated, such as: Biomedical Data Processing and Information Retrieval, Medical Records Librarian, Inhalation Therapy, Medical Art and Photography, Bioengineering, and Electroencephalography Technicians.

Finally, it was agreed to place recommendations about Mortuary Science in a category by itself.

Respectfully submitted,

Kathryn Ritzen
Research Assistant

COMMITTEE FOR THE STUDY OF PHYSICAL FACILITIES
FOR THE HEALTH SCIENCES

Ancillary Subcommittee

Minutes of Meeting, January 24, 1966 (#7)

Present: Frederic J. Kottke, Chairman; Eleanor Anderson, Ruth Hovde, William Kubicek, Arnold Lazarow, Elizabeth Whitney, Edmund Nelson, Kathryn Ritzen, John Westerman

Absent: Anna Hampel, John Johnson

NEXT MEETING AT THE CALL OF THE CHAIRMAN

Doctor Kottke stated that he called the meeting to consider and discuss ways in which the Ancillary Subcommittee ought to implement Doctor Learn's letter of January 10, 1966.

Mr. Westerman informed the committee that the Learn Committee Preliminary Report was awaiting President Wilson's approval. When the President does approve, the preliminary Report will be circulated to all of the Health Sciences faculty. There is still some question on whether the full Report will be sent to all faculty, or only the summary report with information on where the full report can be found.

Hamilton Associates, space consultants hired by the Learn Committee, will work with the subcommittees from now on to help them determine as accurately as possible their projected space needs, their vital interrelationships and projected building projects in terms of their program priorities. Mr. Stephan, the Program Director of H. A., is in charge of the project, and Mr. Ed Nelson, his assistant, will be meeting with the sub-committees and department heads in the process of collecting space figures.

While other committees will have to consider the ideal relationships between departments and disciplines, the Ancillary Subcommittee may well find much of its work is done, since it doesn't represent any one department, school or discipline. At the same time, this committee has already collected information about the space now used, projections of space and programs by five year periods, and numbers of staff and students.

Doctor Kottke was asked what the committee's feeling was regarding the suggestion to establish a School of Health Related Sciences. He said that the general feeling is that the ancillary units function better in their present relationships to departments than they would as part of a separate school. However, the possibility of decentralizing certain kinds of space - for teaching and student labs-to avoid choking up prime center space, iswell recognized.

Mr. Nelson reported on the work he has been doing with the Dental School, analyzing existing space and relating it to required space.

Mr. Nelson indicated that the committee could help the space consultants by, for example, making projections about research projects. There is no list of current research projects, although Doctor Kottke estimated that there are about 50 different research projects at present related to O.T., P.T., Speech Pathology, Vocational Counseling, etc. Mr. Nelson suggested that if research objectives could be defined, this would aid in making space projections for research over the next ten years. The tabulation sheet in the Ancillary Subcommittee Report doesn't identify research space, and the Learn Committee Report doesn't mention this either. So this is one area in which the Ancillary subcommittee could be helpful in carrying out the charge in Doctor Learn's letter of January 10.

The value of trying to categorize research space was questioned. Some felt that the key to space projections is really the number of staff, since office and research space, and even teaching space, is derived from staff considerations. In other words, we need to be able to tell the President that we need X amount of space in 5 - 20 years, based on X amount of staff, students, programs, office, teaching and research space. One way of accomplishing one aspect of this might be to construct a graph showing the growth of research grants and the accompanying space needed to accommodate them. Of course, we need to have some judgement made about the relative balance to be maintained between staff and research and teaching space.

In view of the above, it was suggested that Doctor Kottke should draft a letter to each unit covered by the Ancillary Committee. Each section would be asked to review its previous space estimates to consider how its programs interrelate with other units and to make at least preliminary judgements about priorities. Doctor Kottke's letter should also inform them that the space consultants will be coming around to talk to them about their space needs.

The Ancillary Committee's role from this point on in the Health Sciences study was questioned. It seems that this committee has really gone as far as it can in defining its programs and projecting its space needs. In terms of Doctor Learn's second letter, the committee is up to item six: determination of location of each building unit and of an integrated plan relating all buildings. This is a task which the Ancillary Committee, by its very nature cannot do, except of course to clarify vital inter-relationships among programs. Perhaps the best use of the committee from here on would be as an advisory board to the space consultants where the ancillary health professions are concerned.

Another matter which ought to be cleared up is whether the Dean wants the Ancillary Committee to really pursue the establishment of the new programs it recommends in its report to the Learn Committee, and to document animal research space needs. Practically every unit in the health sciences uses animals for research and therefore is vitally concerned with the urgent need for increased space for research animals.

Respectfully submitted,

Kathryn Ritzen
Research Assistant

Committee for the Study of Physical Facilities for the Health Sciences

Ancillary Subcommittee

July 21, 1966

This was not an official meeting of the Ancillary Subcommittee because of lack of a quorum. Inquiry regarding possible dates for a meeting of this Subcommittee indicated this to be the best date but only Dr. Anna Hampel attended the meeting. For that reason, this report will present the opinion of the chairman in which Dr. Hampel concurs.

The Ancillary Subcommittee previously had reported the anticipated needs for teaching medical technology, occupational therapy, physical therapy, radiological technicians, rehabilitation counselors, inhalation therapy, medical arts and photography, social service, and mortuary science. This is tabulated on page 45 of the Preliminary Report. Subsequent to that date, the chairman had written to the director of each of these programs asking that the information which had been presented be reviewed to see whether or not it was correct or should be modified. No amendments or modifications to this information were obtained and it is assumed that as it stands it represents the best estimates regarding these needs.

At the time that the Committee for the Study of Physical Facilities for the Health Sciences met with President Wilson, President Wilson asked that the duplication of facilities for speech therapy in the College of Liberal Arts and the College of Medical Sciences be resolved, if possible, and appeared to direct this charge to the Ancillary Subcommittee since the report on speech therapy was in that section of the Preliminary Report. However, it should be pointed out that the Ancillary Subcommittee attempted initially to include an evaluation of speech therapy in its study. However, Dr. Lassman preferred to work with the Subcommittee on Clinical Medicine and Hospital which in turn has been working with him regarding that program. At no time has any information been presented to the Ancillary Subcommittee regarding needs in speech therapy. Yet, it does not appear practical, therefore, for the Ancillary Subcommittee to enter into the evaluation of the needs of this program and has requested that the resolution of this problem become the charge of the subcommittee which has been working on the need for physical facilities of the speech therapy program.

In the Preliminary Summary, Page 11, a suggestion was made for regrouping of the courses for training of the ancillary professions since this would appear to increase the efficiency of the program. This Subcommittee is unanimous in its recognition that the educational background of each of the professional courses with which it is concerned is quite different. The pre-professional training is different. The professional training in each case relates closely to a different medical specialty.

Likewise, the clinical experience relates to different clinical programs. For this reason, the only advantage to be gained by grouping the ancillary professions together would be in an administrative office for registration and record keeping, if that is an advantage, but to separate the faculties of the various courses from the medical specialties to which they relate most closely would be a distinct disadvantage compared to our present system. While it is true that in some universities which do not have a College of Medical Sciences the training of the allied health professions has been set up in a College of Allied Health Professions parallel to the College of Medicine, as this appears to be much less advantageous then the present system at the University of Minnesota. It is unanimously recommended by the Ancillary Subcommittee that such a reorganization not be done.

In the Preliminary Report, the question was raised regarding the location of the training of students in relation to hospital services. For the basic didactic or laboratory period of training, students could be located at someplace other than the hospital base if adequate faculty is provided for this purpose. Consideration must be given, however, to the time required for faculty to travel to and from the place where such courses are given if they have concomitant responsibilities in the hospital. To locate these courses at any great distance from the hospital will require a considerable increase in the number of faculty members since in all of these courses faculty members have responsibilities for teaching in the hospital clinical or service areas as well as teaching in student laboratories. Likewise, most of these programs have a requirement for direct contact between the students and the patients as part of the professional training which must be maintained.

No further data has been obtainable regarding the proposed but unestablished programs.

Frederic J. Kottke, Chairman
Ancillary Subcommittee

COMMITTEE FOR THE STUDY OF PHYSICAL FACILITIES FOR THE HEALTH SERVICES

Ancillary Subcommittee

Minutes of Meeting, Monday, October 24, 1966 (#9)

Present: Frederic Kottke, Chairman; Eleanor Anderson, Ruth Hovde, William Kubicek, Arnold Lazarow, Elizabeth Whitney; McCollum Brasfield, Edmund Nelson, Kathryn Ritzen

Absent: Anna Hampel

NEXT MEETING: MONDAY, NOVEMBER 14, 1966, 2:30 P.M., 825 MAYO

1. The main agenda item was discussion of the Draft of the Part II (Program, Personnel and Space) long range planning report. The major task confronting the Ancillary Subcommittee is to clearly define the total mission - the comprehensive role, objectives, and program - of the ancillary programs.

The program report should contain the data on which faculty, student and space estimates are based, and should soundly justify those estimates. For example, the projected increase in the number of O.T.'s and P.T.'s is not matched by a corresponding increase of laboratory or classroom space; therefore, the increase depends on new ways to better utilize existing space. Such an increase is, however, required by the demonstrated health manpower needs for this region.

In connection with this, Dr. Kottke suggested that figures on the demand for Med Tech's be acquired from HEW. Automation is expected to increase the numbers of Medical Technologists and change the program here to some degree. The effect will be felt in our classes in 1966-68.

2. There was extensive discussion of the role which automation in general, and computers in particular, will have in the health professions in the future, and consequently in the health sciences programs at the University. Such a revolutionary development is bound to have an enormous impact on present trends. Dr. Lazarow thought, for example, that by 1975 it may be more important to train 100 bioengineers than an additional 100 medical students. (Looking at the overall health sciences long range planning, Dr. Lazarow suggested that an automation-oriented group look at new ways to meet health manpower needs.) Of course, the Ancillary Subcommittee properly needs to assess the probable effects of automation on the ancillary professions. A conservative estimate, Dr. Lazarow thought, was that by 1975 the University should graduate 75 students a year with engineering/computer backgrounds, to staff hospitals.

Of course, the addition of computerized diagnostic services, for example, does not solve the problem of administering therapy. But there is a clear need to plan the most flexible kind of space possible, to permit the physical development of new, revolutionary programs.

It was suggested that I.T., the College of Biological Sciences and the College of Medical Sciences be responsible for training bioengineers, with an electrical engineering and biology background. But the question for the committee is, how definite can we be in terms of program projections? Dr. Lazarow said he would compile as much information as time would permit, given the report deadline (a draft is due by November 28) for the committee's judgment on program projections.

3. Other problems and decisions requiring committee attention were the following:

a. The need to check on space duplications, especially with Clinical Medicine and the Hospital. Dr. Hovde will check Med Tech estimates against Laboratory Medicine. Faculty estimates also need checking, to prevent any overlap.

b. A decision on whether to support the concept of a College of Allied Medical Sciences. The committee did not support this concept, since the various programs here are already well-established in their respective departments. As an alternative, could undergraduate teaching rooms and laboratories be located away from the hospital, but not far from it.

c. What kinds of rooms required for teaching within the existing ancillary programs, could be used jointly in the future? Medical Technology's chemistry labs could be used by other sciences; the present estimate of required lab space appears high because Med Tech now has only one teaching lab. However, the percent of time during which labs are needed must be determined, so that joint usage can be worked out.

d. Dr. Kottke will try to get more guidelines on new program projections. Medical Art is willing to write a program, but the committee needs to know the University's commitment on whether the program will be started. Medical Social work information is in the hospital report; no information has been received on Medical Librarians.

4. A final question raised was whether any planning committee is reviewing the overall needs for research laboratories and animal quarters? Dr. Kottke said that no one committee was responsible, but that Dr. Gault would look out for these concerns. A related question is whether we should look forward to centralized or decentralized laboratories and animal quarters? We need to know the school's policy, for proper planning.

In connection with this it was suggested that the College of Medical Sciences set up a central computer facility, with training under Gene Johnson. Dr. Kubicek suggested that Gene Johnson be given responsibility for planning computer applications for the entire medical center.

5. Dr. Kottke summarized the committee's further work: to re-examine the present programs, and assess them in terms of roles, objectives, future programs, space and personnel. All of this should be checked with the Clinical Medicine sub-committee to prevent duplications or omissions.

Respectfully submitted,

Kathryn Ritzen
Research Assistant

COMMITTEE FOR THE STUDY OF PHYSICAL FACILITIES FOR THE HEALTH SCIENCES

Ancillary Subcommittee

Minutes of Meeting Monday, November 14, 1966 (#10)

Present: Frederic Kottke, Chairman; Eleanor Anderson, Ruth Hovde, Edmund Nelson, Kathryn Ritzen

Absent: Anna Hampel, William Kubicek, Arnold Lazarow, Elizabeth Whitney

NEXT MEETING: MONDAY, NOVEMBER 21, 1966, 3:30 P.M., 825 MAYO

1. Dr. Kottke reiterated the need to document the roles, goals and programs of the Ancillary Report. He has received no clarification yet on the University's policy in regard to establishing some of the new programs proposed in the Preliminary Report. Information has been received on the estimated growth of some of the proposed programs, but no program information has been provided thus far.

2. Dr. Kottke said that X-Ray technician data has still to be checked, to assure no overlap with other areas.

3. Drafts of the Medical Technology, Occupational Therapy and Physical Therapy reports were distributed for consideration and comment.

a. Medical Technology. Currently the Med Tech program has 150 students, graduating about 50 students a year. If other schools in the area which train Med Techs were entirely filled, the area would gradute about 300 a year. The number of registered Medical Technologists in Minnesota is 1,186, not all of whom are active. On the other hand, there are only 275-300 in the state organization, which is probably closer to the actual number of Med Techs in practice.

The projected figures for Medical Technology have been revised downward. As the size of the program continues to grow, possible affiliations with other institutions will have to be investigated. Miss Hovde said she was not able to get figures on health manpower needs for Medical Technologists. Undergraduate student estimates have been reduced, since more emphasis will be placed on graduate programs. Also, the Laboratory Aid program will be phased out by September, 1967; the last classes are now completing their work.

b. Physical Therapy. The Physical Therapy program is devoted to three major efforts: The training of therapist practitioners; graduate education; and specialty graduate training for those in Public Health programs. Post-graduate P.T. training is carried out primarily at Kenny Institute. Dr. Kottke stated that this region now has only one-quarter as many Physical Therapists as it needs. The University is projected to double its PT student load, but even that will come no where near meeting this region's needs. This raises the question of the extent to which the University is committed to meeting the needs and recommendations of the report, Health Manpower for the Upper Midwest, in terms of the allied health professions. In other words, how much should regional needs guide our judgment on program size? This issue will have to be discussed at the parent committee level.

Miss Hovde said that the University's unique role, as she understands it, is in graduate education. However, one of the most time-consuming efforts in Medical Technology, O.T. and P.T., is the advisee service to first and second year students - a task, nevertheless, too important for the future of those professions to delegate. Training of P.T. aides will be done elsewhere. The location of the P.T. program must be in the hospital because the students must be taught where the patients are. Lectures could be given elsewhere, however.

The major need for the P.T. program is more faculty office space and more classroom space. The size of the class can be doubled without significantly increasing laboratory requirements, but any increase of class size beyond that would call for major laboratory expansion.

c. Occupational Therapy. This program is similar to that of P.T., but it has no graduate program. At present, there are no plans to have a double class. This could be done if necessary without requiring much increase of clinical training facilities; more faculty and faculty offices would be required, however.

4. Priorities. While it is apparent that there are going to be limits on the expansion of programs in regard to faculty and physical facilities, it is particularly difficult, if not impossible, for the Ancillary Subcommittee to make decisions which will establish priorities among the various ancillary programs, e.g., the needs of Med Tech versus those of O.T. Further, decisions on projecting new programs will depend on the University's guidance and committment to develop new programs. However, the committee felt that it would be unwise to support the establishment of new programs, while support for present programs is inadequate.

5. Future Work. The tables on faculty, space and, where necessary, students, need to be revised. The figures in the tables require program explanations. Duplications and omissions need to be eliminated, and the percentage of time facilities are used needs to be clarified. Finally, the most difficult task by far is the establishment of program priorities. Progress toward these gaols will be reviewed at the next meeting, Monday, November 21, 3:30 P.M., 825 Mayo.

Respectfully submitted,

Kathryn Ritzen
Research Assistant

COMMITTEE FOR THE STUDY OF PHYSICAL FACILITIES
FOR THE HEALTH SCIENCES

Ancillary Subcommittee

Minutes of Meeting Monday, November 21, 1966 (#11)

Present: Frederic Kottke, Chairman; Eleanor Anderson, McCollum Brasfield, Verna Rausch for Ruth Hovde, Edmund Nelson, Kathryn Ritzen

Absent: Anna Hampel, William Kubicek, Arnold Lazarow, Elizabeth Whitney

NEXT MEETING: MONDAY, NOVEMBER 28, 1966, 2:30 P.M., 825 MAYO

1. Miss Rausch distributed copies of Miss Hovde's revised Medical Technology Report dated November 21, 1966.

2. Ancillary Program Size. Dr. Kottke distributed draft copies of an Introduction to the Ancillary Subcommittee Report, for committee review and comment. One of the questions discussed in connection with the Introduction was the relationship between the size of the ancillary programs and the physician training program. The Office of the Surgeon General has suggested that the need for personnel in the allied health professions will grow proportionately faster than the need for physicians. Dr. Kottke said he would investigate information on the need for Physical Therapists in proportion to the need for physicians.

As far as the size of the Medical Technology program is concerned, it appears that we propose to supply as many Med Techs as all the other schools in the state combined. Dr. Kottke suggested that the possibility of having affiliated institutions provide clinical training for Med Techs be stated in the Medical Technology Report, as well as the number of undergraduate and graduate students that could be accomodated by such an arrangement.

The draft Introduction was approved as presented, except for the last paragraph, which Dr. Kottke said he would revise.

3. Medical Art & Photography. The committee decided to seek more information on the role, goals, and objectives of this program, with justification for this as a graduate program versus an on-the-job training program, for inclusion in the final report. Two concerns with the preliminary information on this program were: 1) the proposed staff-student ratio appears to be 1:1; and 2) there has been no initiation of curriculum development yet. The academic ratio needs to be defined, in relation to the Service program. It was noted that in this region, the Mayo Clinic has the only other program which trains medical artists.

4. Bio-Engineering. More information is needed from Dr. Lazarow on this program.

5. Medical Social Service. It was decided to exclude this program from the final Ancillary Report, since the Dean views this as a Hospital service program rather than an educational program.

6. Medical Record Librarians. The University has no training program in this area now. St. Mary's in Duluth has such a training program. It was decided to drop this program from the Ancillary Report, since there is no prospect at present of a program being started in this area.

7. Inhalation Therapy. The committee needs information on the roles, objectives and justification of this program; its space needs are modest. The only question is whether this should be an educational program or in-service training. Is an inhalation therapist different from a nurse therapist?

8. Radiologic Technicians. Miss Anderson was asked to gather more information on this program's additional needs, along with more specific justification on projected student increases and their effect on staff/space needs. This should include information on the size classroom needed and the percent of time it would be used, as well as information on other courses for X-ray technicians in this region. It is not a degree program, so the question of whether it should be at the University arises.

9. Speech and Clinical Psychology. These programs definitely are under the jurisdiction of other committees and are therefore excluded from the final Ancillary Report.

10. EEG Technicians. The University now has a three month training course in this area, training about two technicians a year. The University's is the only training course in the Twin Cities. However, the question in regard to this program is whether it should be carried out at the University. Since this is essentially on-the-job training, the committee recommended it should not expand beyond the facilities available to it from Neurology. The program will be included in the final Ancillary Report.

11. Mortuary Science. The committee agreed that the College of Medical Sciences is the logical place within the University tohouse Mortuary Science.

Respectfully submitted,

Kathryn Ritzen
Research Assistant

COMMITTEE FOR THE STUDY OF PHYSICAL FACILITIES

FOR THE HEALTH SCIENCES

Ancillary Subcommittee

Minutes of Meeting November 28, 1966 (#12)

Present: Frederic Kottke, Chairman; Anna Hampel, Verna Rausch for Ruth Hovde; McCollum Brasfield, Edmund Nelson, Kathryn Ritzen

Absent: Eleanor Anderson, William Kubicek, Arnold Lazarow, Elizabeth Whitney

NEXT MEETING: THURSDAY, DECEMBER 8, 1966 at 3:00 P.M., 825 MAYO

1. Draft of Final Report. Dr. Kottke distributed copies of a draft of the final report, and asked the committee to read it and be ready to comment on it or criticize it at the next meeting. Three areas of concern were: 1) the size of the ancillary programs in relation to the physician training program; 2) the type and level of program appropriate for the University's unique role; and 3) what to recommend about the establishment of new programs in the allied health sciences at the University.

2. Medical Technology. The number of Med Tech students and the number of faculty projected in the final report have decreased from previous estimates, while the space estimates have increased.

3. Inhalation Therapy. The amount of space requested for five students in this program seems out of proportion with other health science program needs.

4. Biomedical Data Processing. Two anticipated appointments in this area are expected to serve as a nucleus for development of this program in the College of Medical Sciences.

5. The required information on the X-Ray Tech program has been secured and that on Medical Art & Photography is expected in time for the next meeting.

Respectfully submitted,

Kathryn Ritzen
Research Assistant

COMMITTEE FOR THE STUDY OF PHYSICAL FACILITIES
FOR THE HEALTH SCIENCES

Ancillary Subcommittee

Minutes of Meeting December 8, 1966 (#13)

Present: Frederic Kottke, Chairman; Eleanor Anderson, Ruth Hovde, Arnold Lazarow; McCollum Brasfield, Edmund Nelson, Kathryn Ritzen

Absent: Anna Hampel, William Kubicek, Elizabeth Whitney

NEXT MEETING: AT THE CALL OF THE CHAIRMAN

1. Dr. Kottke distributed information received from Dr. Lazarow on new programs in Bio-Engineering and Bio-Computing Sciences in Medical Research and Hospital Practice. He also distributed some corrections and additions to the Ancillary Report, received from Miss Hovde.

2. Laboratory and Hospital Automation. Dr. Lazarow described the latest developments in regard to the National Library of Medicine and automated information retrieval. The question came up as to the source of space for Laboratory and Hospital Automation. Space for this is not included in the Hospital Report. The committee was not sure of whose responsibility it was to project space for laboratory and hospital automation, but this committee would include it in the Ancillary Report, since no one else has included it.

3. Inhalation Therapy. Dr. Kottke reported that he had talked to Dr. Van Bergen about the needs for Inhalation Therapy, and Dr. Van Bergen had agreed to the committee's judgment that this program should perhaps receive lower priority than some others.

4. Medical Art & Photography. Information was still awaited on this program. Again, it was noted that this program is obviously more of a service than an educational program.

5. Bio-engineering. Dr. Lazarow stated that he thought that Dr. Ackerman (Biophysics) would probably get a training program started in Bio-engineering. It was noted that the Basic Science Report had projected 4,000 ft. of space for a similar program, and it was agreed that Mrs. Ritzen should check on this to see if there was any overlap.

6. Dr. Kottke thanked committee members for all of their help and said he would send them final copies of the completed Ancillary Report as soon as the remaining information was received and incorporated.

Respectfully submitted,

Kathryn Ritzen
Research Assistant