VANDERBILT UNIVERSITY School of Medicine

1966-67



Containing general information, appointments and courses of study for the 1966-67 session, corrected to September 15, 1966, NASHVILLE

School of Medicine Calendar, 1966-67

September 6-9, Tuesday-Friday September 12, Monday November 24, Thursday December 22, Thursday January 5, Thursday January 25, Wednesday Registration and orientation Fall semester instruction begins Thanksgiving Day: a holiday

Christmas holidays begin

Instruction resumes

Instruction ends for 1st and 2nd year students

Examination period for 1st and 2nd year students

Fall semester ends

Spring semester begins

National Board examination for 4th year students (Part II)

Instruction ends

Examination period

Commencement

National Board examination for 2nd year students (Part I)

January 28, Saturday January 30, Monday April 20-21, Tuesday-Wednesday

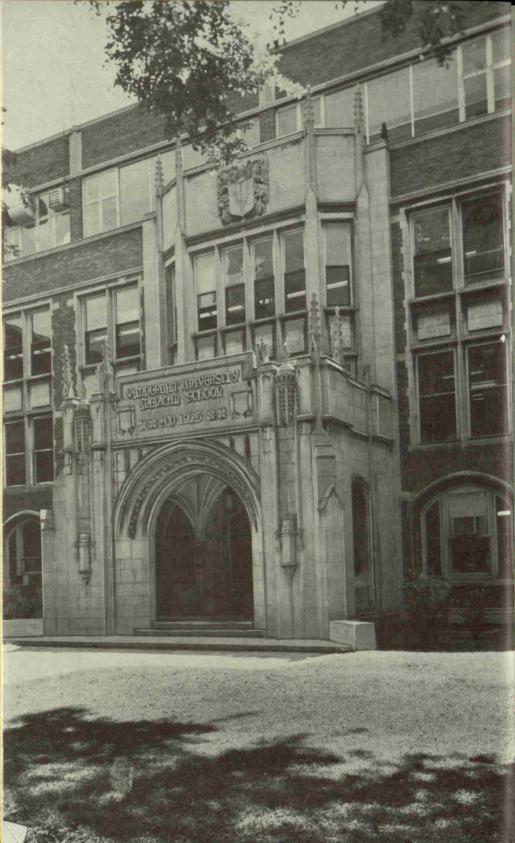
January 26-28, Thursday-Saturday

May 27, Saturday May 29-31, Monday-Wednesday June 4, Sunday June 22-23, Tuesday-Wednesday

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SCHOOL OF MEDICINE 7 3



ANDERBILT is an independent, privately supported university which was founded in 1873 and opened

its doors for classes in October 1875. It is named for the New York shipping and railway magnate, Commodore Cornelius Vanderbilt, who gave a million dollars to build and endow the University. On the base of his statue, placed on the campus by Nashville citizens, is inscribed his wish that the University should "contribute to strengthening the ties which should exist between all sections of our common country."

The University was for forty years, until 1914, under the auspices of the Methodist Episcopal Church, South.

Bishop Holland N. McTyeire, who was the man entrusted by Commodore Vanderbilt with establishing the University, was president of the Board of Trust until he died in 1889. His current successor as president of the self-perpetuating board is Harold S. Vanderbilt, a great-grandson of the founder.

The University's chief executive officer has the title Chancellor. The five men who have held the position are Landon C. Garland from 1875 to 1893, James H. Kirkland from 1893 to 1937, Oliver Cromwell Carmichael from 1937 to 1946, Harvie Branscomb from 1946 to 1963, and Alexander Heard since 1963.

The University, which is coeducational, includes a liberal arts college and six other schools. The degrees granted are as follows:

COLLEGE OF ARTS & SCIENCE: Bachelor of Arts.

THE GRADUATE SCHOOL: Master of Arts, Master of Arts in Teaching, Master of Science, Master of Science in Audiology and Speech Pathology, Doctor of Philosophy.

SCHOOL OF ENGINEERING: Bachelor of Engineering.

THE DIVINITY SCHOOL: Bachelor of Divinity, Master of Sacred Theology.

SCHOOL OF LAW: Bachelor of Laws.

SCHOOL OF MEDICINE: Doctor of Medicine.

SCHOOL OF NURSING: Bachelor of Science in Nursing, Master of Science in Nursing.

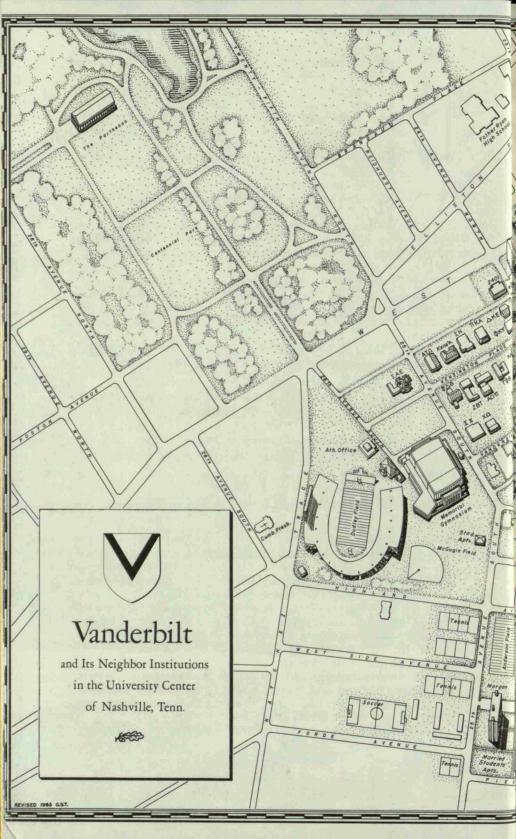
No honorary degrees are conferred.

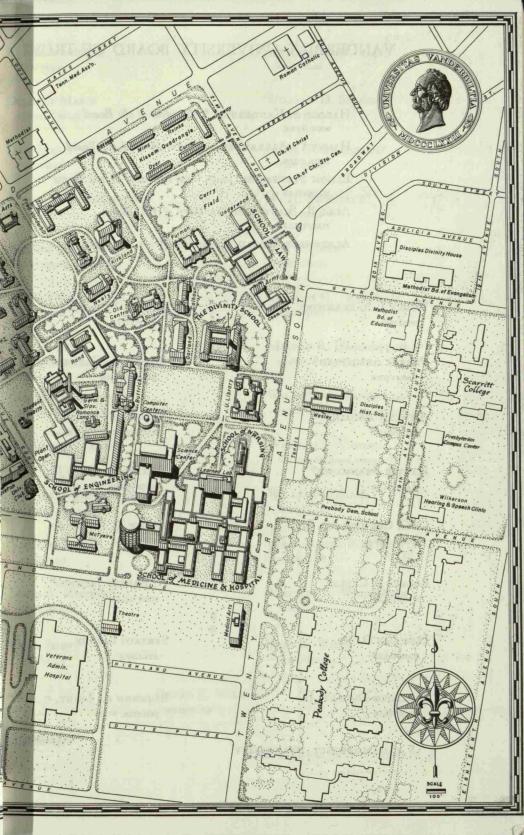
The faculties of the several schools comprise more than 950 teachers. Total enrollment is approximately 5,000 students, about a fourth of whom are women. A majority of the students live on the campus of approximately 150 acres in the University Center section of Nashville. Vanderbilt's campus adjoins those of George Peabody College for Teachers and Scarritt College for Christian Workers. The Joint University Libraries, serving all three institutions, contain more than a million volumes.

Facilities off the campus include the Arthur J. Dyer Observatory, situated on a 1,131-foot hill six miles south.

Honorary scholarship societies and the year each chapter was chartered are: Phi Beta Kappa (liberal arts, 1901); Alpha Omega Alpha (medicine, 1923); Sigma Xi (scientific research, 1944); Tau Beta Pi (engineering, 1946); Order of the Coif (law, 1948); Sigma Theta Tau (nursing, 1953).

Vanderbilt is a member of the Association of American Universities.





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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 juncture 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 philanthropies, 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.

PLAN OF INSTRUCTION

The objective of the program of medical education at Vanderbilt University is to produce the highest quality of medical graduate. A good medical education is best achieved by demanding excellence in performance on the

part of the student, excellence in teaching, research, and service on the part of the instructors, and by providing for close contact between the student and his teachers.

During the four years of undergraduate medical education at Vanderbilt, the student will gain an understanding of the foundations of medical science necessary for the pursuit of any medical career, as well as a respect for the responsibilities of the physician to society. After graduation, most students continue their education by spending several years in training in clinical specialties or in research fellowship programs.

The curriculum of Vanderbilt University School of Medicine provides time for all students to take courses of their own choosing. The student thereby has an opportunity to increase his knowledge in fields in which he has particular interest, or to correct deficiencies in fields of importance to his overall medical education.

Students bear a high level of responsibility for participation in the curriculum in an effort to develop the sense of obligation for continuing scholarship necessary to keep apace of the rapid advances in medical knowledge.

The College of Arts and Science and the Graduate School of Vanderbilt offer courses which augment the medical curriculum, particularly during the senior year. As the Medical School is located on the University campus, the total facilities of Vanderbilt University are available to the medical student.

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." The Medical Center buildings now encompass in excess o 750,000 square feet of floor space due to additions to research and clinica facilities.

Recent additions include:

The Andrew B. Learned Graduate Science Hall, a laboratory for research in the sciences basic to medicine and health-related research being conducted by members of the University's Medical and Graduate faculty. Thi building, which joins the main building on the north, was completed in 1961

The West Wing addition to Vanderbilt University Hospital, a 154-be patient care facility completed in 1962. This wing, which joins the main building at the southwest corner, is circular in shape with the nursing station located in the center surrounded by rooms for patients.

The Clinical Research Center, a United States Public Health Servic regional facility for research in clinical medicine. This unit contains 2 beds and approximately 10,000 square feet of laboratory space. At th time of its opening it was the largest noncategorical clinical research cente in the nation.

The West Court building, completed in 1964, contains a greatly expande X-ray department, the entrance to the University Hospital, offices for admission and discharge of patients, a newborn nursery, and additional space for the Department of Pediatrics.

The Northeast Wing, a multi-purpose structure housing a complete laundry, the medical storeroom, research laboratories, and the Medical Library. Stacks and reading room were occupied by the library in 1964. An outstanding collection on the History of Medicine is accommodated within the library.

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 audiological 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 laboratories and clinical facilities are closely coordinated to allow a ready flow of ideas between the laboratories of the medical sciences and the wards and outpatient clinics. Teaching laboratories are provided for the major subdivisions within medical science and for the clinical departments.

The hospital contains 501 beds and 45 bassinets divided into the following seven service units: medicine, surgery, obstetrics, gynecology, pediatrics, ophthalmology, and psychiatry.

The outpatient clinics are located on the first floor 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.

There are 10 operating rooms and three delivery 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 2,300 bed Central State Hospital for psychiatric patients. Vanderbilt is closely affiliated with the 500 bed Veterans Administration Hospital, it being a Dean's Committee hospital. The Nashville Metropolitan General Hospital, containing 240 beds and outpatient facilities, is another affiliate of the School of Medicine. The chiefs-of-service of this hospital are all members of the Vanderbilt faculty.

MEDICAL LIBRARY

The Library of the School of Medicine was founded in 1906. A year later the Nashville Academy of Medicine donated the private library of Dr. Richard Douglas, consisting of 2,500 volumes. This nucleus has been augmented by generous gifts from 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 important journals, both in English and foreign languages, numerous well-selected monographs and basic textbooks, and the important reference works and bibliographic indexes.

The Library on May 1, 1966 contained 69,123 volumes and received 1,123 current periodicals and serial publications.

A collection of books, journals, and memorabilia illustrating the history and development of the literature of medicine, especially that of the United States, is being developed. This collection is kept in a History of Medicine Room provided by a generous donor. The funds for acquiring this collection have come largely through the gifts of patrons of the Library. Donations of letters, photographs, books, and money are gratefully received.

A FRIENDS OF THE MEDICAL LIBRARY FUND has been established honoring y faculty, students, and other friends of the School of Medicine, and these i memorial donations are used for the purchase of current and historical d publications.

Professional librarians provide reader assistance and instruction in the use s of medical literature. First year medical students are given orientation in the tarrangement and services of the Library, and small group seminars are held for demonstration of methods of information retrieval, including practical experience in the use of medical indexes, abstracts, review publications, and specialized bibliographic products of modern computer technology.

A Xerox 914 copier machine is provided for library use within the limits of copyright laws, and loan services are maintained with local and out-of-town libraries. Through the facilities of the Joint University Libraries system, which contains more than a million volumes, students have ready access to publications in other fields.

The Medical Library is open from 8:15 a.m. to 11:00 p.m. Monday through c Friday; from 8:15 a.m. to 4:30 p.m. on Saturday, and from 9:00 a.m. to 12:00 noon and 2:00 to 11:00 p.m. on Sunday; it is closed on legal holidays.

STUDENT AFFAIRS

HONOR CODE

All work in the School is performed in accordance with Honor Committee regulations. Suspected violations of the system are investigated by the Student Honor Committee, which is composed of representatives of all four classes.

VANDERBILT SOCIETY OF HISTORICAL MEDICINE

The Society was organized by the Class of 1953 for the purpose of encouraging awareness and appreciation of our medical heritage in the medical school community. Regular dinner meetings are held at which speakened are invited to present papers for discussion. In the interest of fostering "a clear view of the panorama of medicine," membership in the Society is open to both students and faculty. Demonstrations and displays of book, and pictures of historical significance are provided through the courtes of the Medical Library.

STUDENT BODY

Number of students per class (1966/67) is as follows: Freshmen-53 Sophomores-53, Juniors-52, Seniors-49. The present student body comes from 28 states and 3 foreign countries.

STUDENT HEALTH SERVICE

r. A physical examination by the family physician is required of all new students, prior to registration.

2. For the protection of themselves and others against communicable diseases, all new students are required to have a chest X-ray within twelve months prior to admittance, a vaccination against smallpox within three years, tetanus toxoid immunization within three years, and current polio immunization. Tuberculin skin test and immunizations for typhoid and diphtheria are highly recommended, but not required.

3. The University operates the Student Health Service and Infirmary for students with mild illnesses. For major illnesses, students are admitted to Vanderbilt University Hospital. At hours when the Student Health Service is closed, students may receive medical care at the Emergency Service of the Vanderbilt University Hospital. A student identification card must be presented.

Special medications, X-ray examinations, special laboratory tests, fees to private physicians, and hospital room and board charges which are not covered by the insurance will be paid for by the student.

4. Student Insurance Plan: All full-time students will be automatically covered with hospital insurance at the time of their registration. No additional premium is required. Coverage extends from the time of registration until September 1 of the following year, whether a student remains in school or is away from the University. This plan is designed to provide certain hospital, surgical, and in-hospital medical care benefits. Married students who wish to provide hospital insurance for their families or students who are classified as part-time who wish this insurance coverage must apply and pay an additional premium. All inquiries as to details should be directed to Smith, Reed, Thompson & Ellis Co., 1322 Nashville Trust Building, Nashville, Tennessee 37203.

LIVING ARRANGEMENTS

The Vanderbilt residence halls are an integral part of the University's educational facilities.

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. Sheets, pillow faces, and towels may be rented.

Rooms are rented by the semester. All rent is payable in advance at the Bursar's Office. Students withdrawing from the University for any reason, are not entitle to return of room rent, and the University will not be liable for its return or refund. Students who plan to vacate their rooms at the end of a semester must notify the Housing Office in writing thirty days in advance of the end of the semester.

Rooms for men may be reserved by application to the Housing Office; rooms for women, by application to the office of the Assistant Dean of Women. A room reservation deposit of \$50 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 an if the request, in writing, is received by July 1.

Single rooms are available in air-conditioned Currey Hall for \$1901 semester. Single and double rooms in Wesley Hall are also available a \$100 to \$115 a semester. Wesley Hall is on Twenty-first Avenue facing th Joint University Libraries.

Rooms for women are available in Mary Henderson Hall. Rates rang from \$150 to \$175 per semester.

NOTICE: Rates are subject to periodic review and change.

HOUSING FOR FAMILIES

A variety of apartments are available for married students includin 240 air-conditioned units (studio, one- and two-bedroom apartments) i Morgan and Lewis Houses (furnished and unfurnished) and 20 two-bedroot furnished units in the Highland-Forde Apartments. Inquiries should b addressed to the Housing Office in Kirkland Hall.

Assignments are made with the understanding that assignces are eligib for occupancy only while enrolled as full-time students, and that the apar ment will be vacated immediately after the occupant ceases to be a studen Tenants are required to sign leases which are renewable sixty days prior t expiration. The University reserves the right to require any occupant t vacate the apartment at any time and for any reason, a reasonable notic having been given.

OTHER HOUSING

Suitable living quarters in the city of Nashville are easily available an students have usually found little difficulty in locating satisfactory accommodations. A list of rooms and apartments for rent is maintained at the Housing Office in Kirkland Hall.

UNIVERSITY DINING FACILITIES

The Vanderbilt Hospital cafeteria is located within the building.

The University's main cafeteria in Rand Hall serves students, faculty, at employees. By the semester, students can board at Rand for approximately per cent less than the daily cash prices for meals. Students engaging board the semester should apply at the office of the Director of Food Services.

The Divinity School refectory serves meals, on a cash basis, to profession and graduate students, faculty, and staff.

AUTOMOBILES

Students driving on the campus must register their cars with the Department of Safety. Parking spaces are not available for all car registered, and students are urged to use off-campus parking.

ATHLETIC FACILITIES

Vanderbilt Memorial Gymnasium may be used by medical students at their families. Facilities include an enclosed swimming pool. Tickets basketball and football games may be purchased at reduced rates.

EXPENSES AND FINANCIAL AID

THE average annual expense of a student in the School of Medicine, exclusive of clothes and incidentals but including living accommodations, is estimated as amounting to approximately \$3,000.

TUITION AND FEES

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

Tuition Fee for the Academic Year\$ Tuition and fees and other University charges are due and payable not later than ten days after the date of billing each semester. An arrearage in tuition for any session must be paid before admission to	1,460.00
the succeeding session.	
Application Fee (To accompany Application Form)	10.00
Contingent Deposit. This deposit will be required of first and second year students to cover breakage of apparatus and damage to building, and will be returned, less the charges, at the close of the academic year.	10.00
Diploma Fee (Charged to graduating students, payable during the	
second semester)	10.00

NOTICE: Effective September 1967, tuition will be \$1,660 for the academic year.

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

Students withdrawing from the University for any reason 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, AND EQUIPMENT

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

The minimal cost of books is approximately \$75 a year. All purchases made at the Vanderbilt Book Store are on a cash basis.

All students must acquire hemocytometers and ophthalmoscopes during the second year.

Students also must have clean white laboratory coats.

Financial assistance for the education of the medical student at Vande bilt University is available from two sources. The more important of these are the revolving loan funds contributed by alumni, industrial of ganizations, and friends which are awarded to students in financial need of a long-term basis without interest. The student is morally obligated to make a contribution to this revolving fund when he becomes financial able. The other source is the recent government appropriation allowin student loans through federal credit. Loans to students usually come from these two funds. The amount of money available is limited. Each studer is expected to use his own assets to their full extent. The policy of Vande bilt University is to supplement these assets so that no student need with draw from medical school because of financial difficulties.

Scholarships and Fellowships are described on page 24.

ALPHA KAPPA KAPPA ALUMNI ASSOCIATION SCHOLARSHIP FUND. The funds are made available to students by alumni of the Alpha Kappa Kapp medical fraternity.

THE WILLIAM A. DIMMICK MEDICAL SCHOLARSHIP FUND. This fund has been established by friends to honor Reverend William A. Dimmick. It to be used for the education of worthy medical students as a revolvin scholarship loan fund.

GALE F. JOHNSTON LOAN FUND. The funds donated by Gale F. Johnsto at the suggestion of his wife Miriam are to be used as a revolving loa fund for students in the School of Medicine.

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

LIFE & CASUALTY INSURANCE COMPANY FUND. The funds made availab to Vanderbilt University are to be used as a revolving loan fund for studen in the School of Medicine.

THE THOMAS L. MADDIN, M.D. FUND. This fund is provided by a b quest from the will of Mrs. Sallie A. C. Watkins in memory of Doct Thomas L. Maddin to be used by some worthy young man for medic education at Vanderbilt.

THE JAMES PRESTON MILLER TRUST. This trust, left by the will of Jam P. Miller in memory of his father, James Preston Miller, provides fun to assist in the medical education of deserving young men and wome at Vanderbilt University. Residents of Overton County, Tennessee, 2 to be given first preference, and other residents of Tennessee to be give second preference.

THE PROVIDENT PHARMACEUTICAL LOAN FUND. The funds made availab to Vanderbilt University are to be used as a revolving loan fund for st dents in the School of Medicine.

THE THOMAS W. RHODES FELLOWSHIP. Funds provided by the will of Georgine C. Rhodes were left to Vanderbilt University for the purpose of establishing one or more fellowships in the School of Medicine.

THE THOMPSON AND GREEN STUDENT SCHOLARSHIP FUND. This fund is to used as a revolving loan fund for students in the School of Medicine. Preference in making the loans is given to students from middle Tennessee, northern Alabama and southern Kentucky

THE JOE AND HOWARD WERTHAN FOUNDATION SCHOLARSHIP FUND. The funds made available by this foundation to Vanderbilt University are to be given or loaned to those students in the School of Medicine needing financial assistance.

Employment Opportunities for Wives

Nashville is a middle-sized city (500,000) affording employment opportunities common to an industrial, business, and educational center. Major employers include Vanderbilt University, two national insurance companies, and the state government. Every attempt is made to find a position within the University for wives of students who have demonstrated skills in business, office routine, laboratory work, or patient care skills such as nursing, x-ray technology, and nursing aides. If interested in a position on the University campus, students should contact the Office of the Director, Medical Center Personnel, Nashville, Tennessee 37203.

SCHOLARSHIPS AND FELLOWSHIPS

SCHOLARSHIPS

Vanderbilt University School of Medicine has a number of scholarships available to worthy applicants with distinguished scholastic records. Information and application forms may be obtained from the Committee on Fellowships and Scholarships or from the Dean of Medical Students.

JUSTIN POTTER MERIT SCHOLARSHIPS. The Justin Potter Merit Scholarships commemorate Mr. Justin Potter, a Nashville business man, industrialist, and financier. These scholarships were established in 1963 by Mr. Potter's family and are awarded by the Committee on Admissions of Vanderbilt University School of Medicine and the Justin Potter Merit Scholarship Committee. They are awarded annually to five applicants who have legally established residences in any of the following Southern states: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia.

Stipends of \$2,500 annually shall be awarded to successful candidates and, once awarded, shall continue at this rate for four years contingent upon satisfactory performance.

Method of selection of the Justin Potter Scholars is as follows: The Committee on Admissions of Vanderbilt University School of Medicine recommends to the Justin Potter Merit Scholarship Committee candidates who desire this scholarship and merit consideration. Selected candidates are invited to Nashville to visit with the Committee (candidates will be reimbursed for their expenses). The Committee composed of outstanding business men, physicians, and educators will make the final selection, the five successful candidates being designated "Justin Potter Merit Scholars."

THE PFIZER LABORATORIES MEDICAL SCHOLARSHIP PROGRAM. This scholarship of one thousand dollars is given each year to a medical student who needs financial assistance and who has outstanding scholastic ability.

STUDENT RESEARCH FELLOWSHIPS

Student research under the sponsorship of members of the faculty of the pre-clinical and clinical departments is endorsed as an integral part of the medical curriculum. Fellowships are usually awarded for the summer months or on a part-time basis during the academic year. Current stipends vary from \$750 to \$990 for the summer programs depending upon experience. Funds for fellowship support are available through the Committee on Fellowships and Scholarships and from individual departments within the Medical School. Funds are provided from a variety of sources, including the United States Public Health Service, Lederle Laboratory Division of American Cyanamid Company, Ford Foundation, The Tobacco Industry Research Foundation, and The Allergy Foundation of America. Research projects may be taken as electives for credit but without remuneration. Special arrangements can be made for participation in research programs abroad or in other medical schools within the United States.

HONORS AND AWARDS

FOUNDER'S MEDAL. This medal is awarded to the student in the graduating class of the School of Medicine who has attained the highest average standing in scholarship during four 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 sixth of the students of the fourth-year class are eligible for membership and only one half of the number of eligible students may be elected 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 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 in 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 \$500 to the person in the graduating class of the School of Medicine who while enrolled in the School has carried out the most meritorious undergraduate research. Originality and thoroughness of research shall be of primary consideration. Candidates for the award should apply to the Committee on Fellowships and Scholarships 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 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. Candidates for the award should submit their papers to the Committee on Fellowships and Scholarships.

THE C. V. MOSBY BOOK AWARD. The C. V. Mosby Company awards yearly one of its books to the medical student with the highest scholastic rank in each class.

THE ROCHE AWARD. This award, a gold wrist watch provided by Roche Laboratories, is presented to the medical student with the highest cumulative scholastic rank after two years of medical school.

THE ALBERT WEINSTEIN PRIZES IN MEDICINE. Three prizes, established in memory of Albert Weinstein, M.D., are awarded at graduation to senior students who, in the opinion of the faculty of the Department of Medicine, merit recognition for high scholastic attainment, the qualities which characterize the fine physician, and the preparation and presentation of a metitorious paper in any field in medicine. Dr. Albert Weinstein graduate from Vanderbilt University in 1926 and as Founder's Medalist from Van derbilt University School of Medicine in 1929. Following training a Vanderbilt and Johns Hopkins he returned to Vanderbilt as Chief Residenti Medicine, 1933–1935, and served as a distinguished member of the facult and Clinical Professor of Medicine until his death on October 1, 196 Despite a busy and successful practice, Dr. Weinstein contributed regular to the medical literature and maintained a major interest in the teaching of medical students. These prizes were established in 1964 by contribution from friends, associates, and former patients of Dr. Weinstein.

ADMISSION

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

I. Graduates of a college or university of reocgnized standing.

2. Senior 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 one year of 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 three years of collegiate education may be admitted to the School of Medicine at the discretion of the Committee on Admissions.

Approximately fifty-two students, both men and women, are admitted to the first year class.

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. Eight semester hours including laboratory work. The course may be general biology, zoology, or zoology and botany, but mot nore 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. A minimum of 4 semester hours credit in organic chemistry is required, 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.

Students are urged to take courses in college which will strengthen their foundation in basic natural and social sciences, mathematics and their cultural background.

MEDICAL COLLEGE ADMISSION TEST

The Medical College Admission 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. Since the examination score is used by medical schools in the selection of applicants, students should take the test, at the latest, in the Spring prior to the time application is submitted.

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

APPLICATIONS FOR ADMISSION

Application forms may be obtained from the Registrar, School of Medicine, Vanderbilt University, Nashville, Tennessee 37203.

Applications for admission may be filed fifteen months in advance of date of entrance. The Committee on Admissions begins its consideration of applicants in September, and will accept new applications until the class is filled.

Successful applicants are required to make a deposit of \$50. This deposit is credited toward the payment of the first tuition, and is returnable until January 15th, in the event the student does not matriculate.

ADMISSION TO ADVANCE STANDING

Applicants who have satisfactorily completed one or two years of study at approved medical schools may be accepted for admission to the second or third year class, subject to the following requirements:

1. Application for advanced standing must be filed according to the procedure described for admission to the first year. A deposit of \$50 is required of successful applicants.

2. Applicants must furnish evidence of having satisfied the conditions of admission and of having completed all the work required of students in the class they desire to enter.

3. Applicants must present a certificate of honorable dismissal from the medical school they have attended.

REGULATIONS

HONOR CODE

A LL work in this University is conducted under the Honor Code. For the successful operation of the honor system the cooperation of every smdent is essential. A Student Honor Committee exists for the purpose of investigating cases of violation of this system.

EXAMINATIONS AND PROMOTIONS

Successful completion of the courses of the medical curriculum and 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 may be held in conjunction with each course or at the end of the academic year. The quality of work of each student is considered, usually at the end of each semester, by a committee composed of the instructors responsible for his more important courses.

Students who fail in two major courses or fail a re-examination 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 re-examination, 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-Biochemistry, Gross Anatomy, Histology, and Physiology. Second Year-Methods in Clinical Science, Microbiology, Pathology, and Pharmacology.

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

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

Candidates for the degree of Doctor of Medicine must be mature and of good moral character. They must have spent at least four years of study or its equivalent as matriculated medical students. The last two years of this study must have been in this School. They must have completed satisfactorily the medical curriculum, have passed all prescribed examinations, and be free of indebtedness to the University. Students fulfilling these requirements will be recommended for the degree of Doctor of Medicine.

NATIONAL BOARD EXAMINATIONS

All second-year students are required to take for credit Part I and all fourth-year students are required to take for credit Part II of the National Board Examinations. Part II is given in April and Part I is given in June.

BASIC SCIENCE EXAMINATIONS

Approximately 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 achieve certification in the basic sciences as soon as possible.

EXTRACURRICULAR WORK

Students engaging in outside work must report such activity to the Dean of Students 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 prejudical to the student's education, he may be required to discontinue it. Outside work is not allowed in the first and second years.

INSTRUCTION LEADING TO THE M. D. DEGREE

The curriculum is divided into a basic set of required courses taken by all students, and elective courses which may be chosen. Required courses constitute the nucleus of medical education at Vanderbilt; elective courses are an integral part of each student's educational experience in the Medical School, but allow considerable flexibility of individual curricula. Each student is assigned a faculty adviser to aid in the selection of elective courses, and the program of electives must be approved by the Assistant Dean for Medical Education.

All electives are courses for credit, graded on the same basis as required courses, and are non-remunerative. The following types of courses may be elected: lecture series; specialty clinics; clinical clerkships or research experience, at Vanderbilt or other institutions; Vanderbilt undergraduate or graduate courses.

Two hours each week have been designated for presentation of schoolwide interest, e.g., lectureships, medical society meetings, student papers. The attendance of all students and faculty is expected.

Students are encouraged to participate in the summer research fellowship program.

The Medical School curriculum is scheduled during the conventional University nine months, and is divided on a semester basis.

First Year: Most of the year is spent in the study of anatomy, biochemistry, and physiology. All day Wednesday and Saturday morning (during the second semester) are reserved for study and electives. Electives available to the freshmen cover a wide range of subjects, e.g., Fundamental Principles in Use of Radioisotopes, Topics in General Physiology, Medicine in Families and the Community, Medical Genetics, Principles of Anthropology.

Second Year: Courses include microbiology, pathology, pharmacology, medical statistics, preventive medicine, and psychiatry. Students begin the study of patients during the second semester, when all the clinical departments cooperate in giving the student an introduction to history taking, physical examination, and laboratory study of patients through a series of lectures, demonstrations, and individual practice by the student. A variety of electives may be taken, either on Wednesday or at scattered times through the week.

Third Year: Ward clerkships in Medicine, Obstetrics-Gynecology, Pediatrics, and Surgery occupy the third year. Students have close contact with a limited number of selected patients under the supervision of attending physicians and house staff.

Fourth Year: During one semester seniors serve as clinical clerks in Psychiatry and as clerks to ambulatory patients in the Out-Patient Service. Here they have opportunity to see disease in its earlier stages, when more difficult of diagnosis, under conditions of office practice and with opp tunities for follow-up examinations and observation over relatively la periods.

Seniors have an entire semester designated as elective. The opportunit for use of this elective semester include research fellowships in a clinical pre-clinical department, at Vanderbilt or other institutions; advanced we clerkships in clinical areas; combinations of a variety of specialty clim and lecture courses. The flexability of the fourth year curriculum giv the student maximum opportunity for individual development.

INSTRUCTION LEADING TO THE M.D. AND PH.D. DEGREES

Interested students at Vanderbilt are encouraged toward careers in academic medicine. In order to facilitate the development of teachers and medical investigators who are capable in clinical and basic medical sciences, a combined course of study leading to the M.D. and Ph.D. degrees has been instituted. Six to seven calendar years will be required for completion of the combined degree program.

All candidates must meet the requirements of both the medical and graduate schools for matriculation and graduation. Selection of the candidates will be made by the admission committees and deans of the graduate and medical schools. The graduate program of the student will be planned by his major adviser, a member of the graduate faculty, in the usual manner. Most students will enter the program after the sophomore year in medical school, and will complete the course work for both degrees and much of the thesis research before entering the clinical clerkships in the junior year of medical school.

Students accepted for the M.D.-Ph.D. program may receive financial support through their departmental sponsors; in addition, three scholarships per year are awarded by the Fellowships and Scholarships committee. Information about the M.D.-Ph.D. program may be obtained from the Chairman of the Fellowships and Scholarships Committee, Vanderbilt University School of Medicine.

ADVANCED PROFESSIONAL TRAINING AND RESEARCH

The primary responsibility of the School of Medicine is education of medical students. In addition, there are active programs for gradual students in the pre-clinical sciences, for post-doctoral interns and resident and for post-doctoral research trainces. At present, 715 students, traince technicians, and aides are receiving instruction at the School.

INTERNSHIP AND RESIDENCY TRAINING

Students preparing for the practice of medicine usually spend one or more years in house staff training. Such experiences at Vanderbilt are particular varied and well-supervised. Applicants for positions are carefully chose and make up a competent and stimulating group which has considerable responsibility in medical student teaching.

The faculty of the School of Medicine have professional responsibiliti in Vanderbilt, Veterans, and Nashville General Hospitals. Most patien in these hospitals are cared for by members of the intern and resident sta

Vanderbilt University Hospital is a referral center and consequently h a patient population with complex medical and surgical problems. Nas ville General Hospital is a community owned facility in which many of t patients present advanced manifestations of disease. Veterans Admin stration Hospital is adjacent to the Vanderbilt Medical Center, and extensively used for student and house staff teaching.

RESIDENCIES AND FELLOWSHIPS

THE HUGH J. MORGAN RESIDENCY IN MEDICINE. In May of 1962, M Julia T. Weld of New York City generously made available a yearly g to support the Chief Residency in Medicine named after the late Dr. Hu J. Morgan, Professor of Medicine at Vanderbilt from 1935-1959. T awarding of the residency is announced each fall for the following Ju The Hugh J. Morgan Residency allows the Department of Medicine award an adequate salary to this important faculty position.

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

POSTDOCTORAL COURSES

Courses in individual departments are made available by special arran ment. These courses are under the direction of the Director of Continu Education and the head of the department concerned. Courses may

offered at any time during the year for periods of varying length. Only a limited number of physicians can be admitted to any course. Inquiries should be addressed to Dr. Joseph A. Little, Director of Continuing Education.

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

COURSES TOWARD MASTER'S 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 Pathology 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 Graduate School. Candidates should apply to the Registrar of the Graduate School.

ENDOWED RESEARCH CHAIRS

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.

CHAIR OF NUTRITION. In the fall of 1964, the Pet Milk Foundation of St. Louis, Missouri, established at Vanderbilt University School of Medicine a Chair of Nutrition to further research and teaching activities in this vital area of medicine. Dr. William J. Darby, Professor of Biochemistry and Chairman of the Department of Biochemistry and Director of the Division of Nutrition, presently holds the chair.

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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 BROWNLEE O. CURRY MEMORIAL FUND FOR RESEARCH IN HEMATOLogy. A memorial fund created by the friends of Brownlee 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 Van derbilt University by Mrs. Hazel H. Hirsch as a memorial to her son, Jac Fies, the income from which is to be used to support research in the im portant field of neurological surgery. It is hoped that subsequent dona tions may be made by those who may be interested in creating a larger fun for this phase of research.

THE JOHN B. HOWE FUNDS FOR RESEARCH. In January 1946, the member 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 Neurosurger and the John B. Howe Fund for Research in Medicine. The expenditure 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 deseases was established as a part of the Department of Medicin from funds provided by the Benwood Foundation, Inc., of Chattanoogi 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 Medicin in the field of caridovascular diseases.

THE LESLIE WARNER MEMORIAL FUND FOR THE STUDY AND TREATMEN OF CANCER. This fund was established in 1932 in the memory of Lesli Warner of Nashville, Tennessee. It consists of \$7,200, of which \$3,60 was contributed by the nieces and nephews of Mrs. Leslie Warner.

MILITARY AND DISASTER MEDICINE

Vanderbilt University School of Medicine was one of the original medica schools conducting a program of military and disaster medicine under th Medical Education for National Defense plan. Separate courses in militar and disaster medicine are not offered. Material on mass casualties, eme gency first aid, radiation injury, radiation biology, chemical and gen warfare, and other aspects of military medicine is presented in the cours material offered by the Departments of Pharmacology, Preventive Medicine Medicine, Radiology, and Surgery.

COURSES OF STUDY

School of Medicine Departments

Anatomy	46
Biochemistry	
Microbiology	
Pathology	53
Pharmacology	
Physiology	57
Anesthesiology	
Medicine	60
Obstetrics & Gynecology	68
Orthopedic Surgery	71
Pediatrics	73
Preventive Medicine & Public Health	76
Psychiatry	80
Radiology	83
Surgery	85
Audiology & Speech Pathology	92

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NOTE: Required medical school courses are numbered 501 to 519. Elective medical school courses are numbered 521 to 599.

Courses in the 500 series make up the curriculum of the medical student. Those courses carrying credit in the Graduate School are indicated by a 300 series number before or after the title. Figures in brackets in 300 series course descriptions indicate semester hours of credit in the Graduate School.

Description of elective courses include the class year to which the course is available, number of clock hours per week, semester offered, and length of course if less than a semester.

ASTER I

an conflict solution (16-15)

Anatomy

JACK DAVIES, M. D., Professor of Anatomy and Chairman of the Department VIRGIL S. LEQUIRE, M.D., Professor of Anatomy
JAMES W. WARD, Ph.D., M.D., Professor of Anatomy
ALVIN M. BURT III, Assistant Professor of Anatomy
G. RODMAN DAVENPORT, Ph.D., Assistant Professor of Anatomy
JOHN LANGDON NORRIS, M.D., Assistant Professor of Anatomy
ELWYN A. SAUNDERS, M.D., Assistant Professor of Orthopedic Surgery and Assistant Professor of Anatomy
ROBERT L. HAMILTON, Ph.D., Instructor in Anatomy

LUKE H. MONTGOMERY; Research Associate in Anatomy

The Department of Anatomy offers courses leading to the Ph.D. de gree. Courses described below which are numbered in the 300 series are offered primarily for that program but are open to medical students by special arrangements.

501. HISTOLOGY (322). 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. Davies and Staff.

502. GROSS ANATOMY (321). 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. SPRING. [10] Dr. Saunders and Staff.

503. NEUROLOGY (323). This course covers 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. FALL. [2] Dr. Ward and Staff.

521. DEVELOPMENTAL BIOLOGY (333). First, Second, and Fourth years. A comprehensive, multidisciplinary study in mammalian developmental biology covering gametogensis, gamete transport, fertilization and implantation, development and functions of the placenta, uterus, parturition, and lactation. Emphasis will be placed on morphology, endocrinology, and effects of ionizing radiation. This course is presented as a fundamental aspect of biologic science rather than as a medical specialty. (Obstetrics-Gymecology 521.) Four hours per week. SPRING. [4] Dr. Soupart and Staff.

522. APPLICATIONS OF EMBRYOLOGY TO CLINICAL PRACTICE. Second and Fourth years. A course in human embryology with special reference to the genesis of congenital defects. Clinical cases will be presented. Two hour per week. FALL. Drs. Davies and Norris.

523. ADVANCED NEUROLOGY (324). Second and Fourth years. An intensive study of the relations, structures, 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, and experimental demonstrations. 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. Three hours per week; first fifteen weeks. FALL. [2] Dr. *Ward and Staff.*

524. MORPHOLOGICAL BASIS FOR BIOCHEMICAL ACTIVITY (331). Second and Fourth years. Presents the anatomical evidence for localization of various intra- and extra cellular functions, including the following topics: (1) Problems of fixation and staining of tissues. (2) Tissue homogenization, with biochemical and electron-microscopic characterization of the various cell fractions. (3) Critical evaluation of selected histochemical reactions. Four hours per week. FALL. Drs. Davenport and Norris.

527. LESSONS IN SURGICAL ANATOMY. Fourth year. Weekly review of surgical anatomy for medical students and for interns and surgical residents. Special areas of surgical interest will be reviewed with the aid of prosections and demonstrations. Embryological implications will be explained. Two hours per week. FALL. Dr. Saunders.

528.1. BIOMEDICAL ELECTRONICS I. First, Second, and Fourth years. A basic course of twelve lectures and demonstrations in electronics for those with little or no experience in the field. Electronic fundamentals including theory of vacuum tubes, solid state materials, amplifiers, etc., are included. One hour per week; twelve weeks. FALL. Mr. Montgomery.

528.2. BIOMEDICAL ELECTRONICS II. First, Second, and Fourth years. Lectures and demonstrations illustrating application of electronic equipment in the biomedical area. This course covers a wide range of instrumentation including special measurement and recording equipment, special stimulators, simple computers ("averagers"), etc. Prerequisite: Biomedical Electronics I. One hour per week; twelve weeks. Spring. Mr. Montgomery.

581. RESEARCH FELLOWSHIP IN ANATOMY. Fourth year. Research opportunities are available by arrangement in the following: (1) Electron microscopy, (2) Histochemistry and histology, (3) Embryology, (4) Human development. Full time for twelve or eighteen weeks. Dr. Davies and Staff.

599. SEMINAR IN DEVELOPMENTAL BIOLOGY. First, Second, and Fourth years. One-hour-weekly seminar including lectures and discussion by the full-time faculty, visiting lecturers, and participating students. (Obstetrics-Gynecology 599.) One hour per week. FALL & SPRING. Drs. Davies and Glasser.

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. [1-6] Dr. Ward. 329. EXPERIMENTAL METHODS IN HISTOLOGY. Research and conference in special phases of the techniques and their principles of histology. To work is designed for the particular student's interests and includes gener histological methods and special methods such as those of the electromicroscope. [1-6] Dr. Davies and Staff.

330. Seminar in Anatomy. spring & summer. [1–2] Staff. 399. Research. Staff.

Biochemistry

WILLIAM J. DARBY, M.D., Ph.D., Professor of Biochemistry and Chairman the Department; Professor of Nutrition FRANK R. BLOOD, Ph.D., Professor of Biochemistry JOHN G. CONIGLIO, Ph.D., Professor of Biochemistry LEON W. CUNNINGHAM, Ph.D., Professor of Biochemistry V. N. PATWARDHAN, Ph.D., Professor of Nutrition OSCAR TOUSTER, Ph.D., Professor of Biochemistry STANLEY COHEN, Ph.D., Associate Professor of Biochemistry GEORGE V. MANN, M.D., Sc.D., Associate Professor of Biochemistry WILLIAM N. PEARSON, Ph.D., Associate Professor of Biochemistry GUILFORD G. RUDOLPH, Ph.D., Associate Professor of Biochemistry ARTHUR R. SCHULERT, Ph.D., Associate Professor of Biochemistry JAN VAN EYS, Ph.D., Associate Professor of Biochemistry JAMES P. CARTER, M.D., Assistant Professor of Nutrition TADASHI INAGAMI, Ph.D., Assistant Professor of Biochemistry ROBERT A. NEAL, Ph.D., Assistant Professor of Biochemistry HAROLD H. SANDSTEAD, M.D., Assistant Professor of Nutrition CONRAD WAGNER, Ph.D., Assistant Professor of Biochemistry (V. A. Hospia LAKEN G. WARNOCK, Ph.D., Assistant Professor of Biochemistry (V. A. Ho pital) BENJAMIN J. WILSON, Ph.D., Assistant Professor of Biochemistry JAMES T. DAVIS, Ph.D., Research Associate in Biochemistry

JAMES T. DAVIS, Ph.D., Research Associate in Biochemistry ASHER FARHI, Ph.D., Research Associate in Biochemistry LEON GARRETT, Ph.D., Research Associate in Biochemistry A. WALLACE HAYES, Ph.D., Research Associate in Biochemistry LUDEK JIROUSEK, Ph.D., Research Associate in Biochemistry

degree. Courses described below which are numbered in the 300 ser are offered primarily for that program but are open to medical stude by special arrangement.

501. BIOCHEMISTRY (321). Lectures on the chemistry and metabolism of carbohydrates, proteins, lipids, nucleoproteins, and on the chemistry and function of enzymes, vitamins, and other factors related to cellular metabolism and body processes. FALL. [3] Staff.

502. BIOCHEMISTRY LABORATORY (322). This laboratory course accompanies Biochemistry 501 and emphasizes chemical, physical, and physiologic aspects of topics presented there. FALL. [4] Staff.

521. FUNDAMENTAL PRINCIPLES IN THE USE OF RADIOISOTOPES. First year. A presentation for medical students of fundamental principles of nuclear physics and tracer methodology necessary for understanding the use of radioisotopes in biology and medicine. Lectures will review: elementary nuclear physics; basic principles of tracer methodology; the design of experiments illustrating different types of radioisotopes; safety practices in handling isotopes, and the use of necessary instrumentation. Laboratory work includes experiments with different beta and gamma emitters in typical physiological or biological experiments. Four hours per week; first twelve weeks. FALL. Dr. Coniglio.

522. TOXICOLOGY (336). Second and Fourth years. Lectures, discussion, and assigned reading on the principles of toxicology with emphasis on metabolic and biochemical considerations. Subjects covered include naturally occurring toxicants, mycotoxins, bacterial toxins, chemical additives, residues of agricultural chemicals and other environmental contaminants. Two hours per week. FALL. [2] Drs. Wilson, Blood, Neal, and Darby.

523. FUNDAMENTALS OF HUMAN NUTRITION (328). Second and Fourth years. This course presents the physiologic basis of clinical nutrition in health and disease. Deficiency diseases and nutrient requirements of man are considered, as well as the basis of diet therapy. Lectures and assigned readings. (Medicine 523). One hour per week. SPRING. [1] Dr. Mann.

524. ADVANCED METABOLISM (334). First, Second, and Fourth years. Lectures and discussions of energy metabolism and regulatory mechanisms. Among the topics to be considered will be: thermodynamics and metabolism of high energy compounds, energy yielding reactions, oxidative phosphorylation, photosynthesis and the tricarboxylic acid cycle. Two hours per week. SPRING. [2] Drs. Wagner and Warnock.

526. BIOCHEMISTRY AND DIFFERENTIATION. Second and Fourth years. A course designed to acquaint the student with the biochemical aspects of development and differentiation. One hour per week. SPRING. Dr. Cohen. (Not offered 1966/67.)

527. NUTRITIONAL BIOCHEMISTRY (335). Second and Fourth years. A course in comparative nutritional biochemistry with emphasis on the whole animal. Prerequisite: a course in biochemistry or permission of the instructor. Two hours per week. FALL. [2] Dr. Pearson. (Not offered 1966/67.)

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528. CLINICAL BIOCHEMISTRY. Fourth year. Seminars on development in biochemistry in relation to medicine and applications of biochemis principles to the study of disease. One hour per week. SPRING. [Rudolph.]

529. LIPID CHEMISTRY AND METABOLISM (329). Second and Fourth yea Lectures and discussions on the chemistry, metabolism, detection, a separation of fatty acids, glycerides, phospholipids, and sterols. F requisite: a course in general biochemistry. Two lectures per week. SPRIN [2] Dr. Coniglio. (Not offered 1966/67.)

530. NUTRITION CLINICS. Fourth year. Topics of current interest clinical medicine will be selected for discussion. Examples include: card cachexia, uremia and diet therapy, iron deficiency, gastrointestinal m absorption and obesity. Patients will be selected from the Hospital a Clinics for presentation by a student. Various aspects of the topic w be discussed. One hour per week. FALL. Drs. Sandstead, Mann, a Darby.

581. RESEARCH FELLOWSHIP IN BIOCHEMISTRY. Fourth year. Rescan opportunities under the guidance of appropriate staff members in any the broad areas represented in the Department of Biochemistry. T time and schedule of presentations will be arranged and can be individuized to a considerable extent. Students are encouraged to pursue resear on a continuing basis and for a minimum of three months. Longer perior are more desirable. Full time for twelve or eighteen weeks. Dr. Da and Staff.

582. RESEARCH FELLOWSHIP IN NUTRITION. Fourth year. Clinical a metabolic research in man or experimental animals conducted under the direction of members of the staff. Students are encouraged to pursue search on a full-time basis for a minimum of three months. Selected s dents may participate in studies abroad (in the Middle East or elsewher in the current research program of the Division of Nutrition. Full the for twelve or eighteen weeks. Dr. Darby and Staff.

583. SPECIAL PROBLEMS IN NUTRITION. First, Second, and Fourth yea Individualized study of advanced topics or research in nutrition. If perimental laboratory and clinical studies will be offered under the guidat of a member of the staff of the Division. Six hours per week. FALL SPRING. Drs. Darby, Mann, and Pearson.

584. PRECEPTORSHIP IN BIOCHEMISTRY. Fourth year. An opportun for intensive review of basic biochemistry. Students will participate instructors in the teaching of the course to freshman medical students a at the same time participate in graduate experiences, seminar, and rescal in the department. Full time for twelve or eighteen weeks. Dr. Da and Staff.

599. BIOCHEMISTRY SEMINAR (327). First, Second, and Fourth year This is a student seminar designed to familiarize medical and gradu

students with current research developments in biochemistry, to afford the students an opportunity to review critically a variety of subjects and to gain experience in presenting and critically appraising such investigations. One hour per week. FALL & SPRING. [1] Dr. Darby and Staff.

323. SPECIAL PROBLEMS AND EXPERIMENTAL TECHNIQUES. Among the fields available are: (a) advanced work in lipid metabolism, Dr. Coniglio; (b) the metabolism of carbohydrates and nucleotides, Dr. Touster; (c) protein chemistry, Dr. Cunningham; (d) metabolic toxicology, Dr. Blood; (e) enzymes of metabolism, Dr. van Eys; (f) chemical embrology, Dr. Cohen; (g) mineral and vitamin metabolism, Dr. Pearson; (h) metabolism of foreign compounds, Dr. Neal; (i) steroids, Dr. Rudolph; and (j) special biochemical preparations. Admission to course, hours, and credit by arrangement. [2-4] Staff.

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. Prerequisite: permission of instructor. SPRING. [3] Dr. Coniglio.

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 sample collection in small animals. Application of micro techniques of mammalian physiology to biochemistry. Lectures and laboratory. Prerequisite: permission of instructor. SPRING. [3] Dr. Blood. (Not offered 1966/67.)

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. SPRING. [2] Dr. Touster. (Not offered 1966/67.)

327. SEMINAR IN BIOCHEMICAL LITERATURE. Admission to course by arrangement. Prerequisite: a course in fundamental biochemistry. FALL & SPRING. [1] Staff.

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. Prerequisite: Biochemistry 321 and elementary physical chemistry or permission of instructor. SPRING. [2] Dr. Cunningham.

399. RESEARCH. Staff.

Microbiology

VICTOR A. NAJJAR, M.D., Professor of Microbiology and Chairman of the l partment

SIDNEY P. COLOWICK, Ph.D., American Cancer Society-Charles Hayden Four tion Professor of Microbiology

SIDNEY HARSHMAN, Sc.D., Assistant Professor of Microbiology JOHN H. HASH, Ph.D., Assistant Professor of Microbiology WILLIAM M. MITCHELL, M.D., Ph.D., Assistant Professor of Microbiology JOHN P. ROBINSON, Ph.D., Assistant Professor of Microbiology MARYDA COLOWICK, M.S., Research Associate in Microbiology BERNARDO V. FIDALGO, M.D., Research Associate in Microbiology NAGI WAHBA, Ph.D., Research Associate in Microbiology FRANCES C. WOMACK, Ph.D., Research Associate in Microbiology

Access The Department of Microbiology offers courses leading to the Ph. degree. Courses described below which are numbered in the 300 set are offered primarily for that program but are open to medical students special arrangement.

501. MICROBIOLOGY (324). Lectures and laboratory exercises. The portant bacterial, mycotic, parasitic, and viral infections are conside from the standpoint of etiology, epidemiology, pathogenesis, immunolo and laboratory diagnosis. Ten hours of lectures, seminars, and laboratory exercises. Prerequisite: Biochemistry 501-502 or equivalent. FALL. Staff.

521. ADVANCED TOPICS IN MICROBIOLOGY (328). Second and Fourth year Consists of a lecture series of selected topics of advanced nature in: regulation of bacterial metabolism; (b) bacterial and viral structure; immunochemistry; (d) enzymology. The content is changed complet from year to year. Students may take the course no more than three tim Prerequisite: 501. Two hours per week. SPRING. [2] Staff.

522. LECTURES ON RESEARCH PROGRESS IN MOLECULAR BIOLOGY (350a-350 Second and Fourth years. A course co-sponsored by the Departments Microbiology, Physiology, and Molecular Biology, in which members these and other departments present their own research activities in lation to current problems in their field. First semester: biophys aspects will be stressed, including the application of modern phys chemical techniques to studies of macromolecules and enzyme act Second semester: physiological aspects will be stressed, including molecular basis of the function of specialized tissues, and the mechanis for metabolic control of gene action and multi-enzyme systems. F and second semesters may be taken independently. FALL & SPRING.

581. EXPERIMENTAL METHODS IN MICROBIOLOGY (327). Second and Fot years. A program of laboratory work concerned with: (a) regulation

bacterial metabolism, (b) structural studies on bacteria, bacterial and mammalian viruses, (c) techniques in immunochemistry involving antibody synthesis, mechanism of antibody-antigen reaction and assay of antibody reactions, (d) enzyme studies involving physicochemical properties, kinetics, thermodynamics and mechanisms of action. Prerequisite: SOI. Six hours per week. spring. Staff.

582. RESEARCH FELLOWSHIP IN MICROBIOLOGY. Fourth year. A research fellowship with one member of the staff, involving an intensive study in one of the areas listed under course 581. Full time for twelve or eighteen weeks. FALL, SPRING, OR SUMMER. Staff.

331. SPECIAL SEMINARS. Selected topics of current interest. [1] Staff.

399. Research. Staff. I walk men or contribution to example long much and laboratory diagnosis will be discussed in a section of lectures and se

Pathology

The Group Parameter of the Westware Starts. Second and same

- JOHN L. SHAPIRO, M.D., Professor of Pathology and Chairman of the Department VIRGIL S. LEQUIRE, M. D., Professor of Pathology
- DAVID L. BEAVER, M.D., Associate Professor of Pathology FRANK R. BLOOD, Ph.D., Associate Professor of Pathology
- WILLIAM J. CHEATHAM, M.D., Associate Professor of Pathology
- ROBERT D. COLLINS, M.D., Associate Professor of Pathology
- NORMAN ENDE, M.D., Associate Professor of Pathology
- WILLIAM A. DEMONBREUN, M.D., Associate Clinical Professor of Pathology, Emeritus
- JOHN B. THOMISON, M.D., Associate Clinical Professor of Pathology
- FRANK C. WOMACK, M.D., Associate Clinical Professor of Pathology
- GEORGE BARNEY, D.V.M., Assistant Professor of Comparative Pathology
- RICHARD D. BUCHANAN, M.D., Assistant Professor in Pathology (Leave of absence)
- ROBERT G. HORN, M.D., Assistant Professor of Pathology
- FRED W. RYDEN, M.D., Ph.D., Assistant Professor of Pathology
- HARRY G. BROWNE, M.D., Assistant Clinical Professor of Pathology
- BERTRAM E. SPROFKIN, M.D., Assistant Clinical Professor of Neuropathology
- JAMES M. PHYTHYON, M.D., Clinical Instructor in Pathology

501. GENERAL AND SPECIAL PATHOLOGY (321). General and special pathology presented by lectures, demonstrations, discussions, and laboratory work. Gross and microscopic lesions characteristic of various diseases are studied and correlated. The class assists with post-mortem examinations performed during the course. [10] Dr. Shapiro and Staff. 521. PATHOLOGY OF DISEASES OF LABORATORY ANIMALS. Second and For years. A course providing training in the interpretation of lesion experimental animals, designed particularly to aid in recognition and im pretation of natural diseases which could influence results and to evalue laboratory animals as to their suitability for experimental purposes. () hour per week; six week units. Dr. Barney.

522. NEUROPATHOLOGY AND ITS CLINICAL CORRELATION. First, Second, Fourth years. In a series of weekly lectures and clinic-pathologic dem strations the anatomic, physiologic, and pathologic aspects of nerv system disease will be integrated. Designed for medical students at a level. One hour per week. SPRING. Dr. Sprofkin.

523. VIRAL DISEASES OF IMPORTANCE TO MAN. Second and Fourth ya Major viral diseases of importance to man, their pathogenesis, patholo and laboratory diagnosis will be discussed in a series of lectures and se nars. One hour per week. SPRING. Drs. Cheatham and Ryden.

524. GROSS PATHOLOGY OF THE NERVOUS SYSTEM. Second and Fou years. A limited number of students will be accepted for participat in the weekly examination of current specimens obtained at necropsy a subsequent study of the pertinent microscopic specimens. One hour week. FALL & SPRING. Dr. Sprofkin.

525. SURGICAL PATHOLOGY. Third year. Each session is initiated a lecture to be followed by presentation of pertinent microscopic less and roentgenograms. In the laboratory, fresh gross specimens and k collections of slides are studied under supervision of resident and sen staff. The course correlates the clinical manifestations and the gr and microscopic changes of the common surgical diseases. (Surgery 5: Three hours per week for year. Dr. McSwain and Staff.

526. OBSTETRICAL AND GYNECOLOGICAL PATHOLOGY. Fourth year. series of lectures and laboratory exercises concerning the more imporgross and microscopic lesions of the female reproductive system. morphologic and functional aspects of the lesions and their clinical nificance are emphasized. (Obstetrics-Gynecology 522.) One hour week. FALL & SPRING. Drs. Thomison and Parker.

527. TROPICAL DISEASES. Fourth year. To stimulate interest in glo medicine, the pathogenesis and diagnosis of infectious diseases (prima tropical and subtropical in distribution) will be emphasized. Two he per week. SPRING. Drs. Thomison and Ryden.

561. CLERKSHIP IN PATHOLOGY. Fourth year. Senior students will ticipate in all departmental activities, with responsibility in teach and autopsy service. Investigative work as desired. Full time; six w units. Dr. Shapiro and Staff.

581. RESEARCH FELLOWSHIP IN ELECTRON MICROSCOPY. Fourth year. It niques of electron microscopy as applied to specific research proble in pathology. Full time for twelve or eighteen weeks. Dr. Beaver.

582. RESEARCH FELLOWSHIP IN PATHOLOGY (399). Fourth year. Opportunities for research are offered to properly qualified students. Hours by arrangement. Staff.

Pharmacology

ALLAN D. BASS, M.S., M.D., Professor of Pharmacology and Chairman of the Department MILTON T. BUSH, Ph.D., Professor of Pharmacology FRIDOLIN SULSER, M.D., Professor of Pharmacology MURRAY HEIMBERG, Ph.D., M.D., Associate Professor of Pharmacology LEON HURWITZ, Ph.D., Associate Professor of Pharmacology JOHN A. OATES, M.D., Associate Professor of Pharmacology CHARLES B. PITTINGER, M.D., Associate Professor of Pharmacology B. V. RAMA SASTRY, D.Sc., Ph.D., Associate Professor of Pharmacology FLORIS DE BALBIAN VERSTER, M.S., Ph.D., Assistant Professor of Pharmacology JAMES V. DINGELL, M.S., Ph.D., Assistant Professor of Pharmacology ERWIN J. LANDON, M.D., Ph.D., Assistant Professor of Pharmacology WILLIAM A. PETTINGER, M.S., M.D., Assistant Professor of Pharmacology G. ALAN ROBISON, M.S., Ph.D., Assistant Professor of Pharmacology IRA WEINSTEIN, Ph.D., Assistant Professor of Pharmacology JOHN W. CHAMBERS, Ph.D., Instructor in Pharmacology DONALD VAN HARKEN, Ph.D., Instructor in Pharmacology D. STANLEY VON HAGEN, Ph.D., Instructor in Pharmacology HENRY G. WILCOX, Ph.D., Instructor in Pharmacology ANTONIO BARROS, M.D., Research Associate in Pharmacology JOHN CAVANAUGH, M.D., Ph.D., Research Associate in Pharmacology KIM DAYANI, M.D., Research Associate in Pharmacology JORGEN MALMQUIST, M.D., Research Associate in Pharmacology HERMAN L. PARRISH, M.S., Research Associate in Pharmacology W. BOLTON SMITH, M.S., Research Associate in Pharmacology

The Department of Pharmacology offers courses leading to the Master's and Ph.D. degrees. Courses described below which are numbered in the scries are offered primarily for that program but are open to medical students by special arrangement.

501. PHARMACOLOGY (321). 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. Six lectures a week and eight hours of laboratory work a week. SPRING. [8] Dr. Bass and Staff. 522. CLINICAL PHARMACOLOGY. Fourth year. Lectures and clinical section in the pharmacological basis of therapeutics and on the clinical and evaluation of drugs. (Medicine 526). One hour per week. FAU Dr. Oates.

523. THE RELATIONSHIP OF CHEMICAL STRUCTURE TO PHARMACOLOGIC ACTION (323-1). Fourth year. Discussion and demonstration of correlations between pharmacological action and molecular structure organic substances, with special reference to the physical-chemical proerties of these substances. Two hours per week. SPRING. Dr. Bush.

524. AUTONOMIC PHARMACOLOGY (323-4). Fourth year. The mechanic of storage and release of catecholamines and acetylcholine will be discusse Lectures on drugs modifying autonomic function through an action of he mone synthesis, storage, release, or direct combination with tissue enzym or receptors will be given. FALL. [2] Drs. Bass and Sastry.

525. METABOLISM OF ANTIBACTERIAL AND ANTIFUNGAL AGENTS (32 Fourth year. Lectures and conferences on the penicillins, broad spectra antibiotics, fungicidal, or fungistatic agents. Emphasis will be placed mode of action, distribution, excretion, and toxicity of the agent. In hours per week. Spring. Dr. Weinstein.

526. MECHANISM OF DRUG ACTION (322). Second and Fourth years. Letures and seminars will be held for students interested in acquiring a know edge of the biochemical and physicochemical mechanisms involved in draction. This will include: (1) drug-receptor interactions, (2) the biochemic basis of drug therapy. FALL. [2] Dr. Hurwitz. (Not offered 1966 &

527. PSYCHOPHARMACOLOGY (323-5). Second and Fourth years. Special c phasis will be placed on techniques for the evaluation of the mechanism action and behavioral effects of psychoactive drugs. Two hours per we SPRING. [2] Dr. Sulser and Psychology and Pharmacology Staff.

528. ENDOCRINE PHARMACOLOGY (323-3). Fourth year. Emphasis placed the mechanism of action of hormones and chemical agents used as substitu for physiologically occurring hormones. Drugs used to modify actio snythesis, and release of natural hormones will be discussed. Two hor per week. FALL. [2] Dr. Heimberg and Staff. (Not offered 1966/67.

529. ANTIMETABOLITES AS PHARMACOLOGICAL AGENTS IN CANCER CHEN THERAPY (323-2). Fourth year. Pharmacology of antinucleic acid compour employed in cancer chemotherapy. First half of the course provides a co prehensive review of current knowledge of the chemistry and biology nucleic acids. Two hours per week. SPRING. [2] Dr. Landon. (N offered 1966/67.)

530. PHARMACOLOGY OF ANESTHESIA (325). Fourth year. A course lated to pharmacologic principles involved in the action of anesthe agents. This will include discussions of: the chemistry of anesthe agents; physico-chemical principles of absorption, distribution, and clin nation; theories of anesthesia; factors modifying drug responses; b

transformation toxicity and modifications of anesthesia under hyperbaric conditions. (Anesthesiology 521). One hour per week. FALL. [1] Dr. Pittinger.

581. RESEARCH FELLOWSHIP IN PHARMACOLOGY. Fourth year. The various areas of Pharmacology including Clinical Pharmacology. Full time for twelve or eighteen weeks. FALL & SPRING. Dr. Bass.

598. SEMINAR IN PSYCHOPHARMACOLOGY (331a-331b). An interdepartmental seminar involving the Departments of Pharmacology, Psychology, Psychiatry, and Anatomy. The topics covered relate to etiology of mental illness, behavioral psychology, and mechanism of action of drugs which are employed both as psychomimetic agents and psychotherapeutic agents. One hour per week. FALL & SPRING. [1-1] Staff.

599. SEMINAR IN PHARMACOLOGY (330a-330b). Fourth year. Admission to course by arrangement. One hour per week. FALL & SPRING. [1-1] Staff.

326. TECHNIQUES IN NEUROPHARMACOLOGY OF THE CENTRAL NERVOUS SYSTEM. An instrumental analysis course which will demonstrate the use of equipment and techniques employed in the evaluation of drugs which modify function of the central nervous system. The course will cover primarily fundamental biochemical and physiological techniques as applied to neuropharmacology. Prerequisite: Biochemistry 501-502 or Biochemistry 326. FALL [2] Dr. F. de Balbian Verster.

399. RESEARCH. Experimental and theoretical aspects of the mechanism of 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. FALL & SPRING. Hours and credit by arrangement. Staff.

Physiology

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

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

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

EARL W. SUTHERLAND, JR., M.D., Professor of Physiology

JANE H. PARK, Ph.D., Associate Professor of Physiology

ROBERT L. POST, M.D., Associate Professor of Physiology

EDWARD J. BATTERSBY, M.D., Assistant Professor of Physiology

REGINALD W. BUTCHER, Ph.D., Assistant Professor of Physiology; Investigator, Howard Hughes Medical Institute

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OSCAR CROFFORD, M.D., Assistant Professor of Physiology; Investigator, Hous Hughes Medical Institute JOHN G. EXTON, M.D., Ph.D., Assistant Professor of Physiology VICENTE HONRUBIA, Ph.D., Assistant Professor of Physiology TETSURO KONO, Ph.D., Assistant Professor of Physiology DAVID M. REGEN, Ph.D., Assistant Professor of Physiology; Investigator, Ha ard Hughes Medical Institute GUY H. BOND, Ph.D., Instructor in Physiology PHILIP W. FELTS, M.D., Instructor in Physiology JOEL G. HARDMAN, Ph.D., Instructor in Physiology JOHN G. T. SNEYD, Ph.D., Instructor in Physiology A. H. UNDERWOOD, Ph.D., Instructor in Physiology JUDITH S. BOND, Ph.D., Research Associate in Physiology M. S. CABUT, Ph.D., Research Associate in Physiology DUDLEY EARL, Ph.D., Research Associate in Physiology NAOMI FRIEDMANN, Ph.D., Research Associate in Physiology M. GHOSAL, Ph.D., Research Associate in Physiology EIJI ISHIKAWA, M.D., Research Associate in Physiology HIKARU KOIDE, M.D., Research Associate in Physiology JAMES R. NEELY, Ph.D., Research Associate in Physiology ODDMUND SOVIK, M.D., Research Associate in Physiology T. FRANKLIN WILLIAMS, M.D., Research Associate in Physiology

Here: The Department of Physiology offers courses leading to the Ph degree. Courses described below which are numbered in the 300 set are offered primarily for that program but are open to medical stude by special arrangement.

501. PHYSIOLOGY (321). This course consists of lectures, conference and laboratory work, designed to cover the essentials in physiology first year medical students. It or its equivalent is also required of graduate students majoring in physiology. SPRING. [8] Dr. Park 1 Staff.

521. TOPICS IN GENERAL PHYSIOLOGY. First year. The course will s with the basic cellular processes of accumulation, membrane transp bioelectric potentials, contraction, and secretion from the point of v of elementary applied physical chemistry. The discussion will exa to the operation of these processes in the function of erythrocytes, ner sensory receptors, muscles, glands, and excretory organs. When plicable the mechanism of the hormonal control of these cells will be cluded. One hour per week. SPRING. Dr. Post.

522. LECTURES ON RESEARCH PROGRESS IN MOLECULAR BIOLOGY (350a-36 Second and Fourth years. A course co-sponsored by the Department Microbiology, Physiology, and Molecular Biology, in which memb of these and other departments present their own research activities

relation to current problems in their field. First semester: biophysical aspects will be stressed, including the application of modern physicochemical techniques to studies of macromolecules and enzyme action. Second semester: physiological aspects will be stressed, including the molecular basis of the function of specialized tissues, and the mechanisms for metabolic control of gene action and multi-enzyme systems. (Microbiology 522.) First and second semesters may be taken independently. Two hours per week. FALL & SPRING. [2-2]

581. RESEARCH FELLOWSHIP IN PHYSIOLOGY. Fourth year. Opportunities will be available in the fields of membrane transport and intermediary metabolism and in the hormonal control of these processes. Full time for twelve or eighteen weeks. Dr. Park.

582. ADVANCED PHYSIOLOGY (323). Second and Fourth years. This course deals with special topics in physiology and consists of laboratory work and conferences. Prerequisite: 501 or equivalent. Hours and credit by arrangement. Dr. Park and Staff.

322. PHYSIOLOGICAL TECHNIQUES AND PREPARATIONS. A course designed for advanced students. Hours and credit by arrangement. Dr. Park and Staff.

399. RESEARCH. Staff.

Anesthesiology

CHARLES B. PITTINGER, M.D., Professor of Anesthesiology and Chairman of the Department

PAULA F. CONAWAY, M.D., Assistant Professor of Anesthesiology YILMAZ ERYASA, M.D., Assistant Professor of Anesthesiology JOANNE L. LINN, M.D., Assistant Professor of Anesthesiology BASEL M. MIXON, JR., M.D., Assistant Professor of Anesthesiology RUPERTO E. PEREZ, JR., M.D., Assistant Professor of Anesthesiology ALEJANDRO BERBA, M.D., Instructor in Anesthesiology ILDEFONSO A. ALCANTARA, M.D., Clinical Instructor in Anesthesiology

501. ANESTHESIOLOGY. This course for third year students consists of a series of lectures on some aspects of anesthesiology applicable to the general practice of medicine. Among the topics presented will be: preoperative evaluation of the patient; premedication, selection of anesthetic agent and technique; local anesthesia, resuscitation, and oxygen therapy. One hour per week for twelve weeks. Dr. Pittinger and Staff.

502. OPERATIVE SURGERY AND ANESTHESIOLOGY. A laboratory course for third year students offered jointly by the Departments of Surgery and Anesthesiology to provide experience in anesthesia and experimental

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surgery. Students work in groups of four, rotating responsibilities that each receives experience in anesthesia. (See Surgery 502.) The hours per week for twelve weeks. Dr. Pittinger and Staff.

521. PHARMACOLOGY OF ANESTHESIA (325). Fourth year. A course lated to pharmacologic principles involved in the action of anesthe agents. This will include discussions of: the chemistry of anesthe agents; physico-chemical principles of absorption, distribution, and elin nation; theories of anesthesia; factors modifying drug responses; biotra formation toxicity and modifications of anesthesia under hyperbaric or ditions. (Pharmacology 530.) One hour per week. FALL. Dr. Pittim

561. CLERKSHIP IN ANESTHESIOLOGY. Fourth year. Didactic and operation room experience in the conduction of anesthesia, including pre- and put anesthetic care. Full time, six week units. Dr. Pittinger and Staff.

599. ANESTHESIOLOGY SEMINAR. Fourth year. A series of lecture pres tations and discussions of basic scientific principles related to anesthesiolog Students may register for one or two semesters. One hour per we FALL & SPRING. Dr. Pittinger and Staff.

Medicine

DAVID E. ROGERS, M.D., Professor of Medicine and Chairman of the Departm WILLIAM J. DARBY, M.D., Ph.D., Professor of Medicine in Nutrition ROBERT CARL HARTMANN, M.D., Professor of Medicine RUDOLPH H. KAMPMEIER, M.D., Professor of Medicine, Emeritus GRANT W. LIDDLE, M.D., Professor of Medicine ANN STONE MINOT, Ph.D., Professor of Medicine, Emeritus ELLIOT V. NEWMAN, M.D., Joe and Morris Werthan Professor of Experime Medicine THOMAS F. PAINE, JR., M.D., Professor of Medicine JOHN B. YOUMANS, M.D., Professor of Medicine, Emeritus THOMAS BOWMAN ZERFOSS, M.D., Professor of Medicine, Emeritus F. TREMAINE BILLINGS, M.D., Clinical Professor of Medicine LAURENCE A. GROSSMAN, M.D., Clinical Professor of Medicine SAMUEL S. RIVEN, M.D., C.M., Clinical Professor of Medicine HARRISON J. SHULL, M.D., Clinical Professor of Medicine W. DAVID STRAYHORN, M.D., Clinical Professor of Medicine CLARENCE S. THOMAS, M.D., Clinical Professor of Medicine WILLIAM L. ALSOBROOK, M.D., Associate Professor of Medicine A. BERTRAND BRILL, M.D., Associate Professor of Medicine THOMAS E. BRITTINGHAM, M.D., Associate Professor of Medicine

ROGER M. DES PREZ, M.D., Associate Professor of Medicine ZOHEIR FARID, M.D., Visiting Associate Professor of Medicine in Trop Disease and Nutrition

RICHARD FRANCE, M.D., Associate Professor of Medicine H. EARL GINN, M.D., Associate Professor of Medicine

ROBERT A. GOODWIN, M.D., Associate Professor of Medicine

ROBERT M. HEYSSEL, M.D., Associate Professor of Medicine

M. GLENN KOENIG, M.D., Associate Professor of Medicine

DAVID H. LAW, M.D., Associate Professor of Medicine

JOHN A. OATES, M.D., Associate Professor of Medicine

LLOYD H. RAMSEY, M.D., Associate Professor of Medicine; Investigator, Howard Hughes Medical Institute

WILLIAM D. SALMON, JR., M.D., Associate Professor of Medicine

BRUCE SINCLAIR-SMITH, M.D., Associate Professor of Medicine

ROBERT T. TERRY, M.D., Associate Professor of Medicine

CRAWFORD W. ADAMS, M.D., Associate Clinical Professor of Medicine

THOMAS F. FRIST, M.D., Associate Clinical Professor of Medicine

I. ALLEN KENNEDY, M.D., Associate Clinical Professor of Medicine

ADDISON B. SCOVILLE, JR., M.D., Associate Clinical Professor of Medicine

EDWARD J. BATTERSBY, M.D., Assistant Professor of Medicine

RICHARD E. BRYANT, M.D., Assistant Professor of Medicine

IOHN R. COLLINS, M.D., Assistant Professor of Medicine

WILLIAM S. COPPAGE, M.D., Assistant Professor of Medicine

OSCAR B. CROFFORD, M.D., Assistant Professor of Medicine; Investigator, Howard Hughes Medical Institute ERIC ENGEL, M.D., Assistant Professor of Medicine

PHILIP W. FELTS, M.D., Assistant Professor of Medicine

IOHN M. FLEXNER, M.D., Assistant Professor of Medicine

DAVID E. JENKINS, JR., M.D., Assistant Professor of Medicine

WILLIAM W. LACY, M.D., Assistant Professor of Medicine

GEORGE V. MANN, Sc.D., M.D., Assistant Professor of Medicine in Biochemistry

WALTER E. NANCE, M.D., Assistant Professor of Medicine; Markle Scholar

ROBERT L. NEY, M.D., Assistant Professor of Medicine

WILLIAM A. PETTINGER, M.D., Assistant Professor of Medicine

HAROLD H. SANDSTEAD, M.D., Assistant Professor of Medicine

STEPHEN SCHILLIG, M.D., Assistant Professor of Medicine

JAMES D. SNELL, JR., M.D., Assistant Professor of Medicine SAMUEL S. WRIGHT, M.D., Assistant Professor of Medicine

BENJAMIN J. ALPER, M.D., Assistant Clinical Professor of Medicine

WILLIAM J. CARD, M.D., Assistant Clinical Professor of Medicine

ORRIE 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 FRED GOLDNER, JR., M.D., Assistant Clinical Professor of Medicine

JOHN H. GRISCOM, M.D., Assistant Clinical Professor of Medicine

THOMAS B. HALTOM, 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

HERMAN J. KAPLAN, M.D., Assistant Clinical Professor of Medicine

ALVIN E. KELLER, M.D., Assistant Clinical Professor of Medicine

RALPH W. MASSIE, M.D., Assistant Clinical Professor of Medicine

THOMAS GUV PENNINGTON, M.D., Assistant Clinical Professor of Medicine

W. ANDERSON SPICKARD, M.D., Assistant Clinical Professor of Medicine

JAMES N. THOMASSON, M.D., Assistant Clinical Professor of Medicine CHARLES B. THORNE, M.D., Assistant Clinical Professor of Medicine

RUSSELL D. WARD, M.D., Assistant Clinical Professor of Medicine

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JOHN LANIER WYATT, M.D., Assistant Clinical Professor of Medicine LUIS ARIAS, M.D., Instructor in Medicine THOMAS G. ARNOLD, JR., B.S., Martha Washington Straus-Harry H. Sp Instructor in Biophysics in Medicine WINTON D. BATSON, M.S.S.W., Instructor in Medical Social Service RICHARD N. DEXTER, M.D., Instructor in Medicine DAVID J. DRUTZ, M.D., Instructor in Medicine LAWRENCE M. FISHMAN, M.D., Instructor in Medicine JAY S. GOODMAN, M.D., Instructor in Medicine URSULA GUHL, M.D., Instructor in Medicine ADELAIDE HOHANNESS, M.S.S.W., Instructor in Medical Social Service MARGARET E. HOOD, B.S., Instructor in Medical Research DONALD P. ISLAND, B.S., Instructor in Medical Research OTTO KUCHEL, M.D., Instructor in Medicine BILLY J. MATTER, M.D., Instructor in Medicine L. CLIFFORD MCKEE, M.D., Instructor in Medicine ALEXANDER C. McLEOD, M.D., Instructor in Medicine MARIAN ANN MELLY, B.S., Instructor in Medical Research ANDREW M. MICHELAKIS, M.D., Instructor in Medicine DAVID N. ORTH, M.D., Instructor in Medicine JEAN W. ROUGHGARDEN, M.D., Instructor in Medicine JOHN R. WOODS, M.D., 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 E. ANDERSON, JR., M.D., Clinical Instructor in Medicine WILLIAM C. ANDERSON, M.D., Clinical Instructor in Medicine JACK M. BATSON, M.D., Clinical Instructor in Medicine ROBERT T. COCHRAN, M.D., Clinical Instructor in Medicine RAYMOND R. CROWE, M.D., Clinical Instructor in Medicine FRED M. DOWNEY, JR., M.D., Clinical Instructor in Medicine IRWIN B. ESKIND, M.D., Clinical Instructor in Medicine E. WILLIAM EWERS, M.D., Clinical Instructor in Medicine HOWARD R. FOREMAN, M.D., Clinical Instructor in Medicine MILTON GROSSMAN, M.D., Clinical Instructor in Medicine JOSIAH B. HIBBITTS, M.D., Clinical Instructor in Medicine JOSEPH E. HURT, M.D., Clinical Instructor in Medicine IRA T. JOHNSON, M.D., Clinical Instructor in Medicine JOHN P. KINNARD, JR., M.D., Clinical Instructor in Medicine OTTO MORSE KOCHTITZKY, M.D., Clinical Instructor in Medicine CARL E. MITCHELL, M.D., Clinical Instructor in Medicine FRED D. OWNBY, M.D., Clinical Instructor in Medicine HARRY L. PAGE, M.D., Clinical Instructor in Medicine LENOR S. RIBEIRO, M.D., Clinical Instructor in Medicine MARVIN J. ROSENBLUM, M.D., Clinical Instructor in Medicine SOL A. ROSENBLUM, M.D., Clinical Instructor in Medicine ROBERT M. ROY, M.D., Clinical Instructor in Medicine HERBERT J. SCHULMAN, M.D., Clinical Instructor in Medicine ABRAM C. SHMERLING, M.D., Clinical Instructor in Medicine LUTHER E. SMITH, M.D., Clinical Instructor in Medicine PAUL R. STUMB, M.D., Clinical Instructor in Medicine

W. DAVID STRAYHORN, JR., M.D., Clinical Instructor in Medicine EDWARD L. TARPLEY, M.D., Clinical Instructor in Medicine W. CARTER WILLIAMS, JR., M.D., Clinical Instructor in Medicine KAORU ABE, M.D., Research Associate in Medicine R. EUGENE JOHNSON, Ph.D., Research Associate in Medicine EDWIN G. STANT, Ph.D., Research Associate in Medicine THOMAS R. HARRIS, Ph.D., Research Associate in Medicine

DERMATOLOGY

ROBERT N. BUCHANAN, M.D., Clinical Professor of Dermatology and Head of the Division

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

NEUROLOGY

 WILLIAM M. CLARK, M.D., Assistant Clinical Professor of Neurology and Acting Head of the Division
 BERTRAM E. SPROFKIN, M.D., Clinical Professor of Neurology
 CHARLES E. WELLS, M.D., Associate Professor of Neurology (On leave 1966/68)

FRIC BELL, JR., M.D., Assistant Clinical Professor of Neurology

GEORGE W. PAULSON, M.D., Visiting Assistant Professor of Neurology

OHN SLOAN WARNER, M.D., Clinical Instructor of Neurology

OI. METHODS IN CLINICAL SCIENCE. An interdepartmental course designed o acquaint the student with the techniques, methods, and basic principles necessary to take careful histories, perform thorough physical examinations ind to understand and utilize basic laboratory procedures employed in linical medicine. Students are divided into small tutorial groups for ntensive work with patients on the wards at Vanderbilt University Hosvital, the Veterans Administration Hospital, and Nashville General Hosbital. Similar tutorial groups are utilized in the laboratory where stulents learn methods for examining urine, blood, sputum, gastric contents, eces, and body fluids. An introduction to neurologic diagnostic methods s included in the course. Additional training is given in special problems which relate to examination of pediatric, surgical, and obstetrical patients. ladiological techniques are correlated with instructional sessions. Corelative sessions are interspersed with the above. In these sessions, methds by which the history, physical examination, and laboratory aids can e used to arrive at diagnosis and decisions regarding further study and reatment are conducted by interdepartmental groups. Drs. Rogers, Penington, Hartmann, Wells, Minot, and the faculty of the Department of Medine; Dr. Christie and members of the Department of Pediatrics; Dr. Foster nd members of the Department of Surgery; Dr. Goss and members of the Deartment of Obstetrics-Gynecology; Dr. Hillman and members of the Department f Orthopedics; Dr. Klatte and members of the Department of Radiology; Dr. Petinger and members of the Department of Pharmacology.

502. CLINICAL CLERKSHIP. One-third of the third year class are assi to the medical wards for twelve-week periods. During the medical c ship, time is divided equally between the Vanderbilt University Hos and the Veterans Administration Hospital. The medical wards at derbilt University Hospital are comprised of 75 ward beds used in to ing, plus an additional 21 beds in the Clinical Research Center. Veterans Administration Hospital has approximately 80 teaching h At Vanderbilt University Hospital these services include patients diseases of the nervous system and the skin in addition to general men patients. At the Veterans Administration Hospital there is a sepa neurologic ward to which clinical clerks are assigned for two weeks du their medical clerkship. In addition, there is an active pulmonary set which functions within the medical service at the Veterans Admini tion Hospital. Patients are under the care of members of the facult medicine. Sub-departmental areas are organized for teaching and clin research as well as management of patients. The clinical clerkshi regarded as the back bone of the student's training in medicine, and re sents the most intensive in-patient experience offered within the Dep ment. It is believed that learning is most vivid through direct experi with patients, obtaining histories, doing physicals and laboratory stu amplified by reading and by intensive contact with members of the h staff and teaching staff. Students are given considerable responsib under the close supervision of the teaching staff. Additional instruct is carried out during rounds with the Chief of Service. In these sessi clinical clerks present cases for discussion and criticism and the more portant fields of internal medicine are covered. Instruction in de tology consisting of a series of clinics and clinic demonstrations are once weekly within the Veterans Administration Hospital. Ward w is supplemented by numerous teaching and subspecialty conferences throughout the academic year. Drs. Rogers, Brittingham, Clark, Des Salmon, Buchanan, and members of the faculty of the Department of Medicine.

503. CLINICAL LECTURES AND DEMONSTRATIONS. A series of 18 am theater clinics held bimonthly throughout the year. Cases and dis sions on diseases of importance in medicine are presented. One hour week. Drs. Rogers, Brittingham, and Staff.

504. MEDICAL OUT-PATIENT CLINIC. During the fourth year, each dent is assigned one morning clinic period a week in the out-patient partment. This experience gives the fourth year student major resp bilities for patient work-up and care in an environment that prov supervision and consultation from many branches of medicine. The term care and follow-up of ambulatory patients and further refinement skills in history taking and physical examination are stressed. Du this period the student becomes acquainted with the resources w other services can bring to bear in the cooperative management of patient with chronic disease. Experiences with orthopedics, physiother social service, and psychiatry are included. Dr. Law and Staff.

Specialty divisions. Students in the third and fourth years may

pecial clinical research work within any division of the Department of Medicine. In general, these electives follow the lines noted in the courses elow. It should be indicated, however, that flexible arrangements can be worked out on an individual basis through consultation with the faculty nember who will assume responsibility for supervision and guidance of the tudent. Such special electives must be cleared through Dr. Rogers and he Assistant Dean for Medical Education.

22. MEDICAL GENETICS. First and Fourth years. A series of lectures on numan genetics. Topics discussed will include Mendelian inheritance, ytogenetics, genetic linkage, population genetics, biochemical genetics, nutation, the genetic control of protein synthesis, evolution, and genetic ounciling. One and one-half hours per week. SPRING. Dr. Nance.

23. FUNDAMENTALS OF HUMAN NUTRITION. Second and Fourth years. The biochemical and physiological basis of nutrition with special emthasis upon human subjects. It consists of lectures and assigned readings. Biochemistry 523.) One hour per week. SPRING. Dr. Mann.

25. CLINICAL HEMATOLOGY. Fourth year. A detailed, correlative clinical aboratory course. Each session will open with presentation of a patient ollowed by microscopic study, demonstration of pertinent specialized ests, and lastly an informal correlative discussion of the entire disease rocess. Three hours per week. SPRING. Drs. Flexner, Hartmann, and leuted.

26. CLINICAL PHARMACOLOGY. Fourth year. Lectures and clinical semnars on the pharmacological basis of therapeutics and on the clinical use nd evaluation of drugs. (Pharmacology 522.) One hour per week. ALL. Dr. Oates and Staff.

27. CLINICAL ELECTROCARDIOGRAPHY. Fourth year. A course of lectures nd workshops dealing with the interpretation of clinically important lectrocardiographic abnormalities. One hour per week. FALL. Dr. lattersby.

28. CORRELATION OF CLINICAL AND PHYSIOLOGIC DATA IN HEART DIS-ASE. Fourth year. A case of heart disease from the wards will be preented at each session. Auditory and visual aids in the form of electroardiograms, phonocardiograms, intracardiac pressure tracings, dye diition curves, and cineangiograms will be used to emphasize the clinical ndings. One hour per week. FALL & SPRING. Drs. France and Arias.

19. TOPICS IN INFECTIOUS DISEASES. Fourth year. A lecture course dealing with selected topics in infectious diseases. This course will stress athogenesis, host-parasite relationships, diagnosis, and treatment. One our per week. FALL. Drs. Koenig and Rogers.

11. INTRODUCTION TO ELECTROCARDIOGRAPHY. Second year. Fundaentals of electrocardiography emphasizing lead systems, vector theory, id the mechanisms of arrhythmias. A programmed text for self-teaching ill be provided to each student. One hour per week. FALL & SPRING. r. Battersby. 532. LECTURES ON RENAL PATHOPHYSIOLOGY. Second and Fourth y Twelve informal seminars will concern renal-electrolyte pathophysio The first lecture will survey the history of renal physiology and the a valence of current attitudes toward the relevance of science. Basic physiology and hydrogen ion and electrolyte metabolism will be reed. These parameters will then be related to clinical situations particular emphasis on sodium, water, and hydrogen ion imbala Two hours per week; first twelve weeks. FALL. Dr. Ginn.

543. MEDICAL SPECIALTY CLINICS. Fourth year. Clinical experience the following specialities is available to the student:

Allergy, Cardiology, Dermatology, Diabetes, Endocrinology, Ga enterology, Hematology, Neurology, Veneral Disease, Chest and Infec Disease. Three hours per week; six week units. Dr. Rogers and Staff.

561. CLERKSHIP IN MEDICINE. Fourth year. A clinical clerkship or wards of Nashville General Hospital for those who wish to extend third year experience. Under supervision of the faculty and house Full time; six week units. Dr. Paine.

562. GASTROENTEROLOGY CLERKSHIP. Fourth year. This clerkship a broad experience in all clinical phases of gastroenterology includiscases of the hepato-biliary system and pancreas. Participation endoscopy, biopsy procedures and radiology is coupled with evaluation of patients and participation in one of the on-going research proseminars, rounds, and evaluation of current literature are regularly studed. Full time; six week units. Drs. Law, Shull, and Collins.

563. HEMATOLOGY CLERKSHIP. Fourth year. Active participation Hematology OPD, journal clubs, seminars, marrow conferences, and rounds at Vanderbilt University Hospital, Veterans Administration pital, and Nashville General Hospital. Laboratory experience in specia hematologic, radioisotope and blood banking techniques. Opt research experience. Program can be tailored to needs and desim individual student. Each student will have an adviser on the s faculty. Full time; six week units. Dr. Hartmann.

564. CLERKSHIP IN NEUROLOGY. Fourth year. Advanced clinical c ship experience on the neurology wards of Vanderbilt University H tal, Veterans Administration Hospital, and Nashville General Hos Neurology outpatient experience, plus conferences and seminars in rology. Special research projects optional. Full time; six week u Dr. Clark.

565. CLERKSHIP ON CLINICAL RESEARCH CENTER WARD. Fourth The Clinical Research Center ward is operating at full strength with beds under the aegis of all divisions of the Hospital. Most of the patare are medical and are a particularly selected and complicated group w wide variety of diseases. Regular rounds will be made with the b staff and investigators, and there will be an opportunity to attend Clinical Research Conferences. Full time; six week units. Dr. Na and Staff.

566. CLERKSHIP IN PULMONARY DISEASES. Fourth year. The basic form of the clerkship will be that of a substitute internship. Student responsibilities will include initial work-up and continuing treatment of new patients under the supervision of the full time staff on the Pulmonary Disease Service, Veterans Administration Hospital. Full time; six week units. Dr. Goodwin.

567. CLERKSHIP IN RENAL PATHOPHYSIOLOGY. Fourth year. This clerkship offers active participation in the evaluation of patients with kidney disease and fluid-electrolyte imbalance, in biopsy procedures, and in renalelectrolyte rounds as well as experience in the hemodialysis program for acute and chronic renal failure. Optional pathophysiology seminars, research experience, and Journal Club. Six week units. FALL & SPRING. Drs. Ginn and Matter.

568. CLERKSHIP IN INFECTIOUS DISEASES. Fourth year. During the clerkship the student will evaluate patients with problems of infection on the wards of Vanderbilt University Hospital. He will be an active participant in the management and follow-up of these patients and will attend all the regularly scheduled rounds, conferences, and seminars of the Infectious Disease Division. Full-time; six-week units. Dr. Koenig.

Research opportunities are available in all divisions of the Department of Medicine for selected students. Certain specific opportunities are outlined below.

581. RESEARCH FELLOWSHIPS IN INFECTIOUS DISEASES. Fourth year. A program consisting of approximately 70 per cent time on a research project, 30 per cent in clinical work with problems related to infection. Full time for twelve or eighteen weeks. Drs. Koenig, Rogers, and Staff.

582. RESEARCH FELLOWSHIP IN SELECTED METABOLIC AND ENDOCRINE DISEASES. Fourth year. Course covers selected topics in endocrinology and metabolism by means of an assigned reading program, laboratory work, clinical demonstration, and seminar. The student has an opportunity to examine and discuss patients and perform appropriate laboratory procedures utilizing enzymatic, colorimetric, spectrophotometric, isotopic, chromatographic and bioassay techniques. A weekly seminar reviews the assigned reading in the area of a single disease or group of related disorders of metabolism. Full time for six weeks. Drs. Salmon and Coppage.

583. RESEARCH FELLOWSHIP IN QUANTITATIVE CLINICAL CARDIOLOGY. Fourth year. The students accepted for this course must be interested in the study of cardiovascular disease and will be incorporated during their elective period into the full activities of this Division. Projects will include: (1) Instruction in elementary hemodynamics and intracardiac pressure wave analysis; (2) Acquisition of basic techniques such as arterial needle puncture, right heart catheterization, familiarization with standard physiological recording equipment; (3) Participation in work conferences and ward consultations. Twelve hours per week, for six or twelve weeks. Dr. Sinclair-Smith. 584. RESEARCH FELLOWSHIP IN NUCLEAR MEDICINE. Fourth year. Pro lems in hematology and new applications of radioisotopes in medici will be selected in accordance with the student's interest and backgroun **Twelve** hours per week, or full time for twelve weeks. Drs. Heyssel a Brill.

585. RESEARCH FELLOWSHIP IN CLINICAL PHYSIOLOGY. Fourth year. Sedents interested in participating in any research project being conduct by the staff members of the Division of Clinical Physiology (cardiac, pmonary, and renal) are offered training on a selective basis. These fellowships provide undergraduate trainees with excellent early exposure a experience in the foundation and methodology of research work. For time for twelve or eighteen weeks. Dr. Neuman and Staff.

587. RESEARCH FELLOWSHIP IN GASTROENTEROLOGY. Fourth year. Sedents are offered the opportunity of participating in the on-going resear studies of the Division of Gastroenterology involving investigations gastric secretion, intestinal absorption, protein metabolism and bilirul metabolism. Full time for twelve or eighteen weeks. Drs. Law and Colling

588. RESEARCH FELLOWSHIP IN HEMATOLOGY. Fourth year. A progr consisting of approximately 80 per cent time on a specific research proand 20 per cent time in correlative clinical work. Full time for twelve eighteen weeks. Dr. Hartmann and Staff.

599. MEDICINE SEMINAR. Fourth year. Discussion with the house s and fellows of cases selected to focus on the major acute problems of ho talized patients. Students will prepare case presentations, perform p assigned and elective reading, and participate in discussions aimed a deeper understanding of pathophysiologic mechanisms and principles treatment, as well as a practical approach to management. Two ho per week. FALL & SPRING. Chief Medical Residents, Drs. Hall, Man and Staff.

Obstetrics & Gynecology

DONALD A. Goss, M.D., Professor of Obstetrics and Gynecology and Chaim of the Department (Effective December 1, 1966)

G. SYDNEY MCCLELLAN, M.D., Clinical Professor of Obstetrics and Gynam (Acting Chairman to December 1, 1966)

JOHN C. BURCH, M.D., Professor of Gynecology, Emeritus

FRANK E. WHITACRE, M.D., Professor of Obstetrics and Gynecology, Emerits D. SCOTT BAYER, M.D., Clinical Professor of Obstetrics and Gynecology

EDWIN LEA WILLIAMS, M.D., Clinical Professor of Obstetrics and Gynecolo Walter A. Bonney, Jr., M.D., Associate Professor of Obstetrics and Gynea (On leave)

STANLEY R. GLASSER, Ph.D., Associate Professor of Obstetrics and Gynam (Research)

- WILLARD O. TIRRILL, M.D., Associate Clinical Professor of Obstetrics
- MARIE-CLAIRE ORGEBIN-CRIST, Ph.D., Assistant Professor of Obstetrics and Gracelogy (Research)
- PIERRE SOUPART, M.D., Ph.D., Assistant Professor of Obstetrics and Gynecology (Research)
- RUSSELL T. BIRMINGHAM, M.D., Assistant Clinical Professor of Obstetrics and Graceology
- ROGER B. BURRUS, M.D., Assistant Clinical Professor of Obstetrics and Gynecology
- ROBERT L. CHALFANT, M.D., Assistant Clinical Professor of Obstetrics and Gynecology
- EVERETT M. CLAYTON, JR., M.D., Assistant Clinical Professor of Obstetrics and Gynecology
- SAM C. COWAN, JR., M.D.. Assistant Clinical Professor of Obstetrics and Gynecology (Died May 15, 1966)
- GEORGE B. CRAFTON, M.D., Assistant Clinical Professor of Obstetrics and Genecology
- JAMES WOOD ELLIS, M.D., Assistant Clinical Professor of Obstetrics and Gynecology
- HAMILTON V. GAYDEN, M.D., Assistant Clinical Professor of Obstetrics and Gynecology (Died May 17, 1966)
- B. KIMBROUGH HIBBETT III, M.D., Assistant Clinical Professor of Obstetrics and Gynecology
- JAMES W. JOHNSON, M.D., Assistant Clinical Professor of Obstetrics and Gynecology
- ROLAND D. LAMB, M.D., Assistant Clinical Professor of Gynecology
- HORACE T. LAVELY, JR., M.D., Assistant Clinical Professor of Gynecology
- HOMER M. PACE, M.D., Assistant Clinical Professor of Obstetrics and Gynecology
- Roy W. PARKER, M.D., Assistant Clinical Professor of Obstetrics and Gynecology
- ROBERT C. PATTERSON, JR., M.D., Assistant Clinical Professor of Obstetrics and Genecology
- C. GORDON PEERMAN, JR., M.D., Assistant Clinical Professor of Obstetrics and Genecology
- SIDNEY C. REICHMAN, M.D., Assistant Clinical Professor of Obstetrics and Gynecology
- HOUSTON SARRATT, M.D., Assistant Clinical Professor of Obstetrics and Gynecology
- ROBERT H. TOSH, M.D., Assistant Clinical Professor of Obstetrics and Gynecology
- THOMAS F. WARDER, M.D., Assistant Clinical Professor of Obstetrics and Gynecology
- LARRY ARNOLD, M.D., Clinical Instructor in Obstetrics and Gynecology
- HARRY BAER, M.D., Clinical Instructor in Obstetrics and Gynecology
- JAMES M. BRAKEFIELD, M.D., Clinical Instructor in Obstetrics and Gynecology
- Bentamin H. Caldwell, Jr., M.D., Clinical Instructor in Obstetrics and Gynecology
- CHARLES M. GILL, M.D., Clinical Instructor in Obstetrics and Gynecology
- PAUL A. GREEN, JR., M.D., Clinical Instructor in Obstetrics and Gynecology
- NEWTON GRIFFIN, M.D., Clinical Instructor in Obstetrics and Gynecology
- CHARLIE JOE HOBDY, M.D., Clinical Instructor in Obstetrics and Gynecology
- CHARLES H. HUDDLESTON, M.D., Clinical Instructor in Obstetrics and Gynecology OREN LESTER JONES, JR., M.D., Clinical Instructor in Obstetrics and Gynecology

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RALPH R. KLING, JR., M.D., Clinical Instructor in Obstetrics and Gynecology JAMES B. MILLIS, M.D., Clinical Instructor in Obstetrics and Gynecology PHILLIP NICHOLAS, M.D., Clinical Instructor in Obstetrics and Gynecology WILLIAM D. SUMPTER, JR., M.D., Clinical Instructor in Obstetrics and Gynecology ARTHUR SUTHERLAND, M.D., Clinical Instructor in Obstetrics and Gynecology PAUL L. WARNER, M.D., Clinical Instructor in Obstetrics (Died May 10, 19) NORMAN E. WITTHAUER, M.D., Clinical Instructor in Obstetrics and Gynecology NORMAN E. WITTHAUER, M.D., Clinical Instructor in Obstetrics (Died May 10, 19)

502. CLINICAL CLERKSHIP. One-sixth of the third year class is assigned one-third of a semester. An introductory experience in inpatient obstem and gynecology is obtained. Approximately one-third of the experie will be at the Nashville General Hospital. Drs. Goss, McClellan, I Johnson.

503. CLINICAL OBSTETRICS AND GYNECOLOGY. Fourth-year students a assigned to obstetrics and gynecology patients who come to the outpatie department. The student assigned to a particular case follows that case long as is necessary in the appropriate clinics. Drs. Goss, McClellan, a Johnson.

521. DEVELOPMENT BIOLOGY. First, Second, and Fourth years. A conprehensive, multidisciplinary study in mammalian developmental biologicovering gametogenesis, gamete transport, fertilization and implantion, development and functions of the placenta, uterus, parturition a lactation. This course is presented as a fundamental aspect of biologic science rather than as a medical specialty. Two hours of lecture and thours of laboratory demonstration per week. (Anatomy 521.) Fe hours per week. Spring. Drs. Soupart, Glasser, and Staff.

522. OBSTETRICAL AND GYNECOLOGICAL PATHOLOGY. Fourth year. series of laboratory exercises in which the gross and microscopic char teristics of the more important obstetrical and gynecological conditi are demonstrated. (Pathology 526.) One hour per week. FALL & SPRIP Drs. Johnson, Thomison, and Parker.

543. OBSTETRICAL AND GYNECOLOGICAL CLINICS. Fourth year. Experie in the following clinics is available to the student: Tumor, Dystocia, C traceptive, or Routine. Three hours per week; six week units. Staf

561. CLERKSHIP IN OBSTETRICS AND GYNECOLOGY. Fourth year. Clim clerkship in Obstetrics-Gynecology at Vanderbilt University Hospital Nashville General Hospital. Inpatient and outpatient services on b obstetrics and gynecology, night call on rotational basis. Weekly clim and pathology conferences. Full time; six week units. Drs. Goss, Ma lan, Griffin, Johnson, and Staff.

581. RESEARCH FELLOWSHIP IN OBSTETRICS AND GYNECOLOGY. For year. Students may work with any member of the faculty on a prob relating to experimental aspects of reproductive biology. The labo tories and animal quarters of the department will be made available the student. A written and oral report of the research will be requir Twelve hours per week; six week units. Dr. Glasser and Staff.

82. CLINICAL RESEARCH IN OBSTETRICS AND GYNECOLOGY. Fourth year. students will work with a member of the faculty on any problem relating to the diagnosis or treatment of an obstetrical-gynecological disease. Reearch will be carried out in the library, medical records room, outpatient and inpatient areas, and laboratories of the department. A written and oral teport of the research will be required. Three hours per week; six week units. Staff.

399. SEMINAR IN DEVELOPMENTAL BIOLOGY. First, Second, and Fourth certs. Weekly seminar including lectures and discussion by the full-time aculty, visiting lecturers, and participating students. (Anatomy 599.) One hour per week. FALL & SPRING. Drs. Soupart and Davies.

Orthopedic Surgery

. WILLIAM HILLMAN, M.D., Professor of Orthopedic Surgery and Chairman of the Department

EUGENE M. REGEN, M.D., Clinical Professor of Orthopedic Surgery

ARTHUR LEROY BROOKS, M.D., Associate Professor of Orthopedic Surgery

George K. CARPENTER, M.D., Associate Clinical Professor of Orthopedic Surgery, Emeritus

5. BENJAMIN FOWLER, M.D., Associate Clinical Professor of Orthopedic Surgery JOHN A. BARROW III, M.D., Assistant Professor of Orthopedic Surgery

ELWYN A. SAUNDERS, M.D., Assistant Professor of Orthopedic Surgery

J. JEFFERSON ASHBY, M.D., Assistant Clinical Professor of Orthopedic Surgery, Emeritus

DON L. EYLER, M.D., Assistant Clinical Professor of Orthopedic Surgery OHN GLOVER, M.D., Assistant Clinical Professor of Orthopedic Surgery

Cher Obover, 11.D., 1155554m Conneur Projessor of Orthopean Surgery

ARNOLD HABER, JR., M.D., Assistant Clinical Professor of Orthopedic Surgery

ANDREW H. MILLER, M.D., Assistant Clinical Professor of Orthopedic Surgery

THOMAS F. PARRISH, M.D., Assistant Clinical Professor of Orthopedic Surgery

ROBERT C. CODDINGTON, Instructor in Orthopedic Surgery

OE G. BURD, M.D., Clinical Instructor in Orthopedic Surgery

GEORGE K. CARPENTER, JR., M.D., Clinical Instructor in Orthopedic Surgery

G. WILLIAM DAVIS, JR., M.D., Clinical Instructor in Orthopedic Surgery

CHARLES M. HAMILTON, M.D., Clinical Instructor in Orthopedic Surgery

OHN R. JONES, M.D., Clinical Instructor in Orthopedic Surgery

A. BRANT LIPSCOMB, M.D., Clinical Instructor in Orthopedic Surgery

OHN M. MILLER, M.D., Clinical Instructor in Orthopedic Surgery

EUGENE M. REGEN, JR., M.D., Clinical Instructor in Orthopedic Surgery

E. Dewey Thomas, M.D., Clinical Instructor in Orthopedic Surgery

JOHN M. WAMPLER, M.D., Clinical Instructor in Orthopedic Surgery

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501. METHODS IN CLINICAL SCIENCE: INTRODUCTION TO ORTHOPEDIC SURG A series of lectures is presented in association with the course Meth in Clinical Science. Emphasis is placed upon the examination of musculoskeletal system, assessment of normal and abnormal gait, stand measurement and recording of ranges of joint motion and muscle streng Case presentations illustrate the basic mechanism of deformity and ability. SPRING. Dr. Hillman and Staff.

502. INTRODUCTION TO CLINICAL ORTHOPEDIC SURGERY. A series of t_{W_1} lectures is presented in the third year, covering trumatic and non-traum musculoskeletal conditions. Emphasis is placed upon the physiologic proach to the treatment of these problems. SPRING. Dr. Hillman Staff.

503. ORTHOPEDIC INPATIENT SERVICE. During the third year surg clerkship, there are ten-day assignments of groups of two students to Orthopedic Ward of the Hospital. Combined resident-student rounds held each day with attending staff. (See Surgery 502.) Dr. Hillman Staff.

504. ORTHOPEDIC OUTPATIENT SERVICE. Outpatient experience in Ort pedic Surgery is coordinated with the general surgery and other clin (See Surgery 504.)

543. ORTHOPEDIC SURGERY SPECIALTY CLINICS. Fourth year. Experie in the following specialty clinics is available to the student: Cere Palsy, Polio, Hand, Crippled Children. Three hours per week, six-w units. Dr. Hillman and Staff.

561. CLERKSHIP IN ORTHOPEDIC SURGERY. Fourth year. An inten clinical experience in Orthopedic Surgery including inpatient, output and operating room assignments. Supervision is by the resident staff the Orthopedic Department staff. The clerk will participate in the activities of the department and may be assigned to: 1) Children's Ort pedics (State Crippled Children's Clinics and Vanderbilt), 2) Nash General Hospital, Veterans Administration Hospital and Vander University Hospital. Full time; six week units. Dr. Hillman and St

562. REHABILITATION CLERKSHIP. Fourth year. This clerkship is integral part of the rehabilitation teaching program. Participation programs providing long-term multidisciplinary medical care for inpath and outpatients. Includes attendance at Birth Defects Clinic, Amp Clinic, Cerebral Palsy Clinic, Arthritis Clinic, field trips to the Bill Wil son Hearing and Speech Clinic and the State Vocational Rehabilitat Service, plus weekly seminars on practical aspects of rehabilitation. medical conditions which require team type care are demonstrated. addition, the effective functioning of medical and paramedical particip will be in evidence. (Preventive Medicine 561.) Twelve hours per w six week units. Drs. Hillman, Quinn, Brooks, Barrow, and Coddington.

581. RESEARCH FELLOWSHIP IN ORTHOPEDIC SURGERY. Fourth year. opportunity for supervised experience in research related to the mu

loskeletal system. Elements of project design and methods of assessment, development and application of laboratory equipment, controlled small animal experiments, and background correlative study will be emphasized. Currently active research projects in areas of biomechanics of bone, biochemical-biomechanical correlation, acute circulatory disorders in the extremities, scoliosis, and fat embolism are suggested topics, although other projects of particular interest to the fellow are equally acceptable. Each student will be given individual supervision by a staff member. Full time for twelve or eighteen weeks. Dr. Hillman and Staff.

Pediatrics

Amos CHRISTIE, M.D., Professor of Pediatrics and Chairman of the Department RANDOLPH BATSON, M.D., Professor of Pediatrics JAMES C. OVERALL, M.D., Clinical Professor of Pediatrics WILLIAM D. DONALD, M.D., Associate Professor of Pediatrics JOSEPH A. LITTLE, M.D., Associate Professor of Pediatrics SARAH H. SELL, M.D., Associate Professor of Pediatrics MILDRED STAHLMAN, 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 THOMAS S. WEAVER, M.D., Associate Clinical Professor of Pediatrics WILLIAM F. FLEET, M.D., Assistant Professor of Pediatrics ROBERT C. FRANKS, M.D., Assistant Professor of Pediatrics FRANCIS A. PUYAU, M.D., Assistant Professor of Pediatrics LUTHER A. BEAZLEY, M.D., Assistant Clinical Professor of Pediatrics EUGENE L. BISHOP, JR., M.D., Assistant Clinical Professor of Pediatrics HEARN G. BRADLEY, M.D., Assistant Clinical Professor of Pediatrics, Emeritus T. FORT BRIDGES, M.D., Assistant Clinical Professor of Pediatrics, Emeritus 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 ERLE E. WILKINSON, M.D., Assistant Clinical Professor of Pediatrics JAMES CARTER, M.D., Instructor in Pediatrics RICHARD B. JOHNSTON, M.D., Instructor in Pediatrics DAVID SILBER, M.D., Instructor in Pediatrics DOROTHY JEAN TURNER, M.D., Instructor in Pediatrics LINDSAY K. BISHOP, M.D., Clinical Instructor in Pediatrics

E. THOMAS CARNEY, D.D.S., Clinical Instructor in Pediatrics SAM W. CARNEY, JR., M.D., Clinical Instructor in Pediatrics NORMAN M. CASSELL, M.D., Clinical Instructor in Pediatrics ERIC MARTIN CHAZEN, M.D., Clinical Instructor in Pediatrics ISABELLA COLLINS, M.D., Clinical Instructor in Pediatrics WILLIAM M. DOAK, M.D., Clinical Instructor in Pediatrics RAY L. DUBUISSON, M.D., Clinical Instructor in Pediatrics PHILIP C. ELLIOTT, M.D., Clinical Instructor in Pediatrics JOHN P. FIELDS, M.D., Clinical Instructor in Pediatrics CHARLES HIRSHBERG, M.D., Clinical Instructor in Pediatrics ROBERT H. HUTCHESON, JR., M.D., Clinical Instructor in Pediatrics WILLIAM C. KING, M.D., Clinical Instructor in Pediatrics LEONARD J. KOENIG, M.D., Clinical Instructor in Pediatrics SOL L. LOWENSTEIN, M.D., Clinical Instructor in Pediatrics DEWEY G. NEMEC, M.D., Clinical Instructor in Pediatrics GABE A. PAYNE, JR., M.D., Clinical Instructor in Pediatrics HARVEY SPARK, M.D., Clinical Instructor in Pediatrics JOSEPH STERANKA, M.D., Clinical Instructor in Pediatrics JACK TURNER SWAN, M.D., Clinical Instructor in Pediatrics RICHARD P. TABER, M.D., Clinical Instructor in Pediatrics ARVILLE WHEELER, M.D., Clinical Instructor in Pediatrics WILLIAM C. YOUNG, M.D., Clinical Instructor in Pediatrics THOMAS B. ZERFOSS, JR., M.D., Clinical Instructor in Pediatrics

501. METHODS IN CLINICAL SCIENCE: INTRODUCTION TO PEDIATRICS. an integral part of the course Methods in Clinical Science, a series of lectur will be given in the second year. These lectures will prepare the stude for their clinical experiences in the third year. Additionally, stude are rotated through the department in small tutorial groups. SPRIN Dr. Christie and Staff.

502. CLINICAL CLERKSHIP. One-sixth of the third year class is assign to the Pediatric wards for six weeks. Bedside instruction is given a patients are studied, emphasis being placed on the structure and function the normal child. Physical diagnosis and variations from the normal a their prevention are considered. Drs. Christie, Little, and Staff.

503. PEDIATRIC OUTPATIENT SERVICE. During the Senior year, the d spends six weeks in a planned program in the Pediatric Outpatient Clin Patients, including well babies in a special clinic, are assigned to stude who record histories, make physical examinations, and carry out diagnos and immunization procedures. Diagnosis and treatment are consider Students rotate through special Pediatric clinics. Dr. Christie.

504. CLINICAL LECTURES AND DEMONSTRATIONS. A series of eight Amphitheater Clinics held biweekly throughout the year. Cases and cussions on diseases of importance in pediatrics are presented. Dr. Chr. and Staff.

521. SIGNPOSTS OF HUMAN GROWTH AND DEVELOPMENT. First year. A series of demonstrations on growth of children using ward and clinic material. Deviations from the normal growth pattern and congenital abnormalities will be shown. One hour per week; six week units. Dr. Christie and Staff.

522. LECTURE SERIES IN PEDIATRICS. Fourth year. Lectures will cover the spectrum of diseases in the pediatric age group including a discussion of prenatal period, the newborn child, growth and development, and nutrition of infants and children. The preventive aspects of pediatrics are discussed: Focus is primarily on the normal child as a basis for the study of the diseases of children. One hour per week. FALL & SPRING. Dr. Christie and Staff.

524. PEDIATRIC PATHOPHYSIOLOGY. Second and Fourth years. Lecture course concerning the special problems of the newborn child, alterations in normal physiology produced by various disease states, cardiac diseases, endocrine, renal, and metabolic disorders. One hour per week. FALL & SPRING. Drs. Puyau and Stahlman.

525. PEDIATRIC SURGICAL PROBLEMS. Fourth year. A combined course offered by the departments of Surgery and Pediatrics utilizing patient demonstrations and didactic lectures. Diagnosis, preoperative preparation, surgery, and postoperative care will be stressed. Course may be elected for units of six weeks to all year. (Surgery 525.) One hour per week. FALL & SPRING. Drs. Little and Stephenson.

526. PEDIATRIC DENTISTRY. Fourth year. The course is for the student oriented towards pediatrics. It is taught with lecture, assigned reading and case presentation. There is a review of the embryological development and growth of the head, face, and oral cavity, including craniometry, teephalometry, and dental developments. Effects of abnormal nutrition, toral manifestations of system disease, handicapped children's problem and public health aspects will be given. One hour per week. FALL & SPRING. Dr. Carney.

517. PEDIATRIC WARD WALK. Fourth year. The most interesting and instructive cases currently on the Pediatrics Wards will be shown each week. Diagnostic and therapeutic problems will be discussed. May elect one or more periods. One hour per week; six week units. Dr. Little and Staff.

528. RECENT ADVANCES IN PEDIATRIC INFECTIOUS DISEASES. Second, Third, and Fourth year. A lecture course in clinical infectious diseases of children emphasizing the recent advances in common diseases, unusual diseases, and special problems. Patients and special laboratory demonstrations will be shown when applicable. One hour per week. SPRING. Drs. Sell, Turner, and Fleet.

543. PEDIATRIC SPECIALITY CLINICS. Fourth year. Experience in the following speciality clinics is available to the student: Pediatric Cardiology, Mental Retardation, Practical Pediatrics, Allergy, Endocrine and Metabolic, Seizure and Birth Defects. Three hours per week; six week units. 561. CLERKSHIP IN PEDIATRICS. Fourth year. The student shall serve Extern on the wards at Vanderbilt University Hospital or Nashville G eral Hospital. He shall have all associated responsibilities, include attendance at conferences. Full time; six week units. Drs. Christie a Donald.

562. CLERKSHIP IN NEWBORN CARE. Fourth year. Students will be structed three afternoons a week in the special care involved in the sup vision of newborns. Prerequisite: (or concomitant) Pediatric Pathoph ology (Pediatrics 524). Six hours per week; six week units. I Stablman.

566. CLERKSHIP IN PEDIATRIC REHABILITATION. Fourth year. Inpati and outpatient care for patients with chronic disease and birth defe Optional clinical research opportunities. Full time; six week units. 1 Fleet.

581. RESEARCH FELLOWSHIP IN NEWBORN PHYSIOLOGY. Fourth y: Fellowship offering a concentrated experience in the newborn nursery i the laboratory. For students with special interest in the field of newb physiology. Full time for twelve or eighteen weeks. Dr. Stahlman.

582. RESEARCH FELLOWSHIP IN PEDIATRIC INFECTIOUS DISEASE. For year. Fellowship on special problems in infectious disease in pediam Special techniques, including immunofluorescent techniques, in clim microbiology included. Full time for six to twelve weeks. FALL & SPRD Dr. Sell.

Preventive Medicine & Public Healt

ROBERT W. QUINN, M.D., C.M., Professor of Preventive and Social Medi and Chairman of the Department

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

RICHARD O. CANNON, M.D., Assistant Professor of Hospital Administration LEWIS B. LEFKOWITZ, JR., M.D., Assistant Professor of Preventive Medicinu RUTH E. SPRUANCE, M.S.S.W., Assistant Professor of Medical Social Service ANNE SWEENEY, M.A., Assistant Professor of Medical Social Service

W. CARTER WILLIAMS, M.D., M.P.H., Assistant Professor of Preventive M cine and Public Health

JOSEPH M. BISTOWISH, M.D., Assistant Clinical Professor of Preventive N cine and Public Health

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

- A. H. TRITHART, D.D.S., M.P.H., Assistant Clinical Professor of Dental Health
- C. B. TUCKER, M.D., M.P.H., Assistant Clinical Professor of Preventive Medicine and Public Health
- THERESA SCOTT CARTER, M.S.S.W., Instructor in Medical Social Service
- RUTH M. HAGSTROM, M.D., Instructor in Preventive Medicine
- GARNET M. MORGAN, M.S.S.W., Instructor in Medical Social Service
- RAYMOND R. CROWE, M.D., Clinical Instructor in Preventive Medicine and Public Health
- FRED M. DOWNEY, M.D., Clinical Instructor in Preventive Medicine and Public Health
- JULIAN R. FLEMING, M.S., Clinical Instructor in Sanitation
- THOMAS J. FRIDDELL, M.D., Clinical Instructor in Preventive Medicine
- JAMES E. GOLDSBERRY, M.D., Clinical Instructor in Preventive Medicine and Public Health
- JOHN HEINTZELMAN, M.D., Clinical Instructor in Preventive Medicine and Public Health
- WILDER WALTON HUBBARD, M.D., Clinical Instructor in Preventive Medicine and Public Health
- CURTIS P. MCCAMMON, M.D., M.P.H., Clinical Instructor in Preventive Medicine and Public Health
- PANUEL NYE LOWRY, M.A., Research Associate in Preventive Medicine

BIOSTATISTICS

CHARLES F. FEDERSPIEL, Ph.D., Assistant Professor of Biostatistics HOMER A. SPRAGUE, M.P.H., Instructor in Biostatistics ANN DILLON, M.S.P.H., Clinical Instructor in Biostatistics CON O. T. BALL, Research Associate in Biostatistics

SOI. EPIDEMIOLOGY: GENERAL PRINCIPLES. Basic principles are presented in a series of lectures during the first semester of the second year. Medical statistics is taught during the second semester and these two courses complement each other. The approach in epidemiology is to acquaint the students with the general principles of epidemiology dealing with the agent, host, and environmental factors, their interrelationships, and influence on health and disease. The aim is to get the student to think in broad epidemiological terms of his patients and their problems, be they physical, emotional, or socioeconomic. One hour per week; first ten weeks. FALL. Drs. Quinn, Lefkowitz, and Hagstrom.

502. MEDICAL STATISTICS. Designed to acquaint the second year student with the elements of statistical reasoning as applied to medical problems. Topics include: Formulation of hypotheses; design of clinical and laboratory experiments; methods of collection and tabulation of data; analysisof-variance techniques and nonparametric methods; methodology of shortand long-term medical studies; evaluation and use of vital statistics data.

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The course is organized around the presentation of examples from literature. Twenty-one hours. FALL & SPRING. Dr. Federspiel and Sprague.

503. PRINCIPLES OF PUBLIC HEALTH AND PREVENTIVE MEDICINE. A COL of lectures intended to provide the second year student with the prevent point of view in the practice of medicine, to make him aware of the ma health problems and of the changing nature of major health proble and to acquaint him with the organized forces working for the advament of public health. The following subjects are among those consider epidemiology, etiology, modes of transmission and methods of prevent and control of communicable diseases; vital statistics; maternal and in hygiene; the venereal disease problem; the more common occupational eases; civilian defense and disaster control; school hygiene; principle housing; water supplies and sewage disposal, and population proble Clinical preventive medicine is emphasized in relation to cardiovascular eases, diabetes, cancer, and the problems of geriatrics are presented. Se is placed on principles in public health administration at international. tional, state, and local levels and their relation to the practitioner of m cine. Twenty-one hours. FALL & SPRING. Dr. Quinn and Staff.

521. MEDICINE IN FAMILIES AND THE COMMUNITY. First year. The afternoons are spent in discussion-seminars on the relevance of the prac of preventive medicine to continuing and comprehensive care. Med care is emphasized from the point of view of individualized consideration of patients for the maintenance of good health and rehabilitation f ill health, taking account of family factors and general community vironment. Comprehensive care means health promotion; prevention disease through immunization and health education; maternal and in health guidance, and periodic health evaluation; early diagnosis and m ment; disability limitation; and rehabilitation. Case presentations discussion of families with medical problems illustrating the points at will be made in another three afternoons. Field visits are made to Bill Wilkerson Hearing and Speech Center, Metropolitan Health Den ment, Senior Citizens' Center (seminar on aging), and Central State pital (Geriatrics Pavillion). Medical economics, current and ba medical legislation, are presented in appropriate detail. Three hours week, last twelve weeks. FALL & SPRING. Dr. Quinn and Staff and vision of Human Behavior.

522. APPLIED EPIDEMIOLOGY. Second year. The principles of epidemio are applied to the study of infectious, non-infectious, and chronic dise and conditions such as accidents. Factors influencing the occurrence distribution of various diseases and conditions are studied with the ultiobjective of developing programs for their prevention and control. plication of epidemiologic methods are demonstrated by means of exenand problems. Tuberculosis, rheumatic fever, and syphillis are take examples of chronic diseases which have a profound physical, emotion economic, and social effect on the patient, his family, and the commu-The epidemiology and natural history of these illnesses are considered

detail, with case presentations, and discussion of prevention and control. One hour per week. SPRING. Drs. Quinn, Federspiel, Lefkowitz, and Hagstram.

523. BIOMETRY (321). Fourth year. Discussion of the analysis of data arising from laboratory experimentation in the biological and medical sciences. Emphasis is placed on general biological models and inference based on analysis-of-variance techniques. Experimental design and concepts involved in the efficient planning of experiments in biological research are included. Three hours per week. FALL. Dr. Federspiel.

52.4. CLINICAL TRIALS. Fourth year. Design, execution, and analysis of clinical trials, and interpretation of results. Distinction of observational surveys from experimental trials. Examination and critique of relevant literature. Two hours per week. SPRING. Dr. Federspiel.

525. POPULATION PROBLEMS AND FAMILY PLANNING. First, Second, and Fourth years. This course is an introduction to population problems and family planning. It includes the causes of overpopulation and underpopulation; the problems created by overpopulation, in relation to food supply and nutrition, environmental sanitation and education. The biology of human reproduction, adaptation, and selection, sex practices, and population change are considered in as much detail as possible. The course ends with consideration of the infertile family wanting a child and finally methods for limiting family size. One hour per week, last twelve weeks. FALL & SPRING. Drs. Quinn, Cappannari, and Rhamy.

542. FAMILY CLINIC. Fourth year. Emphasis is on comprehensive continuing care for entire families. Families selected for the student to follow illustrate the importance of host factors (genetic, past illness and intercurrent diseases, nutritional status, etc.) and environmental factors (home and more broadly the community, including family relationships) economic factors and knowledge and use of available medical facilities in prevention, treatment and rehabilitation from disease. This clinic may be elected for the student's all-year Long-Term Care Clinic. Three hours per week; six week units. Drs. Quinn, Johnson, Lefkowitz, and Hagstrom.

543. VENERAL DISEASE CLINIC. Fourth year. Students attend the Medical L. Clinic where the main emphasis is on the clinical aspects of syphilis and other veneral diseases, and the Veneral Disease Clinic of the Metropolitan Health Department where the main emphasis is on epidemiology, contact investigation, and control. (See Medicine 543.) Three hours per week; six week units. Drs. Quinn, Kampmeier, and Friddell.

361. REHABILITATION CLERKSHIP. Fourth year. This clerkship is an integral part of the rehabilitation teaching program directed by Dr. Kampmeier. Participation in programs providing long-term multidisciplinary medical care for inpatients and outpatients. Includes attendance at Birth Defects Clinic, Amputee Clinic, Cerebral Palsy Clinic, Arthritis Clinic, field trips to the Bill Wilkerson Hearing and Speech Center and the State Vocational Rehabilitation Service, plus weekly seminars on practical aspects of rehabilitation. The medical conditions which require team-type care demonstrated. In addition, the effective functioning of medical are paramedical participants will be in evidence. (Same as Orthopedic Surge 562.) Twelve hours per week; six week units. Drs. Hillman, Quinn, Brod. Kampmeier, Saunders, and Alper.

599. BIOASSAY SEMINAR. Fourth year. Statistical techniques employe in assessing the potency of biologic compounds through the use of live organisms. One hour per week. SPRING. Dr. Federspiel.

Psychiatry

WILLIAM F. ORR, M.D., Professor of Psychiatry and Chairman of the Departme RUE L. CROMWELL, Ph.D., Professor of Psychology in Psychiatry FRANK H. LUTON, M.D., Professor of Psychiatry, Emeritus JAMES W. WARD, Ph.D., M.D., Associate Professor of Anatomy in Psychiatr WARREN W. WEBB, Ph.D., Associate Professor of Clinical Psychology OTTO BILLIG, M.D., Associate Clinical Professor of Psychiatry VIRGINIA KIRK, Ph.D., Associate Clinical Professor of Clinical Psychole Emeritus ROBERT W. ADAMS, JR., M.D., Assistant Professor of Psychiatry BASIL T. BENNETT, M.D., Assistant Professor of Psychiatry JOHN D. GRIFFITH, M.D., Assistant Professor of Psychiatry RICHARD F. MARTIN, Ph.D., Assistant Professor of Clinical Psychology MIRIAM MCHANEY, Assistant Professor of Psychiatric Social Work ROBERT REED, M.D., Assistant Professor of Psychiatry SARAH H. SELL, M.D., Assistant Professor of Pediatrics in Psychiatry LAVERGNE WILLIAMS, M.S.S.W., Assistant Professor of Psychiatric Social W JOHN A. WILSON, M.D., Assistant Professor of Psychiatry HENRY B. BRACKIN, JR., M.D., Assistant Clinical Professor of Psychiatry CHARLES CORBIN, JR., M.D., Assistant Clinical Professor of Psychiatry H. JAMES CRECRAFT, M.D., Assistant Clinical Professor of Psychiatry LLOYD C. ELAM, M.D., Assistant Clinical Professor of Psychiatry ALEXANDER E. HARVEY, M.D., Assistant Clinical Professor of Psychiatry ALBERT R. LAWSON, M.D., Assistant Clinical Professor of Psychiatry CHARLES B. SMITH, M.D., Assistant Clinical Professor of Psychiatry FRANK W. STEVENS, M.D., Assistant Clinical Professor of Psychiatry NAT T. WINSTON, M.D., Assistant Clinical Professor of Psychiatry HELEN MARGARET BROWNING, M.S.S.W., Instructor in Psychiatric Sa Work

WILLIAM E. FANN, M.D., Instructor in Psychiatry DOROTHY HUNTER, M.S.S.W., Instructor in Psychiatric Social Work

ABNER R. OVERDEER, Ph.D., Instructor in Clinical Psychology VIRGINIA RACKER, Instructor in Nursing in Psychiatry JANICE ELAINE RICKETSON, M.S.S.W., Instructor in Psychiatric Social Work GEORGE E. SPAIN, M.S.S.W., Instructor in Psychiatric Social Work ERIC BELL, JR., M.D., Clinical Instructor in Psychiatry HERBERT H. BOCKIAN, M.D., Clinical Instructor in Psychiatry LOUIS SAMPSON, M.D., Clinical Instructor in Psychiatry WILLIAM R. C. STEWART, M.D., Clinical Instructor in Psychiatry WILLIAM R. C. STEWART, M.D., Clinical Instructor in Psychiatry SPARKMAN WYATT, M.D., Clinical Instructor in Psychiatry MARGARET G. EVANS, Ph.D., Lecturer in Psychiatry M. MALMQUIST, M.D., Research Associate in Psychiatry FRANCES M. THRONE, M.A., Research Associate in Psychiatry

HUMAN BEHAVIOR

STEPHEN C. CAPPANNARI, Ph.D., Associate Professor of Human Behavior and Chairman of the Division JOHN PATE, Ed.D., Assistant Professor of Human Behavior EUGENE A. WEINSTEIN, Ph.D., Assistant Professor of Human Behavior

501. PSYCHIATRY. This course acquaints the second year student with the inner forces at the disposal of each person in his adjustment to past as well as present experience. With this as a basis, the various clinical psychiatric syndromes are presented, their treatment and prevention outlined. FALL & SPRENG. Dr. Orr and Staff.

501. PSYCHIATRY AND MEDICINE. A component part of the third year Medical Clerkship. Small group meetings are held in which the personality problems of patients with demonstrable disease are discussed. (See Medicine 502.) Drs. Orr and Brittingham.

503. PSYCHIATRY CLERKSHIP. A six-week block of time in which adults and children with various psychiatric problems are studied in an inpatient and outpatient setting by fourth year students. Patient care, ward rounds, conferences, and seminars in psychiatry, psychology, social work, and rehabilitation. Dr. Orr and Staff.

521. ROLE THEORY AND THE DOCTOR-PATIENT RELATIONSHIP. First and Second years. An analysis of patient-physician relationship in situational contexts. Among the problems to be considered are determinants of the actors' definitions of the situation, types of interpersonal strategies, the construction and elaboration of "fronts" (representations or misrepresentations of self), empathy, role taking, and the imputation of motives. One hour per week. FALL. Drs. Orr, Cappannari, and Weinstein. 522. HUMAN DEVELOPMENT, EMBRYOLOGY OF PERSONALITY. First y. The course, taught in seminar, explores means by which the new infant may be molded by sociocultural devices into a communicative hum being. Demonstrations of newborn and infantile behavior will serve basis for discussions. Two hours per week. SPRING. Drs. Orr, Sell, and S.

523. PERSONALITY EVALUATION AND MEASUREMENT. Fourth year. troduction to historical background and theoretical rationale of persona measurement. Methods used in the construction and standardization widely used test procedures (intelligence, personality, CNS functionin Intensive experience in the administration, scoring, and interpretation selected test procedures. Three hours per week. FALL. Drs. Webb. Cromwell.

525. UNSOLVED PROBLEMS OF MEDICINE AND SOCIETY. Fourth year. (cerns the relationship of the physician to the legal and social regular processes. Also an inquiry into the extent of physicians' present possible involvement in treatment and prevention of narcotics addiced delinquency, criminality, alcoholism. Lecturers from School of L Departments of Sociology, Preventive Medicine, Psychiatry. Two he per week. SPRING. Dr. Orr.

526. ANTHROPOLOGY AND MEDICINE. Fourth year. An examination analysis of medical problems in the light of recent biological and cult studies. One hour per week; first twelve weeks. FALL. Dr. Cappana

527. MAN AND HIS WORKS. Fourth year. This course is open to select fourth year students interested in the effects of culture, past and procupon man, and the forces and stresses that have produced the cult Two hours per week. SPRING. Dr. Orr.

529. PRINCIPLES OF ANTHROPOLOGY. First and Second year. This coin aspects of general anthropology is especially designed for medical dents who have had no previous formal training in anthropology. S jects to be covered include biological evolution of man and the developm of races, emergence of language and culture, problems and significant crosscultural comparisons in human behavior, man considered as and and human. One hour per week. SPRING. Dr. Cappannari.

530. PRINCIPLES OF COMMUNITY PSYCHIATRY. Fourth year. This cois designed to give the student a working knowledge of important so cultural aspects of mental health and illness. The course includes a su of mental health needs of the community; a survey of community organ tion and planning; a review of salient epidemiological research in me illness; principles of crisis theory and prevention intervention; and a su of methods in mental health consultation. Two hours per week; two week units. FALL & SPRING. Dr. Reed.

531. Sex Counseling. Fourth year. This indepartmental course aim give students a better understanding of psycho-sexual problems so they may gain competence in counseling patients. It will includes

topics as pre-marital counseling; impotence and frigidity; "perversions" (including homosexuality); child sexuality; standards of sexual behavior. (Surgery 527.) One hour per week. FALL. Drs. Rhamy and Cappannari.

541. PRINCIPLES OF PSYCHOTHERAPY. Fourth year. A limited number of ambulatory patients are followed by the student for psychotherapy. Each student is assigned a supervisor. Each patient interview is taken up in discussion session with the supervisor. Emphasis is placed on basic principles and techniques of psychotherapeutic management of patient in general medical practice. Six hours per week. FALL & SPRING. Dr. Orr.

561. CLERKSHIP IN ADULT PSYCHIATRY. Fourth year. This clerkship complements the experiences the student has had at Central State Hospital and in the Outpatient Clinic. Here students have an opportunity to study carefully a few patients to gain understanding of the dynamics of the patient's illness. Full time; six week units. Dr. Reed.

562. CLERKSHIP IN PSYCHOLOGICAL CORRELATES OF BEHAVIOR. Fourth year. Parallel observations of behavior of a hospitalized patient in interview, group therapy, occupational and recreational therapy, and intensive batteries of psychological tests designed to explain observed phenomena. Six hours per week; six week units. Dr. Martin.

563. CLERKSHIP IN CHILD PSYCHIATRY. Fourth year. Observation and participation in all aspects of the psychiatric evaluation of a child, survey of diagnostic groups and special social problems (e.g., the foster child, the delinquent child), methods of treatment, including work with parents, consultation with schools and social agencies, observation of the therapeutic milieu in an inpatient setting. Nine hours per week; six week units. Dr. Crecraft.

582. METHODS IN PSYCHIATRIC RESEARCH. Fourth year. Introductory experience in the use of controlled research methodology and statistical analysis as applied to psychiatric and behavioral research. Prerequisite: Foundations of Behavioral Research 581. Four hours per week. SPRING. Drr. Cromwell and Webb.

Radiology

EUGENE C. KLATTE, M.D., Professor of Radiology and Chairman of the Department

C. C. McClure, M.D., Professor of Radiology, Emeritus

JOSEPH H. ALLEN, M.D., Associate Professor of Radiology

A. BERTRAND BRILL, M.D., Associate Professor of Radiology

HENRY BURKO, M.D., Associate Professor of Radiology

WILLIAM L. CALDWELL, M.D., Associate Professor of Radiology

VERNON A. VIX, M.D., Associate Professor of Radiology

GRANVILLE W. HUDSON, M.D., Associate Clinical Professor of Radiology EUGENE DENMAN, D.Sc., Assistant Professor of Radiology THOMAS R. DUNCAN, M.D., Assistant Professor of Radiology DAVID E. SHERMAN, M.D., Assistant Professor of Radiology HEUN Y. YUNE, 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 JOEL S. BEDFORD, Ph.D., Instructor in Radiology RICHARD A. MELAND, M.D., Instructor in Radiology WILLIAM T. FARRAR, M.D., Clinical Instructor in Radiology CLIFTON E. GREER, M.D., Clinical Instructor in Radiology WILLIAM M. HAMILTON, M.D., Clinical Instructor in Radiology JANET K. HUTCHESON, M.D., Clinical Instructor in Radiology ROBERT J. LINN, M.D., Clinical Instructor in Radiology JOHN R. OLSON, M.D., Clinical Instructor in Radiology RICHARD P. OWNBEY, M.D., Clinical Instructor in Radiology W. FAXON PAYNE, M.D., Clinical Instructor in Radiology BURTON SILBERT, M.D., Clinical Instructor in Radiology JOHN M. TANNER, M.D., Clinical Instructor in Radiology

sented at the time of dissection of various systems.

501. METHODS IN CLINICAL SCIENCE: INTRODUCTION TO RADIOLOGY. series of lectures and demonstrations are given to introduce the stude to the use of radiographic methods in the study of various organ system Methodology in radiology is stressed. The course will also include a introduction to the utilization of radiant energy in the treatment of cance One hour per week. SPRING. Dr. Klatte and Staff.

502. RADIOLOGY. For third-year students. Lectures and demonstration with discussions of radiation hazards, radiographic diagnosis, and son therapy clinics. One hour per week for twelve weeks. FALL. Staff.

521. INTRODUCTION TO RADIOBIOLOGY. First and Second years. Top will be radiation physics, chemistry, and biochemistry; radiopatholog radiosensitization; radioprotection; and other radiobiologic princip Information on the cancerigenic and mutagenic effects of radiation w be presented, and the application of these radiobiologic data to clinic radiotherapy will be discussed. Elaboration of potential areas of wor while investigation in this field is planned in conclusion. One hour p week. Spring. Dr. Caldwell.

561. CLERKSHIP IN RADIOLOGY. Fourth year. The student will rout through the various divisions of the department. He will be consider

as a Junior Resident, will assist in procedures, and will attend all radiology conferences. Time will be made available for the study of cases in the teaching file library. Full time; six week units. Dr. Klatte and Staff.

599. SEMINAR IN RADIOTHERAPY AND RADIOBIOLOGY. Fourth year. This discussion course will be restricted in size to no more than eight or ten mature students. Considerable assigned reading, primarily pertinent literature references, will be required of the participants. Results of cancer treatment by various methods will be evaluated. Particular attention will be paid to the significance of data reported in the selected references; selection of cases, methods of reporting results, side effects and complications of treatment, and other pertinent facets are to be discussed. Such discussion should allow a better understanding of treatment problems in oncology. Critical review of fundamental radiobiologic principles will be confined to several of the final discussions. One hour per week. FALL. Dr. Caldwell.

Surgery

H. WILLIAM SCOTT, JR., M.D., Professor of Surgery and Chairman of the De partment

BARTON McSwain, M.D., Professor of Surgery ROLLIN A. DANIEL, JR., M.D., Clinical Professor of Surgery BEVERLY DOUGLAS, M.D., D.Sc., Clinical Professor of Surgery, Emeritus LEONARD W. EDWARDS, M.D., Clinical Professor of Surgery, Emeritus HAROLD A. COLLINS, M.D., Associate Professor of Surgery JOHN H. FOSTER, M.D., Associate Professor of Surgery WALTER G. GOBBEL, JR., M.D., Associate Professor of Surgery JOHN L. SAWYERS, M.D., Associate Professor of Surgery SAM E. STEPHENSON, JR., M.D., Associate Professor of Surgery CHARLES F. ZUKOSKI III, M.D., Associate Professor of Surgery BENJAMIN F. BYRD, JR., M.D., Associate Clinical Professor of Surgery W. ANDREW DALE, M.D., Associate Clinical Professor of Surgery WALTER L. DIVELEY, M.D., Associate Clinical Professor of Surgery JAMES A. KIRTLEY, JR., M.D., Associate Clinical Professor of Surgery DOUGLAS H. RIDDELL, M.D., Associate Clinical Professor of Surgery LOUIS ROSENFELD, M.D., Associate Clinical Professor of Surgery DAUGH W. SMITH, M.D., Associate Clinical Professor of Surgery, Emeritus BERNARD M. WEINSTEIN, M.D., Associate Clinical Professor of Surgery R. BENTON ADKINS, M.D., Assistant Professor of Surgery STANLEY K. BROCKMAN, M.D., Assistant Professor of Surgery DUNCAN A. KILLEN, M.D., Assistant Professor of Surgery VERNON H. REYNOLDS, M.D., Assistant Professor of Surgery

SCHOOL OF MEDICINE 7 85

WILLIAM C. ALFORD, M.D., Assistant Clinical Professor of Surgery EDMUND W. BENZ, M.D., Assistant Clinical Professor of Surgery CLOYCE F. BRADLEY, M.D., Assistant Clinical Professor of Surgery GEORGE BURRUS, M.D., Assistant Clinical Professor of Surgery GEORGE E. DUNCAN, M.D., Assistant Clinical Professor of Surgery WILLIAM H. EDWARDS, M.D., Assistant Clinical Professor of Surgery PARKER D. ELROD, M.D., Assistant Clinical Professor of Surgery JOHN L. FARRINGER, JR., M.D., Assistant Clinical Professor of Surgery JAMES C. GARDNER, M.D., Assistant Clinical Professor of Surgery, Emeritus SAM YOUNG GARRETT, M.D., Assistant Clinical Professor of Surgery CARL N. GESSLER, M.D., Assistant Clinical Professor of Surgery HERSCHEL A. GRAVES, JR., M.D., Assistant Clinical Professor of Surgery JACKSON HARRIS, M.D., Assistant Clinical Professor of Surgery J. LYNWOOD HERRINGTON, JR., M.D., Assistant Clinical Professor of Surger GEORGE W. HOLCOMB, M.D., Assistant Clinical Professor of Surgery J. KENNETH JACOBS, M.D., Assistant Clinical Professor of Surgery MALCOLM R. LEWIS, M.D., Assistant Clinical Professor of Surgery ROBERT L. MCCRACKEN, M.D., Assistant Clinical Professor of Surgery OSCAR NOEL, M.D., Assistant Clinical Professor of Surgery DAVID R. PICKENS, JR., M.D., Assistant Clinical Professor of Surgery GREER RICKETSON, M.D., Assistant Clinical Professor of Surgery ROBERT N. SADLER, M.D., Assistant Clinical Professor of Surgery NATHANIEL S. SHOFNER, M.D., Assistant Clinical Professor of Surgery, Emer. HARRISON H. SHOULDERS, JR., M.D., Assistant Clinical Professor of Surgery WILLIAM S. STONEY, M.D., Assistant Clinical Professor of Surgery KIRKLAND W. TODD, JR., M.D., Assistant Clinical Professor of Surgery CHARLES C. TRABUE, M.D., Assistant Clinical Professor of Surgery RACHEL K. YOUNGER, B.A., Instructor in Surgical Research STANLEY BERNARD, M.D., Clinical Instructor in Surgery ROBERT L. BOMAR, JR., M.D., Clinical Instructor in Surgery KENNETH L. CLASSEN, M.D., Clinical Instructor in Surgery HAROLD C. DENNISON, JR., M.D., Clinical Instructor in Surgery ROY G. HAMMONDS, M.D., Clinical Instructor in Surgery ROBERT HARDIN, M.D., Clinical Instructor in Surgery JAMES P. LESTER, M.D., Clinical Instructor in Surgery CHARLES W. MACMILLAN, M.D., Clinical Instructor in Surgery M. CHARLES MCMURRAY, M.D., Clinical Instructor in Surgery JOE M. MILLER, M.D., Clinical Instructor in Surgery I. ARMISTEAD NELSON, M.D., Clinical Instructor in Surgery JEFFERSON C. PENNINGTON, M.D., Clinical Instructor in Surgery ROY J. RENFRO, M.D., Clinical Instructor in Surgery JOHN K. WRIGHT, M.D., Clinical Instructor in Surgery

DENTAL SURGERY

ROBERT B. BOGLE, JR., D.D.S., Clinical Professor of Dental Surgery
E. THOMAS CARNEY, D.D.S., Associate 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, Emeritus
ELMORE HILL, D.M.D., Assistant Clinical Professor of Dental Surgery
CHARLES J. LADD, D.D.S., Assistant Clinical Professor of Dental Surgery
EDWARD H. MARTIN, D.M.D., Assistant Clinical Professor of Dental Surgery
FRED M. MEDWEDEFF, D.D.S., Assistant Clinical Professor of Dental Surgery
JACK CARLYLE SCHMITT, D.D.S., 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
BARNETT J. HALL, D.D.S., Clinical Instructor in Dental Surgery
WILLIAM C. KING, D.M.D., Clinical Instructor in Dental Surgery
WILLIAM C. KING, D.M.D., Clinical Instructor in Dental Surgery

NEUROLOGICAL SURGERY

WILLIAM F. MEACHAM, M.D., Clinical Professor of Neurological Surgery and Head of the Division

CULLY A. COBB, JR., M.D., Associate Clinical Professor of Neurological Surgery JOE M. CAPPS, M.D., Assistant Clinical Professor of Neurological Surgery ARNOLD MEIROWSKY, M.D., Assistant Clinical Professor of Neurological Surgery C. DAVID SCHEIBERT, M.D., Assistant Clinical Professor of Neurological Surgery ARTHUR G. BOND, M.D., Clinical Instructor in Neurological Surgery JAMES W. HAYS, M.D., Clinical Instructor in Neurological Surgery

OPHTHALMOLOGY

JAMES H. ELLIOTT, M.D., Associate Professor of Ophthalmology and Head of the Division

HENRY CARROLL SMITH, M.D., Clinical Professor of Ophthalmology, Emeritus GEORGE W. BOUNDS, M.D., Associate Clinical Professor of Ophthalmology Fowler Hollabaugh, M.D., Associate Clinical Professor of Ophthalmology KATE SAVAGE ZERFOSS, M.D., Associate Clinical Professor of Ophthalmology, Emeritus

JOHN STEVENS ANDREWS, JR., Ph.D., Assistant Professor of Ophthalmology ABRAHAM P. CHEIJ, M.D., Assistant Clinical Professor of Ophthalmology WAILACE H. FAULK, JR., M.D., Assistant Clinical Professor of Ophthalmology G. ALLEN LAWRENCE, M.D., Assistant Clinical Professor of Ophthalmology PHILIP L. LYLE, M.D., Assistant Clinical Professor of Ophthalmology FRED A. ROWE, M.D., Assistant Clinical Professor of Ophthalmology JOHN B. BOND III, M.D., Clinical Instructor in Ophthalmology L. ROWE DRIVER, M.D., Clinical Instructor in Ophthalmology

SCHOOL OF MEDICINE # 87

JAMES P. LODEN, M.D., Clinical Instructor in Ophthalmology LEE ROY MINTON, M.D., Clinical Instructor in Ophthalmology J. RALPH RICE, M.D., Clinical Instructor in Ophthalmology

OTOLARYNGOLOGY

PAUL H. WARD, M.D., Associate Professor of Otolaryngology and Head of Division

GUY M. MANESS, M.D., Clinical Professor of Otolaryngology, Emeritus VICENTE HONRUBIA, M.D., Assistant Professor of Otolaryngology MORRIS ADAIR, M.D., Assistant Clinical Professor of Otolaryngology CLYDE ALLEY, JR., M.D., Assistant 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 E. GREER, M.D., Instructor in Otolaryngology JERRALL P. CROOK, M.D., Clinical Instructor in Otolaryngology CHRIS B. FOSTER, M.D., Clinical Instructor in Otolaryngology

UROLOGY

ROBERT K. RHAMY, M.D., Professor of Urology and Head of the Division HARRY S. SHELLEY, M.D., Associate Professor of Urology, Emeritus EDWARD HAMILTON BARKSDALE, M.D., Associate Clinical Professor of Ura Emeritus

CHARLES E. HAINES, JR., M.D., Associate Clinical Professor of Urology H. EARL GINN, M.D., Assistant Professor of Urology OSCAR CARTER, M.D., Assistant Clinical Professor of Urology ALBERT P. ISENHOUR, M.D., Assistant Clinical Professor of Urology TOM E. NESBITT, M.D., Assistant Clinical Professor of Urology PHILLIP P. PORCH, JR., M.D., Assistant Clinical Professor of Urology JOHN M. TUDOR, M.D., Assistant Clinical Professor of Urology ROBERT E. MCCLELLAN, M.D., Clinical Instructor in Urology

501. METHODS IN CLINICAL SCIENCE. An interdepartmental course designed acquaint the student with the techniques, methods, and basic principal necessary to take careful histories, perform thorough physical examination and to understand and utilize basic laboratory procedures employed clinical medicine. Students are divided into small tutorial groups for tensive work with patients on the wards at Vanderbilt University Hospithe Veterans Administration Hospital, and Nashville General Hospit Similar tutorial groups are utilized in the laboratory where students is methods for examining urine, blood, sputum, gastric contents, feces, a body fluids. An introduction to neurologic diagnostic methods is incluin the course. Additional training is given in special problems which reto examination of pediatric, surgical, and obstetrical patients. Radiologic

techniques are correlated with instructional sessions. Correlative sessions are interspersed with the above. In these sessions, methods by which the history, physical examination and laboratory aids can be used to arrive at diagnosis and decisions regarding further study and treatment are conducted by interdepartmental groups. Drs. Rogers, Pennington, Hartmann, Wells, Minot, and the faculty of the Department of Medicine; Dr. Christie and members of the Department of Pediatrics; Dr. Foster and members of the Department of Surgery; Dr. Bonney and members of the Department of Obstetrics-Gynecology; Dr. Klatte and members of the Department of Radiology; Dr. Shapiro and members of the Department of Pathology; members of the Departments of Anatomy, Pharmacology, and Biochemistry.

502, CLINICAL CLERKSHIP. For twelve weeks each student in the third year class is assigned to the surgical divisions of the Vanderbilt University Hospital. Under the direction and supervision of the staff, the student takes histories, does physical examinations and assists the staff in the diagnostic evaluation and clinical management of assigned patients. Half of each student's period of clinical work is in general surgery, including thoracic, cardiovascular and pediatric services. The other six weeks of the clinical assignment provides brief but concentrated rotations to services in orthopedics, neurosurgery, urology, ophthalmology, and otolaryngology. These rotations provide exposure to a variety of patients with problems in general surgery and in the special fields of surgery. Teaching rounds are held daily by members of the staff. Students go with their patients to the operating rooms where they are observers and assistants to the staff in surgery, the surgical specialties, and anesthesiology. Instruction in anesthesiology is given during operating room assignments by the members of that department. An integral part of this clerkship is the weekly three hour assignment in operative surgery and anesthesiology conducted in the S. R. Light Laboratory for Surgical Research by the Department of Surgery in collaboration with the Department of Anesthesiology. Dr. Scott.

503. SURVEY OF SURGERY. A series of clinical presentations and lectures are given which are designed to present a broad view of the clinical fields of surgery. Illustrative case presentations are made by third year surgical clerks. These discussions stress the correlation between basic biologic structure and function, pathologic alterations and clinical manifestations. One hour per week for twenty-four weeks. FALL & SPRING. Dr. Scott.

504. SURGICAL OUTPATIENT SERVICE. Each fourth year student is assigned in totation for six weeks to the surgical outpatient department of the Vanderbilt University Hospital. Here they serve as assistants in the outpatient clinics of general surgery, orthopedic surgery, and the tumor clinic. Various members of the surgical staff are in attendance to instruct the students in their work and discuss with them the diagnosis and treatment of the patients. Drs. McSwain, Reynolds, and Hillman.

521. SURGICAL PATHOLOGY. Third year. Each session is initiated by a lecture to be followed by presentation of pertinent microscopic lesions and roentgenograms. In the laboratory, fresh gross specimens and loan collections of slides are studied under supervision of resident and scales staff. The course correlates the clinical manifestations and the gross a microscopic changes of the common surgical diseases. (Pathology 52) Three hours per week for year. Dr. McSwain and Staff.

522. PRINCIPLES OF PLASTIC SURGERY. Fourth year. Instruction in a principles underlying the practice of plastic surgery and their applicat to the correction of deformities, and problems of reconstruction. Patie before and after operation will be used for study of methods and resu-Includes a brief review of important research in this specialty. One has per week. FALL. Dr. Douglas.

523. CANCER. Fourth year. This is an inter-departmental course we few didactic presentations. Patients showing success or failure in the treatment of cancer are presented. Taught by members of the faculty of clinical and 2 pre-clinical departments. May be taken both semester One hour per week. FALL & SPRING. Dr. McSwain.

524. ORAL PATHOLOGY IN CLINICAL MEDICINE. Fourth year. A control of lectures and assigned readings emphasizing the relationship betwee oral disorders and general systemic diseases. The student will correct clinical medicine, radiologic, and laboratory procedures in a study of relationship of oral and systemic diseases. One hour per week. FAU SPRING. Dr. Carney.

525. PEDIATRIC SURGICAL PROBLEMS. Fourth year. A combined coeffrom the Departments of Surgery and Pediatrics utilizing patient demostrations and didactic lectures. The diagnosis, preoperative preparative surgery, and postoperative care will be stressed. Course may be elected for units of six weeks to all year. (Pediatrics 525.) One hour per well FALL & SPRING. Drs. Stephenson and Little.

526. BASIC COURSE IN OPHTHALMOLOGY. Second and Third years. (sists of lectures on diseases of the eye, plus experience in the outpat department. The physiology and anatomy of the eye are reviewed brid One hour per week. SPRING. Dr. Elliott and Staff.

527. SEX COUNSELING. Fourth year. This interdepartmental cod aims to give students a better understanding of psycho-sexual proble so that they may gain competence in counseling patients. It will ind such topics as pre-marital counseling; impotence and frigidity; "per sions" (including homosexuality); child sexuality; standards of set behavior. (Psychiatry 531.) One hour per week. FALL. Drs. Rb and Cappannari.

543. SURGICAL SPECIALTY CLINICS. Fourth year. Clinical experience the following specialities is available to the student:

Neurosurgery, General Surgery, Otolaryngology, Tumor, Tumor Che therapy, Vascular, Postoperative care, Plastic Surgery, Minor Surg Urology, and Ophthalmology. Three hours per week; six week w Dr. Scott and Staff.

561. CLERKSHIPS IN SURGERY. Fourth year. Students work under supervision of the surgical staff and resident in the diagnosis and treatment of patients with general and thoracic surgical problems. Will not involve patients studied by members of the third year class. Ward rounds daily. At Veterans Administration Hospital or Nashville General Hospital. Full time; six week units. Drs. Gobbel and Sawyers.

562. CLERKSHIP IN NEUROLOGICAL SURGERY. Fourth year. The student works with the resident staff on the neurosurgical service at Vanderbilt University Hospital participating in the diagnosis and management of patients with neurosurgical problems. Daily ward rounds. Full time; six week units. Dr. Meacham.

563. CLERKSHIP IN CARDIOVASCULAR SURGERY. Fourth year. Provides experience in the diagnosis of cardiovascular disease, preoperative assessment, operative treatment and postoperative management. Includes participation in research activities as applied to cardiovascular surgery. Full time; six week units. Dr. Collins.

564. CLERKSHIP IN UROLOGY. Fourth year. The student works with the resident staff on the urologic service at Veterans Administration Hospital participating in the diagnosis and management of patients with urologic problems. Daily ward rounds. Full time; six week units. Dr. Shelley.

565. CLERKSHIP IN OTOLARYNGOLOGY. Fourth year. The student works with the surgical staff and resident on the ENT service at Vanderbilt University Hospital participating in the diagnosis and management of patients with otolaryngolic problems. Ward rounds daily. Full time; six week units. Dr. Ward.

566. CLERKSHIP IN PEDIATRIC SURGERY. Fourth year. An opportunity for students to work on the Pediatric-Surgical floor, caring for children in pre-operative, operative, and post-operative periods and attending both pediatric and surgical conferences. Full time; six week units. Dr. Stephenson.

567. CLERKSHIP IN CANCER CHEMOTHERAPY. Fourth year. Inpatient, outbatient, and laboratory experience with chemotherapy methods and agents at Vanderbilt University Hospital and Nashville General Hospital. Full time; six week units. Dr. Reynolds.

668. SURGICAL PATHOLOGY AND NEOPLASTIC DISEASE. Fourth year. Work with the Director of the Surgical-Pathology Laboratory and the fellow n Oncology in the Surgical-Pathology Laboratory and the Tumor Clinics. "ifteen hours per week; six week units. Dr. McSwain.

169. CLERKSHIP IN OPHTHALMOLOGY. Fourth year. This course consists of ward work as well as experience in the operating room for students who may choose to specialize in Ophthalmology. Six hours per week; ix week units. Dr. Elliott and Staff. 581. LABORATORY RESEARCH IN SURGERY. Fourth year. Principle surgical research and care are presented with the performance of proce and conduct of investigative studies in collaboration with the full staff of the Department of Surgery. A detailed written report will marize the investigative studies. At Veterans Administration Hou or Vanderbilt University Hospital. Full time for six weeks. Ma taken in afternoons for twelve weeks. Drs. Foster and Gobbel.

Audiology & Speech Pathology

FREEMAN MCCONNELL, Ph.D., Professor of Audiology and Chairman Division

RONALD GOLDMAN, Ph.D., Associate Professor of Speech Pathology JAY SANDERS, Ph.D., Associate Professor of Audiology PAUL H. WARD, M.D., Associate Professor of Otolaryngology RICHARD STREAM, Ph.D., Assistant Professor of Audiology VICENTE HONRUBIA, M.D., Assistant Professor of Otolaryngology M. CLAIRE COOPER, M.S., Instructor in Audiology MARY E. DOWNING, M.S.S.W., Instructor in Medical Social Service MACALYNE W. FREEMAN, M.S., Instructor in Speech Pathology M. ANN GANNAWAY, M.S., Instructor in Speech Pathology KATHRYN B. HORTON, M.S., Instructor in Speech Pathology MARLIN PHYTHYON, M.S., Instructor in Clinical Audiology ANN B. SITTON, M.S., Instructor in Clinical Audiology

Massimiliary the Division of Audiology and Speech Pathology offers of leading to the Master's degree. Information on regulations and rements may be found in the Bulletin of the Graduate School.

COURSE OF STUDY

The courses listed below with their related clinical and research act are taught at the Bill Wilkerson Hearing and Speech Center locan jacent to the Vanderbilt University campus on 19th Avenue South at hill.

The student may elect a program of study with emphasis in eith diology or speech pathology. Certain courses are basic to both ar study and may be counted for credit in either. These courses are below in the first section and are followed by those which can be of for credit only in the specific area noted in the heading.

I. AUDIOLOGY & SPEECH PATHOLOG

220. ANATOMY AND PHYSIOLOGY OF THE CENTRAL NERVOUS SYSTEM. Le and demonstrations designed to acquaint the student with the basic su

and function of the central nervous system. Emphasis on integrative activity as related to both normal and deviate oral communication. [3] (Not offered 1966/67.)

221. ANATOMY AND PHYSIOLOGY OF SPEECH. Structure and function of the neuromuscular system involved in breathing, phonation, resonation and articulation. Emphasis on fundamental physiological principles of speech production. FALL. [2] Mr. Goldman.

222. ANATOMY AND PHYSIOLOGY OF HEARING. Structure, function, and pathology of hearing. Psychoacoustic theories. FALL. [2] Mr. McConnell.

13. EXPERIMENTAL PHONETICS. Study of research methods, instrumentation, and findings in the field of experimental phonetics. [3] (Not offered 1966/67.)

215. THE FUNDAMENTALS OF AUDIOLOGY AND SPEECH PATHOLOGY. A study of the normal and abnormal development of speech and language. Clasification and analysis of speech and hearing disorders and their social, sychological, and educational implications. FALL. [3] Mr. Sanders.

227. DIAGNOSTIC PROCEDURES IN AUDIOLOGY AND SPEECH PATHOLOGY. Diagnostic tests and procedures for children and adults with impaired hearing or defective speech. Techniques for screening areas important to hormal speech and language development. Case history techniques. Clinical observation and report writing required. Prerequisite: consent of nstructor. FALL. [3] Mrs. Horton.

28. LANGUAGE DISORDERS OF CHILDREN. A study of the language, behavioral symptomatology, and treatment of language-impaired children. Consideration of differential diagnostic techniques for aphasia, central auditory disturbances, hearing loss, mental retardation, and emotional listurbances. SPRING. [3] Mrs. Horton.

II. AUDIOLOGY

40. TESTING OF HEARING. A study of the theory and practice of hearing neasurement with emphasis on basic pure-tone audiometric techniques. Consideration of causative factors in hearing loss and evaluation of audionetric results. FALL. [3] Mr. Stream.

41. SPEECH AND LANGUAGE DEVELOPMENT OF THE ACOUSTICALLY HANDI-APPED. A consideration of the theories and problems encountered in the evelopment of speech and language in acoustically handicapped children. PRING. [3] (Offered on demand.)

45. PRINCIPLES OF SPEECHREADING AND AUDITORY TRAINING. An analysis f the various methods for developing speechreading skills with children nd adults. Consideration of recent concepts in the utilization of residual caring. FALL. [4] Miss Cooper. 247. PSYCHOLOGY AND EDUCATION OF THE DEAF. History of educ of the deaf. Study of the research literature on the effects of hearing pairment on the social, intellectual, and psychological development the individual. Societal reactions to deafness. FALL. [3] Mr. McC.

322. ADVANCED CLINICAL STUDY AND PRACTICE: AUDIOLOGY. Assure addings and written reports combined with participation in the clapprogram in audiology. Course may be repeated for credit. FALL, SP SUMMER. [2] Mrs. Sitton.

340. THE SELECTION AND USE OF HEARING AIDS. A study of the rest and theory of clinical selection of hearing aids. The principles of s audiometry in assessing the usefulness of residual hearing. Clinical servation required. Prerequisite: 240. SPRING. [3] Mr. Stream.

340. SEMINAR IN AUDIOLOGY. Review of significant literature in the of audiology. Directed study in assigned subject areas. SUMMER Mr. Sanders.

342. ADVANCED CLINICAL AUDIOLOGY. Special tests and explortechniques in audiologic assessment; instrumentation and testing reindustrial audiology; and conduct of the audiologic clinic. SPRING. Mr. Sanders.

352. SPECIAL PROBLEMS IN AUDIOLOGY. Study of areas and problem included in other courses in audiology, chosen to fit the students' int and the needs of their programs. FALL, SPRING, SUMMER. [Variable c 1 to 3 each semester] Staff.

389. INDEPENDENT STUDY AND READINGS IN AUDIOLOGY. [3] Stat

III. SPEECH PATHOLOGY

230. ARTICULATION DISORDERS. A study of the etiology, evaluation management of articulatory defects in children and adults. FALL Miss Gannaway.

231. STUTTERING. A review of the significant research in the fe stuttering, with emphasis on etiology and therapy. Considerati the management of fluency disturbances. FALL. [3] Mr. Goldman

232. ORGANIC SPEECH DISORDERS: STRUCTURAL. A study of the cli diagnosis, and management of speech defects associated with stru anomalies and physiological dysfunction. Consideration of cleft p post-laryngectomy, and other structurally related speech defects. [3] Mrs. Freeman.

233. ORGANIC SPEECH DISORDERS: NEUROLOGICAL. A study of speed language disturbances related to neurological dysfunction, with emphasis on cerebral palsy. SPRING. [3] Mrs. Freeman.

321. ADVANCED CLINICAL STUDY AND PRACTICE: SPEECH PATHOLOGY. Assigned readings and written reports combined with participation in the clinical program in speech pathology. Courses may be repeated for credit. FALL, SPRING, SUMMER. [2] Staff.

331. APHASIA. A study of the aphasic language disturbances including symptomatology, etiology, differential diagnosis, and training. Emphasis on adult problems. Prerequisite: 230 and 240. SPRING. [3] Mrs. Horton.

335. SEMINAR IN SPEECH PATHOLOGY. Review of significant literature in the field of speech pathology. Directed study in assigned subject areas. SUMMER. [2] Mr. Goldman.

336. SEMINAR: VOICE DISORDERS. Study of theories of voice production, with emphasis upon pathology and malfunctions which produce voice defects. Procedures for group and individual management. Prerequisite: 230 and 232. SPRING. [3] Mr. Goldman.

351. SPECIAL PROBLEMS IN SPEECH PATHOLOGY. Study of areas and problems not included in other courses in speech pathology, chosen to fit the students' interests and the needs of their programs. FALL, SPRING, SUMMER. [Variable credit: 1 to 3 each semester] Staff.

388. INDEPENDENT STUDY AND READINGS IN SPEECH PATHOLOGY. [3] Staff.

REGISTER OF STUDENTS 1965-66

FIRST-YEAR CLASS

Egbert Vernon Ar	nderson, Jr. (B.S., Davidson)	Pensacola
William Joseph A	Inderson (B.A., Vanderbilt).	Jackson
Robert Jay Andre	w (B.A., Washington) urnett (Sr. in Absentia, Vanderbilt)	University Cire
Robert Burton Ba	rnett (Sr. in Absentia, Vanderbilt)	Chattanooga
John Burr Bassel.	Jr. (Sr. in Absentia, Vanderbilt)	Cocoa Beach
James Arthur Ben	itley, Jr. (B.A., Vanderbilt)	Old Hickory
Sidney Anderson	Berry III (B.A., Vanderbilt)	Lebanon 1
Thomas Milburn	Brown, Jr. (B.A., Vanderbilt)	Harriman
Greer Albert Bush	bee III (Sr. in Absentia, Vanderbilt)	Atlany
Cully Alton Cobb	(RA Vanderhilt)	Nachville
Richard Erwin D	b (B.A., Vanderbilt)	Nachwille
Develor Alen Fin	inegan (B.A., Kentucky)	Ivasnville, I
Dougras Alan Fin	pein (B.S., Queens)	Elashing
Harvey Sid Fishd	(D.A. Van Jackila)	····· Flusning,
James Moore Fost	ter (B.A., Vanderbilt). rancis (Sr. in Absentia, Vanderbilt).	St. Albans, W
Robert Stanley FI	rancis (Sr. in Absentia, Vanderbilt)	Iulsa,
John Wolcott Ga	rrott (Sr. in Absentia, Purdue)	Battle Ground
George William (Glazebrook, Jr. (B.A., Kentucky)	Lebanor
	ick (B.A., Vanderbilt)	
James Philip Goo	olsby (B.A., Centre).	Louisvile
James Harold Gro	owdon (Sr. in Absentia, Vanderbilt)	Little Rock
Keith William Ha	agan (B.S., Kentucky) rris, Jr. (B.A., Vanderbilt)	Louisvile
John Herbert Har	rris, Jr. (B.A., Vanderbilt)	Jasper, 1
Norman Donald I	Hasty (B.A., Rice)	Shelbyville,
Bruce Emerson He	erron (B.A., Southwestern at Memphis)	Jackson,
Robert Wright H	igginbotham (B.S., Arizona). ell (Sr. in Absentia, Mississippi State)	Birmingham
Everette Irl Howe	ell (Sr. in Absentia, Mississippi State)	State College,
Ellen Elizabeth H	Irabovsky (B.S., Peabody) nson, Jr. (Sr. in Absentia, Vanderbilt)	Nashville,
John Clifford John	nson, Jr. (Sr. in Absentia, Vanderbilt)	Elizabethton,
Clifford Allen La	kin (B.A., Duke).	Miami Beach
Thomas Joseph L	ustberg (B.S., Cincinnati)	Cincinnati
Stephen Barry Ly	ons (B.E.E., Polytechnic Inst. of Brooklyn;	
Ed.M., Tufts).		lyn, Long Island,
Robert Karl Merc	cier (B.S., Mr. Union)	Canton
Kenny Wayne Me	essman (B.A., Milligan)	Jopp
Douglas Park Mi	tchell (A.B., Yale)	Owneshot
Tames Ernest Mit	chell Ir (BA Vanderbilt)	Bolivari
Mark Kent Moor	re (B.A., Bethany Nazarene).	Brade
Lawrence Raymo	re (B.A., Bethany Nazarene) and Penner, Jr. (B.A., Kansas; A.M., Illinois) hifer (B.E., Vanderbilt).	Storts
Charles Joseph Ph	hifer (B.E., Vanderbilt)	McMinnville
James Hargrave P	Powell (B.S., Virginia Polytechnic Institute)	Detershit
Wwatt Fasterling	Rousseau (B.A., Vanderbilt)	Tackson
Larry Dee Scott ((B.S., Davidson)	Vielawoo
Robert Thomas St	nowden (B.S., Stetson)	Lacksonville
William Ledford	Stone (Sr. in Absentia, Vanderbitl)	Jacksonvin
*William Blaica	Sutton (B.S., Mt. Union)	Alliand
Poger Thomas Su	vanson (B.A., Vanderbilt	
Amos Derrell Ter	kett (B.S., Kentucky)	Nasnville,
Danid Carnell Wa	aggoner (B.A., Vanderbilt).	NT-sharille
David Carroll Wa	allen (P.A. Davidson)	Nashville
David Hugnes Wa	alker (B.A., Davidson)	Nashville,
	TV (PA Wandashila)	
Jackson D. White	IV (B.A., Vanderbilt)	Nashville,

*Withdrew voluntarily December 1965

Edwin Oliver Williamson II (B.A., Vanderbilt)	Princeton, Ky.
Ling Wong (B.S. Baker).	Sarawak, Malaysia
Bence Workman (B.S., Alabama)	Decarur Ala
Vernon Thomas Worrall III (B.S., Davidson).	Nashville, Tenn.

SECOND-YEAR CLASS

1000		
Howard	Marion Alig (B.S., St. Joseph's College) Lee Alt (B.A., Centre) Sprott Arkinson (A.B., Emory)	. Cedar Grove, Ind.
Ronald	Lee Alt (B.A., Centre)	Louisville, Ky.
Locanh	Sprott Atkinson (A.B., Emory)	Macon, Ga.
Remou	Stewart Datamgin (B.A., Vanderbilt). Mickson Bomboy, Jr. (B.S., Mississippi).	Sikeston Mo
David I	agar Dianton, Jr. (B.S. Mississippi)	Hattiesburg Miss
	Townell Booth (HA Williams)	Memobie Lenn
Glenn	Henry Brewer (B.A., Vanderbilt).	Oak Ridge Tenn
William	Eastwood Broadus (B.A., Washington & Lee).	Knowwille Tens
Arthur	Eastwood Droadus (D.A., Washington & Lee)	Par Creek N. C
Ponce	DeLeon Bullard, Jr. (B.S., Presbyterian). d Franklin Burk, Jr. (B.A., Mississippi).	
Raymo	d Franklin Burk, Jr. (B.A., Mississippi)	Desdaile T
Tom W	m Campbell (B.A., Vanderbilt). McColl Chesney (B.A., Pennsylvania).	Dandridge, Ienn.
Thomas	McColl Chesney (B.A., Pennsylvania)	Knoxville, Ienn.
Leonid	s W. Dowlen, Jr. (B.A., Vanderbilt)	. Coral Gables, Fla.
Robert	Currin Dunkerley, Jr. (B.A., Vanderbilt)	Nashville, Tenn.
lames B	ay Dzur (B.A., Oklahoma City). Benedict Gallun (B.S., Stanford; M.S., Wisconsin).	Crescent, Okla.
Archur	Benedict Gallun (B.S., Stanford; M.S., Wisconsin)	Hartland, Wis.
Michael	Arthur Gilchrist (B.A., MacMurray).	Griffith, Ind.
Anchette	d Clinton Hewes, Ir. (B.A., Vanderbilt.)	Gulfport, Miss.
George	Baker Hubbard, Ir. (B.A., Vanderbilt)	Jackson, Tenn.
David	ex Hunter (BA Westminster)	. Bartlesville, Okla
James C	canbery Killebrew, Ir. (B.S., Davidson)	Nashville, Tenn.
Latterer	Davis Kyle (B.A., Washington)	Spokane, Wash
Robert	William Mahley (B.S., Maryville)	Lake Worth Fla
Charles	Burke Maino (B.A., Stanford)	Modesto Calif
Charles	Earl Martin (B.A., Vanderbilt)	Slaughters Ky
Charles B	Lan Martin (D.A., Vanderbild)	Louisville Ky
IODD R	bert Mather (B.S., Western Kentucky). Leach McIntyre (B.A., Vanderbilt).	Mamphie Teas
Laroive	Leach Meintyre (D.A., Vanderpint)	Park Will & C
jonn P	rker Mickle (B.S., Wofford)	Rock Hill, S. C.
atepher	Philip Mowry (B.A., Vanderbilt)	Louisville, Ky.
Rebeka	Ann Naylor (B.A., Baylor).	. Fort Worth, lexas
Elise M	oss Neeld (B.A., Vanderbilt).	Clearwater, Fla.
John W	Illiam Nuckolls (B.A., Vanderbilt)	Jackson, Tenn.
Thoma	William Orcutt (B.A., DePauw)	Chicago, Ill.
Soja Pa	rk (B.S., Whitworth)	Bismarck, N. D.
ames I	enajah Philips III (B.A., Vanderbilt)	Chattanooga, Tenn.
ames S	k (B.S., Whitworth) enajah Philips III (B.A., Vanderbilt) erling Price (B.A., University of the South)	Knoxville, Tenn.
Jodela	Reisig (B.A., Vanderbilt)	Huntsville, Ala.
Allen L	ec Schlamp (B.A., Kentucky)	Henderson, Ky.
Robert	Leonard Schweitzer (B.A., Bellarmine)	Louisville, Ky.
Robert	Taylor Segraves (B.A., Vanderbilt)	Texarkana, Texas
ames	fred Serrie Ir (BA Vanderhilt)	Atlanta Ga
Rohere	Ifred Settle, Jr. (B.A., Vanderbilt)	Franklin Tenn
George	Edward Smith (B.S., Western Kentucky). elson Smith (B.S., U.S. Air Force Academy).	Cocoa Beach Fla
Hugh A	Jeleon Smith (B.C. IIS Air Force Academy)	Chattanooga Tenn
Service a	Phillip Smith, Jr. (B.A., Vanderbilt).	Chattanooga, Tenn.
Perer T	Towners (P.A. Vandachila)	Mashwills Terr
Man	hn Townes (B.A., Vanderbilt) Haber Vickers, Jr. (B.A., Vanderbilt)	Dismingham Ala
VIAL VIE	haber vickers, Jr. (B.A., Vanderbilt)	Dirmingnam, Ala.
VICTOR	Andre Viner (A.B., Holy Cross)	Stanford, Conn.
LAREY C	ale Willis (B.A., Vanderbilt)	Old Hickory, Ienn.
William	ale Willis (B.A., Vanderbilt). Clenney Yankowsky (B.S., Alabama)	Huntsville, Ala.
ara El	rabeth Zieverink (B.S., Purdue)	Cincinnati, Ohio
100000		

THIRD-YEAR CLASS

	the state of the s
Diane Annette Andrews (B.A., Berry)	Rome
Oren Wyatt Babb (B.S., Alabama)	Birmingham
George Carter Bell (B.A., Virginia)	Portsmouth
Frank Dugger Black (B.A. David Lispcomb)	. Columbia t
John Edward Bossert (B.A., Vanderbilt)	Cincinnari
John Edward Bossert (B.A., Vanderbilt). Thomas Campbell Butler (A.B., Johns Hopkins)	Chapel Hill
Robert Hanen Carnigham (A.B., Kenyon; Ph.D., Illinois)	Louisville
Henry Austin Carr (B.A. Vanderhilt)	Tullahoma
Henry Austin Carr (B.A., Vanderbilt)	London
John Lars Christensen (B.A., Harvard).	Columbus
Lee Coulter Chumbley (B.A., Harvard)	Nachaille
Murrell Oliver Clark (B.A., Vanderbilt)	Ivasnville,
Brevator Joseph Creech (B.A., Westminster)	nattanooga,
*Patricia Wall D'Encarnacao (B.A., Vanderbilt)	Oakland, 0
Samuel Henry Dillatd, Jr. (B.A., Vanderbilt)	Nashville, I
John Herman Dixon, Jr. (B.S., Georgia Institute of Technology)	lurfreesboro, 1
John Wesley Dorman (B.A., Texas)	Ennis, [
Arthur Merrimon Freeman III (B.A., Harvard)	. Birmingham,
Alan Hartman Fruin (B.A., Vanderbilt)	Norma
Thomas Edward Fulghum, Jr. (B.A., Vanderbilt)	Atlanti
David Wilson Gregory (B.A., Vanderbilt).	Parsons
Henry Lytle Harrell, Jr. (B.A., Vanderbilt) Samuel Pinckney Hawes III (B.S., Davidson)	Ocala
Samuel Pinckney Hawes III (B.S., Davidson)	Conway
Inpow Hong (B.A., Southern California)	Bell (
Antoinette Foote Hood (B.A., Stanford).	Fairfar
Artoinette Foote Hood (B.A., Stanford) Charles Edward Hood (B.A., Vanderbilt)	Scottsborn
David Lee Hudson (A.B., Asbury)	Tiffin
William David Johnston (B.A., Vanderbilt).	Jackson
William Sailor Jordan (B.A., Vanderbilt)	Fairbor
Allen Bernard Kaiser (B.A., Vanderbilt)	Memphis
John Arthur Kiely (B.A., Washington & Lee).	Vickshurg
Robert Henry Kremers (B.S., Michigan).	Dasadena
John Martin Leonard (B.A., Florida State)	I asaucia,
Henry Roby Lesesne (B.A., Vanderbilt).	Arlan
Selden Longley III (B.A., Vanderbilt).	Nashaille I
Cilere Herris Lorre III (B.S. Terrerere Deleverheis Lorrison)	IN ashville,
Gideon Harris Lowe III (B.S., Tennessee Polytechnic Institute)	. COOKEVIIIC, I
Michael Searle Matteson (B.A., Washington)	aro wolley,
Fayette M. McElhannon, Jr. (B.S., Georgia).	Athen
Jerry Ray Mitchell (B.A., Kentucky) Harry Charles Nottebart, Jr. (B.A., Vanderbilt; LL.B., Harvard)	Providena
Harry Charles Nottebart, Jr. (B.A., Vanderbilt; LL.B., Harvard)	Nashville,
Tommy Jack Poirier (B.A., New Hampshire)	Dover,)
William Bennett Ralph, Jr. (B.A., Vanderbilt)G	oodlettsville,
Ted Alan Ramsey (B.A., Kentucky). John Michael Reinhart (A.B., St. Joseph's College).	Somerst
John Michael Reinhart (A.B., St. Joseph's College)	Louisvilk
Robert Eugene Scott (B.A., Vanderbilt)	Terre Hautt
Michael Brent Seagle (B.A., Vanderbilt).	Lynchburg
Jere Palmer Segrest (B.A., Vanderbilt)	Jackson,
Charles Sidney Settle (B.A., Murray State)	Princeton
David Ralph Shollenbarger (B.S., Kenyon).	Hamilton
Herman David Sorensen (B.E., Vanderbilt)	Newpor
William Ralph Welborn, Jr. (B.A., Vanderbilt)	Sheffield
Thomas Allen Woodward (A.B., Transylvania).	Aberdeen
William Ho Tie Yen (B.A., Vanderbilt).	Nashville
"International and and the set of	
	and the second se

*Withdrew voluntarily December 4, 1965

FOURTH-YEAR CLASS

and the second se	
Myron John Adams, Jr. (B.A., Harvard). William Joseph Boyd, Jr. (B.A., St. Ambrose).	Kingsport Tenn
Myron John Auans, J. (BA St Ambrose)	Brentwood Tenn
William Joseph Boyd, Jr. (B.R., St. Ambtose). John Boyers Breinig (B.E., Vanderbilt). Kennen Larry Brigham (B.A., David Lipscomb)	Nashville Tenn
John Boyers Dreinig (D.L., Vanderbird, Linecomb)	Nashville Terr.
Kenneth Larry Brigham (B.A., David Lipscomb)	Nachaille T
Raymond Riggan Crowe (B.A., Vanderbilt).	
Charles Andrew Daniels (B.S., Kentucky). Philip Hunter Davis (B. Th., Minnesota; B.A., Milligan)	Ashland, Ky.
Philip Hunter Davis (B. 1h., Minnesota; B.A., Milligan)	Los Angeles, Calif.
Gerald Domescik (B.A., Millikin)	Auburn, Ill.
Geral Domescik (B.A., Millikin).	Jackson, Miss.
John Joel Donaldson (B.A., Vanderbilt). Gary William Duncan (B.A., Vanderbilt). Richard Kent Farris (B.A., Vanderbilt).	Nashville, Tenn.
Bichard Kent Farris (B.A., Vanderbilt)	Hendersonville, Tenn.
Komme Garrett Finley (B.S., Southwestern at Memphis)	Adams, Tenn.
Contor Perry Flake (B.A., Johns Hopkins)	Little Rock, Ark.
Richam Kent Farris (B.A., Vanderbill) Jimmy Garrett Finley (B.S., Southwestern at Memphis). Gordon Perry Flake (B.A., Johns Hopkins). Howard Herbert Frankel (B.S., Roosevelt; M.S., Ph.D., Southern Ca	alifornia)
nowau nerocie rinnies (ales) seeses of sales) states)	Los Angeles, Calif.
Robert Harold Franklin (B.S., Western Kentucky State)	Lewisburg Ky
Jerry Lee Gibbs (B.S., Western Kentucky State)	Fountain Run Ky
erry Lee Gibbs (D.S., western Kentucky State)	Madiconville Ky
Maryin Geer Gregory, Jr. (B.S., Kentucky) Frederic Leonard Hamburg (B.A., Vanderbilt)	Estation the second sec
Frederic Leonard Hamburg (D.A., Vanderbilt)	Evansville, Ind.
Elwood Jean Headley (B.A., Vanderbilt)	Madison, lenn.
David Russell Hendrick (B.A., Stanford)	San Mateo, Calif.
Felix Austin Hughes III (B.A., Johns Hopkins)	Memphis, Tenn.
Richard Marvin Hutson (B.S., Murray)	Murray, Ky.
Dennis Mark Jackson (B.A., Vanderbilt)	Pike Road, Ala.
Emest Owen Jackson, Ir. (B.A., Vanderbilt).	Lebanon, Tenn.
Robert Kirkland Johnston (B.S., Maryville)	Nashville, Tenn.
Albert Louis Kerns (B.S., Notre Dame)	Nashville Tenn
Verne Clifton Lanier, Jr. (B.S., Catawba)	Welcome N C
Gerald Paul Martin (B.A., California at Los Angeles).	Angusta Ga
Could Deal Martin (B.A. California at Los Angeles)	Los Apreles Calif
Richard Harrison Mathews (B.S., Abilene Christian).	Los Angeles, Cam.
Kichare Harrison Mathews (D.S., Abliene Christian)	The Old
Olen Dale Maxwell (B.A., Tulsa).	
Henry Brooks Morgan (B.A., Transylvania)	Corbin, Ky.
John Ronald Morgan (B.A., David Lipscomb)	Lafayette, Ga.
Alvin Ira Mushlin (B.A., Vanderbilt)	Meridian, Miss.
John Bruce Neeld, Jr. (B.A., Vanderbilt)	Nashville, Tenn.
Trellon Joseph Pond, Jr. (B.A., Vanderbilt). David Allen Rand (B.A., Southern California)	Memphis, Tenn.
David Allen Rand (B.A., Southern California)	Monterey Park, Calif.
Alexander Preston Russell (BA BS Austin Pear)	Clarksville Tenn
Thomas Michael Schwink (B.S., M.S., Rutgers; Ph.D., Iowa State). Sylvia Ruth Seamands (B.A., Asbury). John Stanley Sergent (B.A., Vanderbilt).	Palmyra N I
Sulvia Ruth Seamands (BA Ashury)	Wilmore Ky
John Stapley Sergent (B.A. Vanderbilt)	Frankfort Ky
William Johnson Shasteen (B.S., University of the South)	Clashanilla Tang
William Bus Sauffan (D.A. Austin)	Charmen T
William Rue Steffey (B.A., Austin).	Snerman, 1exas
James Walker Thompson (B.A., King).	Lubbock, lexas
William Earl Thornton (B.A., Western Michigan)	Battle Creek, Mich.
Joseph Nimrod Triplett, Jr. (B.S., Mississippi College) Walker Marshall Turner, Jr. (B.A., Kentucky)	Nashville, Tenn.
Walker Marshall Turner, Jr. (B.A., Kentucky)	Nashville, Tenn.
James Stickney Warson (B.A., Vanderbilt).	
Paul Wiley Wlech (B.A., Vanderbilt)	Cincinnati, Ohio
Robert Farrington Wiley, Jr. (B.A., Asbury).	Wilmore, Ky.
Fremont Philip Wirth, Ir. (B.A., Williams)	Nashville, Tenn.
George Wallace Wood (B.A. Vanderhilt)	Louisville Ky
George Wallace Wood (B.A., Vanderbilt) Edmond Paul Zimsky, Jr. (B.S., The Citadel)	Signal Mr. Tenn
and antioxy, Jr. (b.o., The Ortauer)	Icun.

DIVISION OF AUDIOLOGY AND SPEECH PATHOLOGY

1965-66

Patricia Ruth Alverson (B.A., Newcomb College)	Arlant
Sandra Lou Casner (B.A., Sweetbriar College)	Potoma
Nancy Harrison Chill (B.S., Kentucky)	Nashville
Russell E. Davis (B.A., Moorhead State College)	Grandville
Sarah L. Dawson (B.A., Baylor)	Corrican.
Iris E. Dorough (B.S., Auburn).	Notaula
Alice Dunlap (B.S., Tennessee)	Hoion City
Elizabeth Elaine Foote (B.S., Peabody).	E. Work
Janice Kay Fruth (B.S., Bowling Green State)	
Aleta Dean Gamewell (B.S., Tennessee).	Murfranchorn
Mary Cochran Garrott (B.S., Purdue).	
Marilyn Kennedy Hendon (B.A., Vanderbilt)	Machaille
Susan Onnybecker Mather (B.S., Western Kentucky)	Ivasnville, lt
Sarah Jane Mitchell (A.B., Indiana)	Warranah
Miriam Gail Price (B.A., Emory).	warrensburg
Jerry Leroy Punch (B.A., Wake Forest)	Mailag
Helen L. Quinlan (B.S., Colorado State).	Se Calling
Ruth Gay Robbins (B.A., Vanderbilt)	Nachwill
Joe Bryan Robertson (B.A., Emory)	INashville, la
Daul Edward Schoolder (B.S. Minor State)	Leitenneid
Paul Edward Schneider (B.S., Minot State) Carol Ellen Schumacher (B.A., Michigan State)	Minot, N
Carol Ellen Schumacher (D.A., Michigan State)	Detroit, M
Bettye Anna Springer (B.A., Texas)	El Paso, It
Susan Gay Tate (B.A., Vanderbilt).	Louisville
Judie M. Watters (B.S., Tennessee)	Victoria, Aust
Evelyn Kay Whaley (B.A., DePauw)	Bioomington,
Anna Newton Willingham (B.F.A., Georgia)	Atlanta,
Martha Alice Woodbury (B.S., Peabody)	Memphis, To

INTERNSHIPS

Graduates of June 1966

Type of Inter

	-26-7
Myron John Adams, JrJohns Hopkins Hospital, Baltimore, Maryland	Pediz
William Joseph Boyd, Jr. Barnes Hospital, St. Louis, Missouri	Pathok
John Boyers Breinig. Vanderbilt University Hospital, Nashville, Tennessee	
Kenneth Larry Brigham. Johns Hopkins Hospital, Baltimore, Maryland	· · · · · · Medie
Raymond Riggan Crowe University of Kentucky Hospital, Lexington, Kentucky	Mixed Pediatrics-Media
Charles Andrew Daniels Duke Hospital, Durham, North Carolina	Pathol
Philip Hunter Davis. Orange County General Hospital, Orange, California	Rota
Gerald Domescik St. Lukes, St. Louis, Missouri	Mixed Surgery-Medic
John Joel Donaldson Vanderbilt University Hospital, Nashville, Tennessee	·····Pediat
Gary William Duncan. Vanderbilt University Hospital, Nashville, Tennessee	Media

Richard	d Kent Farris anderbilt University Hospital, Nashville, Tennessee	Medicine
Jimmy Va	Garrett Finley anderbilt University Hospital, Nashville, Tennessee	Medicine
Gordon	n Perry Flake	Pathology
Howard	d Herbert Frankel. niversity of California Affiliated Hospitals, Los Angeles, California	Rotating
Robert	Harold Franklin anderbilt University Hospital, Nashville, Tennessee	Surgery
Va	ce Gibbs	henley
Marvin Va	n Geer Gregory, Jr. anderbilt University Hospital, Nashville, Tennessee	Surgery
Frederi	c Leonard Hamburg niversity of California, San Francisco, California	Pediatrics
	d Jean Headley Inderbilt University Hospital, Nashville, Tennessee	
David Hi	Russell Hendrick ghland Alameda County Hospital, Oakland, California	Rotating
Felix A	ustin Hughes III uthern Pacific Memorial Hospital, San Francisco, California	Rotating
Richard	d Marvin Hutson. my Medical Services-Tripler, Honolulu, Hawaii	Rotating
Dennis Va	Mark Jackson	Surgery
Ernest	Owen Jackson, Jr	Medicine
	Kirkland Johnston tte University of Iowa Hospital, Iowa City, Iowa	Rotating
	Louis Kerns. nderbilt University Hospital, Nashville, Tennessee	
Verne (Va	Clifton Lanier, Jr nderbilt University Hospital, Nashville, Tennessee	Surgery
TANK	ra Levy. nderbilt University Hospital, Nashville, Tennessee	
Gerald	Paul Martin. iversity of Pittsburgh, Pittsburgh, Pennsylvania	Surgery
Richard Sc.	d Harrison Mathews Albans Naval Hospital, New York City, New York	Rotating
Olen D	ale Maxwell	Medicine
Henry	Brooks Morgan nderbilt University Hospital, Nashville, Tennessee	Surgery
John Ro Va	onald Morgan nderbilt University Hospital	Pediatrics
Alvin I		Medicine
John B	ruce Neeld, Jr nderbilt University Hospital, Nashville, Tennessee	Surgery

SCHOOL OF MEDICINE + 101

Trellou Joseph Pond, Jr University of Virginia, Charlottesville, Virginia	····· Medi
	Rota
Alexander Preston Russell. Vanderbilt University Hospital, Nashville, Tennessee	Pathol
Thomas Michael Schwink. Baptist Hospital, Nashville, Tennessee	Mixed Meda
Sylvia Ruth Seamands Vanderbilt University Hospital, Nashville, Tennessee	····· Medi
John Stanley Sergent. Johns Hopkins Hospital, Baltimore, Maryland	····· Meda
William Johnson Shasteen. Vanderbilt University Hospital, Nashville, Tennessee	Pathol
William Rue Steffey Ben Taub-V.A., Houston, Texas	
James Walker Thompson. Norfolk General Hospital, Norfolk, Virginia	Rotz
William Earl Thornton University of Wisconsin Hospital, Madison, Wisconsin	
Joseph Nimrod Triplett, Jr Vanderbilt University Hospital, Nashville, Tennessee	
Walker Marshall Turner, Jr Colorado Medical Center, Denver, Colorado	Pathol
James Stickney Warson, Vanderbilt University Hospital, Nashville, Tennessee	•••••Surg
Paul Wiley Welch Cincinnati General Hospital, Cincinnati, Ohio	Rota
Robert Farrington Wiley, Jr Cincinnati General Hospital, Cincinnati, Ohio	Surg
Fremont Philip Wirth, Jr. Johns Hopkins Hospital, Baltimore, Maryland	••••••Surg
George Wallace Wood Vanderbilt University Hospital, Nashville, Tennessee	Pedia
Edmond Paul Zimsky, Jr.	Pediz

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MEDALS, PRIZES, AND SCHOLARSHIPS

For the Year 1965-1966

FOUNDER'S MEDAL FOR SCHOLARSHIP. Endowed by Commodore Cornelius Vanderbilt and given ever since to the graduate standing first in his class.
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