VANDERBILT UNIVERSITY



School of Medicine

School of Medicine

1959-60



Containing general information, appointments, and courses of study for the 1959-60 session, corrected to August 1, 1959

NASHVILLE

School of Medicine Calendar, 1959-60

September 8-9, Tues.-Wed. Registration September 10, Thursday Instruction begins November 26, Thursday Thanksgiving holiday November 28, Saturday Fall quarters end for second and third year students November 30, Monday Winter quarters begin for second and third year students December 19, Saturday Christmas vacation begins at 12 noon January 4, Monday Instruction resumes January 23, Saturday Fall semesters end for first and fourth year students January 25, Monday Spring semesters begin for first and fourth year students February 27, Saturday Winter quarter ends for third year students February 29, Monday Spring quarter begins for third year March 3, Thursday Winter quarter ends for second year students March 4, Friday Spring quarter begins for second year students Spring term instruction ends for third May 20, Friday and fourth year students Spring terms end for first and second May 25, Wednesday year students May 27, Friday Founder's Day

Commencement Exercises

May 29, Sunday

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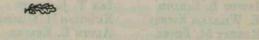
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ORTHOPEDIC SURGERY
J. WILLIAM HILLMAN, Chief of Clinic

OTOLARYNGOLOGY
J. THOMAS BRYAN, Chief of Clinic

PLASTIC SURGERY
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THORACIC SURGERY
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TUMOR
BARTON McSwain, Chief of Clinic

UROLOGICAL SURGERY
A. PAGE HARRIS, Chief of Clinic

GENERAL INFORMATION

The first diplomas of graduation from Vanderbilt University were issued to sixty-one new Doctors of Medicine on February 25, 1875. The diplomas were in accord with an arrangement that the Vanderbilt trustees had made with the University of Nashville whereby that university's medical school was recognized as serving both institutions. The students could elect to receive their degrees from either university. Thus Vanderbilt embraced a fully-organized and functioning medical school before its own campus was ready for classes in October of that year.

The arrangement continued for twenty years, and the School of Medicine remained on the old "South Campus" for thirty more. In the beginning, the School was owned and operated as a private property of the practicing physicians and surgeons who comprised the faculty and received the fees paid by the students. This system was typical of medical education in the United States at that time. Vanderbilt made no financial contribution to the School's support and had no control over the admission requirements, the curriculum, or the standards for graduation. Even so, the catalogue proclaimed the instruction to be "inferior in no respect to that of any medical school in the country."

In 1895, the School was reorganized under the control of the Board of Trust. The requirements for admission were raised, the course of study was lengthened, and the system of instruction was changed to make way for laboratory work in the basic sciences. Subsequently there was a gradual

increase in the quality of training offered.

The famous report of Abraham Flexner, which was published by the Carnegie Foundation in 1910 and was afterward credited with revolutionizing medical education in America, singled out Vanderbilt as "the institution to which the responsibility for medical education in Tennessee should just now be left." The Flexner Report declared Vanderbilt to be "the only institution in position at this junction to deal with the subject effectively. This does not mean that Vanderbilt has now any large sums of money available . . ."

Large grants from Andrew Carnegie and his foundation and from the Rockefeller-financed General Education Board enabled Vanderbilt to carry out the recommendations of the Flexner Report. (These two philanthropists, with the Ford Foundation added in recent years, contributed altogether more than \$20,000,000 to the School of Medicine from 1911 onward.) The reorganized School drew upon the best-trained scientists and teachers in the nation for its faculty. The full benefits of the reorganization were realized when the decision was made to move the School to the main campus, thus integrating instruction in the medical sciences with the rest of the University.

MEDICAL CENTER BUILDINGS

When the School's new quarters were opened in 1925, they were called the best-arranged combination school and hospital to be found in the

United States." Over the years additions have been made to keep the research and clinical facilities abreast of new developments. The Medical Center buildings now encompass some half-million square feet of floor space.

The Andrew B. Learned Graduate Science Hall contains a center for radiological research. This laboratory provides space for scientists of the Graduate School as well as the School of Medicine, thus permitting researchers from the many disciplines to work together on the different facets of common problems.

Other buildings in the Medical Center include the Medical Arts Building, erected in 1955 to provide part-time members of the clinical faculty with convenient office space; Mary Henderson Hall, which houses the Vanderbilt University School of Nursing; and the Bill Wilkerson Hearing and Speech Center, a community-operated diagnostic and treatment center for audio-

logical and speech problems.

The Medical Center contains all the equipment and facilities necessary to operate a modern teaching hospital and a school of medicine. The School is designed to accommodate a total of 200 students in classes of 50 each. The laboratories and clinical facilities are closely coordinated with the purpose that there shall be a ready flow of ideas between the laboratories of the medical sciences and the wards and outpatient clinics. Teaching laboratories especially designed for their purposes are provided for the major subdivisions within medical science and for the clinical departments.

The lecture rooms are well equipped. The amphitheater can accommodate practically the entire student body. In each department students come in close contact with postgraduate and research workers.

The hospital contains 400 beds and 52 bassinets divided into the following seven service units: medicine, surgery, obstetrics, gynecology, pediatrics, ophthalmology, and psychiatry. The entire hospital is staffed by members of the teaching faculty of the School of Medicine.

Adjoining the wards of the hospital there are laboratories equipped for diagnostic procedures in which the students perform various tests and examinations which the cases assigned to them may require.

The outpatient clinics are located on the first floor of the Garland Avenue side of the building. They are especially designed for teaching and contain a series of examining, treatment, and teaching rooms for general medicine and surgery, pediatrics, neurology, dermatology, psychiatry, dental surgery, orthopedic surgery, ophthalmology, otolaryngology, obstetrics, gynecology, and urology. Several small clinical laboratories are located conveniently nearby.

The Department of Radiology, which is equipped for cobalt therapy, is conveniently located with respect to the outpatient clinics and the hospital

beds.

There are nine operating rooms, of which six are equipped for special surgical procedures. There are three delivery rooms, with the necessary complement of preparation and labor rooms.

Besides the clinical facilities offered by the wards and outpatient clinics of the University Hospital, the School of Medicine has clinical privileges

in the 2300-bed Central State Hospital for psychiatric patients. Vanderbilt is also affiliated with the 525-bed Thayer Veterans Administration Hospital and has its facilities available.

MEDICAL LIBRARY

The Library of the School of Medicine was founded in 1906. A year later the Nashville Academy of Medicine made the School a gift of the private library of Dr. Richard Douglas, consisting of 2,500 volumes. This nucleus was augmented from time to time by generous gifts from various local physicians. The library has been the recipient of many grants from the Rockefeller Foundation which made rapid development possible. The collection now contains most of the material needed for research in any of the medical sciences. It contains complete files of the majority of the important journals, both in English and foreign languages, and new titles are being constantly added. Numerous well-selected monographs and basic textbooks are available as well as the important reference works and bibliographic indexes.

The Library on May 1, 1959 contained 59,491 volumes and received 934 current periodicals and serial publications including the annual and statistical reports put out by the various state departments of health as well as federal documents relating to health and medicine.

A collection of books and journals illustrating the history and development of the literature of medicine, especially that of the United States, is being built up. This collection contains, in addition to books, objects illustrating the history of medicine. The funds for acquiring this collection have come largely through the generous gifts of persons interested in the Library. Donations of letters, photographs, books, and money are invaluable for the purpose of extending this collection.

Important reference tools and journals in the pure sciences are available on the campus in close proximity to the Medical School through the facilities of the Joint University Libraries, which contained a total of 760,159 volumes as of May 1, 1959.

Well-trained librarians are on hand to render aid in the reading room; a feature of the service is the instruction in the use of the Library given medical students of the first-year class. Early in the first semester these students are given a brief orientation period on the arrangement and use of the Library. Later in the year they are given round-table instruction, in small groups, on the use of the materials available, both English and foreign. They are shown how to consult reference works and indexes, how to prepare bibliographies, and how to write scientific papers. This course is timed to coincide with the preparation of papers which are based on periodical literature and which the students must prepare in connection with their work in certain major subjects.

The Library has facilities for the use of microfilm and maintains an interlibrary loan service both with local and out of town libraries.

The reading room is open during the academic year from 8:15 A.M. to 6:00 P.M. and from 7:00 to 10:00 P.M. Monday through Friday; from 8:15 A.M. to

4:30 P.M. on Saturday, and from 2:00 to 5:00 P.M. on Sunday. During the summer quarter the Library is open from 8:30 A.M. to 5:00 P.M., Monday through Friday; from 7:00 P.M. to 9:00 P.M., Monday and Wednesday; and from 8:30 A.M. to 1:00 P.M., on Saturday.

LECTURESHIPS

ALPHA OMEGA ALPHA LECTURE. The Alpha Omega Alpha Honor Medical Society invites a scientist of prominence each year to deliver a lecture before the students, faculty, and local members of the medical profession. The first lecture was given during the school year 1926-1927.

THE BARNEY BROOKS MEMORIAL LECTURESHIP IN SURGERY. In 1952 through the generosity of a Vanderbilt alumnus an annual lectureship was established to honor the memory of Dr. Barney Brooks, formerly Professor of Surgery and Head of the Department and Surgeon-in-Chief of the Vanderbilt University Hospital. As a fitting memorial to Dr. Brooks it is planned that this lecture be given by a surgeon who has made distinguished contributions in his field and that the subject matter shall pertain to surgery in the broad sense, either clinical or experimental. The first Barney Brooks Memorial Lecture in Surgery was given during the Spring of 1953.

THE ABRAHAM FLEXNER LECTURESHIP. Announcement was made in the fall of 1927 that Mr. Bernard Flexner of New York City had given \$50,000 to Vanderbilt University for the purpose of establishing the Abraham Flexner Lectureship in the School of Medicine. This lectureship is awarded every two years to a scientist of outstanding attainments who shall spend as much as two months in residence in association either with a department of a fundamental science or of a clinical branch. This lectureship may also be given to one who has specialized in some science fundamental in the study of medicine. The first series of lectures was given in the fall of 1928.

GLENN A. MILLIKAN MEMORIAL LECTURE. This lectureship was established in 1947 by the members of the then second-year class. It has subsequently received support by means of a capital fund by Dr. Glenn Millikan's father and mother, Dr. Robert A. Millikan and Mrs. Gretna B. Millikan, and friends. Contributions will continue to be made to the fund by members of the founding class and other students. The lectureship is maintained to provide annually or at stated periods a distinguished lecturer in physiology. The first lecture was given in 1948.

The Cobb Pilcher Memorial Lecture. In 1950 the Pi Chapter of the Phi Chi Medical Fraternity established the Cobb Pilcher Memorial Lecture to honor the memory of Dr. Pilcher, formerly Associate Professor of Surgery, distinguished neurosurgeon, and a member of the fraternity. Each year a lecturer of prominence is selected, and the lecture is open to the medical students, faculty, and local members of the medical profession. The first lecture was given in 1950.

ENDOWED RESEARCH CHAIR

THE JOE AND MORRIS WERTHAN CHAIR OF EXPERIMENTAL MEDICINE. Through the generosity of the Werthan family of Nashville, this professorship was established in 1951 for the purpose of furthering research in the general field of internal medicine. The present holder of the chair is Dr. Elliot V. Newman.

ENDOWED RESEARCH FUNDS

THE RACHAEL CARPENTER MEMORIAL FUND. This fund was established in 1933 by a gift of \$5,000 from Mrs. Mary Boyd Carpenter of Nashville. The income derived from this fund is to be used for education in the field of tuberculosis.

The Brownles O. Curry Memorial Fund for Research in Hematology. A memorial fund created by the friends of Brownles O. Curry, the income from which is being used for the support of research in the field of hematology.

The Jack Fies Memorial Fund. The sum of \$5,000 was given to Vanderbilt University by Mrs. Hazel H. Hirsch as a memorial to her son, Jack Fies, the income from which is to be used to support research in the important field of neurological surgery. It is hoped that subsequent donations may be made by those who may be interested in creating a larger fund for this phase of research.

The John B. Howe Funds For Research. In January, 1946, the members of the family of the late John B. Howe established two funds in the University to be known as the John B. Howe Fund for Research in Neurosurgery and the John B. Howe Fund for Research in Medicine. The expenditures from the funds for neurosurgery and medicine are administered through the Department of Surgery and the Department of Medicine.

THE GEORGE HUNTER LABORATORY. This laboratory for the study of infectious diseases was established as a part of the Department of Medicine from funds provided by the Benwood Foundation, Inc., of Chattanooga, Tennessee, in honor of Mr. George Hunter of that city.

THE MARTHA WASHINGTON STRAUS-HARRY H. STRAUS FOUNDATION, INC. The Foundation provides support for research in the Department of Medicine in the field of cardiovascular diseases.

THE LESLIE WARNER MEMORIAL FUND FOR THE STUDY AND TREATMENT OF CANCER. This fund was established in 1932 in the memory of Leslie Warner of Nashville, Tennessee. It consists of \$7,200, of which \$3,600 was contributed by the nieces and nephews of Mrs. Leslie Warner.

FELLOWSHIPS AND SCHOLARSHIPS

THE HOWARD HUGHES MEDICAL INSTITUTE. Investigators of the Howard Hughes Medical Institute who are currently pursuing research programs in the Departments of Medicine, Physiology, Biochemistry, Anatomy, and

Physics (College of Arts and Science) are Dr. Lloyd H. Ramsey, Assistant Professor of Medicine; Dr. Anthony D. Jose, Instructor in Medicine; Dr. Howard E. Morgan, Assistant Professor of Physiology; Dr. Oscar Touster, Professor of Biochemistry; Dr. Jan van Eys, Assistant Professor of Biochemistry; Dr. John Langdon Norris, Assistant Professor of Anatomy; and Dr. Paul Latimer, Assistant Professor of Physics.

THE IKE J. KUHN SCHOLARSHIP. This scholarship is provided by a bequest from the will of Mr. Ike J. Kuhn, and is awarded in the School of Medicine to a worthy boy or girl born and reared in any of the states commonly known as the "Southern States."

DR. COBB PILCHER-WILLIAM HENRY HOWE FELLOWSHIP IN NEUROSURGERY. In December 1945, the William Henry Howe Fellowship in Neurosurgery was established in the School of Medicine of Vanderbilt University. This fellowship was made available to the University by the late Dr. Pilcher and has been continued by the generosity of his family and friends.

VANDERBILT MEDICAL SOCIETY

The Vanderbilt Medical Society holds regular monthly meetings throughout the academic year, on the first Friday of each month at 8 p.m. in the Medical School amphitheater. At these meetings papers are presented by the teaching staff, representing the research that is being carried on in the various departments. Patients presenting interesting and unusual conditions are also demonstrated. These meetings are open to students of the School and to the medical profession of the community.

The officers of the Vanderbilt Medical Society for 1959-60 are Dr. Rudolph H. Kampmeier, president, and Dr. Ernest E. McCoy, secretary.

VANDERBILT SOCIETY OF HISTORICAL MEDICINE

This society was organized by the class of 1953 for the purpose of fostering the exchange of information concerning the events and personalities in the history of medicine and stimulating an interest in it among the faculty and student body of the School. Membership is open to students in the last two years of medicine. Honorary membership is open also to the faculty. Monthly meetings are held at which time papers related to the history of medicine are presented.

ADMISSION

The School of Medicine selects its students from those who fulfill one of the following conditions:

- 1. Graduates of a college or university of recognized standing.
- 2. Seniors in absentia of a college or university of recognized standing who will be granted the Bachelor's degree by their colleges after having completed successfully at least one year of the work in the School of Medicine. A properly accredited statement to this effect from the colleges shall accompany all applications for admission as seniors in absentia. A form is furnished for this purpose.
- 3. Students of foreign universities of recognized standing who have completed at least the equivalent of three years of collegiate education may be admitted to the School of Medicine at the discretion of the Committee on Admissions.

The number of students admitted to the first-year class of the School of Medicine is limited to fifty-two. Women are admitted on equal terms with men.

As admission to the School of Medicine is competitive, students will be selected on the basis of the quality of their college work and the general fitness of the applicant for the study of medicine.

MINIMUM REQUIREMENTS

Every candidate must present evidence of having satisfactorily completed during his college course the following minimum requirements, in which a semester hour is the credit value of sixteen weeks' work consisting of one hour of lecture or recitation or at least two hours of laboratory work:

- 1. Biology. One full course of 8 semester hours including laboratory work. The course may be general biology, zoology, or zoology and botany, but not more than half may be botany.
- 2. Chemistry. A minimum of 12 semester hours is required. Eight of these must be in general inorganic chemistry including laboratory work. There must be presented also 4 semester hours credit for organic chemistry covering both aliphatic and aromatic compounds including laboratory work.
- 3. Physics. Eight semester hours are required including laboratory work. It is desirable that emphasis be placed on quantitative laboratory work.
 - 4. English and Composition. Six semester hours.

No credit can be given in the School of Medicine for courses taken in academic school even though they duplicate the content of courses in the medical school curriculum. Because of this fact, students are urged not to

take such courses but to devote their time to work which will strengthen their foundation in basic natural and social sciences and mathematics and their cultural background.

MEDICAL COLLEGE ADMISSION TEST

The Medical College Admission Test should be taken during the year previous to application for admission to the School of Medicine. This test is given under the auspices of the Association of American Medical Colleges, and is required of applicants to Vanderbilt. It is given twice a year at most universities and colleges and information concerning it is posted before the date of examination. Since the examination score is used by medical schools in the selection of applicants, students should take the test, at the latest, in the fall before the year in which they wish to enter medical school.

The scholastic record, together with recommendations and the score made on this examination, will be used by the Committee on Admissions in considering applications for admission to the School of Medicine.

APPLICATIONS

Applications for admission may be filed about one year in advance of date of entrance at which time the Committee on Admissions begins its consideration of applicants. The applications are passed upon by the Committee on Admissions, and a final decision of acceptance or rejection may be reached at any time.

Each applicant is required to furnish the names of three persons as references, two of them preferably from among his science teachers, when filing his application. A small unmounted photograph is required also at this time.

Successful applicants are required to make a deposit of \$50 within a specified time after notification of their acceptance. This deposit is credited toward the payment of the first tuition and in the event the student does not matriculate is not returnable.

Application forms may be obtained by applying to the Registrar, School of Medicine, Vanderbilt University, Nashville 5, Tennessee. A check of money order for \$10, payable to the School of Medicine, Vanderbilt University, must accompany each application when it is submitted. This is not returnable.

ADMISSION TO ADVANCED STANDING

Students may be admitted to advanced standing, when vacancies occur, under the following conditions. Applications for advanced standing should be filed according to the procedure described for admission to the first year class, acceptable applicants being required to make the same deposit of \$50. Applicants must furnish acceptable evidence of having completed the conditions of admission and of having completed satisfactorily in an accredited

medical school all the work required of students of the class they desire to enter. They must also present a certificate of honorable dismissal from the medical school or schools they have attended.

STUDENT HEALTH SERVICE

All members of the first-year class and all students transferring from other institutions are required to undergo a thorough physical examination within two weeks after the date of admission. This examination is made by the staff of the University Student Health Service. Records of these examinations are kept, and students are advised concerning their physical condition and general health. Facilities of the Student Health Service are available to any student who feels in any way indisposed. Thomas B. Zerfoss, M.D., is physician to the students.

REGULATIONS

ALL examination work in this University is conducted under the Honor Code. For the successful operation of the honor system the cooperation of every student is essential. It is the duty of each student to show his appreciation of the trust reposed in him under this code, not alone by his own conduct, but by insisting on the absolute honesty of others in his class. For the purpose of investigating cases of violation of this system, there exists a Student Honor Committee.

EXAMINATIONS AND PROMOTIONS

Successful completion of the various courses of the medical curriculum and the scholastic standing are determined by the character of the student's daily work and the results of examinations. Examinations may be written, oral, or practical, and they may be held either at the completion of each course or at the end of the academic year. The quality of the work of each student is considered, usually at the end of each quarter, by a committee composed of the instructors responsible for his more important courses.

Students who fail in two major courses at any time during their medical course year or fail a reexamination in a major course may be required to withdraw from the School. Students who have had no reported failures may be required to withdraw from the School if their work has been of a generally unsatisfactory quality. Students may be given credit for a subject by reexamination, but failures remain on their records, and may be counted as a cause for requesting withdrawal, provided another failure in a major course occurs.

Major Courses are as follows:

First Year-Gross Anatomy, Histology, Biochemistry, and Physiology.

Second Year-Microbiology, Pathology, Pharmacology, Introduction to Clinical Medicine including Physical Diagnosis, and Clinical Pathology.

Third Year-Medicine, Surgery, Surgical Pathology, Pediatrics, and Obstetrics.

Fourth Year-Medicine, Surgery, Pediatrics, Gynecology, and Psychiatry.

Grades regarding their relative scholastic standings are not given to students. Students will be notified whenever the Committee on Promotion considers their work of poor quality, thus serving notice of the necessity for greater effort in order to carry the work of the School.

Any student who indicates by his work or his conduct that he is unfit for the practice of medicine may be requested to withdraw from the School at any time.

Any student who fails to pass a course will be required to remove the failure before being permitted to enter the courses of the next academic year.

REQUIREMENTS FOR DOCTOR OF MEDICINE DEGREE

The candidates for the degree of Doctor of Medicine must have attained a mature age and be of good moral character. They must have spent at least four years of study as matriculated medical students unless that requirement is waived at the discretion of the School upon evidence of having completed satisfactorily the equivalent studies. The last two years of this study must have been in this School. They must have completed satisfactorily all the required courses of the medical curriculum, have passed all prescribed examinations, and be free of indebtedness to the University. At the completion of the four-year course every student who has fulfilled these requirements will be recommended for the degree of Doctor of Medicine.

BASIC SCIENCE EXAMINATIONS

About twenty states now require examinations on the basic science subjects (anatomy, bacteriology, chemistry, pathology, and physiology) as a preliminary to medical licensing examinations. Since the various states are not uniform in their requirements, a considerable impediment to movement of physicians from state to state by reciprocity is created. Each student is urged to take the basic science examinations as soon as he is qualified to do so unless he is sure that he will confine his practice to a state not requiring such examinations.

EXTRACURRICULAR WORK

Students engaging in outside work must report such activity at the beginning of the school year or at any time during the school year that such work is undertaken. In those instances in which the work is considered to be or likely to become prejudicial to the student's satisfactory scholastic accomplishment and education, he may be required to discontinue it.

HONORS AND AWARDS

FOUNDER'S MEDAL. This medal is awarded to the student in the graduating class of each School of the University who has attained the highest average standing in scholarship throughout the four consecutive years of study.

ALPHA OMEGA ALPHA. A chapter of this honor medical society was established by charter in the School of Medicine in 1923. Not more than one-fifth of the students of the fourth-year class are eligible for membership and only one half of the number of eligible students may be selected to membership during the last half of their third year. This society has for its purpose the development of high standards of personal conduct and scholarship, and the encouragement of the spirit of medical research. Students are elected into membership on the basis of their scholarship, character, and originality.

THE BEAUCHAMP SCHOLARSHIP. This scholarship, founded by Mrs. John A. Beauchamp in memory of her husband who was for many years superintendent of the Central State Hospital at Nashville, is awarded to the student showing the greatest progress in neurology and psychiatry and who is otherwise worthy and deserving.

THE BORDEN UNDERGRADUATE RESEARCH AWARD IN MEDICINE. Established in 1945 by the Borden Company Foundation, Inc., this award provides annually \$500 to the person in the graduating class of the School of Medicine who during any year while enrolled in the School has carried out the most meritorious undergraduate research in the medical field. All persons in the graduating class are eligible. The award is presented at the time of graduation of the recipient. Originality and thoroughness of research shall be of primary consideration. Candidates for the award should apply to the Dean of the School of Medicine for consideration.

The Merrell Award in Pathology. Established in 1953 by the William S. Merrell Company, this award of \$150 is provided annually for the two most outstanding papers on research in the field of pathology, regardless of subject matter, by Vanderbilt University medical students. The author of the first place paper will be awarded \$100 and the author of the second place paper, \$50. The Merrell Company requires permission to edit, abstract, condense, or illustrate the paper in a form suitable for inclusion in its publication Progress Notes. The authors are free to publish their papers in any recognized medical or scientific journal. The selection of the papers is made by the Dean or by a committee appointed by him. Award is made at the end of the school year. Participation is not restricted to any one year. Candidates for the award should submit their papers to the Dean.

EXPENSES

The average annual expenses of a student in the School of Medicine, exclusive of clothes and incidentals but including living accommodations, are estimated as amounting to approximately \$1,500 to \$2,000.

TUITION AND FEES

The University reserves the right to change the schedule of tuition and fees without further notice.

Application Fee (To accompany Application Form)\$	10.00
Tuition Fee for the Academic Year 1959-60	1,000.00
Tuition Fee Beginning Academic Year 1960-61\$ This tuition fee may be paid in equal installments at the beginning of each term. Any student who has failed to pay tuition and other fees ten days after they are due will be excluded from classes, except when under unusual circumstances an extension of time is allowed by the Dean. An arrearage in tuition for any session must be paid before	1,200.00

Contingent Dep	posit	10.00
This deposit w	will be required of first and second year students to co	ver
	paratus and damage to buildings, and will be return es, at the close of the academic year.	d,

admission to the succeeding session.

Breakage Fee		
This fee will be required	of third and fourth year	students at the be-

Security of carry accounts of the arm is not repair about.	
Dislama For (Channel to and assistant to June to the desire)	
Diploma Fee (Charged to graduating students, payable during the third	
quarter)	10.00

First-year medical students who are also senior in absentia students at Vanderbilt University are required by the College of Arts and Science to pay a \$60 senior in absentia fee.

Students who register for the regular courses in the Medical School must pay the full tuition each year. There will be no exception to this requirement.

Graduate students who enroll in regular courses in the medical curriculum for credit toward an academic degree and later become candidates for the degree of Doctor of Medicine may be required to pay the full tuition as indicated above.

All students who fail to register on the days designated will be charged a fee of \$5 for late registration.

Students who withdraw from the University for any reason or who are dismissed or requested to withdraw by the faculty after the beginning of a term are not entitled to any return or repayment of tuition, fees, room rent, or any other regular charges or assessments, and the University will not be liable for the return or refund of same.

MICROSCOPES, BOOKS, ETC.

Each student is required to possess a standard four-objective microscope and a suitable substage light.

The minimal cost of books is about \$50 a year. All purchases made at

the Vanderbilt Book Store are on a cash basis.

All students are required to provide themselves with hemocytometers, hemoglobinometers, and ophthalmoscopes before the beginning of the second quarter of the second year.

Students are required also to provide and to wear clean white laboratory

FINANCIAL ASSISTANCE

For information on scholarships, work-fellowships, and loan funds available to medical students, address inquiry to the Chairman of the Committee on Fellowships and Scholarships, School of Medicine.

LIVING ARRANGEMENTS

The Vanderbilt residence halls are designed to foster a sense of community on the University campus and to carry the learning experience into every phase of the resident student's life. As such, they are an integral part of the University's educational facilities. Through group activity and supervised self-government, the student may develop as individual and as citizen with a full knowledge of attendent responsibilities.

Rooms may be occupied on the day before the opening of the semester and through the last day of the semester. Basic furniture is provided by the University, and the occupant is responsible for the condition of both furniture and room, being charged with all damage. Residents furnish their own sheets, pillow cases, towels, pillows, and blankets. All rent is payable in advance by the semester at the Bursar's Office.

Rooms are not rented for less than one semester. Students who withdraw from the University for any reason, or who are dismissed, or are requested to withdraw by the faculty after the beginning of a semester, are not entitled to return or repayment of room rent or any other regular charges or assessments, and the University will not be liable for their return or refund.

Rooms for men may be reserved by application to the office of the Dean of Men; rooms for women, by application to the office of the Dean of Women. Both offices are in Kirkland Hall. A room reservation deposit of \$25 is required at the time of reservation. Refund of the room reservation deposit will be considered if the cause for the request is judged to be a matter beyond the applicant's control and if the request, in writing, is received by July 1.

Single rooms for men are available in the residence hall for graduate and professional students, constructed in 1957 and located adjacent to Kirkland Hall. These rooms rent for \$135 per semester. Single and double rooms in Wesley Hall are also available, at rates that range from \$75 to \$105 per

semester. Wesley Hall is on Twenty-first Avenue facing the Joint Uni-

versity Library Building.

Single and double rooms for graduate women are available in the women's graduate house at 305 Twenty-fourth Avenue, South, near Rand dining hall. These rooms rent for \$85 to \$100 per semester.

HOUSING FOR FAMILIES

A limited number of apartments are available for married students. Applications may be made at the office of the Dean of Men.

Assignments are made with the understanding that assignees are eligible for occupancy only while enrolled as a student, and that the apartment will be vacated within one week after the occupant ceases to be a student. All residents are requested and expected to give thirty days' notice of intention to vacate. The University reserves the right to require any occupant to vacate the apartment at any time and for any reason, a reasonable notice having been given.

Furnished apartments are located at 2123 Garland Avenue near the south entrance to the campus. There are two types of apartments, the efficiency and the one-bedroom apartment. The former includes a combination living-sleeping room, a dining-kitchen alcove, a shower bath, and a closet. The latter has an additional bedroom. All utilities and furniture are included in the rental price of \$45 and \$57.50 per month, payable in advance.

A few two-bedroom unfurnished apartments located on Highland and Forde Avenues are available for married students. These apartments rent for \$55 per month, and no utilities except water are furnished.

OTHER HOUSING

Suitable living quarters in the city of Nashville are easily available, and students have normally found little difficulty in locating satisfactory accommodations. A list of rooms and apartments for rent near the campus is maintained at the office of the Dean of Men.

UNIVERSITY DINING FACILITIES

The Vanderbilt Hospital cafeteria is conveniently located within the

building.

The University's main cafeteria in Rand Hall serves students, faculty, and employees. By the semester, students can board at Rand for \$160 for two meals or \$225 for three meals per day. This constitutes a fair savings compared with the daily cash prices for meals. Students engaging board by the semester should apply at the office of the Director of Food Services.

Beginning in the spring semester, 1960, the Divinity School refectory will

serve meals to professional and graduate students, faculty, and staff.

AUTOMOBILES

Students who intend to operate cars on the campus must register them with the traffic secretary. Students are reminded that parking spaces are not available for all cars registered, and are urged to secure off-campus parking during the school year.

PLAN OF INSTRUCTION

The first and fourth academic years are divided into two equal semesters. The second and third years are divided into three quarters of approximately twelve weeks each.

Individual work on the part of the students is encouraged throughout the four years and definite allotments of time are available each year for that work.

Although there is no sharp demarcation in the curriculum between the laboratory and the clinical courses, the first year and the greater part of the second year are taken up in the study of the medical sciences—anatomy, biological chemistry, physiology, microbiology, pathology, and pharmacology. During the third and fourth years the students are responsible for recording the thorough study of patients assigned to them.

The introduction of students to the thorough and complete study of individual patients receives particular emphasis during the third quarter of the second year. During this period all of the clinical departments cooperate in giving the student an introduction to history taking, physical examinations, and laboratory study of patients through a series of lectures, demonstrations, and individual practice on the part of the student.

During the third year the students continue as clinical clerks and are assigned in small groups to the various services in the Hospital where they become junior members of the team studying problems and progress of patients.

During the fourth year the students are assigned as clinical clerks to ambulatory patients in the Outpatient Service and, on some services, to Inpatients as well. Here they have opportunity to see disease in its earlier stages, when more difficult of diagnosis, under conditions of office practice and with opportunities for follow-up examinations and observation over relatively long periods. Thus, the course of disease, the effect of treatment, and the reactions in relation to the patient's home environment can be studied.

Various aspects of the prevention of disease and disability are emphasized throughout the entire medical curriculum. This is accomplished largely through the attitude and practice of the whole faculty. In addition there are courses in preventive medicine and public health in the third year.

An approach in medicine is stressed which recognizes the human aspects of illness and the patient as a person and a member of a family unit. Emphasis is placed on developing within students an attitude toward patients which includes understanding the emotional and environmental forces which affect health and are often significant in the prevention, diagnosis and treatment of illness. To this end each student, during his first year, is assigned a family in the Outpatient Service which he follows throughout his first and second years. This provides for direct observation of the

family in its own environment and of the effect of illness on the family. The student visits his family at stated intervals and receives individual consultation from a medical and a social work adviser. Significant factors in different family situations are shared in class and seminar discussions when students present their cases. Students are given an understanding of the dynamics of the physician-patient relationship and of the responsibilities inherent in this interpersonal relationship.

MILITARY AND DISASTER MEDICINE

Vanderbilt University School of Medicine was one of the original medical schools conducting a program of military and disaster medicine under the Medical Education for National Defense plan. Four lecture hours are designed to present a unified concept of mass casualty management in disaster situations of civilian or military origin, covering the principles of emergency surgery, medicine, and preventive medicine. In addition, aspects of military medicine are emphasized at appropriate places in the various courses.

POSTDOCTORAL COURSES

Courses in individual departments are made available by special arrangement. These courses are under the direction of the Director of Postgraduate Instruction and the head of the Department concerned. Courses may be offered at any time during the year for periods of varying length. Only a limited number of physicians can be admitted to any course. Inquries should be addressed to Dr. R. H. Kampmeier, Director of Postgraduate Instruction.

Fees for special and intentive courses are decided by the Dean and the Director of Postgraduate Instruction in cooperation with the head of the department in which the instruction is provided.

COURSES TOWARD MASTER AND PH.D. DEGREES

Candidates for the degree of Master of Science or of Doctor of Philosophy may pursue work in the medical sciences given in the Medical School, either in regular courses or in special elective courses, provided such students are accepted by the heads of departments concerned and are registered in the Graduate School of the University. Graduate work in the medical sciences is regulated by the faculty of the Graduate School. Candidates for graduate degrees should apply to the Dean of the Graduate School.

Candidates for the degree of Master of Science in Audiology and Speech may pursue work in these fields in the Bill Wilkerson Hearing and Speech Center and the School of Medicine. Graduate work in this division is regulated by the faculty of the School of Medicine. Candidates should

apply to the Registrar of the School of Medicine.

ROUDES MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY SATURDAY 8:00-9:00 Gross Gross Environmental Medicines Anatomy Ana	1st YEAR	FALL SEMESTER	MESTER			Schedu	Schedule of Courses
Gross Gross Anatomy Anatomy Anatomy Anatomy Anatomy Histology Histology Neurology Neurology Neurology Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy Neurology Neurology Neurology Neurology Neurology Neurology	HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Gross Gross Environmental Anatomy Anatomy Anatomy Anatomy Anatomy Medicines Anatomy Anatomy Anatomy Social and Environmental Medicine Histology Histology and and Anatomy Anatomy Anatomy Anatomy Histology Anatomy Anatomy Anatomy Gross and Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy Anatomy	8:00-9:00			Library			
Histology Histology Anatomy Neurology Neurology Histology Anatomy Histology Gross Anatomy	9:00-10:00	Gross	Gross	Social and Environmental Medicine	Gross	Gross	Gross
Histology Histology Anatomy Neurology Neurology Histology Anatomy Redicines Anatomy Anatomy	10:00-11:00		The state of the s			Die 132	
Histology Histology Gross and and Anatomy Neurology Neurology	00:11-00:11				Social and Environmental Medicine	THE PARTY OF THE P	in land
Histology Histology Gross and Anatomy Neurology Neurology	1:00-7:00	only late or may be or may be sold or live	PROPERTY AND ADDRESS OF THE PARTY AND ADDRESS	Social and Environmental Medicine	PASSES OF THE PA	TENERS OF THE PARTY OF THE PART	
Neurology Neurology	2:00-3:00	Histology	Histology	1136	Gross	Histology	
4:00-5:00	3:00-4:00	and	and Neurology	A SULTON	Anatomy	and	
	4:00-5:00			A STATE OF THE PERSON NAMED IN		444	

1. One library lecture for entire class the first Wednesday after instruction begins.

2. Two half-hour conferences for each student with Medical and Social Work Advisers respectively and two family visits. Total time per student, 5 hours. Family visit not restricted to Wednesday but may be made at any free time.

3. Six sessions only, September 23 through October 28, 1959.

IST YEAR		SPRING SEMESTER	or property letters	SA SET AND ADDRESS.	Sched	Schedule of Courses
HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
8:00-9:00	Biochemistry	Physiology	Biochemistry	Physiology	Biochemistry	Physiology
00:01-00:6	a prospingoth		Biochemistry	Spiriting.	No. of Street, St.	Physiology
00:11-00:01	Biochemistry	Physiology	Library	Physiology	Biochemistry	
11:00-11:00	And an annual Contraction of Contrac		Social and Environmental Medicine	A E IN PROPERTY.		
1:00-7:00			100000			
2:00-3:00	Biochemistry	Physiology	The Party	Physiology	Biochemistry	
3:00-4:00						
4:00-5:00	- project	O STATE OF THE PARTY OF THE PAR	Andrews.	200000	THE STATE OF	
I. Five sessions o	of ten students each for	r one hour on successi	1. Five sessions of ten students each for one hour on successive Wednesdays. Total time per individual student, a hours. Three half-hour conferences with Medical and Social Work Advisers respectively and three family visits per student.	al time per individual		Total time per student,
7 hours. Fan	7 hours. Family visits not restricted to Wednesday but may be made at any free time.	ed to Wednesday but I	may be made at any fr	ce time.		

7	2nd YEAR	R FALL QUARTER	JARTER	of the party of the party of	The second	Schedi	Schedule of Courses
-	HOURS	MONDAY	TUBSDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
*	00:6-00:6 00:01-00:01	Pathology	Pathology	Microbiology	Microbiology	Pathology	Pathology
H	11:00-17:00	Microbiology	Pharmacology	Social and Environmental Medicine	Pharmacology	Microbiology	Microbiology
	1:00-1:00 1:00-3:00 3:00-4:00	Microbiology	ys class Medical Statistics ys class Social and Environmental Medicines	Pathology	ys class Medical Statistics ys class Social and Environmental Medicines	Microbiology	Spinosti Spinosti Spinosti
	I. One half-hou	One half-hour consultation with Medical and S. 4 hours. Additional time is considered free time.	1. One half-hour consultation with Medical and Social Work Advisers respectively and one family visit per student. 4 hours. Additional time is considered free time.	ork Advisers respective	rely and one family v		Total time per student,

Schedule of Courses	SATURDAY		Neurology			1	Pice year	The same of	The same of the sa	Total time per student,	
Sched	PRIDAY		Pharmacology		The state of the s		Pharmacology		THE STATE OF THE PARTY OF THE P	120000	
	THURSDAY	- Charles	Pathology	The state of the s	Secretary of the second	Microbiology		Neurology		ely and two family w	
	WEDNESDAY		Pathology	TE	Pharmacology		Pharmacology	The same		ork Advisers respective	
WINTER QUARTER	TUESDAY		Pathology			500 AD	Social and Environmental Medicine	The same	The same of the sa	fedical and Social Wo	
8	MONDAY		Pharmacology	CONT. NAME.			Pharmacology	THE PERSON NAMED IN	processing the same	x. Two half-hour conferences with Medical and Social Work Advisers respectively and two family visits per student,	The same and the s
2nd YEAR	HOURS	8:00-9:00	00:01-00:6	00:11-00:01	11:00-12:00	1:00-2:00	2:00-3:00	3:00-4:00	4:00-5:00	r. Two half-hou) money

2nd YEAR	31	SPRING QUARTER			Schedi	Schedule of Courses
HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
8:00-9:00	Introduction to Clin. Med. 1	Introduction to Clin. Med.	Introduction to Clin. Med.	Introduction to Clin. Med.	Introduction to Clin. Med.	Introduction to Clin. Med.
9:00-10:00	Introduction to Clin. Med.	Psycho- dynamics	Introduction to Clin. Med.	Introduction to Clin. Med.	Introduction to Clin. Med.	Introduction to Clin. Med.
10:00-11:00	Clinical	Introduction to Clin. Med.	Psycho- dynamics	Clinical	Psycho- dymamics	
11:00-11:00	Nutrition	Introduction to Clin. Med.	Introduction to Clin. Med.	Obstetrics	Nutrition	Kadiology
1:00-1:00	Introduction to Clin. Med.	Obstetrics	Introduction to Clin. Med.	Introduction to Clin. Med.		
2:00-4:00	Clinical Pathology	Social and Environmental Medicine	½ class Physical Diagnosis	Clinical Pathology	1/2 class Physical Diagnosis	
4:00-5:00	, Mountain.	Accepted to	AID STATE	The same	ANTONA	intahuna
1. Introduction to 2. Two half-hour hours. Additio	Introduction to Clinical Medicine includes 10 h Two half-hour conferences with Medical and hours. Additional time is considered free time.	 Introduction to Clinical Medicine includes 10 hours of Social and Environmental Medicine II during last half of the quarter. Two half-hour conferences with Medical and Social Advisers respectively and two family visits per student. Total time phours. Additional time is considered free time. 	ocial and Environmen visers respectively an	tal Medicine II during d two family visits p	glast half of the quarer student. Total tin	the quarter: Total time per student, 5

Mari	3rd YEAR	196	VINTER, SP.	FALL, WINTER, SPRING QUARTERS	TERS	Schedu	Schedule of Courses
	HOURS	MONDAY	TUBSDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	Fall	Psyhciatry	Pediatrics	Ophthalmology	Dermatology	Surgery	Radiology
-	8-9 Wint.	Psychiatry	Pediatrics	Gynecology	Neurology	Surgery	Prev. Med.
	Spr.	Psychiatry	Pediatrics	Gynecology	Radiology	Surgery	Prev. Med.
	9:00 to 12:00 Groups Groups	10 1	Fall W A C B	Winter Spring B A A A	E 8 6	Medical Ward Work Surgical Clinic Work Pediatrics (1/2 group), Obstetrics (1/2 group)	etrics (1/2 group)
	1:00 to 4:00	2 0	Surgical Pathology	The same	400		THE PARTY OF THE P
	4:00-5:00	ObsGyn.	Medicine	Surgery	Pediatrics	Clin. Path.Conf.	
			the live of the	- AMERICA TO			
							desirability of the leading of the l
	AND YEAR	111111111111111111111111111111111111111	SHIPPING S	EMERSION.		64.0	

4th YEAR		LL &	FALL & SPRING SEMESTERS	EMESTERS			Sched	Schedule of Courses
HOURS	MON	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	DAY	SATURDAY
8:00-9:00	Fall s	Fall semester	Fourth Year Class	Is Divided Into	Fourth Year Class Is Divided Into Two Groups: A and B.	d B. Spring semester	emester	
00:01-00:6	Canonia	Weeks	1/4 Class—I	1	14 Class—II	Weeks	0.000	
00:11:00:01	A	9-0	Medicine		Surgery Medicine	19-27	Group B	Cancer (F)
				THE PARTY.				(0)
11:00-12:00		Weeks	I/6 Class—I	1/6 Class—II	1/6 Class—III	Weeks		Medical Juris-
	В	9-6	Pediatrics	Psychiatry	Gynecology	19-24	A	
on and		7-12	Gynecology	Pediatrics	Psychiatry	25-30		
1:00 to 4:00	1747	13-18	Psychiatry	Gynecology	Pediatrics	31-36	1172	March Total
4:00-5:00	ObsGyn.	Gyn.	Medicine	Surgery	Pediatrics	Clin. Path.Conf.	h.Conf.	labit said
The same of	And I		- Charles and	Della sand	napolicy spread	The same of		September 1
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COURSES OF STUDY

NOTE: Departments are arranged in alphabetical order within two groups—the preclinical departments, Anatomy through Physiology, followed by the clinical departments, Anesthesiology through Surgery. Numbering of preclinical courses coincides with the catalogue of the Graduate School, in which these departments offer the instruction in the medical sciences. Figures in brackets indicate semester hours of credit in the Graduate School.



Anatomy

SAM L. CLARK, Ph.D., M.D., Professor of Anatomy and Head of the Department JAMES W. WARD, Ph.D., M.D., Professor of Anatomy VIRGIL S. LEQUIRE, M.D., Associate Professor of Anatomy JOHN LANGDON NORRIS, M.D., Assistant Professor of Anatomy; Investigator,

Howard Hughes Medical Institute

GUY OWENS, M.D., Assistant Professor of Anatomy ROBERT E. COALSON, Ph.D., Instructor in Anatomy

DON L. EYLER, M.D., Clinical Instructor in Anatomy

LUKE H. MONTGOMERY, Research Associate in Anatomy

Roy Rush Wright, B.A., Research Assistant in Anatomy

The Department of Anatomy offers work leading to the Ph.D. degree.

321. Gross Anatomy. This course is devoted to a systematic dissection of the human body. The instruction is largely individual and the work of the student is made as independent as possible. FALL. [10] Dr. Ward and Staff.

322. Histology. This course gives the student a familiarity with the normal structure of the principal tissues and organs of the body. Fresh tissues are used wherever possible for the demonstration of normal cellular function, and in analyzing the characteristics of particular cells. FALL. [4] Dr. LeQuire and Staff.

323. Neurology. The histological aspect of the nervous system, including the structure of nerve cells, fibers and endings, the histology and pathways of the spinal cord, the structure and connection of cerebrospinal and autonomic nerves and ganglia, and the histology of the organs of special sense. WINTER. [2] Dr. Clark and Staff.

- 324. Advanced Neurology. An intensive study of the relations, structure and function of the various parts of the central nervous system is made with the aid of gross specimens and dissections, serial sections of brain stems, experimental demonstrations, and seminars. The lectures are a guide to the laboratory work and present the type of evidence on which the present conceptions of the nervous system are based. WINTER. [2] Dr. Ward and Staff.
- 327. EXPERIMENTAL METHODS IN NEUROLOGY. Conferences and research upon special phases of the structure and function of the nervous system. This course is designed to meet the needs of students desiring special training in neurology. Hours and credit by arrangement. Drs. Clark and Ward.
- 328. Experimental Methods in Hematology. Research and conferences in the application of the newer methods in the study of blood. Experimental work concerning the origin and function of the different blood cells and their inter-relationships. Hours and credit by arrangement. Dr. LeQuire.
- 329. Experimental Methods in Histology. Research and conferences in special phases of the techniques and their principles of histology. The work would be designed for the particular student's interests and could include general histological methods and special methods such as those of the electron microscope. [1-6] Dr. Clark and Staff.
- 330. SEMINAR. SPRING & SUMMER. [1-2] Staff.
- 399. Research. Facilities for research will be provided to adequately prepared students who show special aptitude or who are candidates for advanced degrees. Hours and credit by arrangement. Dr. Clark and Staff.

Biochemistry

WILLIAM J. DARBY, M.D., Ph.D., Professor of Biochemistry and Head of the Department

FRANK R. BLOOD, Ph.D., Professor of Biochemistry

ANN STONE MINOT, Ph.D., Professor of Biochemistry

OSCAR TOUSTER, Ph.D., Professor of Biochemistry; Investigator, Howard Hughes Medical Institute

JOHN G. CONIGLIO, Ph.D., Associate Professor of Biochemistry

GEORGE V. MANN, Sc.D., M.D., Associate Professor of Biochemistry

STANLEY COHEN, Ph.D., Assistant Professor of Biochemistry

LEON W. CUNNINGHAM, Ph.D., Assistant Professor of Biochemistry

JAN VAN Eys, Ph.D., Assistant Professor of Biochemistry; Investigator, Howard Hughes Medical Institute

HERBERT B. PAHL, Ph.D., Assistant Professor of Biochemistry

WILLIAM N. PEARSON, Ph.D., Assistant Professor of Biochemistry WILLIAM M. TODD, Ph.D., Research Associate in Biochemistry Eileen Brodovsky, M.S., Assistant in Biochemistry Aurora Mangay Chung, M.A., Assistant in Biochemistry Helen Elizabeth Frank, B.A., Assistant in Biochemistry B. Joanne Nuenke, B.S., Assistant in Biochemistry Nelta Hyder Warnock, Assistant in Biochemistry

The Department of Biochemistry offers work leading to the Master's and the Ph.D. degrees.

- 321-322. BIOCHEMISTRY. A lecture course which includes a review of physical and organic chemistry as applied to the study of body processes. The chemical aspects of digestion, metabolism, respiration, etc., are discussed. The laboratory accompanying this course requires 16 hours a week for 16 weeks. SPRING. [8] Dr. Darby and Staff.
- 323. SPECIAL PROBLEMS AND EXPERIMENTAL TECHNIQUES. Open to a limited number of properly qualified students. Admission to course, hours, and credit by arrangement. Among the fields available are (a) advanced work with radioactive isotopes or in lipid metabolism, Dr. Coniglio; (b) the synthesis and metabolism of carbohydrates and amino acids, Dr. Touster; (c) protein chemistry, Dr. Cunningham; (d) metabolic toxicology, Dr. Blood; (e) enzymes of metabolism, Dr. van Eys; (f) nucleic acids, Dr. Pahl; (g) special biochemical preparations, Staff. [2-4]
- 324. Use of Radioactive Tracers in Metabolism. This course is an introductory one in the application of radioisotopes to the study of metabolism, and is intended for graduate students in biochemistry, biology, physiology, and related fields. Two lectures and one three-hour laboratory per week. Prerequisite: permission of instructor. Fall. [2-3] Dr. Coniglio. (Not offered 1959/60.)
- 325. Micro-Physiologic Techniques in Biochemistry. A course designed to give experience in the techniques of animal experimentation. Lectures, discussions, and demonstrations on care, feeding, injection, and drawing of blood in different animals. Application of micro techniques of mammalian physiology to biochemistry. Lectures and laboratory. Prerequisite: a laboratory course in biochemistry. FALL. [3] Dr. Blood.
- 326. BIO-ORGANIC CHEMISTRY. Lectures and discussion on the isolation, structural chemistry, and synthesis of biochemically important substances and on the relation of structure to biological activity. Prerequisite: an advanced course in organic chemistry or permission of instructor. Two lectures per week. FALL. [2] Dr. Touster.
- 327. Seminar in Biochemical Literature. Admission to course by arrangement. Prerequisite: a course in fundamental biochemistry. Monday at 4 p.m. fall & spring. [1] Staff.

- 328. Fundamentals of Human Nutrition. This course presents the biochemical and physiologic basis of nutrition with especial emphasis upon the human. Lectures and assigned readings. Two lectures per week (M. F., 11 a.m.). Spring Quarter. [2] Dr. Darby and Staff of the Division of Nutrition.
- 329. CLINICAL BIOCHEMISTRY. This course considers the application of biochemical principles to the diagnosis of disease and the treatment of patients. Open to third and fourth year students as an elective. Dr. Minot.
- 330. ADVANCED PATHOLOGICAL CHEMISTRY. Lectures and seminar on recent developments in biochemistry in relation to medicine. Open by arrangement to third and fourth-year students as elective work. [2-4] Dr. Minot.
- 331. Fundamentals of Biochemistry. A basic course covering the chemistry and metabolism of carbohydrates, proteins, and lipids, and the action of vitamins, hormones, and enzymes. Prerequisite: a basic undergraduate course in organic chemistry. Two lectures and one three-hour laboratory period. Fall. [3] Dr. Touster. (Not offered 1959/60.)
- 332. METHODS OF ANALYSIS OF VITAMINS. A laboratory course designed to present examples of methods of vitamin assays. Laboratory, discussions, and assigned readings. This course may profitably be taken in conjunction with 328. Admission by arrangement. SPRING. [1-2] Drs. Darby and Pearson.
- 333. PROTEIN CHEMISTRY. A course describing the physical and chemical methods employed in the study of macro-molecules of biological importance and the relation of protein structure to protein function. FALL. [2] Dr. Cunningham. (Not offered 1959/60.)
- 399. RESEARCH. Hours and credit by arrangement. Staff.

Microbiology

VICTOR A. NAJJAR, M.D., Professor of Microbiology and Head of the Department SIDNEY P. COLOWICK, Ph.D., American Cancer Society-Charles Hayden Foundation Professor of Microbiology

JAMES T. PARK, Ph.D., Associate Professor of Microbiology
EVERETT C. BRACKEN, Ph.D., Assistant Professor of Microbiology
FRED W. RYDEN, Ph.D., Assistant Professor of Microbiology
ERNEST E. McCoy, M.D., Instructor in Microbiology
AKIRA KAJI, Ph.D., Research Associate in Microbiology
TETSURO KONO, Ph.D., Research Associate in Microbiology
JOHN P. ROBINSON. B.S., Assistant in Microbiology

The Department of Microbiology offers work leading to the M.S. and Ph.D. degrees.

324. Microbiology. Lectures and laboratory work. The important bacterial, mycotic, parasitic, and viral infections are considered from the standpoint of etiology, epidemiology, pathogenesis, immunology, and laboratory diagnosis. Fifteen hours of lectures and laboratory a week during the fall quarter; 3 hours of lectures and laboratory per week during the winter quarter. [6] Staff.

327. Experimental Methods in Microbiology. This course will be open to qualified graduate students. Prerequisite: 324. Hours and credit by arrangement. Staff.

328. ADVANCED WORK ON THE GENERAL PRINCIPLES OF IMMUNOLOGY. This course consists of studies related to the fundamental principles of immunology. Hours and credit by arrangement. Staff.

331. SEMINAR. [1]

399. Research. Opportunities for research are offered to properly qualified students. Hours and credit by arrangement. Staff.

Pathology

JOHN L. SHAPIRO, M.D., Professor of Pathology and Head of the Department ERNEST W. GOODPASTURE, M.D., Professor of Pathology, Emeritus WILLIAM A. DEMONBREUN, M.D., Associate Clinical Professor of Pathology FRANK C. WOMACK, M.D., Associate Clinical Professor of Pathology WILLIAM J. CHEATHAM, M.D., Assistant Professor of Pathology ROBERT D. COLLINS, M.D., Assistant Professor of Pathology JOHN B. THOMISON, M.D., Assistant Professor of Pathology NORMAN ENDE, M.D., Assistant Clinical Professor of Pathology DAVID K. GOTWALD, M.D., Assistant Clinical Professor of Pathology JOSEPH SEARLE MCMURRY, M.D., Instructor in Pathology WILLIAM B. WILSON, M.D., Instructor in Pathology BRUCE B. BELLOMY, M.D., Clinical Instructor in Pathology JERRY N. CLANTON, M.D., Assistant in Pathology ROBERT G. HORN, M.D., Assistant in Pathology IVAN L. PEACOCKE, M.D., Assistant in Pathology RONALD L. SERGENT, M.D., Assistant in Pathology

No graduate degrees are offered in pathology. Students in other departments should consult their departmental advisers about the acceptability of the courses as minor work.

321. General and Special Pathology. Various phases of general and special pathology are presented by lectures, demonstrations, discussions, and laboratory work. Both the gross and the microscopic lesions characteristic of various diseases are studied and correlated. The class attends and may assist with post-mortem examinations performed during the year. Seventeen hours of lectures and laboratory work a week during the fall quarter, and ten hours of lectures and laboratory work a week during the winter quarter of the second year. [10] Dr. Shapiro and Staff.

22 CLINICAL PATHOLOGICAL CONFERENCES. This is a weekly meeting of the third and fourth-year students and members of the hospital staff at which the clinical aspects and diagnosis of cases are discussed, followed by an exposition and an explanation of the pathological changes that are discovered at autopsy or surgical operation. One hour a week throughout the third and fourth years. Dr. Shapiro in conjunction with members of the clinical staff.

399. Research. Opportunities for research are offered to properly qualified students. Hours and credit by arrangement. Staff.

Pharmacology

ALLAN D. Bass, M.D., Professor of Pharmacology and Head of the Department MILTON T. Bush, Ph.D., Associate Professor of Pharmacology Benjamin H. Robbins, M.D., Associate Professor of Pharmacology Murray Heimberg, Ph.D., M.D., Assistant Professor of Pharmacology Leon Hurwitz, Ph.D., Assistant Professor of Pharmacology Erwin J. Landon, Ph.D., M.D., Assistant Professor of Pharmacology Joseph V. Auditore, Ph.D., Instructor in Pharmacology Lawrence G. Schull, M.D., Instructor in Pharmacology B. V. Ramasastry, Sc.D., Research Associate in Pharmacology Paul Mazel, M.S., Research Assistant in Pharmacology James Setliff, B.A., Research Assistant in Pharmacology Catherine Cheatham Snell, M.S., Research Assistant in Pharmacology Betty T. Tinsley, B.S., Research Assistant in Pharmacology

The Department of Pharmacology offers courses leading to the M.S and Ph.D. degrees.

321. Pharmacology. Lectures in which the reaction of the human organism to chemical substances is taken up in a systematic manner, and typical reactions demonstrated by animal experiments. Laboratory exercises in which the student has an opportunity to become familiar with pharmacological techniques. Two lectures a week during the fall quarter, five lectures and fifteen hours of laboratory work a week during the winter quarter of the second year. [8] Dr. Bass and Staff.

322. Introduction to Enzymology and Its Application to Pharmacology. Lectures and seminars will be held for students interested in acquiring a knowledge of the biochemical and physicochemical mechanisms involved in drug action. This will include (1) drug-receptor interactions, (2) the biochemical basis of drug therapy, and (3) structure-activity relationships of drugs. Three sessions each week. FALL. Hours by arrangement. [4] Dr. Hurwitz.

323. Special Problems and Experimental Techniques in Pharmacology. Lectures and laboratory covering the application of fundamental concepts of chemistry, physics, and biology to pharmacological theory and practice. Individual courses are offered including: (1) the relationship of chemical structure to pharmacological action, (2) antimetabolites as pharmacological agents, and (3) cancer chemotherapy. Hours by arrangement. [1–3] Dr. Bass and Staff.

330. Seminar in Pharmacology. Admission to course by arrangement. [1] Staff.

399. RESEARCH. Experimental and theoretical aspects of the mechanism of the action of chemical substances on cell, tissue and organ function, especially in the following areas: cardiac pharmacology, cancer chemotherapy, antimetabolites as chemotherapeutic agents, metabolic fate of narcotic and tranquilizing drugs, design and synthesis of new molecules as possible chemotherapeutic substances. Hours and credit by arrangement. Staff.

Physiology

CHARLES RAWLINSON PARK, M.D., Professor of Physiology and Head of the Department

H. C. MENG, Ph.D., M.D., Associate Professor of Physiology

HOWARD E. MORGAN M.D., Assistant Professor of Physiology; Investigator, Howard Hughes Medical Institute

JANE H. PARK, Ph.D., Assistant Professor of Physiology
ROBERT L. POST, M.D., Assistant Professor of Physiology
HERMANN BADER, M.D., Instructor in Physiology
EDUARDO CADENAS, Ph.D., Instructor in Physiology
ROBERTO CEREIJO-SANTALO, M.D., Instructor in Physiology
MARGARET HENDERSON, Ph.D., Instructor in Physiology
MILDRED STAHLMAN, M.D., Instructor in Physiology

The Department of Physiology offers courses leading to the Ph.D. degree.

321. Physiology. This course consists of lectures, conferences, and laboratory work, designed to cover the essentials in physiology for first year medical students. It or its equivalent is also required of all graduate students majoring in physiology. Tuesday, Thursday, and Saturday morning during the second semester. [8] Dr. Park and Staff.

322. Physiological Techniques and Preparations. A course designed for advanced students. Hours and credit by arrangement. Dr. Park and Staff.

323. Advanced Physiology. This course deals with special topics in physiology and consists of laboratory work and conferences. Open to students who have had Course 321 or its equivalent. FALL QUARTER. Hours and credit by arrangement. Dr. Park and Staff.

399. Research. Facilities for research can be provided for a limited number of adequately prepared students. Hours and credit by arrangement. Dr. Park and Staff.

Anesthesiology

BENJAMIN H. ROBBINS, M.D., Professor of Anesthesiology and Head of the Department

LAWRENCE G. SCHULL, M.D., Associate Professor of Anesthesiology GEOFFREY BERRY, M.B., Ch.B., Assistant Professor of Anesthesiology

LOUIS BRYAN, M.D., Assistant Professor of Anesthesiology

JOANNE L. LINN, M.D., Assistant Professor of Anesthesiology

CHESTER C. BRUMMETT, M.D., Instructor in Anesthesiology

KWANG W. PARK, M.D., Instructor in Anesthesiology

JOHN DAVID THOMAS, M.D., Instructor in Anesthesiology (On leave of absence for military service)

FUAT TURKEKUL, M.D., Instructor in Anesthesiology

PAUL E. BRADY, M.D., Assistant in Anesthesiology

JUSTO B. GALUTIRA, M.D., Assistant in Anesthesiology

WILLIAM A. ROYER, M.D., Assistant in Anesthesiology

ROBERTO J. VILLARREAL, M.D., Assistant in Anesthesiology

- 1. Anesthesiology. This course includes a series of lectures, demonstrations, and discussions of anesthetic agents. Fourth-year students will be assigned in small groups to the anesthesia service where observations of and the administration of anesthetic agents under supervision will be possible.
- 2. ELECTIVE COURSES. Opportunity for elective work in the laboratory will be available for a small group of students during the fourth year. Hours and credit by arrangement.

Medicine

DAVID E. ROGERS, M.D., Professor of Medicine and Head of the Department RUDOLPH H. KAMPMEIER, M.D., Professor of Medicine ANN STONE MINOT, Ph.D., Professor of Biochemistry in Medicine ELLIOT V. NEWMAN, M.D., Joe and Morris Werthan Professor of Experimental Medicine SAMUEL S. RIVEN, M.D., C.M., Clinical Professor of Medicine W. DAVID STRAYHORN, M.D., Clinical Professor of Medicine CLARENCE S. THOMAS, M.D., Clinical Professor of Medicine ALBERT WEINSTEIN, M.D., Clinical Professor of Medicine F. TREMAINE BILLINGS, M.D., Associate Professor of Medicine ROBERT CARL HARTMANN, M.D., Associate Professor of Medicine GRANT W. LIDDLE, M.D., Associate Professor of Medicine GEORGE R. MENEELY, M.D., Associate Professor of Medicine HARRISON J. SHULL, M.D., Associate Professor of Medicine RICHARD FRANCE, M.D., Associate Clinical Professor of Medicine THOMAS F. FRIST, M.D., Associate Clinical Professor of Medicine ROBERT A. GOODWIN, M.D., Associate Clinical Professor of Medicine LAURENCE A. GROSSMAN, M.D., Associate Clinical Professor of Medicine J. ALLEN KENNEDY, M.D., Associate Clinical Professor of Medicine ADDISON B. SCOVILLE, JR., M.D., Associate Clinical Professor of Medicine ROBERT T. TERRY, M.D., Associate Clinical Professor of Medicine THOMAS BOWMAN ZERFOSS, M.D., Associate Clinical Professor of Medicine WILLIAM J. DARBY, M.D., Ph.D., Assistant Professor of Medicine in Nutrition WILLIAM W. LACY, M.D., Assistant Professor of Medicine GEORGE V. MANN, Sc.D., M.D., Assistant Professor of Medicine LLOYD H. RAMSEY, M.D., Assistant Professor of Medicine; Investigator, Howard Hughes Medical Institute WILLIAM L. ALSOBROOK, M.D., Assistant Clinical Professor of Medicine WILLIAM J. CARD, M.D., Assistant Clinical Professor of Medicine ORRIB A. COUCH, JR., M.D., Assistant Clinical Professor of Medicine FREDERIC E. COWDEN, M.D., Assistant Clinical Professor of Medicine ROBERT M. FINKS, M.D., Assistant Clinical Professor of Medicine AUBREY B. HARWELL, M.D., Assistant Clinical Professor of Medicine WILDER WALTON HUBBARD, M.D., Assistant Clinical Professor of Medicine ALVIN E. KELLER, M.D., Assistant Clinical Professor of Medicine EDNA S. PENNINGTON, M.D., Assistant Clinical Professor of Medicine WILLIAM D. SALMON, JR., M.D., Assistant Clinical Professor of Medicine JAMES N. THOMASSON, M.D., Assistant Clinical Professor of Medicine CLARENCE C. WOODCOCK, JR., M.D., Assistant Clinical Professor of Medicine JOHN LANIER WYATT, M.D., Assistant Clinical Professor of Medicine THOMAS G. ARNOLD, JR., B.S., Martha Washington Straus-Harry H. Straus Instructor in Biophysics in Medicine JOSEPH V. AUDITORE, Ph.D., Instructor in Medicine WILLIAM S. COPPAGE, M.D., Instructor in Medicine OSCAR B. CROFFORD, JR., M.D., Instructor in Medicine EUGENE TAYLOR DAVIDSON, M.D., Instructor in Medicine

JOHN M. FLEXNER, M.D., Instructor in Medicine

ROBERT M. HEYSSEL, M.D., Instructor in Medicine
ANTHONY D. Jose, M.D., Instructor in Medicine; Investigator, Howard Hughes
Medical Institute

JOHN W. KENDALL, JR., M.D., Instructor in Medicine JOSEPH M. MERRILL, M.D., Instructor in Medicine WALTER PUCKETT, III, M.D., Instructor in Medicine STEPHEN SCHILLIG, M.D., Instructor in Medicine JOHN H. K. VOGEL, M.D., Instructor in Medicine W. CARTER WILLIAMS, JR., M.D., Instructor in Medicine CRAWFORD W. ADAMS, M.D., Clinical Instructor in Medicine BENJAMIN J. ALPER, M.D., Clinical Instructor in Medicine ARTHUR RAY ANDERSON, M.D., Clinical Instructor in Medicine EDWIN B. ANDERSON, M.D., Clinical Instructor in Medicine H. R. ANDERSON, M.D., Clinical Instructor in Medicine JAMES J. CALLAWAY, M.D., Clinical Instructor in Medicine RAYMOND R. CROWE, M.D., Clinical Instructor in Medicine IRWIN B. ESKIND, M.D., Clinical Instructor in Medicine E. WILLIAM EWERS, M.D., Clinical Instructor in Medicine FRED GOLDNER, JR., M.D., Clinical Instructor in Medicine MILTON GROSSMAN, M.D., Clinical Instructor in Medicine DAVID W. HAILBY, M.D., Clinical Instructor in Medicine WALLACE H. HALL, JR., M.D., Clinical Instructor in Medicine THOMAS B. HALTOM, M.D., Clinical Instructor in Medicine JOSIAH B. HIBBITTS, M.D., Clinical Instructor in Medicine IRA T. JOHNSON, M.D., Clinical Instructor in Medicine RALPH W. MASSIE, M.D., Clinical Instructor in Medicine HERBERT J. SCHULMAN, M.D., Clinical Instructor in Medicine LUTHER E. SMITH, M.D., Clinical Instructor in Medicine EDWARD L. TARPLEY, M.D., Clinical Instructor in Medicine CHARLES B. THORNE, M.D., Clinical Instructor in Medicine WILLIAM J. TOLLESON, M.D., Clinical Instructor in Medicine RUSSELL D. WARD, M.D., Clinical Instructor in Medicine JAMES L. BORLAND, JR., M.D., Assistant in Medicine CATHERINE COOLIDGE, M.D., Assistant in Medicine ROBERT BARNARD COUCH, M.D., Assistant in Medicine BENNETT M. DERBY, M.D., Assistant in Medicine DANIEL LYNN DOLAND, M.D., Assistant in Medicine PHILIP WYATT FELTS, M.D., Assistant in Medicine JORDON JOSEPH, M.D., Assistant in Medicine JOSEPH AUSTIN KING, M.D., Assistant in Medicine LONNIE CLIFFORD MCKEE, JR., M.D., Assistant in Medicine CLIFTON KIRKPATRICK MEADOR, M.D., Assistant in Medicine ARNOLD SIMON MONTO, M.D., Assistant in Medicine WALTER ELMORE NANCE, M.D., Assistant in Medicine JAMES DANIEL SNELL, JR., M.D., Assistant in Medicine DANIEL D. PAYNE, B.S., Assistant in Physics in Medicine HOWARD R. FOREMAN, M.D., Clinical Assistant in Medicine JOSEPH E. HURT, M.D., Clinical Assistant in Medicine OTTO MORSE KOCHTITZKY, M.D., Clinical Assistant in Medicine FRED D. OWNBY, M.D., Clinical Assistant in Medicine THOMAS GUY PENNINGTON, M.D., Clinical Assistant in Medicine MARVIN J. ROSENBLUM, M.D., Clinical Assistant in Medicine
Sol Abraham Rosenblum, M.D., Clinical Assistant in Medicine
Robert M. Roy, M.D., Clinical Assistant in Medicine
Abram C. Shmerling, M.D., Clinical Assistant in Medicine
Kyeng Sik You, M.D., Clinical Assistant in Medicine
Marion Ann Melly, B.S., Research Associate in Medicine
Raymond L. Weiland, B.E., Research Associate in Medicine
Leo V. Lemmerman, B.S., Research Assistant in Medicine (Chemistry)
Charles N. Watts, D.D.S., Research Assistant in Medicine (Biophysics)

- I. CLINICAL PATHOLOGY. A series of lectures and laboratory exercises in the microscopic and chemical methods in the diagnosis of disease. Students are trained in the technique of examining urine, blood, sputum, gastric contents, feces, and "puncture fluids." The interpretation of laboratory data is discussed. Eight hours a week during the spring quarter of the second year. Dr. Hartmann and Staff.
- 2. Introduction to Clinical Medicine. An integrated course given by members of the Departments of Biochemistry, Medicine, Pediatrics, Radiology, and Surgery. Lectures, demonstrations, and practical experience are designed to introduce students to methods used in examining patients and to the interpretation of data so obtained. This course serves also as a transition from the courses in biochemistry, physiology, and pathology to their application in clinical medicine. The course consists of fourteen lectures or demonstrations and six hours of practical demonstrations weekly during the spring quarter of the second year. Drs. Kampmeier, Strayborn, and Staff; Dr. Christie (Department of Pediatrics); Dr. Daniel and Staff (Department of Surgery); Dr. Francis (Department of Radiology); and Dr. Minot (Department of Biochemistry).
- 3. WARD WORK. One third of the third-year class is assigned to the medical wards during each quarter. Here they serve as clinical clerks. In this assignment they become part of the team of resident, assistant resident, intern, attending physician, and chief of service responsible for the diagnostic study and treatment of patients. Bedside instruction is given daily by members of the Staff who are also members of the Faculty. Dr. Rogers and Staff.
- 4A. MEDICAL OUTPATIENT SERVICE. The students of the fourth-year class serve in the medical outpatient service, and patients are assigned to them. Histories are recorded and physical examinations are made by the students. Their work is reviewed by members of the staff who act as consultants, see that all patients receive any needed consultations from other departments, and direct the management of the cases. Dr. Kampmeier and Staff.
- 4B. Medical Outpatient Service. During the period of eleven weeks on Medicine the fourth-year students attend demonstration clinics every week in each of the medical specialty clinics. Here they observe methods of dealing with endocrine, metabolic, allergic, cardiac, thoracic, digestive, arthritic, hematologic, and nutritional diseases. Dr. Kampmeier and Staff.

5. CLINICAL LECTURES AND DEMONSTRATIONS. Patients are presented by the students to whom they have been assigned. Diagnosis and management are discussed with members of the third and fourth-year classes. One or two hours a week throughout the third and fourth years. Drs. Rogers, Kampmeier and Staff.

6. ELECTIVES IN MEDICINE:

- a) ELECTROCARDIOGRAPHY. A brief course in the principles of electrocardiography, consisting of lectures, demonstrations, and discussion, is offered each quarter. Approximately ten fourth-year students can be accepted each term. Dr. Newman.
- b) Cardiovascular Diseases. Special elective work in the routine clinical activities and various research problems of the clinical physiology laboratories can be arranged on an individual basis. Dr. Newman and Staff.
- c) Hematology. Special elective work may be arranged on an individual basis. Dr. Hartmann.
- d) Combined Medical-Surgical Gastroenterology Clinic. Special elective work may be arranged on an individual basis. Dr. Shull.
- e) Endocrinology and Metabolism. Special elective work may be arranged on an individual basis.

DERMATOLOGY

ROBERT N. BUCHANAN, M.D., Clinical Professor of Dermatology
FRANK G. WITHERSPOON, M.D., Assistant Clinical Professor of Dermatology
JAMES R. HAMILTON, M.D., Clinical Instructor in Dermatology
BERNARD J. PASS, M.D., Clinical Instructor in Dermatology

- 1. Dermatology. A course of eleven lectures and demonstrations covering the various groups of skin diseases and some of the dermatological manifestations of general disease. One hour a week during the fall quarter of the third year. Dr. Buchanan.
- 2. CLINICAL DERMATOLOGY. During the period of eleven weeks on Medicine the fourth-year students attend demonstration clinics each week in Dermatology, where they have practice under the supervision of the staff in the diagnosis and treatment of the diseases of the skin. Drs. Buchanan, Witherspoon, and Pass.

NEUROLOGY

WILLIAM F. ORR, M.D., Professor of Neurology
BERTRAM E. SPROFKIN, M.D., Associate Professor of Neurology
ERIC BELL, JR., M.D., Assistant Clinical Professor of Neurology
JOHN D. ISOM, M.D., Assistant in Neurology

- 1. Neurology. Lectures and demonstrations are held in which the commoner neurological conditions are discussed from the point of view of diagnosis and treatment. One hour a week during the fall and winter quarters of the third year. Dr. Sprofkin.
- 2. CLINICAL NBUROLOGY. During the period of eleven weeks on Medicine the fourth-year students attend lecture-demonstrations each week. Here emphasis is placed on the diagnosis and treatment of neurological conditions. Students receive also individual instruction when they accompany patients referred to either the General Neurology or the Seizure Clinic. Drs. Sprofkin and Bell.

3. ELECTIVES IN NEUROLOGY.

- a) CLINICAL NEUROLOGY.
 - 1) Each term a small number of fourth-year students may assist in the General Neurology Clinic and receive further experience in the diagnosis and treatment of neurological disorders. Dr. Sprofkin.
 - 2) Instruction in the diagnosis and management of paroxysmal disorders of the central nervous system is available to small groups of fourth-year students in the Seizure Clinic. Dr. Sprofkin.
- b) Experimental Neurology. A study of problems related to the anatomy and physiology of the nervous system. Drs. Orr and Sprofkin.
- c) Neuropathology. A study of the special pathology of the nervous system, with its application to clinical problems. Hours and credit by arrangement. Dr. Sprofkin.

Obstetrics & Gynecology

FRANK E. WHITACRE, M.D., Professor of Obstetrics and Gynecology and Head of the Department

JOHN C. BURCH, M.D., Professor of Obstetrics and Gynecology

D. SCOTT BAYER, M.D., Clinical Professor of Obstetrics and Gynecology G. Sydney McClellan, M.D., Clinical Professor of Obstetrics and Gynecology

WILLIAM JAMES McGANITY, M.D., Associate Professor of Obstetrics and Gynecology

Doris H. Orwin, Ph.D., Associate Professor of Physiology in Obstetrics and Gynecology

WILLARD O. TIRRILL, JR., M.D., Associate Clinical Professor of Obstetrics and Gynecology

EDWIN LEA WILLIAMS, M.D., Associate Clinical Professor of Obstetrics and Gynecology

JOSEPH D. ANDERSON, M.D., Assistant Clinical Professor of Obstetrics and
Gynecology

PAUL A. GREEN, JR., M.D., Instructor in Obstetrics and Gynecology

OTIS B. WOOLEY, JR., M.D., Instructor in Obstetrics and Gynecology J. ALAN ALEXANDER, M.D., Clinical Instructor in Obstetrics and Gynecology (On leave of absence)

Russell T. Birmingham, M.D., Clinical Instructor in Obstetrics and Gynecology Swan Brasfield Burrus, M.D., Instructor in Clinical Obstetrics and Gyne-

cology (On leave of absence)

RICHARD O. CANNON, M.D., Clinical Instructor in Obstetrics and Gynecology ROBERT L. CHALFANT, M.D., Clinical Instructor in Obstetrics and Gynecology EVERETT M. CLAYTON, JR., M.D., Clinical Instructor in Obstetrics and Gyne-

cology

SAM C. COWAN, JR., M.D., Clinical Instructor in Obstetrics and Gynecology GEORGE B. CRAFTON, M.D., Clinical Instructor in Obstetrics and Gynecology RAPHAEL S. DUKE, M.D., Clinical Instructor in Obstetrics and Gynecology JAMES WOOD ELLIS, M.D., Clinical Instructor in Obstetrics and Gynecology HAMILTON V. GAYDEN, M.D., Clinical Instructor in Obstetrics and Gynecology B. KIMBROUGH HIBBETT, III, M.D., Clinical Instructor in Obstetrics and Gynecology

CHARLIE JOE HOBDY, M.D., Clinical Instructor in Obstetrics and Gynecology ROLAND D. LAMB, M.D., Clinical Instructor in Gynecology HORACE T. LAVELY, JR., M.D., Clinical Instructor in Gynecology HOMER M. PACE, M.D., Clinical Instructor in Obstetrics and Gynecology ROY W. PARKER, M.D., Clinical Instructor in Obstetrics and Gynecology ROBERT C. PATTERSON, JR., M.D., Clinical Instructor in Obstetrics C. GORDON PEERMAN, JR., M.D., Clinical Instructor in Obstetrics and Gynecology HOUSTON SARRATT, M.D., Clinical Instructor in Obstetrics and Gynecology ARTHUR SUTHERLAND, M.D., Clinical Instructor in Obstetrics and Gynecology THOMAS F. WARDER, M.D., Clinical Instructor in Obstetrics and Gynecology PAUL L. WARNER, M.D., Clinical Instructor in Obstetrics THOMAS H. BAKER, JR., M.D., Assistant in Obstetrics and Gynecology ROGER BYRON BURRUS, M.D., Assistant in Obstetrics and Gynecology GEORGE B. COALE, III, M.D., Assistant in Obstetrics and Gynecology JAMES W. JOHNSON, M.D., Assistant in Obstetrics and Gynecology JERE CALVIN ROBERTSON, M.D., Assistant in Obstetrics and Gynecology ROBERT HARLIN TOSH, M.D., Assistant in Obstetrics and Gynecology CHARLES H. HUDDLESTON, M.D., Clinical Assistant in Obstetrics and Gynecology SIDNEY C. REICHMAN, M.D., Clinical Assistant in Obstetrics and Gynecology RICHARD C. STUNTZ, M.D., Clinical Assistant in Obstetrics and Gynecology

(On leave of absence)
WILLIAM D. SUMPTER, JR., M.D., Clinical Assistant in Obstetrics and Gynecology

- I. Introduction to Obstetrics and Gynecology. A series of lectures and demonstrations emphasizing the fundamentals of anatomy and physiology concerned with reproduction in the female. This course is presented as the groundwork for clinical obstetrics and gynecology. Two hours a week during the spring quarter of the second year. Drs. Whitacre and McGanity.
- 2. Obstetrics. A series of lectures and discussions during the third year on the treatment of abnormal labor as well as the pathology of pregnancy.

One hour a week during fall, winter, and spring quarters. Dr. Whitacre and Staff.

- 3. CLINICAL OBSTETRICS. During one half of the quarter the students study the patients on the obstetrical wards. During this period students are required to serve as clinical clerks to the obstetrical patients in the Hospital and take part in their delivery under supervision of the staff. They also have daily ward rounds with various members of the visiting staff, where cases are discussed and demonstrations on the manikin are carried out. All students are required to have assisted in a specified number of deliveries in the Hospital before graduation. Approximately eighteen hours a week during half of quarter of the third year, exclusive of deliveries. Dr. Whitaere and Staff.
- 4. CLINICAL OBSTETRICS AND GYNECOLOGY. A course of clinical lectures and demonstrations on the obstetrical and gynecological material of the Hospital will be given to third-year students. One hour a week during three quarters of the third year. Dr. Whitacre and Staff.
- 5. Gynecology. A course of lectures, recitations, and assigned reading will be given to third-year students. In this course the more important topics of gynecology are covered. One hour a week during the winter and spring quarters of the third year. Dr. Burch and Staff.
- 6. CLINICAL GYNECOLOGY. The fourth-year students are assigned to all gynecology patients who come to the outpatient department for service. The student assigned to a particular case then follows that case as long as is necessary in the gynecology clinic or other appropriate clinics. In addition to this, there is a series of 40 one-hour teaching sessions held for one-fourth of the class at a time on clinical gynecological subjects in the outpatient department. Special emphasis is placed on diagnosis, and an attempt is made to train the student in those phases of the subject with which the practitioner of medicine should be familiar. Each student gets approximately 100 hours of instruction per year on gynecology patients. Dr. Burch and Staff.
- 7. Obstetrical and Gynecological pathology. A series of laboratory exercises, in which the gross and microscopic characteristics of the more important obstetrical and gynecological conditions are demonstrated. Twenty-four hours of instruction are given to each fourth-year student during the year. Dr. Parker and Staff.
- 8. ELECTIVE COURSES. Opportunity for the investigation of special gynecological and obstetrical problems is offered to several students during the year. Emphasis is placed on the project type of work. Hours and credit by arrangement. Staff.

Ophthalmology

GEORGE W. BOUNDS, M.D., Clinical Instructor in Ophthalmology and Acting Head of the Division

Henry Carroll Smith, M.D., Clinical Professor of Ophthalmology
Fowler Hollabaugh, M.D., Associate Clinical Professor of Ophthalmology
Kate Savage Zerfoss, M.D., Associate Clinical Professor of Ophthalmology
G. Allen Lawrence, M.D., Assistant Clinical Professor of Ophthalmology
S. M. H. Hasan, M.D., Instructor in Ophthalmology
L. Rowe Driver, M.D., Clinical Instructor in Ophthalmology
Philip L. Lyle, M.D., Clinical Instructor in Ophthalmology
Ralph Rice, M.D., Clinical Instructor in Ophthalmology
Ernesto M. Cube, M.D., Assistant in Ophthalmology
N. B. Morris, M.D., Clinical Assistant in Ophthalmology
Fred A. Rowe, M.D., Clinical Assistant in Ophthalmology

1. OPHTHALMOLOGY. A course of lectures is given on the diseases of the eye, both local and in association with systemic conditions, and on the various causes of disturbed vision. The physiology and anatomy of the eye are reviewed briefly. One hour a week during the fall quarter of the third year. Instruction to students continues on the wards and in the outpatient service during both the third and fourth years. Dr. Bounds and Staff.

Pediatrics

AMOS CHRISTIE, M.D., Professor of Pediatrics and Head of the Department O. RANDOLPH BATSON, M.D., Professor of Pediatrics JAMES C. OVERALL, M.D., Clinical Professor of Pediatrics CALVIN W. WOODRUFF, M.D., Associate Professor of Pediatrics JOE M. STRAYHORN, M.D., Associate Clinical Professor of Pediatrics WILLIAM O. VAUGHAN, M.D., Associate Clinical Professor of Pediatrics ERNEST E. McCoy, M.D., Assistant Professor of Pediatrics MILDRED STAHLMAN, M.D., Assistant Professor of Pediatrics LUTHER A. BEAZLEY, M.D., Assistant Clinical Professor of Pediatrics HEARN G. BRADLEY, M.D., Assistant Clinical Professor of Pediatrics T. FORT BRIDGES, M.D., Assistant Clinical Professor of Pediatrics HARRY M. ESTES, M.D., Assistant Clinical Professor of Pediatrics DAN S. SANDERS, JR., M.D., Assistant Clinical Professor of Pediatrics CHARLES GORDON RENNICK SELL, M.B., B. Chiv., Assistant Clinical Professor of Pediatrics WILLIAM BROWN WADLINGTON, M.D., Assistant Clinical Professor of Pediatrics ETHEL WALKER, M.D., Assistant Clinical Professor of Pediatrics THOMAS S. WEAVER, M.D., Assistant Clinical Professor of Pediatrics ERLE E. WILKINSON, M.D., Assistant Clinical Professor of Pediatrics JOHN P. FIELDS, M.D., Instructor in Pediatrics ROBERT E. MERRILL, M.D., Instructor in Pediatrics MARGARETTA E. PATTERSON, M.D., Instructor in Pediatrics SARAH H. SELL, M.D., Instructor in Pediatrics EUGENE L. BISHOP, M.D., Clinical Instructor in Pediatrics LINDSAY K. BISHOP, M.D., Clinical Instructor in Pediatrics SAM W. CARNEY, JR., M.D., Clinical Instructor in Pediatrics NORMAN M. CASSELL, M.D., Clinical Instructor in Pediatrics ISABELLA COLLINS, M.D., Clinical Instructor in Pediatrics RAY L. DUBUISSON, M.D., Clinical Instructor in Pediatrics PHILIP C. ELLIOTT, M.D., Clinical Instructor in Pediatrics WILLIAM K. HOWARD, M.D., Clinical Instructor in Pediatrics LEONARD J. KOENIG, M.D., Clinical Instructor in Pediatrics SOL L. LOWENSTEIN, M.D., Clinical Instructor in Pediatrics DEWBY G. NEMEC, M.D., Clinical Instructor in Pediatrics RICHARD P. TABER, M.D., Clinical Instructor in Pediatrics THOMAS B. ZERFOSS, JR., M.D., Clinical Instructor in Pediatrics Moon Yong Chung, M.D., Assistant in Pediatrics WILLIAM M. DOAK, M.D., Assistant in Pediatrics SAMUEL T. HADDOCK, M.D., Assistant in Pediatrics VERNE L. McCLELLAN, M.D., Assistant in Pediatrics SAM E. STEPHENSON, M.D., Research Assistant in Pediatrics FRANCES C. WOMACK, M.A., Research Assistant in Pediatrics

- I. LECTURES AND DEMONSTRATIONS. The prenatal period, the newborn child, mental and physical growth and development, the nutrition of infants and children, and the prevention of the abnormal are discussed. Especial attention is given to the normal child as a basis for the study of the abnormal, or diseases of children. Communicable diseases are discussed as well as some coverage of the spectrum of diseases seen in the pediatric age group. One hour a week during the fall, winter and spring quarters of the third year. Dr. Christie and Staff.
- 2. WARD WORK. One sixth of the third-year class is assigned as clinical clerks to the pediatric wards during one half of each quarter. Bedside instruction is given and patients are studied, emphasis being laid on the structure and function of the normal child. Physical diagnosis and variations from the normal and their prevention are considered. Eighteen hours a week during half of one quarter of the third year. Drs. Christie, Batson, and Staff.
- 3. CLINICAL DEMONSTRATIONS. The more important phases of pediatrics, including the acute infectious diseases of childhood, are demonstrated and discussed in an amphitheater clinic. Patients from the wards and from the outpatient service are presented. One hour a week during the fall, winter, and spring quarters of the third and fourth years. Dr. Christie and Staff.

- 4. Pediatric Outpatient Service. One sixth of the fourth-year class is assigned to the pediatric outpatient service for six weeks. Patients, including well babies in a special clinic, are assigned to students, who record histories, make physical examinations, and carry out diagnostic and immunization procedures. Diagnosis and treatment are considered. Students rotate through the special Pediatric Clinics—Allergy Clinic, Seizure Clinic, Cardiac Clinic, Well-Baby Clinic, Metabolic Clinic, and Family Clinic. Dr. Christie and Staff.
- 5. Each student is required to prepare a pediatric subject for presentation in seminar form to his classmates.

Preventive Medicine & Public Health

ROBERT W. QUINN, M.D., C.M., Professor of Preventive and Social Medicine and Head of the Department

Louis D. Zeidberg, M.D., M.P.H., Professor of Epidemiology

ALVIN E. KELLER, M.D., Clinical Professor of Preventive Medicine and Public Health

R. H. HUTCHESON, M.D., M.P.H., Associate Clinical Professor of Preventive Medicine and Public Health

EDWIN B. BRIDGFORTH, A.B., Assistant Professor of Biostatistics

CHARLES F. FEDERSPIEL, Ph.D., Assistant Professor of Biostatistics

RICHARD O. CANNON, M.D., Assistant Professor of Hospital Administration

ROBERT M. FOOTE, M.D., Assistant Clinical Professor of Preventive Medicine and Public Health

ROYDEN S. GASS, M.D., C.M., Assistant Clinical Professor of Preventive Medicine and Public Health

CARL L. SEBELIUS, D.D.S., M.P.H., Assistant Clinical Professor of Dental Health
C. B. Tucker, M.D., Assistant Clinical Professor of Preventive Medicine and
Public Health

W. CARTER WILLIAMS, M.D., Assistant Clinical Professor of Preventive Medicine and Public Health

THOMAS BOWMAN ZERFOSS, M.D., Assistant Clinical Professor of Preventive Medicine and Public Health

JULIAN R. FLEMING, M.S., Clinical Instructor in Sanitation

James E. Goldsberry, M.D., Clinical Instructor in Preventive Medicine and Public Health

BENJAMIN F. GUNTER, D.D.S., M.P.H., Clinical Instructor in Dental Health WILDER WALTON HUBBARD, M.D., Clinical Instructor in Preventive Medicine and Public Health

CON O. T. BALL, Instructor in Biostatistics

H. VIRGINIA SHATTUCK, M.A., Instructor in Public Health Nursing

RUTH E. SPRUANCE, M.S. in S.W., Instructor in Medical Social Service ANNE SWEENEY, M.S. in S.W., Instructor in Medical Social Service

RAYMOND R. CROWE, M.D., Clinical Assistant in Preventive Medicine and Public Health

BETTY W. HORN, B.S., Research Assistant in Preventive Medicine and Public Health

RAYE OZMENT, B.S.N., Research Assistant in Preventive Medicine and Public Health

Courses of instruction for undergraduates are provided in medical statistics, preventive medicine and public health practice, social and environmental medicine, medical jurisprudence, and elective work in research.

- I. MEDICAL STATISTICS. This course is designed to acquaint the student with the elements of statistical reasoning as applied to medical problems. Topics covered include: formulation of hypotheses; design of clinical and laboratory experiments; methods of collection and tabulation of data; analysis-of-variance techniques and nonparametric methods, methodology of short- and long-term medical studies; evaluation and uses of vital statistics data. The course is organized around the presentation of examples from the literature. Three hours per week during the fall quarter of the second year. Mr. Bridgforth and Staff.
- 2. Preventive Medicine: principles of public health and epidemiology. A course of lectures intended to provide the student with the preventive point of view in the practice of medicine, to make him aware of the major health problems and of the changing nature of major health problems, and to acquaint him with the organized forces working for the advancement of public health. The following subjects are among those considered: etiology, modes of transmission and methods of prevention and control of communicable diseases; vital statistics; maternal and infant hygiene; the veneral disease problem; the more common occupational diseases; civilian defense and disaster control; school hygiene; principles of housing; water supplies and sewage disposal. Clinical preventive medicine is emphasized in relation to cardiovascular diseases, diabetes, cancer; and the problems of geriatrics are presented. Stress is placed on principles involved in public health administration practice in relation to the practitioner of medicine. One lecture each week during the winter and spring quarters of the third year. Drs. Quinn, Zeidberg, Keller, Mr. Bridgforth, and Staff.

PREVENTIVE MEDICINE: SOCIAL AND ENVIRONMENTAL MEDICINE I. An interdepartmental course designed to introduce the student to the human organism as a structural, functional, and social being; to give the student an understanding of the nature of growth and development, of human behavior and adaptation, of personality development, the role of the individual in the family and the role of the family. Extends throughout the four years of the medical course. The Departments of Psychiatry and Preventive Medicine and members of the Division of Medical Social Service holding faculty appointments conduct the major part of the course during

the first year. Lectures and seminars are combined with the assignment of the student to a family selected mainly from the well-baby, prenatal, and other clinics, which he will follow during the first two years of his medical studies. These families which are enrolled in the family clinic participate in the family care program which is designed for teaching students the broad concepts of preventive medicine and comprehensive medical care. In addition to the lectures and seminars, the students have regularly scheduled conferences with their medical and social work consultants alternately every three weeks and make a family visit at approximately six-week intervals. Members of the families, when patients in the outpatient or inpatient services, are seen when possible by the students. One hour lecture and one hour seminar throughout the first year, approximately thirty-six hours. Dr. Orr (Department of Psychiatry); Dr. Quinn and Staff.

PREVENTIVE MEDICINE: SOCIAL AND ENVIRONMENTAL MEDICINE II. A continuation of Social and Environmental Medicine in the second year designed to acquaint the student with the social and economic as well as physical and emotional effects of illness on the patient, his family, and the community. In this course the chronic illnesses of rheumatic fever and tuberculosis are considered as examples of diseases which have a profound physical, emotional, economic, and social effect on the patient and his family. Patients are presented to the class from a broad point of view employing epidemiologic, social, economic, emotional, preventive, family, and community aspects. The student is introduced to community agencies that offer help to patients and their families. Families assigned during the first year are visited at regular intervals throughout the second year and whenever a member of a student's family visits the family clinic the student attends when possible. One hour weekly during the fall quarter and twice weekly for five weeks during the spring quarter. Drs. Quinn, Zeidberg, and Staff.

PREVENTIVE MEDICINE: SOCIAL AND ENVIRONMENTAL MEDICINE III AND IV. The family care plan: Families currently assigned to first and second-year students attend the family clinic regularly. This clinic operates in cooperation with the Department of Pediatrics and is staffed by representatives of the Departments of Pediatrics, Psychiatry, Preventive Medicine, Social Service, and Nursing. Third-year students during their assignment to Obstetrics and fourth-year students during their assignment to Pediatrics serve in this clinic, examine members of the family, and participate in the caseconference seminars at the beginning of each session. On the first visit to the clinic complete histories and physical examinations are performed on each of the family members and routine laboratory tests are done. Periodic visits by each family member are scheduled but visits to the clinic may be made whenever necessary. The emphasis is on preventive medicine and a comprehensive point of view. It is planned that when acute, home-confining illness occurs or chronic illness is present which requires medical observation or care, fourth-year students during their assignment to Pediatrics will be responsible for making house calls in the company of a house officer from Pediatrics for the purpose of diagnosing, treating, and following the course of illness. The student will attempt to manage the problem according to his best judgment but will be under the supervision of the accompanying house officer. The staff of the clinic is responsible for checking students and is available for consultation. Families who offer good teaching material or who have difficult problems are presented at case-conference seminars after each clinic. Drs. Quinn and Zeidberg; Drs. Christie and Woodruff (Department of Pediatrics); and representatives from other clinical departments and nursing and social services.

Dr. Quinn attends medical rounds each week with the attending physician on the medical wards, at which time he acts as a consultant to emphasize the epidemiologic, socio-economic, and preventive aspects of patients and their illnesses.

MEDICAL JURISPRUDENCE. This course includes medical evidence and testimony; expert testimony; rights of medical witnesses; dying declarations; medicolegal post-mortem examinations; criminal acts determined by medical knowledge; malpractice and the legal relation of physicians to patients and the public. Some consideration is given also to the state law in its relation to public health operations. One hour a week during the winter quarter of the fourth year. Paul H. Sanders and Associates (School of Law).

301. STATISTICAL METHODS FOR RESEARCH IN THE MEDICAL FIELDS. An introductory course in statistics for medical investigators. Basic principles of statistics are covered, with orientation toward medical fields. Types of theoretical distributions of data; formulation of hypotheses; design of experiments; methods for collection, tabulation and analysis of data. Standard statistical tests (chi-square, t, F, nonparametric) are covered, with practice in computations. One and one half hours lecture, and one and one half hours laboratory per week. WINTER QUARTER. [2] Mr. Bridgforth and Staff.

302. STATISTICAL METHODS FOR RESEARCH IN THE MEDICAL FIELDS. Continuation of 301. Discussion of analysis and interpretation of experimental data are continued. One and one half hours lecture, and one and one half hours laboratory per week. SPRING QUARTER. [2] Mr. Bridgforth and Staff.

5. ELECTIVE WORK. The participation of students will be welcomed in investigative work carried on by the members of the Department.

Psychiatry

WILLIAM F. ORR, M.D., Professor of Psychiatry and Head of the Department Frank H. Luton, M.D., Professor of Psychiatry Otto Billig, M.D., Associate Professor of Psychiatry James W. Ward, Ph.D., M.D., Associate Professor of Anatomy in Psychiatry

VIRGINIA KIRK, PH.D., Associate Professor of Clinical Psychology JOSEPH J. BAKER, M.D., Associate Clinical Professor of Psychiatry ROBERT W. ADAMS, JR., M.D., Assistant Professor of Psychiatry ALBERT R. LAWSON, M.D., Assistant Professor of Psychiatry MARY RATTERMAN, B.A., Assistant Professor of Psychiatric Social Work WARREN W. WEBB, Ph.D., Assistant Professor of Clinical Psychology BASIL T. BENNETT, M.D., Assistant Clinical Professor of Psychiatry H. JAMES CRECRAFT, M.D., Assistant Clinical Professor of Psychiatry CHARLES B. SMITH, M.D., Assistant Clinical Professor of Psychiatry BOYD L. BURRIS, M.D., Instructor in Psychiatry JOHN E. CARLTON, M.D., Instructor in Psychiatry Louis Sampson, M.D., Instructor in Psychiatry MURRAY COOK, Ph.D., Instructor in Clinical Psychology ABNER R. OVERDEER, M.S., Instructor in Clinical Psychology HELEN MARGARET BROWNING, M.S. in S.W., Instructor in Psychiatric Social Work MIRIAM MCHANEY, Instructor in Psychiatric Social Work LAVERGNE WILLIAMS, M.S. in S.W., Instructor in Psychiatric Social Work ERIC BELL, JR., M.D., Clinical Instructor in Psychiatry HENRY B. BRACKIN, JR., M.D., Clinical Instructor in Psychiatry ROBERT M. FOOTE, M.D., Clinical Instructor in Psychiatry FRANK W. STEVENS, M.D., Clinical Instructor in Psychiatry A. LAWRENCE WHITE, M.D., Clinical Instructor in Psychiatry HARVEY W. ANDERSON, M.D., Assistant in Psychiatry PETER L. DERUITER, M.D., Assistant in Psychiatry MURRAY FELDBERG, M.D., Assistant in Psychiatry JACK O. RICE, M.D., Assistant in Psychiatry WILLARD SEGERSON, M.D., Assistant in Psychiatry PATRICIA H. SHARPLEY, M.D., Assistant in Psychiatry

- 1. FIRST-YEAR PSYCHIATRY. (Included in Social and Environmental Medicine I, Department of Preventive Medicine and Public Health.)
- 322. PSYCHODYNAMICS. The purpose of this course is to acquaint the student with the inner forces at the disposal of each person in his adjustment to past as well as present experience. By this means a basis for understanding normal personality and psychopathological phenomena may be outlined. Three hours a week during the spring quarter of the second year. Drs. Orr, Billig and Staff.
- 3. CLINICAL PSYCHIATRY I. The subject is presented in a series of lectures in which the commoner psychoses, neuroses, and the personality forces and defenses in physical disease are discussed. Clinical material is used for illustration. The principles of prevention as applied to mental diseases are emphasized. One hour a week during the fall, winter, and spring quarters of the third year. Drs. Luton, Billig, Adams, and Smith.

- 4. PSYCHOSOMATIC SEMINARS. Small group meetings are held in which the personality factors of patients with demonstrable disease on Medicine, Surgery, Pediatrics, and Gynecology are discussed. During the third year. Dr. Orr and Staff.
- 5. Institutional Psychiatry. Fourth-year students are assigned for ward work in the treatment building at Central State Hospital. There they work intensively with the emotionally disturbed patient, become intimately involved in the complex relationships which exist in the family disturbance related to prolonged hospitalization. The placement gives them an opportunity to observe firsthand the effect of various therapies in the disturbed patient and to become an active member of the ward psychiatric team. Five weeks in the fourth year. Drs. Orr, Luton, and Staff.
- 6. OUTPATIENT PSYCHIATRY. Here the students are presented the methods of examination required in the study of psychiatric patients and are given instruction in the diagnosis and treatment of outpatient psychiatric conditions. Selected students may continue in brief supervised psychotherapy with their patients. Twenty-four hours during fourth year. Dr. Billig and Staff.
- 7. SEMINAR IN CLINICAL PSYCHOLOGY. Here the student becomes acquainted with some of the methods of clinical psychological examination. Emphasis is placed on the projective techniques. Eight hours during third year. Dr. Kirk.
- 8. ELECTIVES IN PSYCHIATRY
- a) Man and His Works. This course is open to selected fourth-year students interested in the effects of culture, past and present, upon man and the forces and stresses that have produced the culture. Twenty hours during spring quarter.
- b) Group Therapy. Here selected fourth-year students will have an opportunity to have experience under supervision in group therapy with psychotic patients. Twelve hours.
- c) Research. Various programs are available to individual students according to their interests. Time by arrangement.

Radiology

HERBERT C. FRANCIS, M.D., Professor of Radiology and Head of the Department Granville W. Hudson, M.D., Associate Professor of Radiology Joseph Hunter Allen, Jr., M.D., Assistant Professor of Radiology John Beveridge, M.D., Assistant Clinical Professor of Radiology Minyard D. Ingram, M.D., Assistant Clinical Professor of Radiology Joseph M. Ivie, M.D., Assistant Clinical Professor of Radiology

BEN R. MAYES, M.D., Assistant Clinical Professor of Radiology
DAVID E. SHERMAN, M.D., Assistant Clinical Professor of Radiology
W. FAXON PAYNE, M.D., Instructor in Radiology
CLIFTON E. GREER, M.D., Clinical Instructor in Radiology
WILLIAM M. HAMILTON, M.D., Clinical Instructor in Radiology
VINCENZO BUONASSISI, M.D., Assistant in Radiology
DAVID D. PAULUS, JR., M.D., Assistant in Radiology

- I. ROENTGENOLOGY: INTRODUCTION TO CLINICAL MEDICINE. An integrated course given by Departments of Biochemistry, Medicine, Pediatrics, Surgery, and Radiology. Second-year class has three hours devoted to normal X-ray anatomy and its normal variations. Close correlation with physical diagnosis program is maintained and serves as introduction to advantages and limitations of X-ray examination applied to clinical medicine. Three hours a week in the spring quarter of the second year. Dr. Francis and Staff.
- 2. RADIOLOGY, I. For fourth-year students. The section of the class assigned to Medicine is divided into two groups. Each group has a one-hour class in Radiology two days per week for one half of this period. Diagnostic roentgenology and some radiation therapy are discussed. Staff.
- 3. Radiology, II. For third-year students. Lectures and demonstrations with discussions of radiation hazards, radiographic diagnosis, and some therapy clinics. One hour per week during spring quarter. Staff.

NOTE: Special arrangements can be made in the Department for students interested in X-ray technique or research work.

Surgery

H. WILLIAM SCOTT, JR., M.D., Professor of Surgery and Head of the Department Barton McSwain, M.D., Professor of Surgery
Rollin A. Daniel, Jr., M.D., Clinical Professor of Surgery
Leonard W. Edwards, M.D., Clinical Professor of Surgery, Emeritus
Walter G. Gobbel, Jr., M.D., Associate Professor of Surgery
Benjamin F. Byrd, Jr., M.D., Associate Clinical Professor of Surgery
Beverly Douglas, M.D., D.Sc., Associate Clinical Professor of Surgery
James A. Kirtley, Jr., M.D., Associate Clinical Professor of Surgery
Ralph M. Larsen, M.D., Associate Clinical Professor of Surgery
Douglas H. Riddell, M.D., Associate Clinical Professor of Surgery
Daugh W. Smith, M.D., Associate Clinical Professor of Surgery
Jesse E. Adams, M.D., Assistant Professor of Surgery
Harrison H. Shoulders, Jr., M.D., Assistant Professor of Surgery
Sam E. Stephenson, Jr., M. D., Assistant Professor of Surgery

EDMUND W. BENZ, M.D., Assistant Clinical Professor of Surgery CLOYCE F. BRADLEY, M.D., Assistant Clinical Professor of Surgery WILLIAM R. CATE, JR., M.D., Assistant Clinical Professor of Surgery W. Andrew Dale, M.D., Assistant Clinical Professor of Surgery WALTER L. DIVELEY, M.D., Assistant Clinical Professor of Surgery JAMES C. GARDNER, M.D., Assistant Clinical Professor of Surgery LYNWOOD HERRINGTON, JR., M.D., Assistant Clinical Professor of Surgery GEORGE W. HOLCOMB, M.D., Assistant Clinical Professor of Surgery JAMES ANDREW MAYER, M.D., Assistant Clinical Professor of Surgery ROBERT L. McCracken, M.D., Assistant Clinical Professor of Surgery OSCAR NOBL, M.D., Assistant Clinical Professor of Surgery GREER RICKETSON, M.D., Assistant Clinical Professor of Surgery Louis Rosenfeld, M.D., Assistant Clinical Professor of Surgery ROBERT N. SADLER, M.D., Assistant Clinical Professor of Surgery NATHANIEL SEHORN SHOFNER, M.D., Assistant Clinical Professor of Surgery CHARLES C. TRABUE, M.D., Assistant Clinical Professor of Surgery BERNARD M. WEINSTEIN, M.D., Assistant Clinical Professor of Surgery MARY FAITH ORR, M.A., Instructor in Oncology KENNETH L. CLASSEN, M.D., Instructor in Surgery JOHN H. FOSTER, M.D., Instructor in Surgery EDWARD M. LANCE, M.D., Instructor in Surgery I. ARMISTEAD NELSON, M.D., Instructor in Surgery REX E. WIEDERANDERS, M.D., Instructor in Surgery STANLEY BERNARD, M.D., Clinical Instructor in Surgery HAROLD A. COLLINS, M.D., Clinical Instructor in Surgery GEORGE DUNCAN, M.D., Clinical Instructor in Surgery PARKER D. ELROD, M.D., Clinical Instructor in Surgery JOHN L. FARRINGER, JR., M.D., Clinical Instructor in Surgery SAM YOUNG GARRETT, M.D., Clinical Instructor in Surgery CARL N. GESSLER, M.D., Clinical Instructor in Surgery HERSCHEL A. GRAVES, JR., M.D., Clinical Instructor in Surgery JACKSON P. LOWE, M.D., Clinical Instructor in Surgery JERE W. Lowe, M.D., Clinical Instructor in Surgery M. CHARLES McMurray, M.D., Clinical Instructor in Surgery DAVID R. PICKENS, JR., M.D., Clinical Instructor in Surgery JOHN L. SAWYERS, M.D., Clinical Instructor in Surgery KIRKLAND W. TODD, JR., M.D., Clinical Instructor in Surgery R. BENTON ADKINS, JR., M.D., Assistant in Surgery WILLIAM C. ALFORD, M.D., Assistant in Surgery ISAM N. ANABTAWI, M.D., Assistant in Surgery ARTHUR G. BOND, M.D., Assistant in Surgery STANLEY K. BROCKMAN, M.D., Assistant in Surgery NEIL O. CHAMBERLAIN, M.D., Assistant in Surgery STANLEY M. ELMORE, M.D., Assistant in Surgery JAMES H. FLEMING, M.D., Assistant in Surgery JAMES L. GUEST, M.D., Assistant in Surgery JAMES R. HEADRICK, M.D., Assistant in Surgery J. KENNETH JACOBS, M.D., Assistant in Surgery CHAMBLESS R. JOHNSTON, M.D., Assistant in Surgery DUNCAN ARNOLD KILLEN, M.D., Assistant in Surgery F. BEACHLEY MAIN, M.D., Assistant in Surgery

FAYETTE M. McElhannon, M.D., Assistant in Surgery
Anthony J. Munoz, M.D., Assistant in Surgery
William R. Pridgen, M.D., Assistant in Surgery
W. Gardner Rhea, M.D., Assistant in Surgery
Robert T. Sessions, M.D., Assistant in Surgery
William S. Stoney, M.D., Assistant in Surgery
Panagiotis Symbas, M.D., Assistant in Surgery
Phillip L. Williams, M.D., Assistant in Surgery
E. William Winfrey, III, M.D., Assistant in Surgery
Robert W. Youngblood, M.D., Assistant in Surgery
Roy G. Hammonds, M.D., Clinical Assistant in Surgery
Jackson Harris, M.D., Clinical Assistant in Surgery
Jefferson C. Pennington, M.D., Clinical Assistant in Surgery
Frank Gollan, M.D., Research Associate in Surgery

- I. Introduction to Clinical Medicine. An integrated course given by members of the Departments of Surgery, Medicine, Pediatrics, Radiology, and Biochemistry. Lectures, demonstrations, and practical experience are designed to introduce students to methods used in examining patients and to the interpretation of data so obtained. This course serves also as a transition from the courses in biochemistry, physiology, and pathology to their application in clinical medicine. The course consists of fourteen lectures or demonstrations and six hours of practical demonstrations weekly during the spring quarter of the second year. Dr. Daniel and Staff; Drs. Kampmeier, Strayborn, and Staff (Department of Medicine); Dr. Christie (Department of Pediatrics); Dr. Francis (Department of Radiology); and Dr. Minot (Department of Biochemistry).
- 2. Physical Diagnosis in Surgery. The object of this course is to instruct students in those methods of physical diagnosis particularly referable to surgical diseases. The student is instructed in the methods of physical examination of the abdomen, spine, joints, and deformities. Two hours a week during the spring quarter of the second year. Dr. Edwards.
- 3. Surgical Pathology. The lectures, supplemented by specimens from the operating room, fixed gross specimens, roentgenograms and microscopic sections, correlate the clinical manifestations and the pathologic changes in the most frequent surgical diseases. Three hours a week throughout the third year. *Dr. McSwain*.
- 4. SURGICAL OUTPATIENT SERVICE. For one quarter the students of the third-year class serve daily as assistants in the outpatient clinics of general surgery, neurological surgery, otolaryngology, ophthalmology, orthopedic surgery, and genito-urinary surgery. They make the records of the histories, physical examinations, and laboratory tests of the patients attending the outpatient clinics and assist in the dressings and in minor operations. Various members of the surgical staff are in attendance to instruct the students in their work and to discuss with them the diagnosis and treatment of the patients. In the clinics of orthopedic surgery and urology the

students receive instruction in the particular methods of diagnosis and treatment used by these special branches of surgery. Fifteen hours a week throughout one quarter of the third year. Dr. McSwain and Staff.

- 5. SURGICAL WARDS. For one quarter, one third of the fourth year students serve daily as assistants in the surgical wards of the Vanderbilt University Hospital. The students, under the direction of the staff, make the records of the histories, physical examinations, and the usual laboratory tests. Ward rounds are made daily by the various members of the surgical staff at which time surgical conditions are discussed with the students. The students may be present in the operating rooms at such times as their required work permits. When possible the student is permitted to assist in a surgical operation which is performed upon a patient assigned to him in the ward. Approximately twenty hours a week during one quarter of the fourth year. Dr. Scott and Staff.
- 6. Surgical Clinics. The students of the third- and fourth-year classes are expected to attend the weekly amphitheater surgical clinic. The subjects considered at these clinics vary with the clinical material available. Particular emphasis is placed on the correlation of the basic and clinical sciences. So far as it is possible an attempt is made to have the various instructors present well-studied cases illustrating surgical conditions with which the instructor is particularly familiar. Members of the house staff are given the opportunity and are expected to attend these clinics. One hour a week throughout the third and fourth years. Drs. Scott, Daniel, and Staff.

7. ELECTIVE COURSES IN SURGERY.

- a) OPERATIVE SURGERY. In this course the students are instructed in the theories and techniques of the handling of surgical wounds. Three hours per week. Limited to twelve students for six-week periods throughout the academic year. Dr. Adams and Staff.
- b) Surgical Pathology. Two students, each pair for one month, work in the tumor clinic and study the gross and microscopic material in the surgical pathology laboratory. Dr. McSwain.
- c) Tissue Growth. Two students, each pair for one month, work in the tissue culture laboratory studying the characteristics of growth of malignant tumor tissue in vitro. Dr. McSwain and Miss Orr.

DENTAL SURGERY

ROBERT B. BOGLE, JR., D.D.S., Clinical Professor of Dental Surgery
MAX V. SIGAL, D.D.S., Associate Clinical Professor of Dental Surgery
E. THOMAS CARNEY, D.D.S., Assistant Clinical Professor of Dental Surgery
WILLIAM S. GRAY, D.D.S., Assistant Clinical Professor of Dental Surgery
FRED H. HALL, D.D.S., Assistant Clinical Professor of Dental Surgery
ELMORE HILL, D.M.D., Assistant Clinical Professor of Dental Surgery

EDWARD H. MARTIN, D.M.D., Assistant Clinical Professor of Dental Surgery JAMES B. BAYLOR, D.D.S., Clinical Instructor in Dental Surgery FRANK H. DEPIERRI, JR., D.M.D., Clinical Instructor in Dental Surgery FRED M. MEDWEDEFF, D.D.S., Clinical Instructor in Dental Surgery

Although there are no formal lectures or recitations in dental surgery, the students of the fourth-year class have opportunity to become familiar with diseases of the teeth and gums arising in the various clinics of the outpatient service. The division of dental surgery conducts a clinic two days each week, to which patients suffering from diseases of the teeth or gums are referred for examination and treatment.

NEUROLOGICAL SURGERY

WILLIAM F. MEACHAM, M.D., Clinical Professor of Neurological Surgery Cully A. Cobb, Jr., M.D., Associate Clinical Professor of Neurological Surgery Guy Owens, M.D., Assistant Professor of Neurological Surgery Arnold Metrowsky, M.D., Assistant Clinical Professor of Neurological Surgery Joe M. Capps, M.D., Clinical Instructor in Neurological Surgery Gray E. B. Stahlman, M.D., Clinical Instructor in Neurological Surgery Richard H. Ashby, M.D., Assistant in Neurological Surgery Hossein Sakhai, M.D., Assistant in Neurological Surgery Manuel Tallon-Zarza, M.D., Assistant in Neurological Surgery

- 1. NEUROLOGICAL SURGERY. A clinical presentation of neurosurgical problems with emphasis on diagnosis and management. Third and fourth-year classes. Two hours per month throughout the year. Drs. Meacham and Cobb.
- 2. NEUROSURGICAL CLINIC. Work in the neurosurgical outpatient service. Examinations and treatment of patients including follow-up studies on postoperative cases. Informal neurosurgical seminar at end of period. Third-year class. Drs. Cobb and Meacham.
- 3. Neuropathology. A series of lectures followed by gross and microscopic studies of surgical neuropathological disorders. Integrated with the regular surgical pathology course. Third-year class. Nine hours during the winter quarter. Dr. Meacham and Resident Staff.

ORTHOPEDIC SURGERY

J. WILLIAM HILLMAN, M.D., Professor of Orthopedic Surgery
EUGENE M. REGEN, M.D., Clinical Professor of Orthopedic Surgery
GEORGE K. CARPENTER, M.D., Associate Clinical Professor of Orthopedic Surgery
J. JEFFERSON ASHBY, M.D., Assistant Clinical Professor of Orthopedic Surgery
Don L. Eyler, M.D., Assistant Clinical Professor of Orthopedic Surgery

S. BENJAMIN FOWLER, M.D., Assistant Clinical Professor of Orthopedic Surgery JOHN GLOVER, M.D., Assistant Clinical Professor of Orthopedic Surgery SAMUEL B. PREVO, M.D., Assistant Clinical Professor of Orthopedic Surgery WILLIAM J. CALLISON, M.D., Instructor in Orthopedic Surgery THOMAS S. CULLEY, M.D., Instructor in Orthopedic Surgery EUGENE M. REGEN, JR., Instructor in Orthopedic Surgery JOE G. BURD, M.D., Clinical Instructor in Orthopedic Surgery ARNOLD HABER, JR., M.D., Clinical Instructor in Orthopedic Surgery A. BRANT LIPSCOMB, Clinical Instructor in Orthopedic Surgery ANDREW H. MILLER, M.D., Clinical Instructor in Orthopedic Surgery THOMAS F. PARRISH, M.D., Clinical Instructor in Orthopedic Surgery BRUCE DERBYSHIRE, M.D., Assistant in Orthopedic Surgery GEORGE E. FREEMAN, M.D., Assistant in Orthopedic Surgery JOHN M. WAMPLER, M.D., Assistant in Orthopedic Surgery ROBERT J. SMITH, M.D., Assistant in Orthopedic Surgery CHARLES M. HAMILTON, M.D., Clinical Assistant in Orthopedic Surgery

- 1. ORTHOPEDIC SURGERY. A course of lectures and clinical presentations in which the more important parts of orthopedic surgery are discussed. Ten hours during the fall and winter quarters of the third year. Drs. Hillman, Regen, and Staff.
- 2. CLINICAE INSTRUCTION. Students receive clinical instruction in orthopedic surgery during the fourth year in the wards and during the third year in the outpatient department. This instruction is given by the members of the orthopedic surgery staff at formal ward rounds weekly to the students serving as clinical clerks on the wards and in weekly seminars in the outpatient department. The time given to this instruction is included in that assigned to Surgery 5 and Surgery 6. Drs. Hillman, Regen, and Staff.

OTOLARYNGOLOGY

GUY M. MANESS, M.D., Clinical Professor of Otolaryngology
J. THOMAS BRYAN, M.D., Assistant Clinical Professor of Otolaryngology
HERBERT DUNCAN, M.D., Assistant Clinical Professor of Otolaryngology
W. G. KENNON, JR., M.D., Assistant Clinical Professor of Otolaryngology
WILLIAM WESLEY WILKERSON, JR., M.D., Assistant Clinical Professor of
Otolaryngology
MORRIS ADAIR, M.D., Clinical Instructor in Otolaryngology

I. Otolaryngology. A course of lectures and clinical presentations in which the diseases of the ear, nose, and throat are discussed briefly and the methods of treatment are described. One hour a week during the fall quarter of the third year. Dr. Maness.

CLYDE ALLEY, JR., M.D., Clinical Instructor in Otolaryngology

2. CLINICAL OTOLARYNGOLOGY. Groups consisting of one sixth of the third-year class are assigned to clinical work in the outpatient clinic, where they have an opportunity to examine patients, to practice the simpler forms of treatment, to witness and to assist in operations, and to participate in the postoperative care of patients. Eight hours a week during one half of one quarter. Drs. Maness, Bryan and Staff.

UROLOGY

A. Page Harris, M.D., Associate Professor of Urology
Edward Hamilton Barksdale, M.D., Associate Clinical Professor of Urology
Charles E. Haines, Jr., M.D., Associate Clinical Professor of Urology
Harry S. Shelly, M.D., Assistant Professor of Urology
Phillip P. Porch, Jr., M.D., Instructor in Urology
Albert P. Isenhour, M.D., Clinical Instructor in Urology
John M. Tudor, M.D., Clinical Instructor in Urology
Oliver P. Campbell, M.D., Assistant in Urology
David M. Woodhead, M.D., Assistant in Urology
Robert E. McClellan, M.D., Clinical Assistant in Urology
Tom E. Nesbitt, M.D., Clinical Assistant in Urology

- 1. Urology. A course of lectures and clinics is given covering the more important aspects of urology. One hour a week during the winter quarter of the third year. Dr. Harris and Staff.
- 2. CLINICAL INSTRUCTION. Students receive clinical instruction in urology during the third year in the outpatient service and during the fourth year on the wards. This instruction is given by the members of the urological staff at formal ward rounds on alternate Tuesdays to the students serving as clinical clerks in both the wards and the outpatient department. The time given to this instruction is included in that assigned to Surgery 5 and Surgery 6. Drs. Harris, Barksdale, Haines, and Staff.

Audiology & Speech

FREEMAN McConnell, Ph.D., Professor of Audiology and Head of the Division Forrest M. Hull, Ph.D., Associate Professor of Speech Science Eugene M. Batza, Ph.D., Associate Professor of Speech Pathology Ronald Wallace Wendahl, Ph.D., Associate Professor of Speech Science Claire Cooper, M.A., Instructor in Audiology Kathryn Barth Horton, M.S., Instructor in Speech Pathology Norma L. Loetz, M.S., Instructor in Speech Pathology B. Jack Neas, M.S., Instructor in Audiology

ADMISSION TO GRADUATE STUDY IN AUDIOLOGY AND SPEECH

Graduates with Bachelor's degrees from approved institutions are admitted into the Division for work which their undergraduate records indicate they are qualified to take. They shall have complete courses of study approximately equivalent to those required at Vanderbilt University for the Bachelor's degree, if not a graduate of that institution, and shall have maintained a B average in their undergraduate work and specifically a B average in their major field. Under certain circumstances a student may sometimes be required to complete the requirements for the Bachelor's degree at Vanderbilt University before proceeding to the Master's degree, and their admission to advanced courses may be subject to the instructor's consent.

Application for admission should be made by writing directly to the Division of Audiology and Speech, requesting the necessary blank forms. The applicant who presents himself at the beginning of a term without having had any previous communication should have a certified copy of his college record sent to the Division and should bring a copy of his college catalogue.

Graduate students will normally expect to begin their work with the fall quarter. They may be admitted, however, at the beginning of any other term. Successful completion of a minimum of one quarter of course work is required before a student is assigned a thesis topic.

REQUIREMENTS FOR MASTER'S DEGREE

A minimum of 27 quarter hours in the major field, either audiology or speech according to the student's primary interest, and at least 9 quarter hours in a minor subject are required. In addition, a written thesis is required. The program must include one seminar course and at least two other 300-level courses, and clinical practice under supervision will be an integral part of the training program. The Master's degree program requires a minimum of four quarters.

The candidate shall submit, not later than the fourteenth day before the degree is to be granted, three copies of a written thesis in the field of his major subject which gives evidence of original investigation. The candidate shall furnish an abstract of his thesis and pay a fee of \$2 for the binding of each required copy of his thesis and \$6 for the printing of the abstract. The thesis is additional to the 36 term hours required for the degree. Detailed instructions as to the form in which the thesis is to be submitted may be secured from the Division.

The grading system in the Division of Audiology and Speech includes letter grades A, B, C, D, and F. In courses in which the student is registered for graduate credit, a minimum grade of D is required for course credit. A quality point ratio of 2.0 on all courses taken for credit is necessary for graduation. (A=3, B=2, C=1, D=0, F=0.) Noncredit courses taken because of deficiencies in background preparation or for general cultural reasons are not counted toward total hours or in arriving at the quality point ratio.

All students are subject to the Honor Code and are under the jurisdiction of the Honor Council.

The University reserves the right, and by matriculation the student acknowledges this right, at any time to suspend or dismiss a student whose conduct or academic standing is in its judgment unsatisfactory.

FINAL EXAMINATION

In addition to the ordinary course examinations, the candidate for the Master's degree is required ordinarily to take an oral examination on his written thesis. Such examination, if given, shall be completed not later than fourteen days before the degree is to be granted.

EXPENSES

Tuition in the Division of Audiology and Speech is \$180 per quarter for

a program of 9 to 13 hours.

For schedules in excess of 13 hours, \$20 per quarter hour is added for each extra hour, and schedules less than 9 hours are charged at the rate of \$20 per quarter hour, provided, however, that the minimum tuition charge per quarter is \$50.

The fees give all students the privilege of the health service offered by

the University.

Students who register for thesis research without credit will pay a fee of \$50 per term for thesis direction and for the use of the library.

There is a diploma fee of \$10.

All students who fail to register on the days designated will be charged a fee of \$5 for late registration.

THE COURSES OF STUDY

Following the course description the term or terms in which the course is offered is indicated. The figures in parentheses indicate the number of credit hours per term. Medical students, nurses, teachers, and properly qualified students, not candidates for the degree of Master of Science, may be admitted to any of the courses by special arrangement with the instructors.

The student may elect a program of study with emphasis in either audiology or speech. Certain courses are basic to both areas of study and may be counted for credit in either audiology or speech. Other courses primarily clinical in content or involving independent study may be taken also for credit in either area. These courses are listed below in the first section and are followed by those which can be counted for credit only in the specific area noted in the heading.

I. AUDIOLOGY & SPEECH

220. Anatomy and Function of the Central Nervous System. Lectures and demonstrations designed to acquaint the student with the basic structure and function of the central nervous system. Emphasis will be

placed on the integrative activity as related to oral communication. Three one-hour lectures weekly. FALL QUARTER. [3] Dr. Clark (Department of Anatomy) and Dr. Hull.

- 221. Anatomy and Physiology of the Vocal Mechanism. Lectures, readings, demonstrations, and laboratory dissections presenting the structure and function of the neuromuscular system involved in breathing, phonation, resonation, and articulation. Three one-hour lectures and one laboratory section per week. Prerequisite: Biology or Zoology. WINTER QUARTER. [3] Dr. Hull.
- 222. Anatomy and Physiology of Hearing. A study of the structure of the human ear and of its abnormalities and diseases. Consideration of basic physiologic principles with emphasis on the psychoacoustics of audition. Three one-hour lectures weekly. Prerequisite: Speech Science, Biology, or Zoology. Spring Quarter. [3] Dr. McConnell.
- 223. DIAGNOSTIC TECHNIQUES IN AUDIOLOGY AND SPEECH CORRECTION. Diagnostic tests and procedures for children and adults with impaired hearing or defective speech. Techniques for screening areas important to normal speech and language development. Case history techniques. Clinical observation and report writing required. Prerequisite or corequisite: Audiology 240, Speech 230, and Child Psychology. FALL QUARTER. Mrs. Horton.
- 320. Advanced Clinical Study and Practice. Assigned readings and written reports combined with regular participation in one of the special clinics. Open by permission of instructor to students having the qualification for participation in the clinical activity selected. Course may be repeated for credit. Fall, winter, and spring Quarters. [2] Staff.
- 321. FIELD WORK IN AUDIOLOGY AND SPEECH CORRECTION. Participation in group testing of school populations. Student required to make arrangements with school administrators and to conduct faculty orientation meetings. One-half day of field work weekly for each hour of credit. Prerequisite: Audiology 240 and Speech 230. FALL, WINTER, AND SPRING QUARTERS. [1-3] Staff.
- 399. PROBLEMS AND RESEARCH. Individual programs of study basically investigative in nature. May be taken for thesis credit during third and fourth quarters of Master's program following an approved prospectus. The course, upon approval of the Division, may be taken also for credit hours on topics unrelated to the thesis. A written report following each unit is required. FALL, WINTER, AND SPRING QUARTERS. [3] Staff.

II. AUDIOLOGY

240. Testing of Hearing. A study of the various types of hearing tests with emphasis on audiometric measurement. Demonstration of and practice in pure tone audiometry and interpretation of the findings. Four one-hour lectures weekly. Prerequisite: Physics or Experimental Psychology. Fall Quarter. [4] Dr. McConnell.

- 241. Speech for the Acoustically Handicapped Child, I. A detailed analysis of the production and formation of all speech sounds in the English language with emphasis on methods of developing these sounds in the hearing impaired child. Fall Quarter. [3] Mr. Neas.
- 242. Speech for the Acoustically Handicapped Child, II. Philosophy of oralism and auralism. A study of the various methods of teaching speech to the deaf. Tactile, visual, and auditory clues for the control of speech. Clinical observation, demonstration, and practice. WINTER QUARTER.

 [3] Mr. Neas.
- 243. LANGUAGE FOR THE ACOUSTICALLY HANDICAPPED CHILD, I. Mental, social, and emotional development of the hearing impaired and of the normal preschool child. Role of the multisensory approach in providing language experiences. FALL QUARTER. [3] Mr. Neas.
- 244. Language for the Acoustically Hancidapped Child, II. Techniques of developing the language ability of school age children with hearing impairment. Study of the various systems by which formal language is presented. Clinical observation, demonstration, and practice. WINTER QUARTER. [3] Mr. Neas.
- 245. Speechreading and Auditory Training. Systems of developing speechreading skills together with maximum utilization of residual hearing to achieve communicative functioning in hearing impaired individuals. Includes use of electronic equipment for amplification. Spring Quarter. [4] Mr. Neas.
- 246. INTRODUCTION TO THE EDUCATION AND PSYCHOLOGY OF THE DEAF. History of education of the deaf. Study of the research literature on the effects of hearing impairment on the social, intellectual, and psychological development of the individual. Societal reactions to deafness. FALL QUARTER. [3] Dr. Key.
- 340. THE SELECTION AND USE OF HEARING AIDS. A study of the research and theory of clinical selection of hearing aids. The principles of speech audiometry in assessing the usefulness of residual hearing. Psychological factors related to hearing aid use. Four one-hour lectures weekly. Clinical observation required. Prerequisite: 240. WINTER QUARTER. [4] Dr. McConnell.
- 341. SEMINAR IN AUDIOLOGY. Special study of research methods and current significant research findings in the field of audiology. Special topics of investigation assigned. Course may be repeated for credit. Prerequisite: 240 and Speech 230. SUMMER. [3] Dr. McConnell.
- 342. Advanced Audiology. Advanced pure tone and speech audiometry; special tests and exploratory techniques in audiologic assessment; instrumentation and testing rooms; industrial audiology; and conduct of the audiologic clinic. Spring Quarter. [3] Dr. Key.

III. SPEECH

- 230. ARTICULATION AND VOICE DISORDERS. A study of the etiology, diagnosis, and clinical management of articulatory defects and voice disorders. Four one-hour lectures weekly. Clinical observation required. Prerequisite: Speech Science or an introductory course in Audiology or Speech Pathology. FALL QUARTER. [4] Dr. Batza.
- 231. STUTTERING. A study of the diagnosogenic, psychogenic, and organic etiologies of stuttering. Techniques for the diagnosis, management, and therapy for primary and secondary stutters. A review of the significant research in the field of stuttering, with emphasis on etiologies and therapies. Clinical observation required. Prequisite: 230 or an introductory course in Speech Correction; corequisite: Abnormal Psychology. WINTER QUARTER. [3] Dr. Batza.
- 232. Organic Speech Disorders, I: Cerebral Palsy and Bulbar Poliomyelitis. A study of the etiologies, neuropathology, diagnosis and therapeutic handling of the five major types of cerebral palsy and of bulbar poliomyelitis. Survey of medical and associated therapeutic management of these pathologies. Clinical observation required. Prerequisite: 230. WINTER QUARTER. [3] Dr. Batza.
- 233. Organic Speech Disorders, II: Cleft Palate and Postlaryngectomy. A study of the structural deviations, speech dysfunctioning, and the therapeutic handling in the various types of cleft palate and postlaryngectomized conditions. Review of surgical and prosthetic rehabilitation measures. Embryological development and associated dental defects in cleft palate. Clinical observation required. Prerequisite or corequisite: 230 and Audiology and Speech 221. Spring Quarter. [3] Dr. Batza.
- 330. SEMINAR IN SPEECH SCIENCE. Special study of research methods and current significant research findings in the field of speech science and experimental phonetics. Special topics of investigation assigned. Prerequisite: an introductory course in speech science or consent of instructor. FALL QUARTER. [3] Dr. Hull.
- 331. APHASIA. A study of the aphasic language disturbances with a consideration of the history of aphasia, normal and abnormal language function, perception and perceptual disturbances. Clinical examination and classification of the aphasias. Emotional and behavioral characteristics. Education and therapy. Prerequisite: Audiology and Speech 220; corequisite: Physiological Psychology. Spring Quarter. [3] Dr. Hull.

NOTE: In addition, courses are offered in the special education division at George Peabody College and are available to the graduate student in the Division of Audiology and Speech in completing a sequence of study in his major or minor area.

REGISTER OF STUDENTS

1958-59

FOURTH-YEAR CLASS

Abernathy, Andrew Hawkins, III (B.A., Vanderbilt)	Jonesboro, Ark.
Adler, Richard Charles (B.A., Vanderbilt)	Miami Beach, Fla.
Amra, Waleed Nasser (B.A., Vanderbilt)	Birch-Ramallah, Jordan
Anderson, James Erwin, Jr. (B.A., Vanderbilt)	Nashville Tenn.
Anderson, William C. (B.A., Vanderbilt) Ball, Gene V. (B.S., Fairmont State; B.S. in Med., West Va.)	Dyersburg, Tenn.
Ball, Gene V. (B.S., Fairmont State; B.S. in Med., West Va.)	Fairmont, W. Va.
Barrow, John Armistead, III (B.S., Emory and Henry)	
Bibb. Richard E. (B.A., Vanderbilt)	Nashville, Tenn.
Blackburn, Iames Edward (B.A., Vanderbilt)	Frankfort, Kv.
Blankenship, Willard I. (B.S., Western Kentucky State)	Westmoreland, Tenn.
Cate, Thomas Randolph (B.A., Vanderbilt)	Nashville, Tenn.
Cate, Thomas Randolph (B.A., Vanderbilt)	Nashville, Tenn.
Dorton, Robert King (B.A., Berea)	Pikeville, Ky.
Dummit, Eldon Steven, Ir. (B.S., Kentucky).	Lexington, Ky
Evans, Jack Parmer (B.A., Vanderbilt)	Montgomery, Ala.
Grady, George Francis (B.S., Kentucky).	Lexington Kv.
Greenberg, Joel Irving (B.A., Vanderbilt)	Nashville, Tenn.
Heimberg, Murray (B.S., M.S., Cornell; Ph.D., Duke)	Nashville, Tenn.
Hinshaw, Rodrick Jennings (A.B., Miami University)	Hollandsburg, Ohio
Hollins, Gordon (A.B., Centre)	Nashville Tenn.
Holt, Jack Boyd (B.S., Carson-Newman)	Jefferson City, Tenn.
Hunt, Jerry Cheek (B.A., Vanderbilt)	Nashville, Tenn.
Jaffe, Jack Applebaum (B.A., Vanderbilt)	Somerset, Ky.
Johnson, Andrew Myron (A.B., Asbury)	Wilmore, Ky.
Johnson, Andrew Myron (A.B., Asbury). Jolly, Philip Clayton (B.A., Vanderbilt). Jones, Erwin Arthur, Jr. (B.A., Vanderbilt).	Montgomery, Ala.
Jones, Erwin Arthur, Jr. (B.A., Vanderbilt)	Nashville, Tenn.
Keller, Robert Henry (B.S., Alabama)	Dayton, Ohio.
Littlejohn, Thomas Chlingman, Jr. (LL.B., South Carolina)	Gaffney, S. C.
Luther, George Aubrey (A.B., Central College, Mo.)	Louisiana, Mo.
Martin, James Douglas (B.A., Vanderbilt; M.A., Peabody)	Nashville, Tenn.
Moore, Merrill Dennis, Jr. (B.S., Peabody)	Nashville, Tenn.
Luther, George Aubrey (A.B., Central College, Mo.). Martin, James Douglas (B.A., Vanderbilt; M.A., Peabody). Moore, Merrill Dennis, Jr. (B.S., Peabody). Nichopoulos, George Constantine (B.S., University of the South).	Anniston, Ala.
Page Harry Lee, Ir. (B.A., Vanderbilt)	Grainesboro, Lenn.
Partain, Robert Abner, III (B.A., Vanderbilt). Pierce, Stirling Hoover (A.B., M.A., Stanford)	Nashville, Tenn.
Pierce, Stirling Hoover (A.B., M.A., Stanford)	Santa Barbara, Calif.
Renfroe, Samuel Leon (B.S., Florida)	Starke, Fla.
Richie, Robert Eugene (B.S., Kentucky)	Paris, Ky.
Seat, Stanley Glenn (B.A., Vanderbilt)	Nashville, Tenn.
Shackelford, Joseph Roy, III (B.A., Vanderbilt)	Mt. Pleasant, Tenn.
Shepard, Frank Michael (B.A., Vanderbilt)	Tampa, Fla.
Shine, Lee Chadwick (A.B., Kentucky).	Lexington, Ay.
Solomon, Alexandre (B.S., Wisconsin)	New York, N. 1.
Strayhorn, William David, III (B.A., Vanderbilt)	Nashville, Ienn.
Thomas, E. Dewey (B.A., Vanderbilt)	
Tinsley, Ellis Allan (B.A., Vanderbilt)	
Turner, Dorothy Jean (B.A., M.A., Vanderbilt)	Nashville, Tenn.
Weinberg, Warren A. (B.A., Vanderbilt)	Osceola, Ark.
Weitzman, Stephen (B.A., Vanderbilt)	Brooklyn, N. 1.

THIRD-YEAR CLASS

ADIAD IEAR CLASS	
Bernstein, William Harvey (B.A., Vanderbilt)	Teaneck N I
Bomar, Robert Lynn, Jr. (B.A., Vanderbilt). Bradley, John Durwood, Jr. (B.A., Vanderbilt). Brown, Alan Joseph (B.A., Columbia College). Caldwell, Benjamin Hubbard, Jr. (B.A., Vanderbilt). Cohen, Lawrence Samuel (B.A., Vanderbilt). Cole, Edward Fowler (B.S., Florida).	Nashville Tenn
Bradley, John Durwood, Jr. (B.A., Vanderbilt).	Birmingham Ala
Brown, Alan Joseph (B.A., Columbia College)	Retherda Md
Caldwell, Benjamin Hubbard, Jr. (B.A., Vanderbilt)	Humboldt Tenn
Cohen, Lawrence Samuel (B.A., Vanderbilt)	Nachville Tean
Cole, Edward Fowler (B.S., Florida)	Orlando Ela
Coleman, Mathias John (A.B., Pennsylvania).	Allentown Da
DiNella, Renald Robert (B.A., Pennsylvania: Ph.D., Vanderbilt)	Nachville Tenn
Cole, Edward Fowler (B.S., Florida). Coleman, Mathias John (A.B., Pennsylvania). DiNella, Renald Robert (B.A., Pennsylvania; Ph.D., Vanderbilt). Douglass, Larry Earle (A.B., Washington University). Duncan, Malcolm Porterfield (B.A., Vanderbilt).	St Louis Mo
Duncan, Malcolm Porterield (B.A., Vanderbilt). Sig	mal Mountain Tenn
Marius, Modell Harvey (D.S., Western Kentucky State)	Common Van
Goodson, William Houston, Jr. (B.A., Vanderbilt). Haley, Robert Leo, Jr. (B.A., Vanderbilt).	Huntsville Ala
Haley, Robert Leo, Jr. (B.A., Vanderbilt)	Filten Ku
Hairis, Duford Terrell (D.A., Vanderbill)	Lawrencehung T.
Loda, Frank Aloysius, Jr. (A.B., Harvard). Logan, Charles Wilbur (B.A., Southern Methodist).	Tevarkana Ark
Logan, Charles Wilbur (B.A., Southern Methodist)	Nashville Tenn
McClarin, William Maddux, Jr. (B.A., Vanderbilt).	Louisville Ky
Merritt, Cullen Rencher, II (A.B., Princeton).	Mr Airy N C
Michal, Mary Lenoir (A.B., Woman's College U.N.C.)	Waynesville N C
Merritt, Cullen Rencher, II (A.B., Princeton). Michal, Mary Lenoir (A.B., Woman's College U.N.C.) Miller, John Stanley (B.S., Davidson). Mitchell, William Marvin (B.A., Vanderbilt). Moorman, Robert Searcy, Jr. (B.A., Vanderbilt).	Richmond Ky
Mitchell, William Marvin (B.A., Vanderbilt).	Nashville Tenn
Moorman, Robert Searcy, Jr. (B.A., Vanderbilt).	Huntsville Ala
Moorman, Robert Searcy, Jr. (B.A., Vanderbilt). Muldrow, Louis Meriwether, Jr. (B.A., Vanderbilt).	Jasper Ala
Park, George Richardson (B.A., Kentucky). Partain, Jonathan Ogilvie (B.A., Vanderbilt).	Richmond Ky
Partain, Jonathan Ogilvie (B.A., Vanderbilt)	Nashville Tenn
Ravitz, S. Peter (B.A., Vanderbilt). Regester, Rolland Florin, Jr. (B.A., Vanderbilt). Ryden, Fred Ward (B.A., Colorado; M.S., Ph.D., Vanderbilt). Sanger, Marilyn Janett (B.A., Oklahoma)	Brooklyn N Y
Regester, Rolland Florin, Jr. (B.A., Vanderbilt).	Rockwood Tenn
Ryden, Fred Ward (B.A., Colorado; M.S., Ph.D., Vanderbilt)	Nashville Tenn
Sanger, Marilyn Janett (B.A., Oklahoma). Sawyers, Julia Edwards (A.B., Randolph-Macon) Schaeffer, Edward Morris (A.B., Westminster; M.S., St. Louis University). Snyder, Harold Fmil (B.S., Purdys)	Norman Okla
Sawyers, Julia Edwards (A.B., Randolph-Macon)	Nashville Tenn
Schaeffer, Edward Morris (A.B., Westminster; M.S., St. Louis University).	Alton III
Steranka, Joe (B.A., Vanderbilt). Stone, William Pipkin, Jr. (B.A., Vanderbilt). Stumb Paul Pare III (B.A., Vanderbilt).	Nashville Tenn
Stone, William Pipkin, Jr. (B.A., Vanderbilt).	Springfield Tenn
Stumb, Paul Rust, III (B.A., Vanderbilt). Thomas, Clarence Simpson, Jr. (B.A., Vanderbilt). Vasu Condell Market (B.A., Vanderbilt).	Nashville Tenn
Thomas, Clarence Simpson, Jr. (B.A., Vanderbilt)	Nashville Tenn
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"acider, Marianne (A.B. ()herlin)	Doobood ACJ
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White, Elbert Asa, III (B.A., Vanderbilt)	Corinth. Miss.
White, Elbert Asa, III (B.A., Vanderbilt) Wolfe, Lawrence Kenneth (B.A., Vanderbilt) Young, William Clarence (B.S., Merwills College)	Murfreesboro, Tenn.
Young, William Clarence (B.S., Maryville College)	Maryville, Tenn.
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Anderson, Edward Eugene (B.A., Vanderbilt) Bryan, Bertell Collis (A.B., Washington University). Buchanan, Richard Durg (B.A., Vanderbilt)	Dyershusz Tone
Bryan, Bertell Collis (A B. Washington University)	St. Louis Ma
Buchanan, Richard Dury (BA Vanderhile)	Luneaville Ale

Abrahams, Lawrence Michael (A.B., Harvard)	Nashville, Tenn
Cate, James Randolph (B.A., Vanderbilt).	.Nashville, Tenn.
Cohn, Marvin Harris (B.A., Vanderbilt)	Bolivar, Tenn.

Cox, Samuel Foster (B.A., Vanderbilt)	Cookeville, Tenn.
Ferguson, Harold Austin (B.S., Western Kentucky State)	Owensboro, Kv.
Fleischer, Norman (B.A., Vanderbilt)	Springfield, Tenn.
Freeman, Rufus Jack (B.S., Kentucky)	Danville Kv
Gibson Lea Fike Ir (B.A. Berea)	Williamson W Va
Gibson, Leo Eike, Jr. (B.A., Berea). Gillespie, Joe Ivy (B.A., LL.B., Mississippi)	williamson, w.va.
Gillespie, Joe Ivy (B.A., LL.B., Mississippi)	Greenville, Miss.
Gorden, Phillip (B.A., Vanderbilt)	Baldwyn, Miss.
Hancock, George Marvin (B.S., Kentucky)	Russellville, Ky.
Hayes, Cauley Wilbur, Jr. (B.A., Vanderbilt)	
Heimburger, Richard Ames (B.A., Drury)	Springfield, Mo.
Hunt, Noel Clarence, III (B.A., Vanderbilt). Hunter, James Webb, Jr. (B.A., Vanderbilt).	Chattanooga, Tenn.
Hunter, James Webb, Jr. (B.A., Vanderbilt)	Decatur Ala
Jernigan Jerry Marshall (B.A. Vanderbilt)	Dvershurg Tenn
Johnson John Settle (B.A. Vanderhilt)	Nachville Tenn
Johnson, John Settle (B.A., Vanderbilt) Johnson, Robert Marshall (B.A., Vanderbilt)	Nashvilla Tana
Johnson, Robert Marshan (D.A., Vanderbitt)	Washville, 1chi.
Johnston, Hugh Haralson, Jr. (B.S., Millsaps)	Vicksburg, Miss.
Johnston, Richard Boles, Jr. (B.A., Vanderbilt)	Atlanta, Ga.
King, James Centre, Jr. (B.S., Western Kentucky State)	
Lawwill, Theodore (B.A., Vanderbilt)	Lookout Mountain, Tenn.
Lee, Samuel Ching-Hsin (B.S., Belmont)	
Lev, Daniel Mathew (B.A., Vanderbilt)	Brooklyn, N. Y.
Light, Richard Theodore (A.B., Earlham)	Dayton, Ohio
Lightfoot, Robert Wilkins, Jr. (B.A., Vanderbilt)	Nashville Tenn.
Litkenhous, Edward Earl, Jr. (B.E., Vanderbilt)	Nashville Tenn
Logan, John A. (B.S., Western Kentucky State)	Brownsville Kv
McCullough, Charles Thomas, Jr. (B.S., Kentucky)	Morganfield Ve
McFarlin, Dale Elroy (B.A., Vanderbilt)	Morganiicid, Ky.
McFarin, Daie Eiroy (D.A., Vanderbilt)	Nashville, 1cmi.
Porter, Charles McGavock (B.A., Vanderbilt)	Columbia, 1enn.
Resnik, Sorrel S. (B.A., Buffalo)	Kenmore, N. Y.
Rhea, Kenneth Earl (B.A., Westminster)	Anderson, Ind.
Sleight, George Waters, III (B.A., Westminister)	University City, Mo.
Tatum, Lucian Lafavette, Ir. (B.A., Vanderbilt)	Decatur, Ga.
Thuss. Charles John. Ir. (B.A., Catholic University)	San Francisco, Calif.
Tirrill, Willard Oakes, III (B.A., Vanderbilt)	Nashville Tenn.
Trapp, John Douglas (B.A., Vanderbilt)	Tuscumbia Ala.
Turney, Shannon Wilentz (B.A., Vanderbilt)	Decarne Ala
Underwood, Louis Edwin (A.B., Kentucky)	Englisher Vy
W. leave Archae Vannach (D. A. Vandachile)	T Ele
Waltzer, Arthur Kenneth (B.A., Vanderbilt)	I ampa, Fla.
Wierdsma, John Gary (B.S., Sacramento State)	Sacramento, Calif.
Woodfin, Mose Clark, Jr. (B.A., Vanderbilt)	Nashville, Tenn.
Youmans, William Tinsley (B.A., Vanderbilt)	Tifton, Ga.

FIRST YEAR-CLASS

Altemeier, William Arthur, Jr. (B.A., Cincinnati)	Cincinnati, Ohio
Bailey, Harry Lee (Senior in Absentia, Vanderbilt)	Winchester, Ky.
Baughman, Éarle Wray, Jr. (B.A., Vanderbilt)	Tupelo, Miss.
Bone, Robert Carver (B.A., Vanderbilt)	Lebanon, Tenn.
Carlisle, Oscar Burton (B.A., South Carolina)	
Carpenter, Richard Woodrow (B.A., Vanderbilt)	Nashville, Tenn.
Collins, James Evans (A.B., Kentucky)	
Cooper, Charles Lindsey (B.S., Western Kentucky State)	Tallahassee, Fla.
Cooper, James Kyle (A.B., Kentucky)	Galveston, Texas
Crowder, Wade Allen (B.S., Western Kentucky State)	Mayfield, Ky.
Curl, Franklin Dale (B.S., Ohio State)	Cardington, Ohio
Davis, Warren Wendell (Senior in Absentia, Vanderbilt)	
Dudley, Guilford Marion, III (B.A., Vanderbilt)	Swifton, Ark.
Evans, Orville Thomas, Jr. (B.S., Denison)	Lexington, Ky.
*Flickinger, Don Damian (A.B., M.A., California)	Pacific Grove, Calif.
Galloway, John Alexander (B.A., Vanderbilt)	Pereira, Colombia, S. A.
Garrard, Clifford Louis, Jr., (B.A., Vanderbilt)	Jackson, Tenn.

^{*}Withdrew voluntarily February 19, 1959.

Gipson, Amos Carvel, Jr. (B.A., Vanderbilt)	
Green, James Winslow (B.A., Vanderbilt)	Paducah Kv
Haggard, John Holman (B.A., University of the South)	Nashville Tenn.
Harman, Harriet Maxwell (B.S., South Carolina)	Columbia S C
Harris, Walter Davis (B.S., Kentucky)	Lexington Ky
Heinz, Wilbur August, Jr. (B.S., Kentucky)	Lexington Ky
Hill, Lewis Wayne (Senior in Absentia, Vanderbilt)	Chartanooga Tenn
Humphreys, Jerry Kay (Senior in Absentia, Vanderbilt)	Durveer Tenn
James, Floyd (B.S., Belmont)	Old Wielsons Tonn
*Johnson, Glenda Kay (B.S., Western Ky. State)	Bowling Cases Ver
Judge Mark Andrew (R. A. Beres)	bowling Green, Ky.
Judge, Mark Andrew (B.A., Berea) Lasker, Fredrick (Senior in Absentia, Vanderbilt)	waiton, ky.
Lockert Charles Day Long (D.A. Wanderbilt)	Jamaica, Queens, N. Y.
Lockert, Charles Ray Lopez (B.A., Vanderbilt)	Ashland City, Tenn.
Meyerowitz, Robert Benedict (A.B., New York)	Bronx, N. Y.
Moses, Harold Lloyd (B.A., Berea)	Williamsburg, Ky.
Nightingale, Faith Fulling (B.S., Beaver; M.S., Pennsylvania)	Haddonfield, N. J.
Northcutt, Robert Clyde (B.A., Vanderbilt)	Texarkana, Ark.
O'Connor, Patrick Regan (Senior in Absentia, Vanderbilt)	Louisville, Ky.
Orth, David Nelson (Sc.B., Brown)	Grand Rapids, Mich.
Otis, John Burrell (B.A., Vanderbilt)	Atlanta, Ga.
Pike, John Dorsey (A.B., Hendrix)	DeWitt, Ark.
Reams, Harold Lee (B.S., Kentucky)	
Robbins, Benjamin Howard, Jr. (Senior in Absentia, Vanderbilt)	Nashville, Tenn.
Robbins, Lansdon Breckinridge, II (B.A., Vanderbilt)	
Russell, James Edward (B.A., Centre)	Huntington, W. Va.
Russell, Robert Vance (Senior in Absentia, Vanderbilt)	Omaha, Nebraska
Saiter, Joseph Theodore, Jr. (Senior in Absentia, Vanderbilt)	Louisville, Ky.
Sanders, Doris Yvonne (B.A., Austin Peay State)	Trenton Ky.
Sawyer, Thomas Keith (B.S., Oklahoma)	Lindsay Oklahoma
Schmidt, Marvin Elmer (B.A., Westminster)	Barnhart Mo
Still, Eugene Fontaine, II (Senior in Absentia, Vanderbilt)	Blytheville Ark
Sullivan, Gerald Eugene (B.S., Kentucky)	Levington Ky
Swingle, Roger Lynn (B.S., Alabama Polytechnic)	Auburn Ala
West, Linton Burnside, Jr. (B.S., Georgia)	Atlanta Ga
Whitlock, Chester Courtney, Jr. (A.B., Southwest Missouri State)	Comingfield Mo
Wilson, Dale Arlis (Senior in Absentia, Western Kentucky State)	
, Date Mills (Schiof in Abschila, Western Kentucky State)	Findlay, Unio

DIVISION OF AUDIOLOGY AND SPEECH

Bain, Lois Love (B.A., Mississippi)	Belzoni, Miss.
Darnes, Martha Io (B.A., Columbia College, S. C.)	Clemson, S. C.
byrd, Eleanor Carter (B.A., Peabody)	lacksonville, Fla.
Cole, Jane (B.S.E., Henderson State Teachers College)	Malvern, Ark,
crowe, Martha Bone (B.A., Vanderbilt)	Nashville, Tenn.
Glies, Jack Lee (D.M.D., Alabama School of Dentistry)	Nashville Tenn.
Horton, Kathryn Barth (M.S., Vanderbilt)	Nashville, Tenn.
Lee, Herman (A.B., Highlands University)	Shiprock, N. M.
McClamroch, Margaret (B.A.F. Florida)	Gainesville Fla.
Michinicy, Suzanne (B.S. Northwestern)	Kellogg Idaho
Noschblum, Libby (B.S., Northwestern)	Nashville Lenn.
other, Julia Pairman (B.A. Smith)	Nashville Jenn.
otockdell, Kenneth Gayle (B.S. Purdue)	Louisville, Kv.
Wood, Nanka Jeanne (A.B., Peabody).	Fort Smith, Ark.

^{*}Special student.

INTERNSHIPS

Class of May 1959

Abernathy, Andrew Hawkins, III	Jonesboro, Ark
Adler, Richard Charles	Miami Beach, Fla.
	Bireh-Ramallah, Jordan
Anderson, James Erwin, Jr	Nashville, Tenn.
Anderson, William C	Dyersburg, Tenn.
Ball, Gene V	Fairmont, W. Va.
Barrow, John Armistead, III	
Bibb, Richard E	Nashville, Tenn.
	Frankfort, Ky.
Blankenship, Willard J	Westmoreland, Tenn.
Cate, Thomas Randolph	Nashville, Tenn.
Cochran, Robert Taylor, Jr	Nashville, Tenn.
	Pikeville, Ky.
Dummit, Eldon Steven, Jr	Lexington, Ky.
Evans, Jack Parmer. University Hospital, Jackson, Miss.	Montgomery, Ala.
Grady, George Francis	Lexington, Ky.
Greenberg, Joel Irving	Nashville, Tenn.
Heimberg, Murray	Nashville, Tenn.
Hinshaw, Rodrick Jennings. Butterworth Hospital, Grand Rapids, Mich. Hollins, Gordon.	Hollansburg, Ohio
Hollins, Gordon Vanderbilt University Hospital, Nashville, Tenn.	Nashville, Tenn.
Holt, Jack Boyd. Louisville General Hospital, Louisville, Ky.	Jefferson City, Tenn.
Hunt, Jerry Cheek	
	Somerset, Ky.

Name	Institution	Home Address
Johnson, Andrew Myron Children's Medical Center, E	Boston, Mass.	Wilmore, Ky.
Jolly, Philip Clayton Vanderbilt University Hospi	tal, Nashville, Tenn.	Montgomery, Ala.
Jones, Erwin Arthur, Jr Vanderbilt University Hospi	tal, Nashville, Tenn.	Nashville, Tenn.
Keller, Robert Henry Butterworth Hospital, Gran	************************	Dayton, Ohio
Littlejohn, Thomas Chlingman, Department of Forensic Path	Jrology, University of Maryland	
Luther, George Aubrey Vanderbilt University Hospi	tal, Nashville, Tenn.	Louisiana, Mo.
Martin, James Douglas University of Virginia Hospi	tal, Charlottesville, Va.	Nashville, Tenn.
Moore, Merrill Dennis, Jr University of Oklahoma Hos	spitals, Oklahoma City, Okla.	Nashville, Tenn.
Nichopoulos George Constanting		Appieton Ala
Page, Harry Lee, Jr Vanderbilt University Hospi	tal, Nashville, Tenn.	Gainesboro, Tenn.
Partain, Robert Abner, III University of Virginia Hospi	tal, Charlottesville, Va.	Nashville, Tenn.
Pierce, Stirling Hoover Stanford University Palo Alt	o Hospital, Palo Alto, Calif.	Santa Barbara, Calif.
Renfroe, Samuel Leon Duval Medical Center, Jacks		Starke, Fla.
Richie, Robert Eugene Vanderbilt University Hospi	tal, Nashville, Tenn.	Paris, Ky.
Seat, Stanley Glenn	tal, Nashville, Tenn.	Nashville, Tenn.
Shackelford, Joseph Roy, III Vanderbilt University Hospi		
Shepard, Frank Michael Vanderbilt University Hospi	tal, Nashville, Tenn.	Tampa, Fla.
Shine, Lee Chadwick	MO.	
Solomon, Alexandre. U. S. Navy Hospitals, St. Al	bans, N. Y.	New York, N. Y.
Strayhorn, William David, III The Johns Hopkins Hospital		Nashville, Tenn.
Thomas, E. Dewey	tal. Nashville, Tenn.	Knoxville, Tenn.
Tinsley, Ellis Allan	tal, Nashville, Tenn.	Russellville, Ala.
University Hospitals, Clevel	and Ohio	
Vanderbilt University Hospi	tal, Nashville, Tenn.	Osceola, Ark.
Weitzman, Stephen The Long Island Jewish Hos	spital, New Hyde Park, N. Y.	Brooklyn, N. Y.

MEDALS, PRIZES, AND SCHOLARSHIPS For the Year 1958-59

FOUNDER'S MEDAL FOR SCHOLARSHIP. Endowed by Commodore Co and given ever since to the graduate standing first in his class.	ornelius Vanderbilt
Thomas Randolph Cate	The state of the s
BEAUCHAMP SCHOLARSHIP. Endowed, and awarded in the School of Department of Psychiatry.	
RICHARD EDWARD BIBB	
BORDEN UNDERGRADUATE RESEARCH AWARD IN MEDICINE. most meritorious undergraduate research in the medical field.	Awarded for the
Murray Heimberg	Nashville, Tenn.

THE MERRELL AWARD IN PATHOLOGY. Awarded annually for outstanding research papers by Vanderbilt University medical students in the field of Pathology.

ALPHA OMEGA ALPHA Scholarship Society of the School of Medicine

Fourth-Year Class

James Erwin Anderson, Jr.	
THOMAS RANDOLPH CATE	
GEORGE FRANCIS GRADY	Lexington, Ky.
Andrew Myron Johnson	Wilmore, Ky.
PHILIP CLAYTON TOLLY	Montgomery, Ala.
James Douglas Martin	
STIRLING HOOVER PIERCE	Santa Barbara, Calif.
JOSEPH ROY SHACKELFORD, III	
ALEXANDRE SOLOMON	New York, N. Y.

Third-Year Class

JOHN DUDLEY HUTCHERSON	Palmyra, Mo
Ionathan Ogilvie Partain	Nashville, Tenn.
ROLLAND FLORIN REGESTER, JR	ockwood, Tenn.