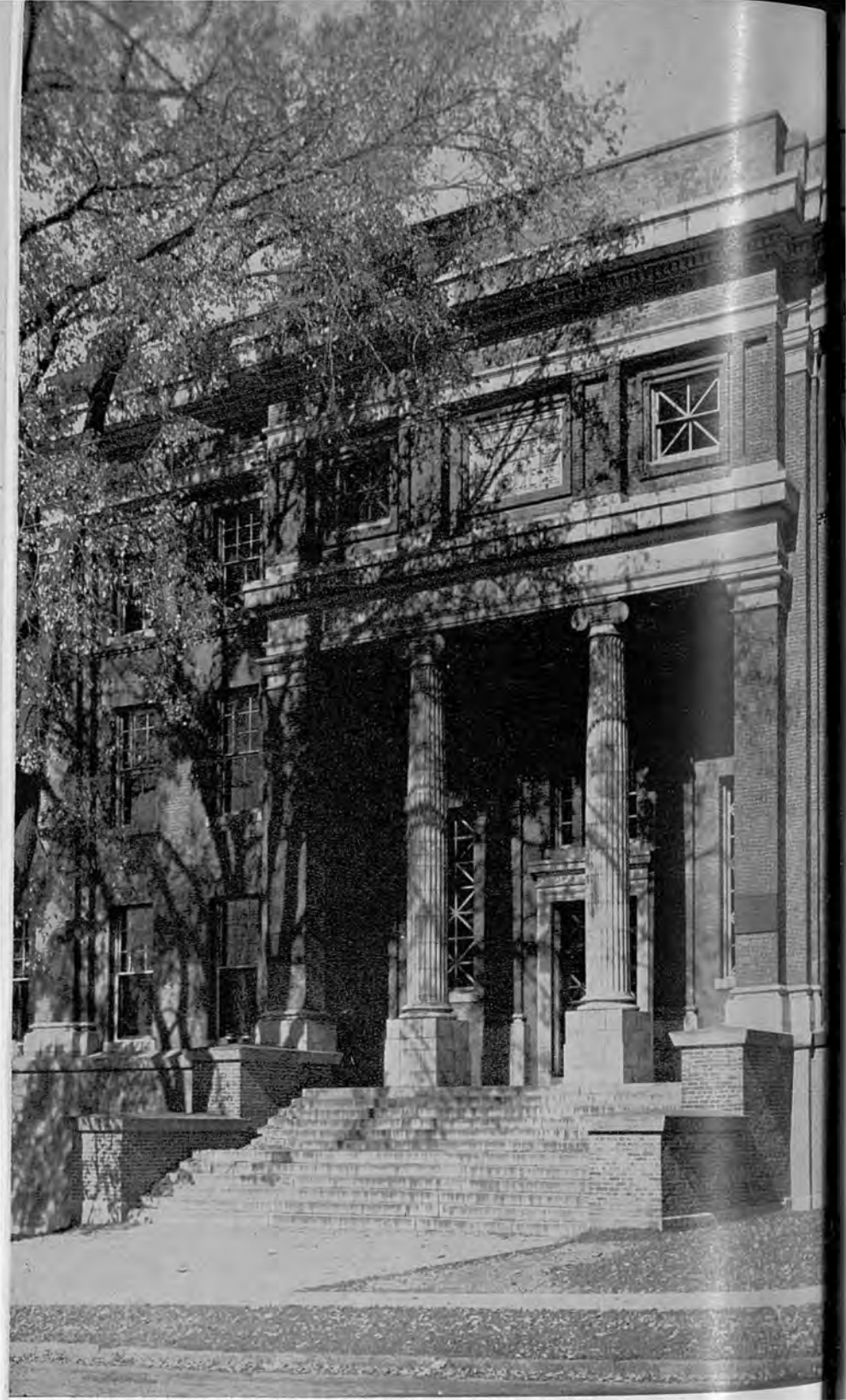
1952

# University of Vermont, College of Medicine Bulletin

University of Vermont



Bulletin of the

# UNIVERSITY OF VERMONT

AND STATE AGRICULTURAL COLLEGE

BURLINGTON

VERMONT

VOLUME XLIX — DECEMBER 1952 — NUMBER 4

## THE COLLEGE OF MEDICINE NUMBER

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# CALENDAR

## 1952

*June* 27, *Friday.* Enrollment of senior class and Convocation.

*June* 30, *Monday.* Hospital work for seniors begins.

*September* 5, *Friday.* Examinations for advancement in course.

*September* 12, *Friday.* Enrollment of the 3 lower classes.

*September* 13, *Saturday.* Convocation.

*September* 15, *Monday.* Regular exercises begin.

*November* 3-8. Midsemester examinations for the first and second year classes only.

*November* 26, *Wednesday,* 11 *a. m. through Sunday, November* 30. Thanksgiving Recess.

*December* 20, *Saturday,* 11 *a. m. through Sunday, January* 4. Christmas Recess.

## 1953

*January* 5, *Monday.* Class work resumed.

*January* 19, *Monday, through Saturday, January* 31. Midyear examinations.

*February* 2, *Monday.* Class work for second semester begins.

*February* 13, *Friday.* Enrollment and payment of fees.

*February* 20 *and* 21, *Friday and Saturday.* Kake Walk, no classes.

*March* 23-28. Midsemester examinations for the first and second year classes only.

*March* 28, *Saturday,* 11 *a. m. to Monday, April* 6. Spring Vacation.

*May* 30, *Saturday.* Memorial Day.

*June* 1, *Monday, through Saturday, June* 13. Final Examinations.

*June* 14, *Sunday.* Commencement.

*September* 11, *Friday.* Enrollment of the 3 lower classes.

*September* 12, *Saturday.* Convocation.

*September* 14, *Monday.* Regular exercises begin.

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## THE BOARD OF TRUSTEES

*The University of Vermont and State Agricultural College*

| | | |
|---|---|---|
| CARL WILLIAMS BORGMANN, PH.D., President<br>*His Excellency*<br>LEE E. EMERSON, LL.D., Governor | | Ex-Officio |

*On the Part of the University of Vermont*

| | | |
|---|---|---|
| RAY WILLISTON COLLINS, B.S. | Colchester, Vt. | *1948* |
| CHESTER BARSTOW EATON, B.S. | Rutland, Vt. | *to* |
| REV. ROBERT F. JOYCE, PH.B. | Rutland, Vt. | *1954* |
| JOHN HAYWARD PATRICK, B.S. | Burlington, Vt. | *1950* |
| FREDERICK WAYNE SHEPARDSON, B.S. | Burlington, Vt. | *to* |
| FRED BONAR WRIGHT, B.S. | Pelham, N. Y. | *1956* |
| EDMUND CURTISS MOWER, LL.B. | Braintree, Mass. | 1952 |
| HOWARD ANDERSON PRENTICE, D.ED. | Washington, D. C. | to |
| LAURENCE LAMSON ROBBINS, M.D. | Winchester, Mass. | 1958 |

*On the Part of the Vermont Agricultural College*

| | | |
|---|---|---|
| FRANCIS WILLIAM BILLADO | Rutland, Vt. | *1947* |
| CARLETON GIBSON HOWE, B.S. | Dorset, Vt. | *to* |
| FREDERICK PLYMPTON SMITH, A.B., LL.B. | Burlington, Vt. | *1953* |
| PAUL GOODHUE HARLOW, B.S. | Bellows Falls, Vt. | *1949* |
| LAURENS WILLIAMS, B.A. | Woodstock, Vt. | *to* |
| MRS. HAZEL MCLEOD WILLS, B.A. | Bennington, Vt. | *1955* |
| ROBERT WALLACE H. DAVIS, B.S. | Newport, Vt. | *1951* |
| DUNBAR WRIGHT BOSTWICK, B.A. | Shelburne, Vt. | *to* |
| AMOS RALPH MOODY | Whitingham, Vt. | *1957* |

## STANDING COMMITTEES

*Admissions*: Drs. Wolf*, Harwood, French (1 yr.), Pierce (2 yrs.), Dunihue (3 yrs.), Soule (3 yrs.).

*Advancement*: Drs. Pierce*, Amidon, Cunningham, Gallagher, Mackay, Maeck, McKay, Newhall, Pearson, Schumacher, Sichel and Smith.

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*Building* (temporary committee): Drs. Wolf*, Dunihue, French, Harwood, Professor Jordan, Krantz, McKay, Morrow, Novikoff, Raab, Rees, Soule, and Terrien.

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*Senior Comprehensive*: Drs. Amidon*, Chittick, Donaghy, Mackay and Pearson.

*Student Activities*: Drs. Harwood*, Gallagher, Robertson, Sichel and Soule.

* Chairman of Committee.

# COLLEGE OF MEDICINE
# FACULTY AND OTHER OFFICERS

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CORNELIA JOSEPHINE BAYLIES . . . . . *Administrative Assistant*
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CHARLES FRANCIS DALTON . . *Professor Emeritus of Public Health*
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## VISITING STAFF

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*CARLETON RAYMOND HAINES . . . . . *Instructor in Surgery*
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EDWIN PITCHER BASSETT . . . . . *Fellow in Pathology*
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FRANCIS ARNOLD CACCAVO . . . . . *Fellow in Surgery*
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CHARLES VINCENT COX . . . . . *Fellow in Anesthesia*
A.B., Western Reserve, 1942; M.D., Ohio State, 1950.

HUMBERTO MUNOZ CRAVIOTO . . . . . *Fellow in Pathology*
B.B.S., Institute Scientific and Literary of Bachuca, 1943;
M.D., University of Mexico, 1952.

PETER STANLEY CZACHOR . . . . . *Fellow in Obstetrics and*
B.S., University of Vermont, 1942; M.D., 1950. *Gynecology*

OLIVE MORRIS DAVIES . . . . . *Fellow in Pediatrics*
A.B., University of Vermont, 1946; M.D., 1950.

HARLAND MARTIN DEOS . . . . . *Fellow in Anesthesia*
A.B., Dartmouth, 1939; M.D., University of Vermont, 1943.

VIRGINIA MARTINEZ DIAZ . . . . . *Fellow in Pathology*
M.D., National University of Mexico, 1946.

JOSEPH CLAYTON FOLEY . . . . . *Fellow in Radiology*
B.S., Middlebury, 1939; M.A., New York State College, 1940;
M.D., University of Vermont, 1949.

MINORU FUKUDA . . . . . *Fellow in Anesthesia*
M.D., Kyushu Imperial University 1946.

MERRITT FREDERICK GARLAND, JR. . . . . *Fellow in Obstetrics*
B.A., Middlebury, 1941; M.D., Tufts, 1946. *and Gynecology*

RISLER GERMAIN . . . . . *Fellow in Physiology and Biophysics*
Baccalaureat Lycee Petion, Port-au-Prince, 1943;
M.D., Port-au-Prince, 1949.

LAWRENCE NOAH GILLIAM . . . . . *Fellow in Medicine*
B.S., Milligan College, 1942; M.D., University of Virginia, 1950.

ROBERT CLINTON JACKSON . . . . . *Fellow in Obstetrics*
B.S., University of Oregon, 1944; M.D., 1947. *and Gynecology*

JOHN CLIFFORD LANTMAN . . . . . *Fellow in Medicine*
B.S., University of Vermont, 1948; M.D., 1951.

MURDO GLENN MACDONALD . . . . . *Fellow in Medicine*
B.S., University of Vermont, 1948; M.D., 1951.

MOHAMED JUSE MAHJU . . . . . *Fellow in Pathology*
B.S., M.B., King Edward Medical College, 1929;
T.D.D., Punjab University, 1950.

SPYLIOS PETER NIKITAS . . . . . *Fellow in Medicine*
A.B., Middlebury, 1943; M.D., Tufts, 1946.

ALBERT MALMROSE PEARSON . . . . . *Fellow in Urology*
B.S., Tufts, 1939; M.D., 1943.

EDWIN OXMAN POLISH . . . *Fellow in Physiology and Biophysics*
B.S., Franklin and Marshall, 1946; M.S., Jefferson Medical College, 1952.

ROBERT EMMETT PRICE . . . . . *Fellow in Radiology*
M.D., Hahnemann, 1950.

JAMES EDWIN SIMPSON . . . . . *Teaching Fellow in Orthopedic Surgery*
B.S., University of Vermont, 1941; M.D., 1943.

ANTHONY JOSEPH TABACCO . . . . . *Fellow in Radiology*
B.S., Sienna, 1942; M.D., Albany, 1945.

RANSOM EDWARD TUCKER . . . . . *Fellow in Obstetrics and Gynecology*
B.S., University of New Hampshire, 1936;
M.D., University of Vermont 1940.

## RESEARCH ASSOCIATES

ESTELLE PODBER . . . . . *Research Associate in Pathology*
A.B., Brooklyn College, 1948; M.S., University of Vermont, 1952.

BORYS SURAWICZ . . . *Research Associate in Experimental Medicine*
M.D., University of Wilno, Poland, 1939.

HOWARD L. ZAUDER . . . . . *Research Associate in Pharmacology*
B.S., University of Vermont, 1947; M.S., 1949; Ph.D., Duke, 1952.

## ASSISTANTS

JOHN CHARLES BOLDOSSER . . *Laboratory Assistant in Pathology*

DALLAS RICHARD BOUSHEY . . . . . *Demonstrator in Anatomy*

MARY BREEN . . . . . *Assistant in Clinical Pathology*
B.S., University of Vermont, 1947.

GEORGE WILSON BROOKS . . . . . *Assistant in Psychiatry*
B.S., University of New Hampshire, 1941;
M.D., University of Vermont, 1944.

GLORIA ANN CHRYSTOWSKI . *Research Assistant in Biochemistry*
B.S., Trinity College, 1949.

SHIRLEY DOROTHY CYR . . . . . *Research Assistant in Anatomy*
B.S., Trinity College, 1949.

MRS. ANN DINSE . . . . . *Research Assistant in Pathology*
B.A., University of Rochester, 1945.

MRS. ANN BAKER DURBROW . . . . . *Research Assistant in Biochemistry*

WILDA ROMAYNE GIGEE . . . . . *Research Assistant in Experimental Medicine*
A.B., Alfred University, 1939.

WILLIAM HENRY HEININGER . . . . . *Assistant in Medicine*
M.D., University of Vermont, 1939.

HUBERT ALEXANDER HINDS . . . . . *Research Assistant in Experimental Medicine*
B.S., Alabama State College, 1949; M.Ed., 1951.

SIBYL MERRIAM HOWE . . . . . *Social Worker*
B.L.I., Emerson, 1934; M.S.S., Boston University, 1948.

MRS. LORRAINE KORSON . . . . . *Research Assistant in Pathology*
A.B., University of Pennsylvania, 1945; M.S., 1948.

JOHN HENRY MCCREA . . . . . *Assistant in Medicine*
B.S., University of Vermont, 1935; M.D., 1938.

BARBARA ALICE MOORE . . . . . *Assistant in Biochemistry*

JEAN MARGARET RYAN . . . . . *Research Assistant in Pathology*
B.S., University of Vermont, 1947.

FRANK JOSEPH SCHMETZ, JR. . . . *Research Assistant in Pathology*
A.B., University of Pennsylvania, 1949.

DOROTHY WINGETT SEARS . . . . . *Assistant in Biochemistry*
B.S., Colby Junior College, 1945.

EMILY MAE YOUNG . . . . . *Assistant in Biochemistry*
B.S., University of Vermont, 1950.

## LIBRARIAN

ELIZABETH GIBBONS CHAMBERLIN, A.B., B.S.L., M.A.L.S.
98 N. Willard St.

## MEDICAL PHOTOGRAPHY

FRANCIS CHARLES MALLORY, *Director of Medical Photography*
315 North St.

RODNEY GORDON GALBRAITH, B.S., *Technician in Medical Photography and Pathology*
Essex Jct., Vt.

# ADMINISTRATION

The University of Vermont and State Agricultural College consists of the College of Arts and Sciences, the College of Technology, the College of Agriculture, the College of Medicine, and the School of Education and Nursing. The College of Medicine is a member of the Association of American Medical Colleges and approved by the Council on Medical Education and Hospitals of the American Medical Association.

Inquiries as to admission to the College of Medicine, requests for catalogues and bulletins should be addressed to the Dean, College of Medicine, University of Vermont, Burlington, Vermont.

All telephones are listed under "University of Vermont." Anyone desiring information concerning the University may secure the same during office hours by dialing telephone number 4-4511. For information concerning the Medical College, dial 4-4511 and ask for extension 253 or 279.

# HISTORY

The College of Medicine of the University of Vermont is one of the oldest institutions of its kind. The University of Vermont was the first state university or state college in the United States to have a medical department. A lecturer on Chirurgery and Anatomy was appointed by the Trustees of the University Corporation on August 16, 1804. The first full and regular course of lectures, however, was not given until the fall of 1822. In 1829 a Medical College building was erected at the south end of the campus. In 1836 the College was abandoned because of the death of some of its leading spirits and for lack of students. There had been graduated up to that time one hundred and sixteen men.

The reorganization and successful re-establishment of this school were due chiefly to the efforts of Dr. S. W. Thayer, then a practitioner at Northfield. His efforts date back to 1840 and finally were successful in 1853. Dr. Levi W. Bliss of Bradford was also active in securing the reopening of the College. The prosperity of the newly organized department in 1854 soon became manifest, and a material enlargement of the old Medical College building at the head of Main Street was demanded. A sum was raised and the necessary improvements made. In 1870 the citizens of Burlington contributed an additional sum of two thousand five hundred dollars to enlarge the building further by the addition of a wing and to increase the seating capacity of the

two lecture rooms. In 1884 the late John P. Howard generously gave a commodious building at the head of Pearl Street which was occupied first in 1885.

Until 1899 the relation of the College of Medicine to the University was nominal. Its reorganization at that time made it a coordinate department of the University under the control of the Board of Trustees and its facilities for teaching and study were increased. The faculty was enlarged and teaching facilities were improved. In 1903 the college year was lengthened to seven months and again in 1907 the teaching year was increased to thirty weeks of instruction. In December, 1903, the building which had been occupied by the College for twenty years was destroyed by fire. A new building was begun in August, 1904, and dedicated in June, 1905.

In 1911 the faculty of the College of Medicine was reorganized and became an integral part of the University. In 1912 one year of college work was required for admission and the College of Medicine year was made equal in length to that of the academic college. Two full years of college work were required for admission in 1917. A minimum of three years of college work is now required. In 1920 women were admitted to the College of Medicine.

## THE COLLEGE OF MEDICINE BUILDING

The College of Medicine occupies a building on Pearl Street at the north end of the College Green. The Administrative Offices of the College and the laboratories of Histology, Pathology, and Bacteriology are located on the first floor of the building. An amphitheatre, with a seating capacity of one hundred and fifty, is on this floor. There is a smaller amphitheatre on the second floor. The Library of the College of Medicine, a division of the University Library, occupies the southwest portion of the second floor. The offices and laboratories of the Departments of Biochemistry, Pharmacology, and of the Division of Experimental Medicine are also on this floor. On the third floor are the Departments of Anatomy, and Physiology and Biophysics. The Department of Anatomy has a special museum and other facilities for teaching, made possible by generous contributions from Alumni of the College of Medicine. A modern refrigeration unit insures excellent preservation of specimens. The teaching museum includes a permanent display of cross sections of a complete male body, together with additional head sections and female

pelvic sections, housed in glass-topped containers. The student laboratory used by the Department of Pharmacology and the Department of Physiology and Biophysics is equipped for all types of teaching.

All departments are equipped with laboratories for research and special technical work. The animal house, adjacent to the College of Medicine, is used by all departments for research and student teaching. In 1947 an additional building was constructed to provide increased animal quarters for expansion of the work in the field of cancer research. A constant temperature unit is available to all departments for teaching and experimental work.

The State Department of Health has its offices in the building adjacent to the College of Medicine. This department cooperates with the College of Medicine in the teaching of public health and preventive medicine.

## CLINICAL FACILITIES

The normal capacity of the general hospitals in Burlington used by the Medical College is 593 beds. At least four hundred of these beds will be used without restriction by the College for clinical teaching. General services at the Putnam Memorial (Bennington), Springfield, Rutland and Brightlook (St. Johnsbury) Hospitals, increase the amount and variety of clinical material.

Other clinical facilities available for student teaching are the outpatient and dispensary services in Burlington, with over 20,000 visits a year; the services of the Vermont State Hospital for Mental Disease at Waterbury, Vermont, with more than 1,250 beds; the Veterans Administration Hospital for tuberculosis at Sunmount, N. Y.; the Trudeau Sanatorium in Trudeau, New York; the Children's Home, the Elizabeth Lund Home and St. Joseph's Orphanage in Burlington. The number of children in the three Burlington institutions is more than 500.

Admissions to the medical, surgical, obstetrical, and specialty services used for teaching purposes approximate 12,000 annually exclusive of the special facilities just described. This amount of clinical material is adequate for the limited enrollment of the two classes doing clinical work.

## HOSPITALS

THE MARY FLETCHER HOSPITAL. This general hospital has 283 beds and 37 bassinets. It has been associated with the College of Medicine as a teaching hospital since 1879, and has all types of medical and surgical services. The hospital has a yearly average of approximately 11,250 cases, not including some 2,000 outpatients. At least two-thirds of the patients are available for teaching purposes through the use of free and part-pay beds and the use of private cases by attending staff men as members of the faculty of the College of Medicine. The hospital is approved by the American Medical Association for intern training and for residencies in medicine, radiology, surgery, anesthesia, pathology, pediatrics, obstetrics-gynecology and urology.

THE BISHOP DEGOESBRIAND HOSPITAL. The Bishop DeGoesbriand Hospital is a modern and completely equipped general hospital located on the corner of Pearl and Prospect Streets west of the College Green and adjacent to the College of Medicine. The present capacity of the hospital is 200 beds and 35 bassinets. All the clinical services are represented in the 10,000 annual admissions. The hospital maintains outpatient clinics in obstetrics, gynecology, medicine, surgery, cardiovascular and peripheral vascular diseases, orthopedics and fractures, pediatrics and urology.

Clinical experience and instruction is offered third and fourth year medical students under the supervision of the attending staff who are members of the faculty of the College of Medicine.

The Bishop DeGoesbriand Hospital offers intern training and residencies in medicine, surgery, obstetrics, gynecology, pediatrics, anesthesia, urology, pathology and radiology, with approval by the Council on Medical Education and Hospitals of the American Medical Association.

THE FANNY ALLEN HOSPITAL, WINOOSKI. This general hospital of 75 beds, the smallest of those associated with the College, presents an unusually large and varied amount of teaching material in 3,000 or more cases admitted there yearly. Practically all of these are service cases. The attending staff hold teaching appointments in the College and take charge both of third year ward work and fourth year clinical clerkships. Sections of fourth year men are assigned to this hospital for a month of service. Under the close supervision of the teaching staff, they assume the duties of interns. Sections of third year men are assigned for ward work.

OBSTETRICAL SERVICE. The obstetrical service includes attendance at the maternity ward of the Mary Fletcher Hospital, the prenatal and postnatal clinics held at the Burlington Free Dispensary, and a service at the Elizabeth Lund Home. Sections of fourth year students spend one month on this service.

The service at *The Elizabeth Lund Home* is under the direction of the Professor of Obstetrics of the College of Medicine. Patients are assigned to individual students under the supervision of a clinical instructor. The student takes histories, does general physical and obstetrical examinations, keeps complete records, and acts in the capacity of a labor clerk. He observes or assists at deliveries. At the Lund Home the student is taught a technic designed to meet obstetrical problems under conditions which might be found in a private home where only limited resources and limited facilities are at hand. Hospital technics are learned in the study of labor cases attended at the *Mary Fletcher Hospital.*

PEDIATRICS. The pediatric wards of the two local hospitals, the St. Joseph's Orphanage, the Children's Home, the Elizabeth Lund Home, and the Free Clinics at the Burlington Dispensary furnish teaching material in pediatrics.

THE PUTNAM MEMORIAL (BENNINGTON), SPRINGFIELD, RUTLAND, AND BRIGHTLOOK (ST. JOHNSBURY) HOSPITALS. These general hospitals located outside of the Burlington area, are used for teaching senior students. Such students are assigned in rotation for a month of instruction under the supervision of a staff member who acts as preceptor.

This type of teaching is of particular value in giving students opportunity to see the general practice of medicine, as well as the more specialized type of practice. It also establishes a desirable cooperation between hospitals throughout the State and the College of Medicine.

TRUDEAU SANATORIUM, TRUDEAU, N. Y. This cottage sanatorium of 175 beds for treatment of tuberculosis is used for teaching senior students. Approximately 200 patients are admitted each year. Students are in residence one month during the fourth year. They do histories and physical examinations on newly admitted patients and work on case problems; they attend staff conferences, clinics and X-ray readings. They also observe work in the bacteriology, physiology, biochemistry and pathology laboratories, and attend lectures, seminars and ward rounds by staff members.

VERMONT STATE HOSPITAL, WATERBURY. A hospital of 1,250 beds for patients suffering from mental diseases, admitting about 550 patients each year. This makes it possible to have available at nearly all times patients illustrating the various clinical syndromes. Students attend occasional clinics here during the third year and are in residence for one month during the fourth year.

THE VETERANS ADMINISTRATION HOSPITAL, SUNMOUNT, N. Y. This hospital for the treatment of tuberculosis has a bed capacity for 564 patients. In addition to medical and surgical treatment of chest conditions, the staff carries on an active research program. Fourth-year students are given instruction in all phases of modern therapy in the field of tuberculosis. Ward and outpatient clinics are used in student instruction. As students are in residence at the hospital they have opportunity to take part in the educational program provided for the hospital staff.

OUTPATIENT FACILITIES: Teaching outpatient services are maintained by the College of Medicine in cooperation with the Welfare Department of the City of Burlington, the Mary Fletcher, and the Bishop DeGoesbriand Hospitals.

By arrangement with the Welfare Department, patients who cannot afford to employ private physicians are assigned to the College of Medicine, whose authorities provide care. This program includes patients requiring home care, as well as ambulatory patients. The cost is borne jointly by the College of Medicine and the Welfare Department.

Home care is provided by means of a City Service, a day and night, home visiting service in charge of physicians who are members of the faculty of the College of Medicine and who personally make house calls with the students. This affords well supervised instruction and gives the student an opportunity to study firsthand the home environment and its relation to illness. When hospitalization is necessary, the patients are followed while there, thus providing a continuity to the study of each case.

The Dispensary, a downtown outpatient service, has been in operation for 23 years. General medical, surgical, mental health, dermatological and pediatric clinics are in operation. The Howard Relief Building at 174 Pearl Street, which is also the headquarters of City Service (described above), the Visiting Nurses Association, and the Howard Relief Society contains the Dispensary. This leads to the teaching of a comprehensive program of medical care. The Dispensary has been attended personally by the same

instructor for the past eleven years. Thereby the patients and their medical, social, and economic problems are well understood by the instructor who has become essentially over the years their family physician.

Outpatient facilities are maintained at the DeGoesbriand and Mary Fletcher Hospitals, the major teaching hospitals of the College of Medicine.

The Mary Fletcher Hospital, in cooperation with the College of Medicine, maintains the Durfee Memorial clinic. This is a medical teaching clinic, providing complete study on an outpatient basis, of patients referred from all parts of the State. Complete laboratory and X-ray facilities, and specialist consultations are available for these patients. Obstetrics, gynecology and specialty follow-up clinics complete this outpatient program.

In all these services, patients are assigned to students for study. Diagnostic aids and services are obtained from the different hospitals to which patients may be referred. All such teaching is on the basis of individual instruction with opportunity for the student to follow his patient through to completion of the study and treatment.

## REFRESHER COURSES

At intervals throughout the year refresher and seminar courses, designed primarily for the physician in the general practice of medicine, are given by members of the faculty both at the College of Medicine and throughout the State.

Such courses are planned to afford opportunity for the practicing physician to review recent developments in diagnosis and treatment. The fields include such subjects as internal medicine, neurology and neuropathology, chest diseases, the early diagnosis and treatment of cancer, diseases of the cardiovascular system, problems in pediatrics, and other problems related to the general practice of medicine.

## MEDICAL LIBRARY

The Medical Library contains the standard reference works in medicine and cognate fields, up-to-date texts and monographs, and files of back journals. Over 300 subscriptions to current journals are received regularly. From time to time the library acquires valuable additions from private gifts.

The research facilities of the library are extended by interlibrary loans of original materials, photostats, and microfilms.

The University Library collections, numbering about 200,000 volumes, are available to medical students and staff.

The location of the collection in the College of Medicine is adjacent to classroom facilities and within short walking distance of the two main teaching hospitals. Regular instruction in the use of the library resources and the preparation of a bibliography is given by the librarian.

## MEDICAL MUSEUM

The College of Medicine maintains a museum with a large collection of specimens for use in teaching. In order to obtain the maximum use of this collection and to make it more readily available for teaching purposes, most of these specimens are distributed throughout the teaching laboratories.

## STATE LABORATORY FACILITIES

In addition to the teaching laboratories of the College of Medicine, the laboratories of the Vermont State Department of Health may be used for teaching purposes. These include bacteriological, diagnostic, serological, medico-legal, food and water laboratories, located in a University of Vermont building next door to the College of Medicine.

Through close cooperation between the Vermont State Department of Health and the College of Medicine, staff members of the former have faculty appointments and give instruction to students in preventive medicine and public health. This arrangement is designed to promote the common interests of the two institutions and to educate the medical student for the essential part he must play as a practicing physician in the maintenance of public health. It helps to integrate the teaching of clinical medicine, preventive medicine, and public health and to emphasize the relationship of the individual, as a clinical entity, to the population as a whole.

## DIVISION OF PHOTOGRAPHY

The division of photography has photographic equipment and laboratories at the College of Medicine for photomicrographic and other types of photographic work. This division has a full-time staff whose services are available to all departments of the College of Medicine and the local hospitals.

## PARTICIPATION IN HEALTH ACTIVITIES WITHIN THE STATE

The College of Medicine and the State Department of Health cooperate in teaching and public health programs. While each organization functions as a completely separate unit in the medical and health activities of the State, yet each group makes important contributions to the other.

The College of Medicine makes available to the State Department of Health the services of consultants in the fields of pathology, nutrition and the various branches of clinical medicine, surgery and pediatrics. In the field of legal medicine, the State Pathologist for the Department of Health is a member of the Department of Pathology in the College of Medicine.

The State Department of Health makes available to the College of Medicine its staff members as instructors in preventive medicine and public health. In this manner students in the College of Medicine are given instruction in the important field of public health by well-qualified experts. The students have opportunity to gain firsthand experience in the control of communicable disease, the supervision of food, drug and public water supplies, sewage disposal, public sanitation, preventive work in tuberculosis and venereal diseases, and vital statistics. Public health nursing services in the State are used as a means of educating the future practicing physicians.

The College of Medicine and the State Department of Health cooperate in giving refresher and extension courses to men in the general practice of medicine.

The College of Medicine conducts a diagnostic tumor clinic in cooperation with the Cancer Division of the Vermont State Department of Health and the Mary Fletcher Hospital. This clinic is under the general direction of the Tumor Clinic Board composed of faculty members of the College of Medicine. The responsibility for organization, operation and policy is vested in this Board.

Patients are referred to this clinic by practicing physicians throughout the State. The close cooperation between the faculty of the College of Medicine, the Vermont Cancer Society, Inc., the practicing physicians throughout the State, and the Vermont State Department of Health, is another instance of the public service rendered by the University of Vermont through its College of Medicine, in fields related to the education and protection of the public. The clinic gives practical experience in the field of cancer control to medical students who may later become practicing physicians in the State.

The College of Medicine takes an active part in the preventive work done in tuberculosis, mental disease, diseases of the eyes, and corrective work for crippled children. The clinics for these conditions are largely staffed by State organizations, assisted financially and in other ways by the College of Medicine. The College furnishes quarters and diagnostic facilities for various of these organizations.

In the field of maternal welfare, hospitalization for lying-in cases is supplied by the College of Medicine where inability to pay for such care makes it necessary. Clinics for the diagnosis and treatment of disease conditions are maintained by the College, in cooperation with local hospitals, for patients who cannot afford to pay for such services and who may be referred to the clinics by their physicians.

In cooperation with the College of Medicine, the Vermont Association for the Crippled, Inc., maintains a speech and hearing clinic in Burlington. In addition, students observe the rehabilitation team at work in this organization's Cerebral Palsy Clinic. The specialists in this field, who attend the clinic, are members of the faculty of the College of Medicine. In all health activities throughout the State, the College of Medicine takes an active part.

Assistance given in the form of a grant by the Charles H. Hood Dairy Foundation of Boston, Massachusetts, and in the form of a scholarship in medical science by the John and Mary R. Markle Foundation has made possible expansion of the work of the Division of Pediatrics. This enables the Division to extend its work in preventive pediatrics throughout the State and to study some of the problems in the field of pediatrics.

## PRECEPTORSHIPS IN GENERAL PRACTICE

In the fourth year each student is given two weeks of instruction by a physician in the general practice of medicine. The student lives in the community during that period, makes home visits with the physician, may act as his assistant, and learns by observation and actual participation the relationship of the doctor to the patient.

# FEES AND EXPENSES

| | |
|---|---|
| Application Fee | $ 10.00 |
| Registration Fee (Required only for first registration) | 5.00 |
| Fee for late registration | 6.00 |
| Tuition Fee for each session for Vermont students | 550.00 |
| Tuition Fee for students not residents of Vermont | 800.00 |
| Osler Clinical Society Fee | 3.50 |
| Locker Fee for each of first, second and third years | 1.00 |
| Fee for the Doctor's Degree, payable at graduation only | 25.00 |
| Locker Key Deposit—Paid on admission; refunded end of third year | 1.00 |

| | *Average* | *Range* |
|---|---|---|
| Room Rent | $200.00 to | $300.00 |
| Board | 300.00 to | 400.00 |

Students entering the College of Medicine who have never been previously enrolled for a regular session in one of the Colleges of the University are charged $5.00 as a fee for registration.

All students who enter the first year in the College of Medicine following three years' attendance in the College of Arts and Sciences of the University of Vermont are charged the academic student activity fee of $15 for that year. This includes the Osler Clinical Society fee of $3.50 a year. All students are required to pay the latter fee each year they attend the College of Medicine. Other medical students may, by paying the student activity fee, become entitled to the benefits students receive from payment of that fee.

Every student must have in his or her possession on the opening day of the College of Medicine a microscope of the following specifications. Such microscope must be in his or her possession for use during the entire medical course.

Failure to conform to this requirement in every detail will be considered just cause for a student's dismissal from the College of Medicine.

A satisfactory modern (medical type) compound microscope with side fine adjustment and equipped with:

(a) An Abbe substage condenser with iris diaphragm and rack and pinion
(b) 10X oculars
(c) At least three objectives with lenses free from defects and capable of giving clear images—low power (16 mm.), high dry power (4 mm.), and oil immersion (1.8 mm.)

(d) At least a three-place nosepiece
(e) A modern and properly functioning mechanical stage; calibration is not necessary.
(f) Properly functioning fine and coarse adjustments.
(g) An adequate lamp for substage illumination equipped with CORNING DAYLITE glass filter 3/16 inch thick and at least a 10-watt bulb for monocular and a 25-watt bulb for binocular microscopes. Binocular microscopes are desirable but not required.

Students must provide microscopical supplies for use in the various laboratories.

Each student must purchase a dissecting case for use in the Anatomical Laboratory.

Medical textbooks, outlines, student supplies and equipment are sold at the University Store in the Waterman Memorial Building.

The tuition fee is payable in two equal installments at the beginning of each semester. Students are not admitted to classes of a half year until the comptroller's receipt has been issued.

Students temporarily absent from the University are charged as if present.

A student who has been dropped into a lower class because of deficiency in his work, or for other reason, will be required to pay his bills for the additional year or years in which he may be a member of the University.

Students who by reason of conditions over which they have no control require more than four years to complete the requirements for a degree shall be charged no more than the full tuition for four years.

In no case will a scholarship or tuition exemption be available for more than four years.

## HONORS AND PRIZES

The five students who have been top-ranking during the entire four years' course of study in the College of Medicine, are graduated as Doctors of Medicine, *cum laude*.

*The Governor Woodbury Prizes.*—The income from a fund of one thousand dollars provides annually two equal prizes. The first is awarded at graduation to the student who has shown the greatest proficiency in clinical work. The other is awarded to the

sophomore having the highest standing in the subjects of the first two years. The amount of each prize is determined by the income obtained from the investment of the fund.

*The Carbee Prize.*—A prize fund of three thousand dollars was established by the late Mrs. May D. Carbee of Haverhill, N. H., in memory of her husband, Moses Dyer Carbee, M.D., of the class of 1873. The annual income from the investment of this fund provides a prize to be awarded annually to that student of the Senior class who has shown the greatest proficiency in the field of Obstetrics. The Department of Obstetrics makes the award.

*Lamb Foundation Prizes.*—Prizes of seventy-five, fifty and twenty-five dollars will be offered during the year 1952-1953 by the Lamb Foundation to students in the College of Medicine. The awarding of these prizes will be for student interest, application to and work on the problems of patient comfort and doctor-patient relationship.

## FELLOWSHIPS AND RESIDENCIES

The Trustees of the University of Vermont have established two teaching fellowships in clinical medicine for graduates in medicine who wish to pursue further graduate studies. The fellowships are usually granted for a period of two years.

The College of Medicine, in cooperation with the Mary Fletcher Hospital and the Bishop DeGoesbriand Hospital, has established fellowships and residencies in Medicine, General Surgery, Pathology, Pediatrics, Obstetrics-Gynecology, Urology, Radiology and Anesthesiology. These fellowships and residencies are approved by the American Medical Association.

## SCHOLARSHIPS AND LOAN FUNDS

A scholarship fund of three thousand dollars was established by the late Mrs. May D. Carbee of Haverhill, N. H., in memory of her husband, Moses Dyer Carbee, M.D., of the class of 1873. The income derived from the investment of this fund is given annually to a deserving student in the College of Medicine.

By Act of the Legislature in 1919, the State of Vermont provides annually fifty State Scholarships of $100 each in the College of Medicine for residents of the State of Vermont who

may need financial assistance. To qualify for such scholarships, students must have established residence in Vermont two consecutive years preceding enrollment. Where students accept these scholarships, they must agree to practice medicine in the State of Vermont one year for each year such aid is given, or refund the amount of aid received. Application blanks may be obtained at the Dean's Office.

A loan fund of four thousand dollars was established by the late Mrs. May D. Carbee of Haverhill, N. H., in memory of her husband, Moses Dyer Carbee, M.D., of the class of 1873. Students in the College of Medicine in need of financial assistance may apply for loans from this fund.

The Edith Blanche Kidder Scholarship Fund was established by the late Joseph W. Kidder. This is for students in the College of Medicine, preference being shown to legal residents of Barre, Vermont. The amount of each scholarship is determined annually by the income from the invested fund.

The Edward Everett Hawes Fund, founded in 1946 by bequest of Dr. Edward Everett Hawes of Hyannis, Massachusetts, provides scholarship aid for medical students.

The Medical College Loan Fund is available for loans to students enrolled in the College of Medicine.

The W. K. Kellogg Loan Fund was established in May 1942 by a gift of $10,000 from the W. K. Kellogg Foundation. It provides loan funds for students of ability in the College of Medicine who may be in need of financial assistance.

Certain special and endowed scholarships and funds, including the Wilbur Fund, are available to students of any college in the University. See the catalogue number of this Bulletin.

## PREMEDICAL CURRICULUM

Although students may be accepted for admission to the College of Medicine after the satisfactory completion of three years of work in an approved college of arts and sciences, it is usually preferable that they complete four years of academic work in such an institution before undertaking the study of medicine. In either case, they must complete in a satisfactory manner the courses set up by the Council on Medical Education and Hospitals of the American Medical Association as minimum subject requirements

for entrance to approved medical schools. These include satisfactory courses in English, Physics, Biology, Inorganic Chemistry, and Organic Chemistry.

For those who wish to obtain the Bachelor's and Doctor's degrees but find it impossible to spend eight years in obtaining them, a combination curriculum of seven years has been provided at the University of Vermont. A candidate must complete the work of the first three years in the College of Arts and Sciences, including the requirements for admission to the College of Medicine. In his fourth year, he will be considered as being enrolled in both the College of Arts and Sciences and in the College of Medicine, but will pursue only the studies of the first year in the latter college. Upon the successful completion of the first year in the College of Medicine, he will receive the Bachelor of Science degree.

Students from other institutions who desire to receive both degrees, must complete at least one full year's work in junior or senior standing in the College of Arts and Sciences at the University of Vermont before entering the College of Medicine.

The College of Arts and Sciences of the University of Vermont enrolls those students preparing for the study of medicine in its regular curricula. Each student receives the guidance of an adviser who will assist him in choosing the proper courses of study. Although considerable flexibility of choice is allowed, the program most frequently selected during the freshman year includes the following: English, Chemistry, Mathematics, and a foreign language.

At the end of each year, all students who are preparing for the study of medicine appear before the Medical Advisory Committee composed of representatives of the College of Medicine and the College of Arts. This Committee advises the students on the selection of further courses of study and on the desirability of continuing premedical preparation.

As the study of medicine properly begins in undergraduate days, the College of Medicine endeavors to obtain early contact with students during that period and to maintain such contact. In this manner it can give help and advice to students in course planning and in establishing a relationship between the work taken in premedical school courses and the continuation of these courses in the College of Medicine. Not only can the basic preparation of the student be broadened and improved in this manner, but students become better able to evaluate their qualifications for the study and possible practice of medicine through personal

conferences with members of the faculty of the College of Medicine. Students are encouraged to consult faculty members in making plans for the study of medicine.

## REQUIREMENTS FOR ADMISSION

The usual requirements for admission to the College of Medicine are four years of college work done in an institution listed among the "Approved Colleges of Arts and Sciences," compiled and published by the Council on Medical Education and Hospitals of the American Medical Association. The College of Medicine requires one year each of:

Biology
English
Physics
General Chemistry
Organic Chemistry
Quantitative Chemistry (a satisfactory one semester course)

The College strongly recommends additional courses in:

English
Mathematics (at least one year)
Two modern foreign languages, work of such a grade that the students will have a reading knowledge of the languages.

These should be regarded by the student as minimum basic requirements. In exceptional instances three years of college work will be accepted if the above courses have been completed.

While the minimum requirements must be satisfactorily completed, additional well-planned courses of study in the fields of History, Economics, Sociology, Psychology, Philosophy, Music and the arts should be included. This is possible if students carefully plan programs of study early in their academic careers. In this way the student develops a broad general background and at the same time prepares himself for the study of medicine. Each of these is equally important. The well-trained physician should be a well-educated person.

Students must satisfactorily complete all requirements for admission to the College of Medicine in any given year by July 1 preceding the September admission.

The Admissions Committee expects applicants to have completed a program equivalent to that outlined but reserves the privilege, at its discretion, to give favorable consideration to applicants with college work of a different type, provided it includes acceptable credits in the required courses.

Eligibility for admission to the College of Medicine of an applicant, who has fulfilled the entrance requirements as stated, is determined by the Admissions Committee of the College of Medicine on the basis of the following:

1. Personality and aptitude of the applicant for the study and practice of medicine. This is determined by recommendations and especially by personal interview with the Admissions Committee. Dates for these interviews are announced by the Committee.
2. The scholastic record of the applicant in his premedical work. The Medical College Admission Test, recommended by the Association of American Medical Colleges, is required of each applicant. The scores made in this test are taken into consideration but are not used as a final determinant in accepting students.

Because of limited teaching facilities, a maximum of fifty students is admitted to the entering class. In the selection of eligible applicants for admission, the following preferences are, in general, observed by the Admissions Committee.

First preference is given to qualified residents of the State of Vermont. Second preference is given to qualified sons and daughters of alumni. Third preference is given to qualified residents of the northeast New England area outside of the State of Vermont, and to graduates of land-grant colleges in New England.

The State of Vermont by statute requires every resident of the State who enrolls in a curriculum leading to the degree of Doctor of Medicine to sign an agreement to practice medicine in Vermont for the period of one year for each year of enrollment. In lieu of this, the student may refund to the State Treasurer, through the University, the difference between the total tuition paid and the total unit cost to the State of the curriculum pursued.

Individuals selected by the Admissions Committee as eligible for admission will be required to appear for personal interviews. The Dean's Office will notify such applicants of the appointments for interview.

Application blanks may be secured from the Dean's Office, College of Medicine, University of Vermont, Burlington, Vermont.

Applications for admission to the class entering in September of any year will close March 1 preceding the September admission.

Applications postmarked up until midnight of the last day of February will be considered.

An application fee of ten dollars, payable to the University of Vermont and State Agricultural College, must accompany all applications.

## ENROLLMENT

On a day designated at the opening of each semester, registration and enrollment take place. Payment of tuition and other fees must be made at this time.

Students who fail to register on the day designated for registration will be required to pay the fee for late registration.

## ADMISSION OF STUDENTS TO ADVANCED STANDING

When vacancies occur, students may be considered for advanced standing. Such students will be accepted only on the conditions stated herewith.

1. That the premedical and medical work be in accord with the courses required at this institution, and have been taken at an institution approved by the Council on Medical Education and Hospitals of the American Medical Association.
2. That the scholastic record is satisfactory.
3. That the previous record shows that one or more years have not been repeated on account of low scholarship regardless of class standing.
4. That the statement of record shows no condition and that said statement be accompanied by a letter of honorable dismissal.

No applicant for advanced standing will be enrolled under more favorable conditions than would obtain were he to continue at the institution from which he seeks to transfer.

A personal interview is required of all applicants for admission by transfer to the College of Medicine. Preference will be given to residents of the State of Vermont, particularly those holding a baccalaureate degree.

Students desiring advanced standing are subject to the same rules in regard to advancement in course as students who have attended the College of Medicine of the University of Vermont.

Students dismissed by reason of failure grades from other institutions will not be considered for admission to any class in the College of Medicine.

## REQUIREMENTS FOR ADVANCEMENT IN COURSE

Attendance upon the exercises assigned for the year is obligatory. Students must attend at least 80 per cent of the exercises in any course. Failure to do this constitutes a failure in that course. The course of instruction in the College of Medicine requires four consecutive school years. No student is eligible for a medical degree who has not been registered in medical school four complete years. Any resumption of study after absences greater than the time allowed for absence will be permitted only on majority vote of the Faculty of the College of Medicine upon the recommendation of the Admissions Committee.

The work of each year is final and students are advanced when they have satisfactorily completed the work assigned for the year.

The standing of each student in his class at the end of the session is based upon the general character of his work in the different laboratories and other practical exercises, upon the character of his recitations, and upon the results of all examinations held during and at the end of the course.

The work of students is evaluated on the basis of 100 per cent. The lowest passing grade is 75 per cent except in the case of minor subjects. In the first and second years, the passing grade for each minor subject is 75 per cent. In the third year, a grade of 60 per cent is accepted for individual minor subjects, but the average for a group of minor subjects must be 75 per cent.

Any student who has failed in 25 per cent or more of the major courses (see page 77) in any year will not be allowed to advance with his class. Neither shall he be allowed to repeat the work of that year, except upon recommendation of the Committee on Advancement and by vote of the Faculty.

Any student who has failed in less than 25 per cent of the major courses in the first, second, or third years may be re-examined in the subjects failed at the regular examination period preceding the next school year. The marks obtained in this re-examination are computed with the credits earned during the preceding year in exactly the same way as those obtained in the examination at the end of the course. However, the highest final grade allowed for a course passed on re-examination shall be 75 per cent.

A student who, upon re-examination in any subject, again fails, will not be advanced unless such failure be in a single subject which is not completed in that year. In the latter case, the student

may, upon recommendation of the head of the department in which the course was given, and by vote of the Faculty, be advanced with a condition.

A student will not be permitted to become a member of the third-year class until he has removed all conditions of the first year; and a student will not be permitted to become a member of the fourth-year class until he has removed all conditions of the second year.

A student, whose grade average for the year is less than 80, may be required to repeat the year's work or to withdraw from school. Such action may be taken only after review of his status by the Committee on Advancement and formal approval of the Faculty.

A student who has been a member of either the first-, second- or third-year class for two school years, and has failed to fulfill the requirements for advancement, or a student who has been a member of the fourth-year class for two school years and has failed to fulfill the requirements for graduation will not be enrolled again as a student of the college.

A student who fails to present himself at the appointed hour for any examination at which he is due to appear will be treated as having taken the examination and failed to pass it, unless he is excused from such examination by the Faculty.

The following additional requirements for advancement have been adopted by the Faculty of the College of Medicine and apply in all cases.

The scholastic records of all students shall be reviewed by the Committee on Advancement at the end of the course work and may be reviewed at any time.

*Freshmen:* Rules regarding failures apply, except that the Committee on Advancement is empowered to review cases of failure and make such recommendations to the Dean and the Faculty as it may see fit.

*Sophomores:* At the completion of the second year's work students may be required to take a comprehensive examination upon recommendation of a department chairman, subject to the approval of the Committee on Advancement and the Dean.

*Juniors:* The third-year students shall be judged on the basis of course work, present rules regarding failures to hold except that the Committee on Advancement is empowered to review cases of failure and make such recommendations to the Dean and Faculty as it may see fit.

*Seniors:* Fourth-year students may be required to take a comprehensive examination upon recommendation of a department chairman, subject to the approval of the Dean.

## REQUIREMENTS FOR GRADUATION

Candidates for the degree of Doctor of Medicine must have reached the age of twenty-one years and must have shown satisfactory evidence of good moral character. All the requirements of this college in regard to preliminary education must have been met, and the candidate must have attended regularly and completed satisfactorily the prescribed work of the four courses of instruction. The degree of Doctor of Medicine is granted by the Board of Trustees of the University of Vermont and State Agricultural College to candidates from the College of Medicine only upon the recommendation of the Committee on Advancement and the Faculty of the College of Medicine to the University Senate.

While internship is not required for graduation, graduates are expected to serve at least a one-year internship in a hospital approved by the Council on Medical Education and Hospitals of the American Medical Association.

All candidates for degrees must be present at Commencement unless excused by the President of the University.

## OUTLINE OF THE CURRICULUM

The curriculum of the College of Medicine is designed to train students for the general practice of medicine. Students are encouraged to enter this important field of practice. The courses of instruction are so planned as to afford the best background for the general practice of medicine. This background supplies the best type of training for students who may later elect to enter fields of specialization.

The basic plan of the curriculum centers about clinical teaching. Effort is made to correlate instruction in every year with clinical medicine. By using the clinical approach in laboratory and classroom the student is brought into contact with the patient early in his career.

The student studies first the general structure of the body, its embryological development, the functions of the various organs, the chemical processes taking place in the body and the minute structure of the tissues and organs in health.

Then follows consideration of the changes in gross and microscopic anatomy, the variations in the chemical processes and in the functions of organs and tissues under the influence of disease and

how such changes give rise to different symptoms and physical signs. The methods of interpreting such findings in arriving at a diagnosis are considered.

The student then studies the methods of investigating diseases, their causes and prevention, as well as the remedies used in treatment. The various surgical conditions are considered along with the indications for treatment or operation. Reproduction and development are studied, together with the management of normal and abnormal labor.

Instruction is given by lectures, demonstrations, recitations, seminars, library work, practical courses, laboratory work, clinics and clinical teaching, at the bedside and in the dispensary. For clinical work the class is divided into small sections. Each student, therefore, receives the personal attention of the instructor and is given every opportunity for the full use of assigned material.

*In the First Year,* courses in Anatomy, Physiology, Biochemistry, Histology, Embryology, Neuro-anatomy and Bacteriology are given.

In addition, short orientation courses in Psychiatry, Chemistry, and the use of the Library, are given in the first semester of the first year. These courses have a twofold purpose. They are primarily designed to maintain continuity between premedical school work and that given in medical school. Secondarily, through these courses the student learns the need for and the proper use of certain important tools in the field of medicine.

The introductory course in Psychiatry emphasizes the basic principles of Psychology. It discusses the emotional response of the individual to his environment. It helps the student early in his medical career to recognize and establish causal relationship between psychological factors in the patient's life and disease manifestations.

The short course in Chemistry focuses the attention of the student on that subject as a science related in a practical manner to the processes of growth and development, health and sickness, life and death. It emphasizes the basic importance of his already acquired knowledge of Chemistry and the practical use of it in the qualitative and quantitative aspects of vital phenomena.

The course of instruction in the use of the library and its facilities aims to make the student aware of the library, the important part it plays in all medical work and the necessity to understand its proper use. The course includes lectures on library organization, administration and services. These are given by members of the library department. Practical exercises in the

library are given by faculty members to students so they may become familiar with medical literature, its sources and the proper techniques employed in bibliography.

*In the Second Year* instruction is given in Pharmacology, Pathology, Public Health, Medicine, Surgery, Obstetrics, Pediatrics and Physical Diagnosis. The courses in Anatomy, Physiology and Psychiatry are continued. As part of the plan to integrate the student's work in all courses, a two-hour correlation conference is held each week during the second semester. This conference is designed to emphasize interdepartmental relationships. Selected cases are presented and students and department members take part in the presentation and discussion.

*The work of the Third Year* includes continued work in Medicine, Surgery, Obstetrics, Pediatrics, and Pathology. The third year course in Pathology is a continuation of the general course in the second year. Surgical Pathology is also included in the work of this year. Radiology and Physical Medicine are taught throughout the year. The students are also given work in Eye, Ear, Nose and Throat, with clinic and ward instruction.

The course in Physical Diagnosis is continued in the third year. Students are assigned in small sections to the hospital wards, where they take histories and do physical examinations under supervision. This work includes case presentation.

The weekly correlation conferences of the second year are continued throughout the third year. In this year, the conference again serves the important role of keeping the basic sciences integrated with clinical teaching. Members of all departments take part in the presentations, and all discussions include material from the laboratory and classroom work of the first two years.

*The work of the Fourth Year* is given on a twelve-month basis. Upon the completion of the work of the third year, the students begin clinical work in the teaching hospitals in rotation. The services are so arranged that sections of one to five students can be assigned to hospitals for periods of one month, allowing each student to have four weeks of vacation during the year. Such services include Medicine, Surgery, Obstetrics, Pediatrics, Surgical specialties, and general services. These services are given at the Mary Fletcher Hospital, the Bishop DeGoesbriand Hospital, the Fanny Allen Hospital and the Burlington Dispensary with the City Service under the City Physician.

Rotating services of two months are given at the Vermont State Hospital for Mental Diseases at Waterbury, where clinical work in Psychiatry, Clinical Medicine and Psychosomatic Medi-

cine is given. Individuals in sections are given a month in residence at the Trudeau Sanatorium in Trudeau, New York, or at the Veterans Administration Hospital, Sunmount, N. Y., where clinical instruction is given in tuberculosis and other diseases of the chest. Two periods of service, one month each, are given at the Putnam Memorial (Bennington), Springfield, Rutland, and Brightlook (St. Johnsbury) Hospitals.

During the year students attend autopsies under the instruction of the Department of Pathology. Students are given opportunity to follow these cases through with study of the gross specimens and microscopic sections.

All fourth-year students attend ward rounds, grand ward rounds, interdepartmental diagnostic conferences and the clinical-pathological conferences. In this manner the student not only receives clinical instruction, but he is constantly kept in touch with the basic work of his first two years in the College of Medicine.

# DETAILS OF INSTRUCTION IN THE DEPARTMENTS OF STUDY

## THE DEPARTMENT OF ANATOMY

CHESTER ALBERT NEWHALL, A.B., M.D., *Professor of Anatomy, Chairman of Department*

HOVEY JORDAN, PH.B., M.S., M.A., *Professor of Histology and Embryology*

FRED WILLIAMS DUNIHUE, A.B., M.S., PH.D., *Professor of Histology and Embryology*

WALTER ALVA STULTZ, A.B., PH.D., *Associate Professor of Anatomy*

DALLAS RICHARD BOUSHEY, *Demonstrator in Anatomy*

SHIRLEY DOROTHY CYR, B.S., *Research Assistant in Anatomy*

FIRST YEAR:

*I. Gross Anatomy*

This course begins with a brief introduction to the study of human anatomy in general, and osteology in particular. The plan of work then provides for dissection of the body from the standpoint of topographical and regional anatomy. As a general rule, structures to be dissected during a given period are assigned in the order in which they are encountered in the dissecting room and are studied and discussed in advance so that the student will be somewhat familiar with what he expects to discover in the laboratory. The appearances of anatomical structures as shown on X-ray films are demonstrated by the Division of Radiology.

The course includes the identification of all of the more important structures found in a complete series of cross sections, as well as a study of their relationships, supplemented by surface studies on the living body as well as by the use of stereoscopic views and demonstration specimens of dissected regions.

Frequent review sessions are held and each student is given oral examinations on cadaver dissections as well as written examinations on the material presented.

An attempt is made to correlate the subject matter with other preclinical and clinical courses so that the student will have an opportunity to acquire a good working knowledge of gross anatomy with a minimum amount of time and effort wasted.

*336 hours* (21 hours per week during the first semester). This does not include 27 hours (6 hours per week for the first four and one-half weeks of the second semester) of instruction in the gross anatomy of the central nervous system which is included in the course in Neuro-anatomy (see below). *Drs. Newhall and Stultz.*

*II. Histology and Embryology*

The course in Histology consists of lectures, discussions, demonstrations and laboratory exercises. It includes a consideration of histological technics and the microscopic structure of normal human cells, tissues and organs. Experimental research projects may be carried on by qualified students in Histology on a voluntary basis under Faculty guidance.

The course in Embryology includes approximately 12 one-hour lectures on gametogenesis, fertilization, cleavage, inplantation and the formation and early differentiation of the germ layers, which are introductory to histogenesis and organogenesis.
*Histology, 128 hours. Professors Jordan and Dunihue.*
*Embryology, 24 hours. Professor Dunihue.*

*III. Neuro-Anatomy*

This course includes instruction in the gross and microscopic anatomy of the nervous system and its functional organization. *27 hours, second semester. Professors Newhall and Stultz. 69 hours, second semester. Professors Jordan and Dunihue.*

The facilities of the laboratories are available to a limited number of qualified persons for research.

SECOND YEAR:

*I. Surface and Radiological Anatomy*

This course consists of lectures and laboratory work in surface anatomy, and is illustrated by the use of X-ray films.

*40 hours* (two hours per week during the first semeter and one hour per week during the first half of the second semester). *Dr. Stultz.*

*II. Anatomy: General Review*

The aim is to review the subject matter thoroughly so that each student will strengthen his grasp of the essentials necessary for applying his knowledge of anatomy, always striving to keep in mind the fact that a knowledge of structure is of little use ex-

cept as it contributes to an understanding of function and the ability to restore abnormal function again to normal. Emphasis is placed upon the correlation of gross anatomy with microscopic and developmental anatomy.

*8 hours* (one hour per week during the last half of the second semester). *Dr. Newhall.*

## THE DEPARTMENT OF BACTERIOLOGY AND PREVENTIVE MEDICINE

FRED W. GALLAGHER, A.B., M.A., PH.D., *Professor of Bacteriology, Chairman of Department*

ROBERT BASCOM AIKEN, PH.B., M.S., M.D., M.P.H., *Associate Professor of Preventive Medicine*

CHARLES HENRY OKEY, A.B., M.S., PH.D., *Assistant Professor of Bacteriology*

INA MAXSON, B.S., M.S., M.T., (A.S.C.P.), *Assistant Professor of Medical Technology*

CHARLES IVES TAGGART, D.M.D., *Assistant Professor of Oral Hygiene and Dental Medicine*

ERALD FAIRBANKS FOSTER, M.D., *Instructor in Public Health*

HENRY LEE MILLS, D.V.M., *Instructor in Public Health*

VIOLA RUSSELL, A.B., M.D., *Instructor in Public Health*

EDWARD LAWRENCE TRACY, B.S., *Instructor in Public Health*

FIRST YEAR:

*I. Bacteriology*

The subject matter embraces a brief survey of the general biological aspects of bacteriology including essential technics; a consideration of the principles of infection and the resistance of the body to disease; a study of the various infectious agents and their relation to disease processes. Immunology and serology are treated as integral parts of the course.

Lectures, three hours per week; laboratory, eight hours per week, second semester. *176 hours. Drs. Gallagher and Okey.*

## GRADUATE STUDY IN BACTERIOLOGY

*Graduate Courses*

201 *Special Problems in Bacteriology.* Minor investigations

in Bacteriology designed to serve as an introduction to research.

Prerequisite—Medical Bacteriology or its equivalent. *2 credit hours.*

202 *Special Problems in Immunology.* Minor investigations in Immunology and Serology designed to serve as an introduction to research.

Prerequisite—Medical Bacteriology or its equivalent. *2 credit hours.*

203 *Research.* Original investigations intended to culminate in a thesis for a Master's degree.

Prerequisite—Courses 201 and 202. *Credit hours to be arranged.*

204 *Seminar.* Attendance at the departmental seminar. *1 credit hour.*

## CLINICAL TRAINING IN MEDICAL TECHNOLOGY

The final fifteen-month period of the curriculum in Medical Technology, as described in the Bulletin of the University of Vermont, is under the supervision of the College of Medicine and is devoted to clinical studies. Courses are given at the College of Medicine and practical laboratory experience is obtained in the laboratories of the Mary Fletcher and Bishop DeGoesbriand Hospitals. *Miss Maxson and Sister Parenteau.*

## PREVENTIVE MEDICINE AND PUBLIC HEALTH

SECOND YEAR:

*I. Introduction to Public Health*

Lectures, demonstrations, and field trips.

Organization and function of the various agencies concerned with the health of the community. Discussion of methods used to control the spread of communicable disease. Problems relating to the overall health and general well-being of the population. *26 hours, second semester. Staff.*

*II. Oral Hygiene and Dental Medicine*

The course is designed to correlate medico-dental problems affording the medical student an opportunity to become better acquainted with the oral cavity and its component parts as an aid to physical diagnosis.

Dental terminology is reviewed with the objective of giving the student a fundamental vocabulary necessary for discussion of dental problems with the dentist or dental intern with whom he will ultimately come in contact.

Lectures making use of lantern slides, models and charts follow this introduction and include the discussion of medico-dental problems associated with prenatal care, pediatrics (including adolescents), as well as those of adulthood.

Dental diseases, oral pathology and stomatology with their medical implications are discussed, differential diagnosis, and suggestions for treatment.

The dental care of hospital patients is covered in the course of lectures.

*Lectures, 6 hours, second semester. Dr. Taggart.*

THIRD YEAR:

*I. Preventive Medicine*

General principles of communicable disease control. Special emphasis is placed on the control of venereal disease and tuberculosis as public health problems. Additional discussion of tuberculosis by members of the Departments of Medicine and Surgery is given as preparation for the work of the fourth year in the tuberculosis sanatoria. Industrial preventive medicine is discussed and illustrated by practical demonstrations at industrial plants. 16 *hours, first semester. Drs. Aiken, Allen and Miller.*

*II. Preventive Medicine*

Representatives of several voluntary health agencies present a discussion of their programs in order to acquaint the student with the availability of these services to the physician. A variety of current problems in preventive medicine are discussed by visiting lecturers. The last portion of the semester is reserved for a series of lectures on Tropical Medicine (see outline under Department of Medicine). 24 *hours, second semester. Visiting lecturers.*

FOURTH YEAR:

*I. Section Work*

Inasmuch as the City Dispensary houses a number of health agencies, arrangements for work are such that sections on service there are in close contact with public and volunteer agencies engaged in health and welfare activities. Students on city service are necessarily dependent upon a close liaison with the Howard Relief, the Visiting Nurses Association, the Vermont Crippled Children's organization, the bureaus for maternal welfare and child hygiene, the Vermont Tuberculosis Association, the state program for the control of venereal disease, and the functions of the State Health Department. *The Staff.*

Students on pediatrics assignment in Burlington are assigned to oral hygiene clinics at the Burlington Dental Dispensary. The clinics are under the direction of the State's Oral Hygienist and are designed for the study of problems in oral disease both from a preventive and a therapeutic standpoint. Since the majority of patients seen in these clinics are referred through agencies engaged in child health, the students in many instances are able to follow their patients not only through the medical services but through the dental clinic as well. *Dr. Taggart.*

## THE DEPARTMENT OF BIOCHEMISTRY

HAROLD BARNARD PIERCE, B.S., M.S., PH.D., *Professor of Biochemistry, Chairman of Department*

WILLIAM VAN BOGAERT ROBERTSON, M.E., PH.D., *Professor of Biochemistry*

ALEX BENJAMIN NOVIKOFF, B.S., M.A., PH.D., *Associate Professor of Biochemistry*

ARNOLD HAROLD SCHEIN, B.S., PH.D., *Associate Professor of Biochemistry*

MERTON PHILIP LAMDEN, B.S., PH.D., *Assistant Professor of Biochemistry*

ETHAN ALLEN HITCHCOCK SIMS, B.S., M.D., *Assistant Professor of Biochemistry*

GLORIA ANN CHRYSTOWSKI, B.S., *Research Assistant in Biochemistry*

MRS. ANN BAKER DURBROW, *Research Assistant in Biochemistry*

JERROLD GILBERT GOLDMAN, B.A., *Research Assistant in Biochemistry*

BARBARA ALICE MOORE, *Assistant in Biochemistry*

DOROTHY WINGETT SEARS, B.S., M.T. (A.S.T.P.), *Assistant in Biochemistry*

EMILY MAE YOUNG, B.S., *Assistant in Biochemistry*

FIRST YEAR:

*I. Introduction to Biochemistry*

Since the success of students in Biochemistry depends largely upon the adequacy and knowledge of premedical chemistry courses, this course is designed to integrate premedical chemistry with bio-

chemistry. The course reviews fundamental laws, stoichiometry, the theory of the hydrogen ion and buffers, and the chemistry of carbohydrates, fats and proteins.

Lectures and recitations, *24 hours*, first semester, first year. *Drs. Pierce, Schein, Lamden, Robertson, and Novikoff.*

*II. Medical Biochemistry*

The course is designed to afford students an insight into the chemical transformations which take place in the living body, with special reference to man. The topics discussed are enzymes, digestion, absorption, intestinal putrefaction and feces, respiratory and cellular metabolism, blood, urine, tissues, body fluids, water and electrolyte balance, internal secretions, foods, nutrition, vitamins. Laboratory work* is largely quantitative, covering the above topics.

Lectures and conferences, *96 hours;* laboratory, *96 hours*, second semester, first year. *Drs. Pierce, Schein, Lamden, Robertson, Novikoff, Sims, and assistants.*

## GRADUATE STUDY IN BIOCHEMISTRY

*Graduate Courses*

201. *Enzymology*

The course will present a survey of enzymes including: classification, general properties and physical chemistry; methods of isolation, purification and assay; individual enzymes and their integration in biologic phenomena.

Lectures and seminars *2 x 1.5 hours per week*, laboratory *1 x 4 hours per week, 15 weeks.* Open to all properly qualified students. *Dr. Robertson and Staff.*

202. *Biochemical Preparations*

Students taking this course will synthesize and prepare from natural sources important biologic compounds. These substances may be subjected to chemical and physiological examination for identity and purity. With the assistance of the staff, the student will review the literature and choose suitable laboratory methods.

Laboratory, *4 hours per week, 15 or 30 weeks.* Open to all properly qualified students. *The Staff.*

*For medical technologists and other qualified students, a more specialized laboratory program is given by Dr. Sims during the first semester.

203. *Research*

This course is open to graduate students in the Department of Biochemistry. The results of the original investigations will be used as the basis for the thesis required for the degree of Master of Science.

Credit hours to be arranged. Open to all properly qualified students having a Bachelor's Degree in Chemistry. *The Staff.*

204. *Food and Nutrition*

Topics to be discussed will include composition of foods, processing and preservation of foods, the nutrition problem as it exists locally and throughout the United States, functions and requirements of dietary components and nutrition in health and disease.

Lectures and seminars, *2 x 1 hour per week.* Open to all properly qualified students. *Drs. Pierce, Lamden and Staff.*

205. *Intermediary Metabolism*

Lectures and seminars dealing with current concepts of the internal transformations of amino acids, carbohydrates and lipids.

Methods of investigating intermediary metabolism are evaluated.

Among the topics discussed are: dynamic state of the body constitutents, application of isotopes to the study of metabolic pathways, and the integration of the metabolism of the proteins, carbohydrates and lipids.

This course is presented in cooperation with the Division of Experimental Medicine. Open to all properly qualified students.

Lectures and seminars. *2 x 1.5 hours per week. 1st semester.* Laboratory *1 x 4 hours per week. Drs. Schein, Robertson, Novikoff and Staff.*

206. *Seminar*

This course is designed to review recent developments and current literature in the various fields of Biochemistry and is presented in cooperation with the Department of Medicine.

*1 x 1 hours per week. 2nd semester.* Hours to be arranged. Open to all properly qualified students. *The Staff.*

207. *Vitamins in Metabolism*

A study of the absorption, availability and biosynthesis of vitamins, the role of vitamins in intermediary metabolism, vitamin interrelationships, vitamin-hormone interrelationships, analogs and antivitamins, avitaminoses in man and animal, and vitamin requirements.

Laboratory experiments are designed to give experience in chemical, biological and microbiological assay methods.

Lectures and seminars, *2 x 1.5 hours per week.*

Laboratory, 1 *x 4 hours per week. 1st semester.* Open to all properly qualified students. *Drs. Pierce, Lamden and Staff.*

UNDERGRADUATE COURSES

9. *Chemistry for Students in Nursing and Dental Hygiene.* Fall Semester

A general introduction to the laws and concepts which are essential to an understanding of physiological processes.

The biological application of these fundamental principles of chemistry will be stressed, particularly in relation to man and his environment.

Hours: Lecture, *3 hours;* conference, *1 hour;* laboratory, *2 hours.*

Credit: 5.

Course listed in University Bulletin as Chemistry for Nurses #9. *Drs. Schein, Lamden and Assistants.*

10. *Biochemistry for Students in Nursing and Dental Hygiene* Spring Semester

Human Physiological Chemistry. Topics discussed include the chemistry of the lipids, proteins, carbohydrates, enzymes, digestion, absorption, intermediary metabolism, hormones, electrolyte and fluid balance, blood and urine, vitamins, foods and nutrition.

Hours: Lecture, *3 hours;* conference, *1 hour;* laboratory, *2 hours.*

Credit: 4.

Course listed in University Bulletin as Chemistry for Nurses #10. *Drs. Schein, Lamden and Assistants.*

## THE DEPARTMENT OF MEDICINE

ELLSWORTH LYMAN AMIDON, B.S., M.D., M.S., (Med.), *Professor of Medicine, Chairman of Department*

PAUL KENDRICK FRENCH, PH.B., M.D., *Professor of Clinical Medicine*

GEORGE ANTHONY WOLF, JR., B.S., M.D., *Professor of Clinical Medicine*

THEODORE HENRY HARWOOD, A.B., M.D., *Associate Professor of Medicine*

SINCLAIR TOUSY ALLEN, JR., A.B., M.D., *Assistant Professor of Medicine*

JOHN HARDESTY BLAND, A.B., M.D., *Assistant Professor of Medicine*

ELBRIDGE EUGENE JOHNSTON, M.D., *Assistant Professor of Medicine*

GORDON MONTGOMERY MEADE, M.D., *Assistant Professor of Medicine*

ROGER SHERMAN MITCHELL, M.D., *Assistant Professor of Medicine*

RICHARD HENRY SAUNDERS, JR., B.A., M.D., *Assistant Professor of Clinical Pathology and Medicine*

ETHAN ALLEN HITCHCOCK SIMS, B.S., M.D., *Assistant Professor of Medicine*

CHRISTOPHER MARLOWE TERRIEN, M.D., *Assistant Professor of Clinical Medicine*

THOMAS WRIGHT MOIR CAMERON, M.A., PH.D., D.SC., *Visiting Professor of Tropical Medicine*

RICHARD WALKER AMIDON, B.S., M.D., *Instructor in Medicine*

ROBERT PEASE SMITH, A.B., M.D., *Instructor in Medicine*

KATHERINE ELLA MCSWEENEY, A.B., M.A., M.D., *Instructor in Clinical Medicine*

HAROLD EDWARD MEDIVETSKY, B.S., M.D., *Instructor in Clinical Medicine*

WILLIAM ARTHUR PRATT, B.S., M.D., *Instructor in Clinical Medicine*

LEONARD S. KAPLOW, B.S., *Laboratory Instructor in Clinical Pathology*

ANDREW JAMES OBERLANDER, B.S., M.D., *Lecturer in Medicine*

JOSEPH WORCESTER SPELMAN, B.S., M.D., *Lecturer in Medical Jurisprudence*

LAWRENCE NOAH GILLIAM, B.S., M.D., *Fellow in Medicine*

JOHN CLIFFORD LANTMAN, B.S., M.D., *Fellow in Medicine*

MURDO GLENN MACDONALD, B.S., M.D., *Fellow in Medicine*

SPYLIOS PETER NIKITAS, A.B., M.D., *Fellow in Medicine*

WILLIAM HENRY HEININGER, M.D., *Assistant in Medicine*

MARY BREEN, B.S., *Assistant in Clinical Pathology*

INA MAXSON, B.S., M.S., M.T. (A.S.C.P.), *Assistant in Clinical Pathology*

JOHN HENRY MCCREA, B.S., M.D., *Assistant in Medicine*

DIVISION OF DERMATOLOGY

JOHN FIDLAR DALY, B.S., M.D., *Professor of Dermatology, Chairman of Division*

ARTHUR HOWARD FLOWER, A.B., M.D., *Assistant Professor of Dermatology*

DIVISION OF EXPERIMENTAL MEDICINE

WILHELM RAAB, M.D., *Professor of Experimental Medicine, Chairman of Division*

EUGENE LEPESCHKIN, M.D., *Associate Professor of Experimental Medicine*

WILLIAM VAN BOGAERT ROBERTSON, M.E., PH.D., *Associate Professor of Experimental Medicine*

BORYS SURAWICZ, M.D., *Research Associate in Experimental Medicine*

WILDA ROMAYNE GIGEE, R.N., A.B., *Research Assistant in Experimental Medicine*

HUBERT ALEXANDER HINDS, B.S., M.ED., *Research Assistant in Experimental Medicine*

DIVISION OF NEUROLOGY

GEORGE ADAM SCHUMACHER, B.S., M.D., *Professor of Neurology, Chairman of Division*

HIRAM EUGENE UPTON, B.S., M.D., *Associate Professor of Clinical Medicine*

DIVISION OF PEDIATRICS

ROBERT JAMES MCKAY, JR., A.B., M.D., *Associate Professor of Pediatrics, Chairman of Division*

PAUL DENNISON CLARK, M.D., *Associate Professor of Pediatrics*

STUART STARNES CORBIN, B.S., M.D., *Associate Professor of Pediatrics*

ROY EDWARD CORLEY, A.B., M.D., *Associate Professor of Pediatrics*

RALPH DANIEL SUSSMAN, B.S., M.D., *Assistant Professor of Pediatrics*
DOROTHY BLACK CORBIN, B.S., M.D., *Instructor in Pediatrics*
JOHN SEELEY ESTABROOK, B.S., M.D., *Instructor in Clinical Pediatrics*
DOROTHY JACKSON MORROW, B.S. M.D., *Instructor in Pediatrics*
OLIVE MORRIS DAVIES, A.B., M.D., *Fellow in Pediatrics*

DIVISION OF PSYCHIATRY

RUPERT ADDISON CHITTICK, B.S., M.A., M.D., *Professor of Psychiatry, Chairman of Division*
ELIZABETH KUNDERT, B.S., M.S., M.D., *Assistant Professor of Psychiatry*
CHARLES WATTLES STEPHENSON, A.B., M.D., *Assistant Professor of Psychiatry*
FREDERICK CHARLES THORNE, A.B., M.A., PH.D., M.D., *Assistant Professor of Psychiatry*
WILLIAM GREENHILL YOUNG, M.D., *Assistant Professor of Psychiatry*
JULIUS GEORGE COHEN, B.S., M.D., *Instructor in Psychiatry*
DONALD MERRITT ELDRED, A.B., A.M., *Instructor in Clinical Psychology*
J. LOUIS PHILIPPE FOREST, A.B., M.D., *Instructor in Clinical Psychiatry*
GEORGE WILSON BROOKS, B.S., M.D., *Assistant in Psychiatry*
SIBYL MERRIAM HOWE, B.L.I., M.S.S., *Social Worker*

SECOND YEAR:

*I. Physical Diagnosis*

One hour a week throughout the year is given to instruction in the methods of physical examination. This is followed by a two-hour session during which time the class is divided into small sections and assigned to members of the staff for demonstrations and ward practice in the technics outlined didactically.

*II. History Taking and Elementary Clinics*

Later in the year, and as a continuation of the above work, the class is further introduced to methods and findings in physical diagnosis through attendance at elementary clinics. In these clinics selected cases are demonstrated to small sections with the intention

of emphasizing points of distinction between normal and abnormal findings. Principles of history taking are made an integral part of this work. A total of *96 hours* for Courses I and II.

*III. Introduction to Medicine*

This course is closely correlated with the course in history taking and physical diagnosis and also with the correlation conferences. The chief purpose is to transfer the knowledge gained in the basic sciences to clinical practice. Basic fundamental problems and mechanisms are stressed. *16 hours. Dr. Amidon.*

*IV. Pathological Physiology Conference*

A two-hour session each week during the second semester is devoted to a discussion and interpretation of the disturbed physiological and biochemical processes underlying disease. This is a correlation conference in which members of both clinical and preclinical departments take an active part. Selected cases are presented for study and discussion. *32 hours. The Staff.*

*V. Clinical Pathology*

Laboratory examinations and their clinical application and interpretation. Microscopic and chemical studies of urine, gastric contents, cerebrospinal fluid, transudates and exudates; hematology; parasitology.

Lecture, *4 hours per week;* laboratory, *4 hours per week;* first semester. *128 hours. Dr. Saunders, Miss Maxson and Mr. Kaplow.*

THIRD YEAR:

*I. General Medicine*

Two to four hours weekly throughout the year are assigned to a textbook survey of general medicine. Emphasis is placed on the more common disease conditions, full attention being given to their etiology, symptomatology, physical and laboratory findings. Collateral reading in current literature is required. *64 hours.*

*II. Clinical Lectures in Medicine*

In addition to a textbook survey of medicine, one hour weekly is given to clinics on selected problems in internal medicine at which time certain cases are presented for the demonstration of illustrative disease syndromes. The recognition and significance of such findings form the basis for the discussion. *32 hours.*

*III. Tropical Medicine*

With the increasing participation of the United States in world-wide activities, tropical medicine assumes a new importance.

Among the subjects covered in this division of medicine are malaria, the dysenteries, cholera, yellow fever, leprosy and yaws, trypanosomiasis, the leishmaniases, schistosomiasis, filariasis, dengue and allied fevers. *16 hours. Dr. Cameron.*

*IV. Medical Jurisprudence*

Lectures are given on the right to practice, contractual relations between physician and patient, the law of malpractice, legal aspects of the physician's duties under public health laws, autopsies and reports thereon, medico-legal aspects of certain crimes, expert testimony, insanity, and judicial toxicological investigations. *16 hours. Dr. Spelman.*

*V. Clinical-Pathological Conferences*

These conferences, held two hours weekly throughout the year, are within the scope of the Pathological Physiology Conferences begun in the second year. In this particular phase of the work, more emphasis is placed on clinical findings. However, preclinical fundamentals are again reviewed and special attention is given to their practical applications. *48 hours. The Staff.*

*VI. Physical Diagnosis (Ward Work)*

Small sections are assigned to the hospital wards and the Dispensary for the afternoon periods four days each week for practical work in history taking, physical examinations, and laboratory diagnosis. Suitable subjects are selected without distinguishing between medical and surgical cases. This prevents to some extent the prejudging of the diagnosis of the case as either medical or surgical and serves to bring out the fact that many medical cases have surgical aspects and that surgical problems likewise present difficulties from a medical point of view. While the assignments are made in small sections, the individual student carries on his own work and is expected to do his clerkship in much the same manner as the fourth-year student, the only difference being that the third-year men are carefully supervised, and the cases are selected and graded to the scholastic experience of third-year students. *Approximately 336 hours. The Staff.*

*VII. Therapeutics*

The course consists of one hour weekly during the first semester. It begins with a discussion of the bedside manner, methods of allaying anxiety and the use of simple nursing procedures to assure the comfort of the patient. Discussion of specific diseases, with their treatment, follow and finally a consideration

of the doctor's bag, the materials to be carried and methods of use. Throughout the course special attention is given to the consideration of the individual patient rather than to regimens of therapy. *16 hours. Dr. French.*

FOURTH YEAR:

*1. Clinical Clerkships*

The work of this year is done in small sections at the several teaching hospitals where the students serve as clinical clerks. Patients are assigned for history taking, physical examination, and the necessary laboratory work. Demonstrations, conferences, and ward rounds are made by the Staff.

The sections are assigned in rotation at the Mary Fletcher, Fanny Allen, and Bishop DeGoesbriand Hospitals, and at the Dispensary. Students are assigned for one month in residence at the Trudeau Sanatorium in Trudeau, New York, or the Veterans Administration Hospital in Sunmount, New York, for instruction in tuberculosis. Instruction in medicine, psychiatry and psychosomatic medicine is given at the Vermont State Hospital for two months, with the student in residence.

The section on City Service (domiciliary medicine) is also on service at the Dispensary during the clinic hours, and is resident in the building. Students on this service make house calls under the supervision of the City Physician. This is a general, twenty-four hour service, with a four-week assignment.

The medical staff supervises the sections in the various hospitals.

Students are also assigned for clinical clerkships in Vermont hospitals outside of the Burlington area for services of one month. Each hospital arranges for supervision and teaching programs by staff members under the guidance of a preceptor.

## DERMATOLOGY

THIRD YEAR:

Introduction to dermatology. The relation of skin diseases to basic anatomic and physiologic facts is covered by lecture and demonstration. The relation of cutaneous diseases to general medicine is emphasized. Lecture material on various dermatoses will be supplemented by photographic illustrations. Classification of skin diseases, together with differential diagnosis and treatment, will be covered. *32 hours, first semester. Dr. Daly.*

Lectures and demonstrations on additional cutaneous diseases will be continued during the second semester. *16 hours. Dr. Flower.*

FOURTH YEAR:

Students are assigned in rotation to attend the dermatologic clinic each Wednesday morning. Individual students will see new patients, make tentative diagnoses and record findings. Group discussion by staff will follow for each patient. 8 *hours. Drs. Daly and Flower.*

## EXPERIMENTAL MEDICINE

The Division of Experimental Medicine devotes its efforts to research problems in the field of clinical medicine, with special emphasis on cardiovascular diseases and endocrinology.

The Division has established a cardiovascular unit at the Bishop DeGoesbriand Hospital, with hospital beds and laboratory facilities for the study of patients. The laboratories of the Division at the College of Medicine are equipped for experimental work in physiology, pharmacology and biochemistry.

*Drs. Raab, Robertson, Lepeschkin and Staff.*

## NEUROLOGY

SECOND YEAR:

*1. Neurological Diagnosis*

This course is integrated with the course in Physical Diagnosis. As an introductory course in diagnostic methods it emphasizes the technique of the neurological examination, the signs of normal function and dysfunction of the nervous system, and the interpretation of these in terms of the site of the lesion. Lectures provide a basic orientation for bedside work. These review the anatomy and gross function of the nervous system as a basis for the neurological examination. Neurologic signs are discussed as they may be related to the sites of lesions. The fundamental segmental structure of the nervous system with intersegmental and suprasegmental elaborations is discussed. Students are required to examine each other and patients when available. An effort is made to give the student intensive training in the field of neurological examinations by means of individual instruction. Lectures, *8 hours, second semester.* Bedside work, *6 hours. Dr. Schumacher and Staff.*

THIRD YEAR:

*1. Lectures in Clinical Neurology*

Didactic presentation of neurological syndromes is used in demonstrating patients exemplifying the types under discussion.

The large categories of neurological symptoms are discussed with emphasis on the differential diagnosis of various types. *8 hours, first semester. Dr. Schumacher and Staff.*

*II. Clinical Clerkship in Neurology (Inpatients)*

As a part of the clinical clerkship in Medicine, third-year students are assigned to patients on the neurological service. The assignment includes history taking, complete physical and neurological examinations and case work-ups with diagnosis and plan of management. Individual students are required to present cases at weekly ward conferences, with criticism, examination and discussion by the entire section. Students arrive at diagnoses by the method of integrating history, physical findings and laboratory data. *20 hours. Dr. Schumacher and Staff.*

FOURTH YEAR:

*I. Clinical Clerkship in Neurology (Outpatients)*

During the clinical clerkship in Medicine, one morning a week is spent in the neurological outpatient department of the City Dispensary. Students work with ambulatory patients under conditions similar to office practice. Patients are assigned to students so that opportunity is given to employ techniques and methods of examination previously developed. In addition to diagnosis, emphasis is placed on management of the patient. At the end of each clinic session, a conference is held under the direction of the chief of clinic. At this conference selected patients are presented by students, with discussion of the cases by staff members. *12 hours. Dr. Schumacher and Staff.*

## PEDIATRICS

SECOND YEAR:

*I. Introduction to Pediatrics*

One lecture a week is given during the second semester to introduce the student to anatomic and physiologic growth and development from conception through adolescence, together with some principles of infant feeding. 16 *hours. Drs. Clark, Sussman, McKay.*

THIRD YEAR:

*I. Principles of Pediatrics*

One lecture a week on diseases of infancy and childhood is given throughout the year. 32 *hours. Drs. Corley, McKay, Sussman.*

*II. Introduction to Clinical Pediatrics*

As a part of the plan for introducing third-year students to their clinical clerkships, one month is assigned to ward work in pediatrics including instruction in a newborn nursery and a well-baby clinic. Instruction is carried out both individually and as a group, the section never numbering more than six. Here the students are given an introduction to the problems of history taking in pediatrics and the development of such information to its full significance. As a part of this program, special attention is also given to methods of physical examination and the interpretation of physical findings in pediatrics. Indications for, and the use of laboratory procedures important to individual cases are given full consideration. Adequate explanation of therapeutic measures indicated is included. *48 hours. Drs. McKay, D. B. Corbin, Corley and D. J. Morrow.*

*III. Psychiatry of Childhood*

(This course is outlined under the Division of Psychiatry.)

FOURTH YEAR:

*I. Clinical Pediatrics*

Sections of three or four students each are assigned in rotation for a month as clinical clerks on the pediatrics services of the teaching hospitals in Burlington. Two mornings a week are spent in supervised outpatient work. One afternoon a week is spent working in a well-baby clinic. *Drs. McKay, Sussman, Corley, and Clark.*

## PSYCHIATRY

FIRST YEAR:

*I. Medical Psychology*

This is an introductory course in Psychobiology and Psychopathology. It includes a description of the psychobiological origins of the various personality reactions, together with the mental mechanisms underlying the development of mental disorders. First semester. *16 hours. Dr. Thorne.*

THIRD YEAR:

*I. Psychiatry*

The didactic lectures of this course consider the major mental disorders, their incidence, etiological factors, pathology, symptomatology and treatment. First semester. *16 hours. Dr. Chittick.*

At the Vermont State Hospital in Waterbury, clinical lectures and demonstrations are given illustrating various psychotic,

psychoneurotic and psychosomatic conditions encountered in the practice of medicine. The students are expected to participate in the open discussion of such cases. *Approximately 8 hours. Dr. Chittick and Staff.*

*II. Clinical Psychiatry*

Small sections are assigned to the Psychiatric Outpatient Clinic two afternoons each week for instruction in the psychoneuroses and psychosomatic conditions. *Drs. Young and Cohen.*

*III. Psychiatry of Childhood*

Lectures and discussions are offered on the recognition, etiology, prevention, and treatment of the various behavior and personality disturbances encountered in childhood and adolescence. Neurogenic, psychogenic, and psychosomatic factors are considered in an attempt to give the student a working concept of the totally functioning child. Second semester. *16 hours. Dr. Kundert.*

FOURTH YEAR:

*I. Clinical Psychiatry*

Each student spends four weeks in residence at the Vermont State Hospital. This assignment includes ward rounds, history taking, assistance in therapeutic procedures used, and attendance at staff meetings and conferences.

Students assigned to the Mary Fletcher Hospital for medicine, surgery and other specialties, will make rounds with the psychiatrist and will discuss the psychiatric problems of general hospital patients.

## THE DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

JOHN VAN SICKLEN MAECK, B.S., M.D., *Associate Professor of Obstetrics and Gynecology, Chairman of Department*

WILLIAM JOSEPH SLAVIN, JR., B.S., M.D., *Associate Professor of Clinical Obstetrics and Gynecology*

BENJAMIN FRANKLIN CLARK, B.S., M.D., *Assistant Professor of Obstetrics and Gynecology*

OLIVER ROLFE EASTMAN, B.S., M.D., *Assistant Professor of Obsetrics and Gynecology*

EDWARD DOUGLAS MCSWEENEY, A.B., M.D., *Assistant Professor of Gynecology*

KERMIT EDWARD KRANTZ, B.S., M.S., B.M., M.D., *Instructor in Obstetrics and Gynecology*

HENRY LEWIS PRATT, B.S., M.D., *Instructor in Obstetrics and Gynecology*

PETER STANLEY CZACHOR, B.S., M.D., *Fellow in Obstetrics and Gynecology*

MERRITT FREDERICK GARLAND, JR., B.A., M.D., *Fellow in Obstetrics and Gynecology*

ROBERT CLINTON JACKSON, B.S., M.D., *Fellow in Obstetrics and Gynecology*

RANSOM EDWARD TUCKER, B.S., M.D., *Fellow in Obstetrics and Gynecology*

SECOND YEAR:

*I. Introduction to Obstetrics*

The course includes a discussion of the anatomy and embryology of the female pelvis and reproductive organs. Endocrine relations are discussed as they relate to obstetrics and the physiology of ovulation, conception and gestation. This is followed by a consideration of the course and mechanism of labor together with an introduction to the management of normal labor, normal puerperium and lactation. 32 *hours. The Staff.*

THIRD YEAR:

*I. Principles of Obstetrics*

The course begins with a review of the physiology of reproduction and associated endocrinology. This is followed by a study of the management of normal and abnormal pregnancies including toxemias. Further studies in abnormal labor include a consideration of operative obstetrics. Gross and microscopic pathology are presented through the cooperation of the Department of Pathology. Demonstrations are given of normal and abnormal labors on the manikin and with the use of motion pictures. Every attempt is made to keep the number of didactic lectures in the classroom to a minimum, and instead the teaching of the course is planned around the presentation of actual cases or case histories at the hospitals and clinics. The class is divided into groups as much as is practicable. 96 *hours. The Staff.*

Demonstration ward rounds, in sections. 24 *hours. The Staff.*

*II. Principles of Gynecology*

Gynecological diseases are considered systematically, with special attention given to the more common disorders. In discussing treatment, the principal emphasis is placed on fundamentals and less stress is laid on operative technic. Didactic lectures are held to a minimum and the course is primarily planned around the presentation of active hospital patients and case histories. The course is taught in conjunction with Obstetrics, as closely related subjects. 32 *hours. The Staff.*

FOURTH YEAR:

*I. Clinical Obstetrics*

Students are assigned to section work for periods of one month. During term of assignment, students attend prenatal and postnatal clinics at the Burlington Free Dispensary, the Elizabeth Lund Home, and the Outpatient Department of the Mary Fletcher Hospital and the Bishop DeGoesbriand Hospital. Students in groups of three or four are assigned to the obstetrical service at the Mary Fletcher Hospital and the Bishop DeGoesbriand Hospital and attend the majority of labors, both staff and private, as observers or active participants, as assistants. At the two hospitals and the Elizabeth Lund Home, patients are assigned to individual students who, under the supervision of a clinical instructor, act as labor clerks taking histories, making general physical and obstetrical examinations and keeping detailed records. The labor clerk observes or assists or actually performs the delivery of staff patients at these two hospitals. *The Staff.*

*II. Clinical Gynecology*

Students on the obstetrical assignment also serve as clinical clerks in gynecology on the gynecological service at the Mary Fletcher Hospital and the Bishop DeGoesbriand Hospital and at the Outpatient Clinics of both these institutions and at the gynecological clinic at the Burlington Free Dispensary. The plan is very much like that of other clinical clerkships in the fourth or senior year in that they work up their cases and follow them closely throughout the time spent under treatment or in the hospital. The plan for instruction further includes service ward rounds, assistance at operations in the hospitals and assistance at diagnostic procedures in the hospitals and at the clinic. Ample time and opportunity are allowed for close personal instruction in all instances.

The students are met each day for informal discussion for at least one hour by at least one member of the staff. *The Staff.*

## THE DEPARTMENT OF OPHTHALMOLOGY, OTOLARYNGOLOGY AND RHINOLOGY

JOHN CHARLES CUNNINGHAM, A.B., M.D., *Professor of Ophthalmology, Chairman of Department*

MARSHALL COLEMAN TWITCHELL, JR., A.B., M.D., *Assistant Professor of Ophthalmology*

### DIVISION OF OTOLARYNGOLOGY AND RHINOLOGY

RUFUS CLEGG MORROW, JR., B.S., M.D., *Assistant Professor of Otolaryngology and Rhinology, Chairman of Division*

PETER PAUL LAWLOR, M.D., *Assistant Professor of Otolaryngology and Rhinology*

KARL CORNELIUS MCMAHON, B.S., M.D., *Assistant Professor of Otolaryngology and Rhinology*

BERNARD BENJAMIN BARNEY, B.S., M.D., *Instructor in Otolaryngology and Rhinology*

ELMER MCCREADY REED, B.S., M.D., *Instructor in Otolaryngology and Rhinology*

THIRD YEAR:

The course includes discussion of the diseases of the lids, conjunctiva, orbit, lacrimal apparatus, cornea, uveal tract and fundus.

Lectures and practical demonstrations of the use of the ophthalmoscope, headmirror, and other instruments used in the examination of ear, nose, and throat, and methods used in estimating the refraction, are given at the Mary Fletcher Hospital to half the class at a time. In this work the students are drilled in the various tests of routine examinations, every effort being made to demonstrate methods which, though simple, are adequate and call for the minimum outlay for equipment. Lectures and recitations on the common diseases of the nose, throat, and ear are included.

Lectures and recitations. 64 *hours. Drs. Cunningham, Morrow and Reed.*

FOURTH YEAR:

Clinical instruction is given Tuesday and Friday afternoons of each week from two to four o'clock at the Mary Fletcher Hospital outpatient clinic. Inpatient cases are also used for teaching.

Treatments and methods of treatment are shown and explained. *Drs. Cunningham, Morrow, M. C. Twitchell, Jr., Reed and Barney.*

Clinical instruction is also given each week at the Bishop DeGoesbriand Hospital during ward rounds. *Drs. Cunningham and Morrow.*

Sections assigned to the Fanny Allen participate in clinical work in this specialty.

## THE DEPARTMENT OF PATHOLOGY AND ONCOLOGY

BJARNE PEARSON, B.S., M.B., M.D., M.S., (Med.), *Professor of Pathology, Chairman of Department*

ALEX BENJAMIN NOVIKOFF, B.S., M.A., PH.D., *Professor of Experimental Pathology*

ERNEST STARK, B.S., M.D., *Associate Professor of Pathology*

EPHRAIM WOLL, B.S., M.D., *Associate Professor of Pathology*

JOSEPH WORCESTER SPELMAN, B.S., M.D., *Assistant Professor of Pathology*

RICHARD S. WOODRUFF, B.A., M.D., C.M., *Assistant Professor of Pathology*

ROY VEDDER BUTTLES, B.S., M.D., *Instructor in Pathology*

NILO ERNESTO HERRERA, B.S., M.D., *Instructor in Pathology*

ROBERTO AGRAZ Y AGRAZ, B.S., M.D., *Fellow in Pathology*

HIROSHI AZAMA, B.S., M.D., *Fellow in Pathology*

EDWIN PITCHER BASSETT, M.D., *Fellow in Pathology*

HUMBERTO MUNOZ CRAVIOTO, B.B.S., M.D., *Fellow in Pathology*

VIRGINIA MARTINEZ DIAZ, M.D., *Fellow in Pathology*

MOHAMED JUSE MAHJU, F.SC., B.S., M.B., T.D.D., P.H.S., *Fellow in Pathology*

ESTELLE PODBER, A.B., M.S., *Research Associate in Pathology*

MRS. ANN DINSE, B.A., *Research Assistant in Pathology*

MRS. LORRAINE KORSON, A.B., M.S., *Research Assistant in Pathology*

JEAN MARGARET RYAN, B.S., *Research Assistant in Pathology*

FRANK JOSEPH SCHMETZ, JR., A.B., *Research Assistant in Pathology*

SECOND YEAR:

*I. Pathology*

The course covers general pathology and a part of special pathology. A loan collection of slides is furnished to each student. This is supplemented by a large number of slides from autopsy and surgical material.

During the first semester the course covers the basic pathologic processes which include tissue injury and repair, inflammation, response to specific infectious agents, circulatory disturbances, retrogressive changes and neoplasia. An attempt is made to teach from a functional and biological standpoint.

During the second semester the course covers special pathology, which includes the study of heart and blood vessels, genitourinary, hematopoietic, respiratory and gastro-enteric systems. Emphasis is placed here on dynamic interpretation and clinical correlation. In addition to the regular material many case histories with slides and gross material are used. One hour per week is assigned to a conference conducted jointly by the Departments of Pathology, Physiology and Biophysics, and Medicine. At these conferences selected case histories are discussed and an attempt made to explain the symptoms on the basis of altered anatomy, physiology and chemistry.

During both semesters gross fresh specimens from surgical and autopsy material and fixed and mounted material are demonstrated. The students are required to attend autopsies.

Conferences, demonstrations, lectures and laboratory eight hours per week the first semester and eleven hours per week the second semester. *304 hours. Drs. Pearson, Stark, Novikoff, Woll, Spelman, Woodruff and Staff.*

THIRD YEAR:

*I. Pathology (Oncology)*

Part of the course covers the pathology of the endocrines, bones and joints. The major portion of the time is devoted to the study of malignant disease in order to prepare the student more adequately for participation in the work of the tumor clinic and tumor seminars during the fourth year. The student is given a loan collection of slides. Emphasis is placed on a correlation of the fundamental disciplines of chemistry, endocrinology, genetics, and cytology with the current knowledge in the field of malignant disease. Experimental tumors in animals are demonstrated and the techniques involved. In addition to this fundamental knowledge, emphasis is placed on clinical correlations and applied problems.

Conferences, demonstrations, lectures, and laboratory work are given for three hours per week in the first semester. *48 hours. Drs. Pearson, Novikoff, Stark, and Staff.*

*II. Clinical-Pathological Conferences*

These conferences are held weekly throughout both semesters. Interesting cases are discussed by the clinician and pathologist. Gross material and lantern slides of microscopic sections of cases under discussion are presented. Two hours per week. *48 hours. Drs. Pearson, Stark, Woodruff and Staff.*

## GRADUATE STUDY IN PATHOLOGY

201. *Advanced General Pathology*

Fellows and Graduate Students are on call for the performance of autopsies. They are taught proper necropsy technique and are given progressive responsibility in their performance. Each case is properly worked up and recorded for clinicopathologic conferences. Disease processes are interpreted in relation to symptomatology and clinical findings. Requisite for major study, M.D. degree including one year of internship. *14 hours per week. Drs. Pearson, Woll, Stark, and Staff.*

202. *Advanced Surgical Pathology*

Specimens removed from surgical operations and biopsies are studied and recorded. The technique of quick-frozen sections is taught. Requisite for major study, M.D. degree including one year of internship. *18 hours per week. Drs. Pearson, Woll, Stark, and Staff.*

203. *Seminar in Pathology*

The seminar in Pathology includes study of material of interest and problems that arise in general and surgical pathology. The current literature in the field is presented and discussed. Requisite for major study, M.D. degree including one year of internship. *3 hours per week. Drs. Pearson, Woll, Stark, and Staff.*

204. *Seminars in Growth and Malignancy*

This includes a study of the fundamental underlying phenomena of growth and malignancy. It stresses the relationship to growth and malignancy of chemistry, enzymology, genetics, cytology and other fundamental disciplines. Open to properly qualified students. *3 hours every other week. Drs. Pearson, Novikoff and Staff.*

205. *Hematology*

Special emphasis is placed on the interpretation of bone marrows in hematologic disease. Special hematologic techniques are taught. *Hours to be arranged. Dr. Stark and Staff.*

206. *Research*

This course is open to qualified graduate students. The results of original investigations will be used as basis for thesis required for degree of Master of Science. *Credits and hours to be arranged. Drs. Pearson and Novikoff.*

## THE DEPARTMENT OF PHARMACOLOGY

DURWOOD JAMES SMITH, A.B., M.D., *Professor of Pharmacology, Chairman of Department*

HOWARD L. ZAUDER, B.S., M.S., PH.D., *Research Associate in Pharmacology*

The course in Pharmacology is given in the second semester of the second year.

Pharmacology is taught from the standpoint of the actions and uses of drugs in the prevention and treatment of disease. The course consists of lectures supplementing textbook and library assignments; laboratory experiments and demonstrations in mammalian pharmacodynamics; special lectures by visiting experts in clinical therapeutics; motion picture medical teaching films; demonstrations by expert pharmacists; discussion conference. The objectives of the course are to provide a background of useful and basic pharmacological information, to correlate pharmacology with related preclinical and clinical medical sciences, and to emphasize the applications of pharmacodynamics to therapeutics.

Lectures, conferences and laboratory. *152 hours, second semester. Drs. Smith and Zauder.*

*Elective:* Facilities are available to properly qualified students and others for research either independently or in cooperation with the members of the staff.

## THE DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS

FERDINAND JACOB MORRIS SICHEL, B.SC., SC.M., PH.D., *Professor of Physiology and Biophysics, Chairman of Department*

ALFRED HAYES CHAMBERS, A.B., PH.D., *Associate Professor of Physiology and Biophysics*

WALTER LEROY WILSON, B.S., PH.D., *Assistant Professor in Physiology and Biophysics*

OSCAR SYLVANDER PETERSON, JR., M.D., *Associate in Biophysics*

RISLER GERMAIN, M.D., *Fellow in Physiology and Biophysics*

EDWIN OXMAN POLISH, B.S., M.S. *Fellow in Physiology and Biophysics*

The course in Physiology covers a full academic year. The first half of the course is given in the second semester of the first year and the second half of the course in the first semester of the second year.

The course material is presented as a logical development of physiological concepts based on experimental evidence with a view to their ultimate clinical applications. The lectures are designed primarily to supplement the textbooks, particularly in respect to recent developments. The laboratories are equipped for experimental work and demonstrations illustrating and developing those physiological principles fundamental to clinical medicine. The laboratory work is directed toward quantitative determinations and evaluations, and includes a number of experiments on human subjects, as well as on other mammals.

FIRST YEAR:

The material covered in the first year includes the physiology of excitation, conduction, and contraction; blood, heart and circulation; and the special senses.

Lectures and conferences, 48 *hours*, laboratory, 64 *hours, second semester. Drs. Sichel, Chambers and Wilson.*

SECOND YEAR:

The material covered in the second year includes the physiology of respiration, the central nervous system, secretion, digestion, excretion, water balance, energy metabolism, and endocrine integration.

Lectures and conferences, *64 hours*, laboratory, *48 hours, first semester. Drs. Sichel, Chambers and Wilson.*

## GRADUATE STUDY IN PHYSIOLOGY AND BIOPHYSICS

*Graduate Courses*

201. *Special Problems in Physiology*

This course, open to qualified students by arrangement with the staff, will cover various special problems by means of lectures, seminars, and directed readings. *Hours to be arranged.*

202. *Special Problems in Biophysics*

This course, open to qualified students by arrangement with the staff, will include lectures, seminars, and directed readings on current problems in Biophysics and Medical Physics. *Hours to be arranged.*

203. *Research*

Properly qualified students may arrange to use the facilities of the department for investigations in Physiology or Biophysics, either independently or in cooperation with the members of the staff.

## THE DEPARTMENT OF SURGERY

ALBERT GEORGE MACKAY, B.S., M.D., *Professor of Surgery, Chairman of Department*

WALFORD TUPPER REES, M.D., *Professor of Clinical Surgery*

JOHN ABAJIAN, JR., M.D., *Professor of Anesthesia*

KEITH FRANK TRUAX, B.S., M.D., *Associate Professor Surgery*

ARTHUR GLADSTONE, B.S., M.D., *Associate Professor of Clinical Surgery*

DONALD BARKER MILLER, A.B., M.D., *Assistant Professor of Chest Surgery*

*CARLETON RAYMOND HAINES, B.S., M.D., *Instructor in Surgery*

JAMES BISHOP MCGILL, B.S., M.D., *Instructor in Surgery*

LOUIS GEORGE THABAULT, M.D., *Instructor in Surgery*

ALBERT JAMES CRANDALL, B.S., M.D., *Instructor in Clinical Surgery*

WILLIAM STEPHEN DEMPSEY, A.B., M.D., *Clinical Instructor in Surgery*

JAY EDGAR KELLER, M.D., *Instructor in Clinical Surgery*

JOHN FREDERICK LYNCH, B.S., M.D., *Instructor in Clinical Surgery*

HENRI LOUIS PACHE, B.S., M.D., *Clinical Instructor in Surgery*

WILLIAM IRELAND SHEA, A.B., M.D., *Instructor in Clinical Surgery*

GINO ALDO DENTE, M.D., *Instructor in Anesthesia*

ERNEST LEE MILLS, B.S., M.D., *Instructor in Anesthesia*

LUTHER WILLARD BUBER, B.S., M.D., *Fellow in Anesthesia*

FRANCIS ARNOLD CACCAVO, A.B., M.D., *Fellow in Surgery*

* Absent on leave.

CHARLES VINCENT COX, A.B., M.D., *Fellow in Anesthesia*
HARLAND MARTIN DEOS, A.B., M.D., *Fellow in Anesthesia*
MINORU FUKUDA, M.D., *Fellow in Anesthesia*
ROBERT CLINTON JACKSON, B.S., M.D., *Fellow in Obstetrics and Gynecology, assigned to Surgery*

DIVISION OF NEUROSURGERY

RAYMOND MADIFORD PEARDON DONAGHY, B.S., M.D., *Professor of Neurosurgery, Chairman of Division*
LESTER JULIAN WALLMAN, A.B., M.D., *Associate Professor of Neurosurgery*

DIVISION OF ORTHOPEDIC SURGERY

JOHN FRYE BELL, A.B., M.D., *Associate Professor of Orthopedic Surgery, Chairman of Division*
DAVID MARSH BOSWORTH, A.B., M.D., *Consultant in Orthopedic Surgery*
CHARLES BRUSH RUST, M.D., *Assistant Professor of Orthopedic Surgery*
RAYMOND FRANK KUHLMANN, B.A., M.D., *Instructor in Orthopedic Surgery*
JAMES EDWIN SIMPSON, B.S., M.D., *Teaching Fellow in Orthopedic Surgery*

DIVISION OF RADIOLOGY AND PHYSICAL THERAPY

ARTHUR BRADLEY SOULE, JR., A.B., M.D., *Professor of Radiology, Chairman of Division*
OSCAR SYLVANDER PETERSON, JR., M.D., *Associate Professor of Radiology*
FREDERICK WILLIAM VAN BUSKIRK, A.B., M.D., *Associate Professor of Radiology*
HOWARD THEODORE GUARE, M.D., *Assistant Professor of Radiology*
RALPH BANNISTER, *Instructor in X-ray Technique*
WILLIAM HERBERT JOHNSTON, B.S., M.D., *Instructor in Radiology*
ROBERT NEWTON SAXBY, B.S., M.D., *Instructor in Radiology*
JOSEPH CLAYTON FOLEY, B.S., M.A., M.D., *Fellow in Radiology*
ROBERT EMMETT PRICE, M.D., *Fellow in Radiology*
ANTHONY JOSEPH TABACCO, B.S., M.D., *Fellow in Radiology*

## DIVISION OF UROLOGY

WINTHROP MAILLOT FLAGG, M.D., *Professor of Urology, Chairman of Division*
PLATT RUGAR POWELL, B.S., M.D., *Assistant Professor of Urology*
LOUIS WILLIAM ESPOSITO, B.S., M.D., *Instructor in Urology*
ALDO GINO FRANCESCHI, M.D., *Instructor in Urology*
ALBERT MALMROSE PEARSON, B.S., M.D., *Fellow in Urology*

SECOND YEAR:

*I. General Surgery*

An introduction to soft tissue surgery which will stress case presentations as a basis for the covering of routine surgical subjects. Textbook and library reading will be assigned, and recitations will be utilized, as well as lectures. An effort is made to correlate the clinical subjects with the basic subjects such as Anatomy, Chemistry, Physiology, Bacteriology and Pathology.

The topics covered are: inflammation and repair, burns, wounds, infections and injuries to or diseases of the tendons, muscles and ligaments, bursae, vascular and lymphatic systems, osteomyelitis, and amputations; also aseptic surgical technique and minor surgical procedures. *48 hours. Drs. Gladstone, Thabault and McGill.*

THIRD YEAR:

*I. General and Regional Surgery*

Dry clinics, with the presentation of patients, form the basis for the teaching of the major part of soft tissue surgery, which is covered in this course. Case presentations are supplemented with lecture and quiz. Prerequisite reading of journals and textbooks is expected. Differential diagnosis and therapy is emphasized, although operative technique is minimized. *80 hours. Drs. Mackay, Rees and Truax.*

*II. Thoracic Surgery*

All surgical aspects of diseases of the chest are discussed, with cases and x-rays to illustrate them. Patients, both private and ward, are presented whenever possible. The course includes a review of pulmonary physiology as it applies to diseases of the chest and thoracic surgery. The various diagnostic procedures used in thoracic surgery, including bronchoscopy, are discussed and demonstrated. *16 hours. Dr. Miller.*

*III. Anesthesiology*

The object of this course is to give the student a theoretical knowledge of the subject before he gives anesthetics (under supervision) during his fourth year. The physiology and pharmacology of anesthetics and the reaction of the patient under anesthesia are stressed. *16 hours. Dr. Abajian.*

*IV. Clinical-Pathological Conferences*

These conferences are supervised by various members of the Medical, Surgical, and Pathological Departments, and are included in the text of the Departments of Medicine and Pathology. *48 hours.*

*V. Rectal Diseases*

A clinical demonstration and discussion of diseases of the anus and rectum, is held at the Mary Fletcher Hospital during the first eight weeks of the first semester. *8 hours. Dr. Gladstone.*

*VI. Tumor Clinic*

Every Wednesday a tumor clinic is held at the Mary Fletcher Hospital under the direction of the Tumor Clinic Board of the faculty of the College of Medicine. Patients are examined by members of the clinic staff. Sections of third and fourth year students assist in examining patients and receive the benefit of close observation of a large group of patients under treatment for malignant disease. In cooperation with the Cancer Division of the State Department of Health, a close follow-up is had on all patients enrolled in the tumor clinic.

The chairman of the Division of Dermatology is the director of the clinic. He is assisted by members of the Departments of Pathology and Surgery and staff members from clinical departments.

FOURTH YEAR:

*I. Sections*

The class is divided into sections which work under the supervision of the surgical teachers. The students act as clinical clerks and assistants at the Mary Fletcher, Bishop DeGoesbriand, and Fanny Allen Hospitals, and in the Dispensary or on City Service, rotating in their appointments. The sections meet daily for instruction by the staff. *320 hours. Dr. Mackay and Staff.*

*II. Clinical Anesthesiology*

Fourth-year students in rotation are given practical instruction in anesthesia at the Mary Fletcher Hospital. *Dr. Abajian.*

*III. Endoscopy*

The senior students have opportunity to observe procedures in laryngoscopy, bronchoscopy, and esophagoscopy during their time on surgery and surgical specialties. *Drs. Mackay, Miller and Morrow.*

## GRADUATE STUDY IN SURGERY

201. *Correlated Clinical Science Course.*

Fellows and graduate students are instructed in the application of basic sciences to clinical practices. Weekly lectures cover the following subjects: kidney, circulation, heart, blood, alimentary tract, liver and gall bladder, metabolism, nutrition, endocrines, nervous system, lungs and applied pharmacology.

Faculty members of all departments are invited to lecture on subjects of special interest to them. Fellows and graduate students of all medical departments are welcome. *One hour per week. Dr. Abajian and Staff.*

## NEUROSURGERY

THIRD YEAR:

One hour weekly during the second semester is devoted to lectures on surgery of the nervous system and neuro-anatomy of surgical importance. *16 hours. Dr. Donaghy.*

One neurosurgical clinic per week is held with one section of the third-year class in attendance. *Drs. Donaghy and Wallman.*

FOURTH YEAR:

Case work and ward rounds are held under the direct supervision of the Neurosurgical Division. *Drs. Donaghy and Wallman.*

Two hours every other week are devoted to section of autopsy and surgical specimens and review of slides under the microscope. Fourth-year class members may attend.

## ORTHOPEDIC SURGERY

SECOND YEAR:

Fractures and dislocations, general principles in their management. *8 hours. Dr. Rust.*

Special exercises during the time alloted to physical diagnosis and traumatic surgery for presentation of the orthopedic aspects of these subjects. *Dr. Kuhlmann.*

THIRD YEAR:

The didactic and clinical course is held at the Mary Fletcher Hospital Saturday mornings.

First semester is largely didactic, covering general orthopedic surgery.

Second semester is devoted to review of fractures, clinical presentations, and special topics. *32 hours. The Staff.*

FOURTH YEAR:

Ward rounds and clinic are held each Saturday morning. Informal discussion of cases is given with staff members.

In cooperation with the Crippled Children's Division of the State Department of Health, orthopedic cases under their care are shown on Monday afternoons.

## RADIOLOGY AND PHYSICAL THERAPY

FIRST YEAR:

*I. Introduction to Radiology*

Lectures and demonstrations in conjunction with Departments of Physiology and Biophysics, and Anatomy. Physics and general principles of radiology; normal roentgen anatomy and physiology; fluoroscopic demonstrations of chest. *8 hours. Dr. Soule and Staff.*

SECOND YEAR:

*I. Radiology*

Effects of radiation on normal and abnormal tissues; radiosensitivity; radiotherapy. Lectures given by arrangement with the Department of Pathology. *2 hours. Dr. Peterson.*

THIRD YEAR:

*I. Radiology*

Diagnostic and therapeutic radiology; lectures and demonstrations one hour weekly through the year, covering the diagnosis of abnormalities of the skeletal system, alimentary tract, urinary tract, central nervous system; considerations of the use of x-ray and radium in the treatment of neoplasms, endocrine disturbances, and inflammatory lesions. *32 hours. Drs. Peterson and Van Buskirk.*

*II. Radiology Section Work*

One section of four to six students spends two afternoons a week for four weeks in the radiology departments of the hospitals. Students thus have an opportunity to observe the use of radiologic procedures in medical practice. *Dr. Soule and Staff.*

*III. Physical Therapy*

Lectures on the physics and general principles of physical therapy, including dry and moist heat, massage and manipulation, ultra-violet and infra-red rays. Indications and contra-indications and methods of applications of each. *8 hours. Dr. Peterson.*

FOURTH YEAR:

*I. Radiology Conferences*

Weekly conferences on general radiological problems are held by sections. Students witness the interpretation of radiographic material and are given opportunity to discuss findings and methods. *96 hours. Drs. Soule, Peterson and Van Buskirk.*

## UROLOGY

THIRD YEAR:

One hour weekly during the second semester is given to a discussion of the diseases of the genito-urinary system. *16 hours. Dr. Flagg.*

FOURTH YEAR:

*I. Urology and Venereal Diseases*

Instruction is given the students on inpatient and outpatient services. It includes ward rounds, dispensary service, follow-up work in the outpatient clinic, and work on the urological service at the Mary Fletcher Hospital. *Drs. Flagg and Powell.*

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## INFORMAL DISCUSSION IN ORIENTATION TO THE STUDY OF MEDICINE, MEDICAL PRACTICE AND MEDICAL RELATIONS

These exercises were stimulated by and are supported in part by a grant from the Lamb Foundation.

FIRST YEAR:

Groups of about 10 students meet informally and discuss medical education, its aims and methods, correlation of subject material, moral, ethical and social questions relating to the medical student. The concept of the patient as a person is introduced. The exercise is founded on student participation. Authorities on special subjects are invited in when appropriate. *One hour a week throughout the year. Dr. Wolf.*

THIRD YEAR:

Similar round table discussions are held with one fourth of the class meeting as a group for each session. Correlation of specialized knowledge in the care of the patient as a person is stressed. Social, emotional, and environmental factors and the general care of patients are considered at length. Relation of the doctor to his patients, community and colleagues is explored as are moral, ethical and social questions related to the patient. Types of medical practice are considered. Student participation is expected. Specialists are invited to participate when necessary. *One hour a week throughout the year. Drs. Harwood and Newhall.*

# SUMMARY OF STUDIES 1952-1953

## CLASSROOM AND LABORATORY HOURS

| *First Year* | *Hours* |
|---|---|
| *Anatomy | 336 |
| *Bacteriology | 176 |
| *Biochemistry | 192 |
| Biochemistry (Introduction to) | 24 |
| *Histology | 128 |
| Embryology | 24 |
| Library Course | 8 |
| Medical Psychology | 16 |
| *Neuro-anatomy | 96 |
| *Physiology | 144 |
| Radiology (Introduction to) | 8 |
| Total hours | 1,152 |

| *Second Year* | *Hours* |
|---|---|
| Anatomy | 48 |
| *Clinical Pathology | 128 |
| *Medicine (Physical Diagnosis and History Taking) | 96 |
| Neurology | 14 |
| Obstetrics (Introduction to) | 32 |
| *Pathology | 304 |
| Pathological-Physiology Conferences | 32 |
| Pediatrics | 16 |
| *Pharmacology | 152 |
| *Physiology | 112 |
| Psychiatry (Introduction to) | 16 |
| Public Health and Hygiene | 32 |
| Radiology | 2 |
| *Surgery | 56 |
| Total hours | 1,040 |

| *Third Year* | *Hours* |
|---|---|
| Clinical-Pathological Conferences | 48 |
| *Eye, Ear, Nose and Throat | 64 |
| *Medicine | 96 |
| Physical Diagnosis (ward work) | 336 |
| *Medical Specialties | |
| Dermatology | 48 |
| Industrial and Preventive Medicine | 40 |
| Medical Jurisprudence | 16 |
| Neurology | 28 |
| Psychiatry of Childhood | 16 |
| Psychiatry | 24 |
| Therapeutics | 16 |
| Tropical Medicine | 16 |
| *Obstetrics (Principles of) | 120 |
| Gynecology (Principles of) | 32 |
| *Pathology | 48 |
| *Pediatrics | 80 |
| *Surgery | 80 |
| *Surgical Specialties | |
| Anatomy (Surgical) | 16 |
| Anesthesiology | 16 |
| Neurosurgery | 16 |
| Orthopedics | 32 |
| Proctology | 8 |
| Radiology and Physical Therapy | 40 |
| Urology | 16 |
| Total hours | 1,252 |

The senior, or fourth-year schedule calls for full time in clinical work. It is impossible to set a rigid hour limit on work done in this year. In round numbers, however, the time scheduled is forty hours per week for forty-eight weeks, a total of 1,920 hours.

* Major subjects.

# GRADUATES - INTERNSHIP APPOINTMENTS

## JUNE 1952

Henry Chester Baltrucki, B.S.
St. Francis Hospital, Hartford, Conn.
Irwin William Becker, A.B.
Kings County Hospital, Brooklyn, N. Y.
Mitchell Bresnehan Carey, B.S. Ellis Hospital, Schenectady, N. Y.
Harlan Paul Casavant, B.S. Albany Hospital, Albany, N. Y.
Arnold Herbert Colodny, B.S., *cum laude*
Peter Bent Brigham Hospital, Boston, Mass.
Paul Edward Corley, B.S. Mary Fletcher Hospital, Burlington
Marvin Lee Cousins, B.A.
Kings County Hospital, Brooklyn, N. Y.
Richard Herbert Dolloff, A.B. Beverly Hospital, Beverly, Mass.
William Arthur Eddy, B.S.
Gallinger Municipal Hospital, Washington, D. C.
Marvin Garrell, A.B. Jewish Hospital, Brooklyn, N. Y.
Nathan Glover, PH.D. Mary Fletcher Hospital, Burlington
Theodore Herzl Goldberg, A.B., *cum laude*
Beth Israel Hospital, New York, N. Y.
Cornelius Granai, Jr., A.B. Mary Fletcher Hospital, Burlington
Harry Elwin Howe, M.ED., *cum laude*
Mary Fletcher Hospital, Burlington
Luke Amos Howe, B.S. Mary Fletcher Hospital, Burlington
Robert Jacob Hunziker, A.B. Stamford Hospital, Stamford, Conn.
Martin Jonas Koplewitz, B.S., *cum laude*
Beth Israel Hospital, New York, N. Y.
Raymond Paul Koval, B.A., *cum laude*
Hospital for Joint Disease, New York, N. Y.
Arthur Saul Kunin, A.B.
Peter Bent Brigham Hospital, Boston, Mass.
Daniel Germain Lareau, B.S. Mary Fletcher Hospital, Burlington
Gordon Manson, B.A. Iowa Methodist and Raymond Blank
Hospital for Children, Des Moines, Iowa
Brewster Davis Martin, B.S. Mary Fletcher Hospital, Burlington
Avron Herbert Maser, B.S. Sinai Hospital of Baltimore, Inc.,
Baltimore, Md.
Cedric Llewellyn Mather, A.B. Mary Fletcher Hospital, Burlington
Edward Cyprian Nash, A.B. Henry Ford Hospital, Detroit, Mich.

Murray Nussbaum, B.S.
New England Medical Center, Boston, Mass.
Arthur Jason Perelman, A.B. Beth Israel Hospital, Newark, N. J.
Charles Harold Perry, Jr., B.S.
Maine General Hospital, Portland, Me.
Paul Allan Prior, A.B. Syracuse Medical Center, Syracuse, N. Y.
Novello Egidio Ruggiero, B.S.
Waterbury Hospital, Waterbury, Conn.
Stanley Schilling, B.S.
State of Wisconsin General Hospital, Madison, Wis.
George Allen Segal Queens General Hospital, Jamaica, N. Y.
Wendell Anthony Stimets, A.B.
Naval Hospital, St. Albans, L. I., N. Y.
Robert Moran True, A.B. Waltham Hospital, Waltham, Mass.
Ching-Hsu Wang, B.S.
Strong Memorial Hospital, Rochester, N. Y.
John Alexander Warden, B.S.
Philadelphia General Hospital, Philadelphia, Pa.
Jack Carlton White, B.S.
Abington Memorial Hospital, Abington, Pa.
Clifford Keith Wilbur, Jr., B.S. Salem Hospital, Salem, Mass.

# PRIZES

JUNE 1952

## CARBEE PRIZE

*For greatest proficiency in the subject of Obstetrics*

Henry Chester Baltrucki, B.S.

## WOODBURY PRIZES IN MEDICINE

*For greatest proficiency in Clinical Work in senior year*

Marvin Garrell, B.A.

*To the sophomore having the highest standing for two years of Medical Work*

Manfred Isaac Goldwein, B.S.

## LAMB FOUNDATION PRIZES

*To the students showing greatest comprehension and appreciation of the Doctor-Patient Relationship*

*First*: Harry Elwin Howe, M.ED.
*Second*: Daniel Germain Lareau, B.S.
*Third*: Robert Moran True, A.B.

# REGISTER—1952-1953

FOURTH YEAR:

Richard MacDonald Adams, B.S. *E. Middlebury*
Philip Adler, A.B. *New Britain, Conn.*
John Xavier Basile *Hazleton, Pa.*
William David Basque, A.B. *Pittsford*
Bertrand Philip Bisson, A.B. *Barre*
James Hall Bonney, A.B. *Bath, Me.*
Charles Riford Boyce, A.B. *Proctor*
Edward Hobart Brazell, Jr., B.S. *Atlantic City, N. J.*
Douglas Buchanan, B.A. *Richmond, Mass.*
Michael Seth Burnhill, A.B. *Brooklyn, N. Y.*
George Hubert Collins, A.B. *Burlington*
Valmore Francis Cross, B.S. *Stamford*
Robert Isaac Davies, B.S. *Poultney*
Philip Hovey Davis, B.S. *Albany, N. Y.*
John Randall Eddy, B.S. *Burlington*
Richard Neil Fabricius, B.S. *Watervliet, N. Y.*
Emmett Lawrence Fagan, Jr., A.B. *Rutland*
Adolph Frederick Friedman *New York, N. Y.*
Emanuel Goldberg, A.B. *Westwood, N. J.*
Martin Goodman, A.B. *Haverhill, Mass.*
Roger Francis Greenslet, A.B. *Bennington*
Delbert Dean Griffith, B.S. *Bristol*
Earl Murdock Head, D.M.D. *Louisville, Ky.*
Edward Joseph Hogan, Jr., B.S. *Worcester, Mass.*
Myrtle Douglas Johnson, A.B. *New York, N. Y.*
Bernard Kabakow, B.S., M.A. *New York, N. Y.*
David Leslie Kendall, B.S. *Montpelier*
Wayne Stevenson Limber, B.A. *Montpelier*
Thomas Allan McCormick, B.S. *St. Albans*
Robert John Manjoney, B.S. *Bridgeport, Conn.*
David Lincoln Maxham, B.S. *Woodstock*
Gerald Nicholas Needleman, B.S. *Bennington*
Raymond William Peppard, A.B. *Hanover, N. H.*
Lawrence Burdett Perry, A.B. *Glen Ridge, N. J.*
Joseph George Pomponio, B.S. *Rutland*
Anna Condos Pratt (Mrs.), B.S. *N. Clarendon*
Frederick Edward Pratt, B.S. *N. Clarendon*
Oney Percy Smith, Jr., B.S. *Troy, N. Y.*
Thaddeus Stabholz *New York, N. Y.*
John Cushman Twitchell, B.S. *Burlington*
Richard Charles Wolff, A.B. *Westfield, N. J.*
John Anthony Zagroba, A.B. *W. Rutland*

THIRD YEAR:

John Goldthwaite Adams, A.B. *Salem, Mass.*
Joseph Albert *Dorchester, Mass.*
Aldo Louis Bellucci, A.B. *Manchester, Conn.*
Eugene Julius Bluto, A.B. *Grand Isle*
Dewees Harold Brown *Donora, Pa.*
William Frederick Byrnes, B.S. *Burlington*
John Joseph Cahill *Bennington*
Lucien Joseph Cote, B.S. *Lyndonville*
Allyn Bernard Dambeck, A.B. *W. Hartford, Conn.*
Gerard Lucian Daniel *Swanton*
Norman Franklin Dennis, Jr., A.B. *St. Albans*
George Themistocles Economos, M.D. *Athens, Greece*
Leslie Herbert Gaelen, B.S. *Glen Ridge, N. J.*

Manfred Isaac Goldwein, B.S.
*Wilmington, Del.*
Sarita Goodman, B.S. *Brooklyn, N. Y.*
Bernard Adolphus Gouchoe, B.S.
*Rutland*
Joseph Anthony Jurkoic, Jr., B.S.
*Bellows Falls*
Francis Alexander Klimaszewski,
A.B., M.ED. *Ansonia, Conn.*
Mark Harold Lane, B.A.
*Portland, Me.*
Herbert Jason Levine, B.A.
*Newton, Mass.*
Clifford Goadby Loew, Jr., B.A.
*Poughkeepsie, N. Y.*
Michael John Lynch, B.S. *Poultney*
Benjamin Harris Maeck, Jr., A.B.
*Shelburne*
John Edmund Mazuzan, Jr. B.S.
*Northfield*
Edmund Brown McMahon, B.S.
*Burlington*
David Lothrop Mossman, A.B.
*S. Gardner, Mass.*
Margaret Newton, A.B. *S. Windham*
Elsie Frances Noe, B.A.
*Beacon Falls, Conn.*
Jacqueline Noonan, B.A.
*Hartford, Conn.*
Peter John Palmisano, B.S. *Barre*
Richard Bonner Presbrey, B.S.
*Waban, Mass.*
Robert Sumner Richards, B.S.
*Danvers, Mass.*
James Seward Shea, A.B. *Bennington*
Marvin Silk, A.B. *Providence, R. I.*
Herbert Carl Sillman, B.A.
*W. Hartford, Conn.*
Wendell Earl Smith, A.B. *Randolph*
John Peter Tampas, B.S. *Burlington*
Thomas Bartholemew Tomasi, Jr., A.B.
*Burlington*
Henry Carmer Van Buren, A.B.
*Burlington*
Herbert White, A.B., M.S.
*Lawrence, Mass.*
Michael Wiedman, A.B. *Burlington*
Kenneth Owen Williams, A.B.
*New York, N. Y.*
Sumner Jason Yaffe, A.B., M.A.
*Mattapan, Mass.*

SECOND YEAR:

Nicholas George Alexiou, A.B.
*Manchester, N. H.*
Robert Anthony Astone, A.B.
*Beacon, N. Y.*
Richard Hubbard Bailey, B.S.
*Claremont, N. H.*
Samuel Barrera *Middlebury*
Bruce Andrew Becker, B.S.
*Warrensburg, N. Y.*
George Bouras, B.S., M.S.
*Newmarket, N. H.*
Peter Vero Bove, B.A. *Bristol, Conn.*
Edward Francis Bridges, B.A.
*Mars Hill, Me.*
Stanley Livingston Burns, Jr., A.B.
*Proctor*
Richard Keith Clarke *Richford*
John Thomas Conroy, B.S.
*Meriden, Conn.*
Ramon Sy-Juco de Jesus, B.S.
*Malabon, Rizal, Philippine Islands*
Paul Edward Demick, A.B. *Orleans*
George Theodore Diamandopoulos, B.A.
*Athens, Greece*
Arthur Richard Dimambro, B.S.
*Dover, N. H.*
Timothy James Driscoll, Jr., B.S.
*Portsmouth, N. H.*
John Richard Fitzgerald, B.S.
*Winooski*
Henry Charles Forrester
*Weehawken, N. J.*
Herbert Gershovitz, B.S.
*Providence, R. I.*
Theodore Joseph Goodman, B.S.
*Chelsea, Mass.*
Bernard Norman Gotlib, B.A.
*Bangor, Me.*
Duane Edgar Graveline *Derby*
Raymond Lewis Hackett, B.A.
*Saco, Me.*
Ernest Oliver Herreid, B.S.
*Urbana, Ill.*
George Frank Higgins, B.A.
*Presque Isle, Me.*
Walter Louis Hogan, B.S.
*W. Hartford, Conn.*

Edward Suter Irwin, B.S., M.S., O.D. *St. Albans*
Eugene Donald Jacobson, B.A. *Bridgeport, Conn.*
Victor Kaljot *Brooklyn, N. Y.*
Marshall Gene London, A.B. *Hartford, Conn.*
Robert William McCauley, A.B. *Burlington*
Arthur Joseph McPadden, Jr., A.B. *Bridgeport, Conn.*
Robert Henry Mintzer *Burlington*
Leo Richard Parnes, B.S. *Brookline, Mass.*
Edwin Oxman Polish, B.S. *Philadelphia, Pa.*
Robert Lee Pratt, A.B. *Manchester, N. H.*
Richard Benjamin Raynor, B.S. *Forest Hills, N. Y.*
Arthur Urban Roberge *Winooski*
Albert Anthony Romano, A.B. *White River Jct.*
Richard Sumner Rosen, B.S., M.S. *Brookline, Mass.*
Joel Loren Rosenberg *Burlington*
Donald Francis Shea, B.S. *Bennington*
Robert Theodore Silvery, A.B., A.M. *Belmont, Mass.*
Stuart James Smith, A.B., M.ED. *Burlington*
John Jerome Sowles, B.S. *Randolph*
Paul Giles Stevens, A.B. *Gardner, Mass.*
Ronald Roger Striar, B.A. *Bangor, Me.*
Stanley Walzer, A.B. *Forest Hills, N. Y.*
Arthur Sigmund Weissbein, A.B. *Methuen, Mass.*
Howard L. Zauder, A.B., M.S. PH.D. *Forest Hills, N. Y.*

FIRST YEAR:

Marvin Charles Adams, B.A. *Orono, Me.*
James Thurston Bailey, B.S., M.S. *Whitefield, N. H.*
John Marshall Hopkins Barnard, B.A. *Gardiner, Me.*
Laurence Metcalf Bixby *Burlington*
Douglas Mitchell Black *Barre*
William Stanton Burnett, A.B. *Williston*
Elizabeth Ann Clark *Burlington*
Gerald Cohen, B.A. M.S. *Chelsea, Mass.*
Everett Clifford Doughty, B.S. *Haverhill, Mass.*
Paul Joseph Driscoll, B.S. *Portsmouth, N. H.*
Philip Edward Emerson, B.S., M.A. *Keene, N. H.*
Donald Arthur Feeley, B.A. *Houlton, Me.*
Martin Edward Flanagan *N. Adams, Mass.*
Edward David Fram, A.B. *Worcester, Mass.*
William Walter Frost, Jr., B.S. *Concord, N. H.*
Ira Harold Gessner, A.B. *Hempstead, N. Y.*
Herbert Irwin Goldberg, B.A. *Forest Hills, N. Y.*
Roderick Matthew Goyette, B.S. *Barre*
Ira Greifer, B.S. *Westfield, N. J.*
Antonio Efthemios Harrises, A.B., M.S. *Manchester, N. H.*
Kenneth Ho, B.A. *Hongkong, China*
Donald Edward Holdsworth, A.B. *Springvale, Me.*
Fred Dewitt Holford, Jr., A.B. *Cooperstown, N. Y.*
Joseph Ryan Kelly *Fair Haven*
Frank Glasgow Lane, B.S. *Burlington*
Hugh Sanford Levin *Newport*
Philip Levin, A.B. *Burlington*
Don Richard Lipsitt, B.A., M.A. *Marion, Mass*
William Albert Long, B.S. *Castleton*
John Sarkis Manuelian, B.S. *Quincy, Mass.*
Joseph Edward Martin, B.A. *Mexico, Me.*
Robert Bernard McLaughlin, B.S. *Florence*
Theodore Leon Munsat, A.B. *Rutland*
Edward Okun *Springfield, Mass.*
William Fullerton Otis, Jr., B.A. *York, Pa.*

Mark Ira Pitman *Bayside, N. Y.*
Albert Joseph Plante, B.S. *Hinesburg*
Irwin William Pollack, B.A., A.M. *Philadelphia, Pa.*
David Allan Prince *Newark, N. J.*
Joan Whitney Shea, A.B. *Annapolis, Md.*
Victor Albert Silberman, B.A. *Danbury, Conn.*
Saul Matthew Spiro, A.B. *Burlington*
James Ward Stackpole, B.A. *Thomaston, Me.*
John Richard Stenger, B.E. *Winooski*
Robert Lyons Sullivan, B.S. *Schenectady, N. Y.*
Erving Allen Trunk, A.B., M.S. *Danbury, Conn.*
Kurt Weiss *Burlington*
James Colin White, B.A. *Yonkers, N. Y.*
John Burton Wilder, A.B. *Presque Isle, Me.*
Valery Sidon Worth, A.B. *Nutley, N. J.*
Harris Alfred Yandow, A.B. *N. Ferrisburg*

## MEDICAL FRATERNITIES AND SOCIETIES

Beta Pi, Delta Mu, Chapter of Nu Sigma Nu 49 N. Prospect St.
(Founded 1880)

Alpha Gamma Sigma
(For Women, Founded at University of Vermont, 1924)

Alpha Chapter of Phi Chi
(Founded at University of Vermont, 1889)

Phi Delta Epsilon

## THE OSLER CLINICAL SOCIETY

The Osler Clinical Society, which was organized in 1929, is composed of all undergraduate students in the College of Medicine. The society sponsors a series of lectures given by outstanding men in the field of medicine. It is supported by a student fee. The organization is governed by a board of executive officers elected annually by the members. The president for 1952 is Michael S. Burnhill.

## OFFICERS OF THE U.V.M. MEDICAL ALUMNI ASSOCIATION—1952

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*Vice-President*—DR. RICHARD FAVOR, '14, Syracuse, N. Y.

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