1950

University of Vermont, College of Medicine Bulletin

University of Vermont

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CALENDAR

1950

July 5, Wednesday. Enrollment of senior class and convocation.
July 6, Thursday. Hospital work for seniors begins.
September 1, Friday. Examinations for advancement in course.
September 8, Friday. 2 p.m. Convocation.
September 9, Saturday. Enrollment of the 3 lower classes.
September 11, Monday. Regular exercises begin.
October 30, 31, November 1, 2. Midsemester examinations for the first and second year classes only.
November 22, Wednesday, 11 a.m. through Sunday, November 26. Thanksgiving Recess.
December 20, Wednesday, through January 2, Tuesday. Christmas Recess.

1951

January 3, Wednesday. Class work resumed.
January 15, Monday, through January 27, Saturday. Midyear examinations.
January 29, Monday. Payment of fees for second semester; second semester begins.
March 19, 20, 21, 22. Midsemester examinations for the first and second year classes only.
March 31, Saturday, at 11 a.m. to April 9, Monday. Spring Vacation.
May 30, Wednesday. Memorial Day.
May 28, Monday, through June 9, Saturday. Final Examinations.
June 11, Monday. Graduation.
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ADMINISTRATION

THE BOARD OF TRUSTEES

The University of Vermont and State Agricultural College

WILLIAM SAMUEL CARLSON, PH.D., LL.D., President

His Excellency

HAROLD JOHN ARTHUR, LL.B., LL.D., Governor

Ex-Officio

On the Part of the University of Vermont

PEER PRESCOTT JOHNSON, M.D. 15 Washington St., Beverly, Mass. | 1946
WILLIAM MURRAY LOCKWOOD, PH.B. Burlington, Vt. to
JOHN EMERSON LOVELY, B.S. Springfield, Vt. | 1952
RAY WILLISTON COLLINS, B.S. Colchester, Vt. | 1948
ELIAS LYMAN, M.A. Burlington, 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

On the Part of the Vermont Agricultural College

WALLACE MACFIE FAY Proctor, Vt. | 1945
CLEON ARTHUR PERKINS, B.S. Rutland, Vt. to
NORTON BARBER, A.B. Bennington, Vt. | 1951
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
STANDING COMMITTEES

Admissions: The Dean*, Professors Jordan, Pearson, Pierce and French.

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

Advisory: Drs. Mackay (1953), Donaghy (1953), Amidon (1952), Pierce (1952), French (1951), Cunningham (1951).

Correlation Conference: Drs. Amidon*, Dunihue, Gallagher, Mackay, McKay, Pearson, Pierce, Robertson and Sichel.

Curriculum for Undergraduate Instruction: Drs. Amidon*, Daly, Dreyer, Gallagher, Mackay, McKay, Pearson, Pierce, Robertson and Schumacher.

Intern: Drs. Mackay*, Dreyer, Newhall, and Upton.

Library: Drs. Pierce*, Bell, Dunihue, T. Harwood, and Sichel.

Postgraduate Instruction: Drs. Mackay*, Abajian, Amidon, Flagg and Rees.

Research: Drs. Dunihue*, Donaghy, Pearson, Pierce, Raab, Robertson and Stultz.

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

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

* Chairman of Committee.
COLLEGE OF MEDICINE
FACULTY AND OTHER OFFICERS

ADMINISTRATIVE OFFICERS

WILLIAM SAMUEL CARLSON .......... President of the University
A.B., Michigan, 1930; M.S., 1932; Ph.D., 1938; LL.D., Michigan, 1950.

WILLIAM EUSTIS BROWN .......... Dean, Professor of Preventive Medicine

THEODORE HENRY HARWOOD ...... Assistant Dean and
A.B., Hamilton College, 1932;
M.D., University of Vermont, 1936.

CHESTER ALBERT NEWHALL ...... Secretary of the Faculty,
A.B., North-Western College, 1924;
M.D., University of Vermont, 1928.

PROFESSORS EMERITI

BENJAMIN DYER ADAMS .......... Assistant Professor Emeritus of Surgery
M.D., University of Vermont, 1908.

LYMAN ALLEN .......... Professor Emeritus of Surgery
A.B., University of Vermont, 1893; M.D., 1896.

CLARENCE HENRY BEECHER .......... Professor Emeritus of Medicine
M.D., University of Vermont, 1900.

THOMAS STEPHEN BROWN .......... Professor Emeritus of Anatomy
M.D., University of Vermont, 1904.

ERNEST HIRAM BUTTLES .......... Professor Emeritus of Pathology
A.B., University of Vermont, 1901; M.D., 1908.

CHARLES FRANCIS DALTON .......... Professor Emeritus of Public Health
M.D., University of Vermont, 1903.

OLIVER NEWELL EASTMAN .......... Professor Emeritus of Gynecology
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CHARLES PERKINS MOAT .......... Assistant Professor Emeritus of Public Health
B.S., Massachusetts Institute of Technology, 1896.

EDWARD JAMES ROGERS .......... Assistant Professor Emeritus of Clinical Medicine
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GEORGE MILLAR SABIN .......... Professor Emeritus of Clinical Surgery
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B.A., Yale, 1922; M.D., C.M., McGill, 1928.

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* Absent on Military Service.
COLLEGE OF MEDICINE

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WILLIAM STEPHEN KENNY, Technician in Animal House
76 N. Union Street

PAUL EMILE LAHAIE, Technician in Department of Pathology
Pine Tree Terrace

CLEMENT JOSEPH LECLAIR, Laboratory Assistant in Pharmacology
Winooski

MARY McBRATNEY, B.S., M.T. (A.S.C.P.), Technical Assistant in
Pathology
200 Loomis Street

LEDA MYERS, Technician in Department of Bacteriology and
Preventive Medicine
210 Elmwood Avenue
COLLEGE OF MEDICINE

OFFICE PERSONNEL

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MYRTLE E. ROBBINS, Secretary, Department of Physiology and Biophysics 24 Bradley Street

TERRY ANN SHERIDAN, Secretary, Departments of Anatomy and Biochemistry 8 Isham Street
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 is rated as an approved institution 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.

Requests for information and correspondence of a general character concerning the work of the institution as a whole or its relation to its constituency should be addressed to the President.

All telephones are listed under “University of Vermont.” Anyone desiring information concerning the University may secure the same during office hours by calling telephone number 5000. For information concerning the Medical College, call 5000, 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 to the University was chiefly nominal. It was then reorganized and made a coordinate department of the University under the control of the Board of Trustees and its facilities both for teaching and study were increased materially. New rooms and improved apparatus were added and additional instructors secured. In 1903 the college year was lengthened to seven months and in 1907 to seven and one-half months, giving thirty weeks of actual 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 was dedicated in June, 1905.

In 1911 the faculty of the College of Medicine was reorganized and the department made an integral part of the University system. With the opening of the college year of 1912 the entrance requirements were raised to one year of collegiate work and the college year was made equal in length to that of the academic colleges. Beginning in September, 1917, a regulation went into force, providing that two full years of academic college work should be required for admission. This requirement has now been increased to three years of college work. In 1920 women were admitted to the College of Medicine.

THE COLLEGE OF MEDICINE BUILDING

The College of Medicine occupies a modern building on Pearl Street at the north end of the College Green. On the first floor of the building are located the Administrative Offices of the College and the Histology, Pathology, and Bacteriology Laboratories. An amphitheatre, capable of seating one hundred and fifty, is located on this floor. A second amphitheatre of slightly smaller capacity is located on the second floor. The Library of the College of Medicine, which is a division of the University Library, occupies the southwest portion of the second floor. In addition, there are located on this floor the offices and laboratories of the Departments of Biochemistry and Pharmacology, as well as those of the Division of Experimental Medicine. On the third floor are housed the Departments of Anatomy, and Physiology and Biophysics. The Department of Anatomy has modern equipment, including a special teaching 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 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.

Adjacent to the building of the College of Medicine is the building which houses the Vermont Department of Public Health. 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 430 beds. More than 200 additional beds will become available from hospital additions already under construction or planned for the immediate future. 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 patients a year; the services of the Vermont State Hospital for Mental Disease at Waterbury, Vermont, with more than 1,250 beds; the Vermont Sanatorium for tuberculosis and the Caverly Preventorium at Pittsford, 75 and 45 beds respectively; 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 193 beds and 37 bassinets, but will be enlarged to at least 300 beds in the near future. 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 DEGOESBRIAN D HOSPITAL. The Bishop DeGoesbriand Hospital, Inc., is a modern and completely equipped institution located on the west side of the College Green and across from the College of Medicine. It is fully approved for intern training and has approved residencies in surgery, medicine, anesthesia, urology and radiology. The present capacity of the hospital is 250 beds, with all types of services represented. Approximately 8,500 patients are admitted annually. Teaching services are established in the hospital for third and fourth year students, with the use of ward patients and certain private cases supervised by the attending staff. Members of the attending staff are required to be members of the Faculty of the College of Medicine.

The hospital maintains outpatient clinics in cardiovascular and peripheral vascular diseases, medicine, surgery, obstetrics and gynecology.

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 wards of the two local hospitals, the St. Joseph’s Orphanage, the Children’s Home, and the Elizabeth Lund Home furnish teaching services in pediatrics. To this is added clinical work at the Caverly Preventorium. This institution is under the personal direction of a member of the teaching staff.

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.

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 VERMONT SANATORIUM AND CAVERLY PREVENTORIUM, PITTSFORD. The Vermont Sanatorium for tuberculosis has 75 beds and the Caverly Preventorium for children has 45 beds. Both are located at Pittsford and are under the supervision of a member of the faculty at the College of Medicine.

In these institutions, the students receive intensive instruction in tuberculosis as related to the individual and as related to the problem of the public health. The small number of students assigned makes possible individual instruction by staff members.

TRUDEAU SANATORIUM, TRUDEAU, N. Y. This cottage sanatorium of 200 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.

DISPENSARIES. Teaching dispensaries are maintained by the College of Medicine in cooperation with the Charity Department of the City of Burlington and the Mary Fletcher Hospital.
By arrangement with the Charity Department, such patients as cannot afford to employ private physicians are assigned to the College of Medicine, whose authorities provide care. These include ambulatory patients, as well as patients needing hospitalization. To provide adequate care, the College of Medicine, in cooperation with the Charity Department, maintains a City Service with a dispensary in the Howard Relief Society Building at 174 Pearl Street in Burlington and a day-and-night home visiting service operating from the Dispensary Building. Both intern and extern services are in charge of directors appointed by the College of Medicine. This affords adequately supervised instruction of the dispensary and home visit types. Of additional advantage is the opportunity for the student to study the home environment and its relation to illness. Further correlation of social factors with illness is made possible by cooperation with such social agencies as the Howard Relief Society, the Vermont Children's Aid Society and the Visiting Nurses Association, all of whose offices are in the Dispensary Building.

The Mary Fletcher Hospital, in cooperation with the College of Medicine, maintains outpatient clinic services at the hospital. As in the case of the Pearl Street Dispensary, medical and surgical clinics, as well as clinics for patients needing specialty services, are held. Patients are referred to such clinics by private physicians.

In all of the dispensary services, patients are assigned to students for study. Diagnostic aids and services may be 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, 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, an integral part of the University Libraries whose collections of about 200,000 volumes are available to the medical student when needed, is situated in three rooms on the second floor of the College of Medicine building. Its location makes it convenient for daily use by students and faculty members.
The library consists of a small but well arranged collection of books and periodicals particularly chosen to serve the needs of the College of Medicine. Monographs, current journals, and bound sets from other years afford a good working research library of modern medical literature.

Interlibrary loan facilities are extensively used, and a microfilm reader is provided for the material on film. Instruction in the importance and proper use of the library is given by the librarian and faculty members in the first year.

**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. 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.
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 .................. 700.00
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 equipped with:

(a) An Abbe substage condenser with iris diaphragm and rack and pinion
(b) 10X ocular
(c) 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) A three-place nosepiece
(e) A mechanical stage
(f) Properly functioning fine and coarse adjustments.
(g) An adequate lamp for substage illumination equipped with Corning daylight glass \(\frac{3}{16}\) inch thick and at least a 10-watt bulb for monocular and a 25-watt bulb for binocular microscopes.

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 Doctor of Medicine, \textit{cum laude}.

\textit{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.

\textit{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 great proficiency in the field of Obstetrics. The Department of Obstetrics makes the award.
The Nu Sigma Nu Award of Merit.—This award is given annually by the local chapter and the National Executive Council of Nu Sigma Nu Fraternity to the outstanding member of the Junior Class. The award is based on responsibility, alertness, dependability, class participation, interest in medicine and adaptability for a career in medicine.

Lamb Foundation Prizes.—Prizes of seventy-five, fifty and twenty-five dollars will be offered during the year 1950-51 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 resided 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, Biology, 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**

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 minimum requirements for admission to the College of Medicine are three 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 English, General Chemistry, Organic Chemistry, Physics, Biology and a satisfactory course in Quantitative Chemistry. It strongly recommends additional courses in English, at least one year of Mathematics, and work of such grade in a foreign language that the student will have conversational use and reading knowledge of the language. These should be regarded by the student as minimum basic requirements.

While the minimum requirements must be satisfactorily completed yet additional broad and well-planned courses of study in the fields of History, Economics, Sociology, Psychology, Philosophy, Music and the arts should be included. This is possible where 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.

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 three years of college work of a different type, provided it includes acceptable credit 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 general fitness 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, as well as the score earned in the Medical College Admission Test adopted by the Association of American Medical Colleges. No applicant will be considered for admission who has not taken this test.

Because of limited teaching facilities, a maximum of forty-five 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 residents of the State of Vermont. Second preference is given to sons and daughters of alumni. Third preference is given to 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 interviews.

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 on the April 1 preceding the September admission. Applications postmarked up until midnight of March 31 will be considered.
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 69) 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 Advancements 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 presented 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 Advancements 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, 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, the usual 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 all 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 pe-
periods of one month, allowing each student to have one month 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 a month each are given at the Vermont State Hospital for Mental Diseases at Waterbury, where clinical work in Psychiatry and Psychosomatic Medicine is given; at the Vermont Sanatorium in Pittsford and at the Trudeau Sanatorium in Trudeau, New York, where clinical instruction is given in tuberculosis and other diseases of the chest, and at the Putnam Memorial (Bennington), Springfield, Rutland, and Brightlook (St. Johnsbury) Hospitals, where individuals in the sections are given a month of general service in residence.

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 BOUSEHEY, Demonstrator in Anatomy

FIRST YEAR:

1. 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 techniques 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, implantation 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, 32 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, in which the students outline the surface markings on the body. The course is illustrated by the use of X-ray films and is designed to correlate with the work in physical diagnosis.

40 hours (two hours per week during the first semester and one hour per week during the first half of the second semester). Drs. Stultz and Newball.

II. Anatomy: General Review

The aim of this course 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 except 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. Newball.
THE DEPARTMENT OF BACTERIOLOGY AND PREVENTIVE MEDICINE

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

CHARLES HENRY OKLEY, 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

SISTER CORONA PARENTEAU, R.N., M.T. (A.S.C.P.), Laboratory Instructor in Medical Technology

DIVISION OF PREVENTIVE MEDICINE AND PUBLIC HEALTH

WILLIAM EUSTIS BROWN, PH.B., M.P.H., M.D., D.S.C., Professor of Preventive Medicine, Chairman of Division

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

LOUIS BENSON, B.E.E., M.D., Associate Professor of Preventive Medicine

CHARLES IYES 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:

1. 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 Okley.

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.
The course includes studies in venereal disease control, sanitation, ventilation, water purification, sewage disposal, meat and milk supply, administration and functions of health agencies, both public and volunteer, and their proper relation to public health. 28 hours, second semester. Dr. Brown, Foster, Aiken, and Mills, and Mr. Tracy.

II. Oral Hygiene and Dental Medicine
The course includes a review of the fundamentals of dental embryology and histology and a correlation of oral developmental anatomy with general developmental anatomy. The fundamentals of dental terminology are reviewed to afford the medical student an opportunity to become freely conversant in dental problems discussed with the dentist and dental intern with whom he will ultimately come in contact.
Lectures making use of lantern slides, models, charts, and moving pictures follow this introduction and include the discussion of dental problems associated with prenatal care, pediatrics (including the dental problems of the adolescent), and the dental and medico-dental problems of adulthood. As a prerequisite to a better understanding of the clinical demonstration of dental cases in the senior year, the diagnosis and treatment of oral pathology and the dental care of hospital patients is covered in the course of lectures. 4 hours, second semester. Dr. Taggart.
THIRD YEAR:

I. Preventive Medicine

The course is based on a study of the principles of preventive medicine as applied both to private practice and public health. The didactic work includes demonstrations of means and methods employed in the prevention of infectious disease. Throughout the third year, students are assigned to the Vermont State Department of Health and the University Student Health Service for practical work in the field of Preventive Medicine and Immunology. 8 hours, first semester, Drs. Aiken, Benson and Brown.

II. Industrial Preventive Medicine

This course is based on the study of the principles of preventive medicine as applied to occupational hygiene. It includes demonstrations of means and methods employed in industry. Practical demonstrations of the methods discussed are given at industrial plants. A major portion of the course deals with the prevention of occupational diseases. 8 hours, first semester. Dr. Aiken.

III. Vectors in the Control of Diseases

This course is designed to give the student training in the field of disease transmission through various hosts. 8 hours, second semester. The Staff.

IV. Tropical Medicine

(This course is outlined under the Department of Medicine.)

V. Voluntary Agencies in Public Health

The purpose of this course is to present to students the activities and programs of state and voluntary health agencies. Some of the fields covered are vocational rehabilitation, child and maternal health, speech and hearing corrective work, school health programs, public health nursing as well as the work of local visiting nurse associations, nutrition as a public health problem and similar health problems. Representatives of the various agencies present their programs with emphasis on the help available to practicing physicians and the need for cooperation. Seminars are also held in which the students present the social aspects of medicine, health insurance, group practice and proposed legislation, which may bring about changes in medical practice. 8 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
Alex Benjamin Novikoff, B.S., M.A., Ph.D., Associate Professor of Biochemistry
William Van Bogaert Robertson, M.E., Ph.D., Associate Professor of Biochemistry
Merton Philip Lamden, B.S., Ph.D., Assistant Professor of Biochemistry
Arnold Harold Schein, B.S., Ph.D., Assistant Professor of Biochemistry
Ethan Allen Hitchcock Sims, B.S., M.D., Assistant Professor of Biochemistry
Ann Ruth Baker, Assistant in Biochemistry
Gloria Ann Chrystowski, B.S., Assistant in Biochemistry
Beth Kneen Huard, B.S., Assistant in Biochemistry
Barbara Alice Moore, Assistant in Biochemistry
Emily Mae Young, B.S., Assistant in Biochemistry
Alice Margaret Laughlin, B.S., Graduate Assistant in Biochemistry
Barry F. Schwartz, B.S., Graduate 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 biochemistry. 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, Novikoff, and Robertson.

II. Biochemistry, Nutrition, Endocrinology

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 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, Novikoff, Robertson, 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 2 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.

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 constituents, application of isotopes to the study of metabolic pathways, and the integration of the metabolism of the proteins, carbohydrates and lipids.

Lectures and seminars. 2 x 1 hour per week. Open to all properly qualified students. Drs. Schein and Robertson.

206. **Seminar**

This course is designed to review recent developments and current literature in the various fields of Biochemistry.

1 x 1 hours per week. 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, vitaminoses in man and animal, and vitamin requirements.

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

Lectures and seminars, 3 x 1 hour per week

Laboratory, 3 hours per week. Open to all properly qualified students. Drs. Pierce, Lamden and Staff.

**UNDERGRADUATE COURSES**

27. **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, 3 hours.

Credit: 5.

Course listed in University Bulletin as Nursing 27.

28. 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, 3 hours.

Credit: 5.

Course listed in University Bulletin as Nursing 28.

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

Theodore Henry Harwood, A.B., M.D., Associate Professor of Medicine

Sinclair Tousy Allen, Jr., A.B., 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, B.A., M.D., Assistant Professor of Clinical Pathology and Medicine

Ethan Allen Hitchcock Sims, B.S., M.D., Assistant Professor of 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

John Hardesty Bland, A.B., M.D., Instructor in Medicine

Katherine Ella McSweeney, A.B., M.A., M.D., Instructor in Clinical Medicine

James Patrick Mahoney, 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

Christopher Marlowe Terrien, M.D., Instructor in Clinical Medicine

Porter Hinman Dale, B.S., M.D., Fellow in Medicine

Frank Ivan Pitkin, M.D., Fellow in Medicine
EUNICE MARIE SIMMONS, A.B., M.D., Fellow in Medicine
BURTON S. TABAKIN, A.B., M.D., Fellow in Medicine
DEAN HERBERT WHEELER, B.S., M.D., Fellow in Medicine
WILLIAM HENRY HEININGER, M.D., Assistant in Medicine
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
JOSEPH WORCESTER SPELMAN, B.S., M.D., Lecturer in Medical Jurisprudence

DIVISION OF DERMATOLOGY
JOHN FIDLAR DALY, B.S., M.D., Assistant Professor of Dermatology, Chairman of Division
ARTHUR HOWARD FLOWER, A.B., M.D., Instructor in Dermatology

DIVISION OF EXPERIMENTAL MEDICINE
WILHELM RAAB, M.D., Professor of Experimental Medicine, Chairman of Division
WILLIAM VAN BOGAERT ROBERTSON, M.E., PH.D., Associate Professor of Experimental Medicine
EUGENE LEPESCHKIN, M.D., Assistant Professor of Experimental Medicine
NORMAN MAKOUS, B.S., M.D., Research Associate 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., Assistant 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
ROSE ELIZABETH CILIBERTO, B.S., 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

* Absent on Military Service.
COLLEGE OF MEDICINE

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
FRANCIS WILLIAM KELLY, 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

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 and Miss Maxson.
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 leishmanias, 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 thereof, 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. Discussions 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 variously assigned in residence for one month at the Vermont Sanatorium for tuberculosis in Pittsford, the Trudeau Sanatorium in Trudeau, New York, and at the Vermont State Hospital.

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:

Lectures and demonstrations on skin diseases, their diagnosis, therapy and relations to general medicine are given weekly throughout the year. 16 hours. Dr. Daly.
Clinical demonstrations of representative dermatoses are presented. An opportunity is provided for each student to examine each patient. Major emphasis is placed on development of the ability to recognize dermatoses by accurate observation of presenting lesions. Differential diagnoses are considered and methods of treatment are outlined. 32 hours. Dr. Daly.

FOURTH YEAR:

Students are assigned in rotation to attend the dermatology clinic at the Burlington Free Dispensary each Wednesday morning. Ample opportunity is provided for case preparation and performance of various treatment procedures. 8 hours. Dr. Daly.

EXPERIMENTAL MEDICINE

The purpose of this Division is to arouse the interest of qualified students and post-graduates in investigative work in the field of medicine. Opportunity will be afforded such individuals to study clinical problems of importance, with active participation in the work done. The Division consists of a physiological-pharmacological and a biochemical laboratory. Plans are formulated for the establishment of a clinical observation unit with ten or more beds for the study of cardiovascular diseases. This unit will be established in one of the local hospitals.

Special courses in elementary and advanced work in electrocardiography are offered.

At present the Division is investigating neurohormonal factors related to the pathogenesis and treatment of cardiovascular disease, the role of electrolytes in heart pathology, and biochemical factors in brain function.

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 disfunction 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. Bedside teaching on the wards requires complete neurological examination of patients by students. 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:

I. Lectures in Clinical Neurology

Didactic presentation of neurological syndromes is used in demonstrating patients exemplifying the types under discussion. The larger categories of neurological symptoms are discussed with emphasis on the differential diagnoses 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. Principles of Pediatrics

One hour a week in the second semester is given to an introduction to the principles of pediatrics. This introductory course includes a discussion of normal growth and development together with the principles of infant feeding. The purpose of this course is to give the student some introduction to the subject before he takes up ward work in pediatrics in his third year. 16 hours. Dr. Clark.

THIRD YEAR:

I. Principles of Pediatrics

This course is a continuation of the work begun in the second year. The subject matter continues with a discussion of the diseases of infancy and childhood. 32 hours. Dr. Corley.
cine for the precedents of medical practice and then progresses to a dis-
ussion of the problems of modern medicine and current trends toward
their solution. Full attention is paid to the problems of post graduate
medicine, beginning with internship and including a discussion of the
relationships in which the physician may carry on his practice. One hour
a week in the first semester. 16 hours. Staff.

II. Doctor-Patient Relationships

Under a grant from the Lamb Foundation, a general course in doctor-
patient relationships is given.

The purpose of this course is to inculcate in the student a sense of the
importance and the value of the manner in which patients are treated
by practicing physicians in an attempt to restore to the practice of medi-
cine some of the qualities of practice, exemplified by the competent,
human family doctor.

This type of physician, more prevalent a generation ago than today,
added to the practice of medicine a human touch frequently as valuable
in promoting the patient's comfort, both physical and mental, as the
drugs he dispensed and the procedures he recommended. This course is
designed to emphasize the importance of this aspect of medical practice.
Staff and visiting lecturers.

THE DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

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

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

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

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

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

SECOND YEAR:

1. Introduction to Obstetrics

The course includes a discussion of the anatomy of the female pelvis
and reproductive organs. 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. Drs. Slavin,
Maeck and O. R. Eastman.
THIRD YEAR:

I. Principles of Obstetrics

The course begins with a discussion 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 by motion pictures. 96 hours. Drs. Maeck, Slavin and O. R. Eastman.

Demonstration ward rounds, in sections. 24 hours. Drs. Slavin, Maeck and O. R. Eastman.

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. 32 hours. Drs. Maeck, Slavin, O. R. Eastman, O. N. Eastman and McSweeney.

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 and the Elizabeth Lund Home. Labors are attended at the Mary Fletcher Hospital, the Elizabeth Lund Home, and in the Outpatient Department. In each instance, 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 examination and keeping detailed records. The labor clerk observes or assists at the actual deliveries. Drs. Maeck, Slavin, O. R. Eastman and Krantz.

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 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 hospital and assistance at diagnostic procedures in the hospital and at the clinic. Ample time and opportunity are allowed for close personal instruction in all instances. Drs. Maeck, Slavin, O. R. Eastman and Krantz.
THE DEPARTMENT OF OPHTHALMOLOGY, OTOLARYNGOLOGY AND RHINOLOGY

JOHN CHARLES CUNNINGHAM, A.B., M.D., Professor of Ophthalmology, Otolaryngology, and Rhinology, Chairman of Department

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

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

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

ELMER McREADY REED, B.S., M.D., Instructor in Otolaryngology

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 and McMahon.

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, McMahon, M.C. Twitchell, Jr. and Reed.

Clinical instruction is also given each week at the Bishop DeGoesbriand Hospital during ward rounds. Dr. Cunningham.

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., Associate 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
Roy Vedder Buttres, B.S., M.D., Instructor in Pathology
Charles William Jones, A.B., M.D., Instructor in Pathology
Richard S. Woodruff, B.A., M.D., C.M., Instructor in Pathology
Antonio Bardawil, B.S., M.D., Fellow in Pathology
Albert Malmrose Pearson, B.S., M.D., Fellow in Urology, assigned to Pathology
Abel Turnier, M.D., Fellow in Pathology
Roy Korson, A.B., M.D., Assistant in Pathology
Mrs. Ann Dinse, B.A., Research Assistant in Pathology
Liselotte Hecht, B.S., M.S., Research Assistant in Pathology
Estelle Podber, A.B., Research Assistant in Pathology
Jean Margaret Ryan, B.S., Research Assistant in Pathology

SECOND YEAR:

1. 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, genito-urinary, 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 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, Woll 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, Woll 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 malig­
nancy of chemistry, enzymology, genetics, cytology and other funda­
mental 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 origi­
nal investigations will be used as basis for thesis required for degree of
Master of Science. Credits and hours to be arranged. Drs. Pearson and No­
vikoff.

THE DEPARTMENT OF PHARMACOLOGY

Nicholas Bernard Dreyer, B.A., M.A., M.R.C.S., L.R.C.P., Professor of
Pharmacology, Chairman of Department

Karl Wayne Erwin, B.S., M.D., Instructor in Pharmacology

Sumner Jason Yaffe, A.B., M.A., Fellow 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 ex­
periments and demonstrations in mammalian pharmacodynamics; special
lectures by visiting experts in clinical therapeutics; motion picture medical
teaching films; demonstrations by expert pharmacists; prescription writ­
ing exercises; 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.
Dreyer and Erwin.

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

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

Paul Green LeFevre, B.A., Ph.D., Associate Professor of Physiology and Biophysics

Walter Leroy Wilson, B.S., Ph.D., Instructor in Physiology and Biophysics

Alfred Hayes Chambers, A.B., Ph.D., Associate Professor of Physiology and Biophysics

Paul Green LeFevre, B.A., Ph.D., Associate Professor of Physiology and Biophysics

Walter Leroy Wilson, B.S., Ph.D., Instructor in Physiology and Biophysics

Oscar Sylvander Peterson, Jr., M.D., Associate in Biophysics

Richard Emile Bouchard, M.D., Fellow in Physiology and Biophysics

William Joseph Adelman, Jr., B.S., Research Assistant in Physiology and Biophysics

Nancy Joan Cantor, A.B., Research Assistant 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, 96 hours, second semester. Drs. Sichel, LeFevre, 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, LeFevre, 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 of Surgery
Arthur Gladstone, B.S., M.D., Associate Professor of Clinical Surgery
Arthur Rush Hogan, A.B., M.D., Assistant Professor of Clinical Surgery

Carleton Raymond Haines, B.S., M.D., Instructor in Surgery
Louis George Thabault, M.D., Instructor in Surgery
Donald Miller, M.D., Instructor in Chest Surgery
Albert James Crandall, B.S., M.D., Instructor in Clinical Surgery
Jay Edgar Keller, M.D., Instructor in Clinical Surgery
John Frederick Lynch, B.S., M.D., Instructor in Clinical Surgery
Gino Aldo Dente, M.D., Instructor in Anesthesia
Howard Hinman Jacobs, B.S., M.D., Fellow in Anesthesia
John Kevork Kavoursonian, M.D., Fellow in Surgery
James Bishop McGill, B.S., M.D., Fellow in Surgery
*Clarence James Murphy, M.D., Fellow in Surgery
*Harold Gordon Page, B.S., M.D., Fellow in Surgery
Charlotte Schuler Woodruff, M.D., Fellow in Anesthesia

*Absent on Military Service.
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, Thibault and Haines.

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. Surgical Anatomy

This course is, to some extent, a review of the students' previous anatomical studies, with the special object of showing anatomical relationships in the more usual surgical operations such as those for hernia, appendicitis, cholecystitis, thyroidectomy, infected hands, and so forth. 16 hours. Dr. Gladstone.

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 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 faculty of the College of Medicine. Patients
are examined by members of the faculty representing all clinical departments of the College. 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 Department of Pathology 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 section at the Mary Fletcher Hospital meets daily for instruction by the full-time staff, and also meets once a week for a surgical clinic, paper clinic, or discussion, with Dr. Mackay. 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

Every Monday at 11 a.m. a clinic is held for senior students which includes laryngoscopy, bronchoscopy, esophagoscope, and gastroscopy, at the Mary Fletcher Hospital. Dr. Mackay.

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 per 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. Maynard.

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

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:
Clinics, followed by ward rounds, are held Saturday mornings. Informal discussion of cases is given by 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. Drs. Soule, Peterson and Van Buskirk.

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, three hours weekly. 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.
## SUMMARY OF STUDIES 1950-51

### CLASSROOM AND LABORATORY HOURS

<table>
<thead>
<tr>
<th>First Year</th>
<th>Hours</th>
<th>Third Year</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy</td>
<td>336</td>
<td>Clinical-Pathological Conferences</td>
<td>48</td>
</tr>
<tr>
<td><em>Bacteriology</em></td>
<td>176</td>
<td>*Eye, Ear, Nose and Throat</td>
<td>64</td>
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<tr>
<td><em>Biochemistry</em> (Introduction to)</td>
<td>24</td>
<td>*Medicine</td>
<td>96</td>
</tr>
<tr>
<td><em>Histology</em></td>
<td>128</td>
<td>Physical Diagnosis (ward work)</td>
<td>336</td>
</tr>
<tr>
<td>Embryology</td>
<td>32</td>
<td>*Medical Specialties</td>
<td></td>
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<tr>
<td>Library Course</td>
<td>8</td>
<td>Dermatology</td>
<td>48</td>
</tr>
<tr>
<td>Medical Psychology</td>
<td>16</td>
<td>Industrial and Preventive Medicine</td>
<td>32</td>
</tr>
<tr>
<td><em>Neuro-anatomy</em></td>
<td>96</td>
<td>Medical Ethics and Relationships</td>
<td>16</td>
</tr>
<tr>
<td><em>Physiology</em></td>
<td>144</td>
<td>Medical Jurisprudence</td>
<td>16</td>
</tr>
<tr>
<td>Radiology (Introduction to)</td>
<td>8</td>
<td>Neurology</td>
<td>28</td>
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<tr>
<td>Total hours</td>
<td>1,160</td>
<td>Neuropsychiatry of Childhood</td>
<td>16</td>
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<tr>
<td></td>
<td></td>
<td>Psychiatry</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Therapeutics</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tropical Medicine</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Obstetrics (Principles of)</td>
<td>120</td>
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<tr>
<td></td>
<td></td>
<td>Gynecology (Principles of)</td>
<td>32</td>
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<tr>
<td></td>
<td></td>
<td>*Pathology</td>
<td>48</td>
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<tr>
<td></td>
<td></td>
<td>*Pediatrics</td>
<td>80</td>
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<tr>
<td></td>
<td></td>
<td>*Surgery</td>
<td>80</td>
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<tr>
<td></td>
<td></td>
<td>*Surgical Specialties</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Anatomy (Surgical)</td>
<td>16</td>
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<td></td>
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<td>Anesthesiology</td>
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<td>Neurosurgery</td>
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<td>Orthopedics</td>
<td>32</td>
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<td></td>
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<td>Proctology</td>
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<tr>
<td></td>
<td></td>
<td>Radiology and Physical Therapy</td>
<td>40</td>
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<tr>
<td></td>
<td></td>
<td>Urology</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total hours</td>
<td>1,260</td>
</tr>
</tbody>
</table>

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-four weeks, a total of 1,760 hours.

*Major subjects.*
GRADUATES—DOCTORS OF MEDICINE

June 1950

Mary Louise Bertucio, A.B., cum laude
Mary Patricia Brayton, B.S.
Allan Bandes Carter, A.B., cum laude
Pauline Elizabeth Clarke, A.B.
Roger William Cooper, A.B.
Peter Stanley Czachor, B.S.
Olive Morris Davies, A.B.
Simon Dorfman
Charles Francis Drake
Elizabeth Fannie Drake, B.S., cum laude
Peter Floreal Esteran
Louis Fishman, B.S.
Edward Esau Friedman, A.B.
Norman Oscar Gauvreau, B.S.
Jack Jay Goldman, A.B.
Karl Kenneth Grubaugh, A.B., M.A.
Philip Ross Hastings, B.S.
Joel Thomas Janvier, A.B.
Gerald Joseph Jerry, A.B.
Llewellyn Martin Jones, A.B., cum laude
Harry Philip Levine, B.S., M.S., cum laude
Julian Levine, B.S.
Gerald Francis McGinniss, A.B.
Jane Frances McNeill, A.B.
Richard Charles Manjoney, B.S.
Charles Frederick Miller
Leo Albert Moreau, B.S.
Robert James Moriarty, B.S.
Carmen Mary Pallotta, B.S.
Lawrence James Parker
Alfred Edward Peterson, A.B.
Albert Adelard Poulin, Jr., B.S.
Howard Simon Stein, A.B.
Marjorie Joy Topkins, A.B.
Vita Vileisis
Emanuel Wiedman, B.S.

Springfield, Mass.
Poultney
Burlington
Fairfield, Conn.
Northfield
Rutland
Poultney
Biddedford, Me.
Elmhurst, Ill.
Middlebury
Barre
Burlington
Newport, R. I.
Burlington
Burlington
Burlington
Bradford
Mariposa, Calif.
Winookski
Swanton
Burlington
Burlington
Burlington
Beacon, N. Y.
Bridgeport, Conn.
Erie, Pa.
Taunton, Mass.
Burlington
Ludlow
Poultney
Upper Montclair, N. J.
Rumford, Me.
Brooklyn, N. Y.
Brooklyn, N. Y.
Naugatuck, Conn.
Burlington
PRIZES
JUNE 1950

CARBEE PRIZE
For greatest proficiency in the subject of Obstetrics
Mary Louise Bertucio, A.B.

WOODBURY PRIZES IN MEDICINE
For greatest proficiency in Clinical Work in senior year
Elizabeth Fannie Drake, B.S.

To the sophomores having the highest standing for two years of Medical Work
Theodore Herzel Goldberg, A.B.

NU SIGMA NU MERIT AWARD
To the outstanding student in the junior class
Murdo Glenn MacDonald, B.S.

LAMB FOUNDATION PRIZES
To the students showing greatest comprehension and appreciation of the Doctor-Patient Relationship
First: Allan Bandes Carter, A.B.
Second: Julian Levine, B.S.
Third: Lawrence James Parker
INTERNESHIP APPOINTMENTS
GRADUATES, JUNE 1950

Mary L. Bertucio
M. Patricia Brayton
Allan B. Carter
Pauline E. Clarke
Roger W. Cooper
Peter S. Czechor
Olive M. Davies
Simon Dorfman
Charles F. Drake
Elizabeth F. Drake
Peter F. Esteran
Louis Fishman
Edward E. Friedman
Norman O. Gauvreau
Jack J. Goldman
Karl K. Grubaugh
Philip R. Hastings
Joel T. Janvier
Gerald J. Jerry
Llewellyn M. Jones
Harry P. Levine
Julian Levine
Gerald F. McGinniss
Jane F. McNeill
Richard C. Manjoney
Charles F. Miller
Leo A. Moreau
Robert J. Moriarty
Carmen M. Pallotta
Lawrence J. Parker
Alfred E. Peterson
Albert A. Poulin, Jr.
Howard S. Stein
Marjorie J. Topkins
Vita Vileisis
Emanuel Wiedman

Hartford General Hospital, Hartford, Conn.
Stamford Hospital, Stamford, Conn.
USPHS Marine Hospital, Staten Island, N. Y.
Mary Fletcher Hospital, Burlington
U. S. Naval Hospital, Chelsea, Mass.
Mary Fletcher Hospital, Burlington
Mary Fletcher Hospital, Burlington
Indianapolis General Hospital, Indianapolis, Ind.
St. Luke's Hospital, San Francisco, Calif.
Minneapolis General Hospital, Minneapolis, Minn.
Wilkes-Barre General Hospital, Wilkes-Barre, Pa.
Binghamton City Hospital, Binghamton, N. Y.
U. S. Naval Hospital, St. Albans, L. I., N. Y.
U. S. Hospital, Chelsea, Mass.
Jersey City Medical Center, Jersey City, N. J.
Toledo Hospital, Toledo, Ohio
Deaconess Hospital, Spokane, Wash.
Sacramento County Hospital, Sacramento, Calif.
Jersey City Medical Center, Jersey City, N. J.
Mary Fletcher Hospital, Burlington
Stamford Hospital, Stamford, Conn.
Stamford Hospital, Stamford, Conn.
Mercy Hospital, Springfield, Mass.
Vassar Brothers Hospital, Poughkeepsie, N. Y.
St. Vincent's Hospital, Bridgeport, Conn.
Hamot Hospital, Erie, Pa.
Mercy Hospital, Springfield, Mass.
Mercy Hospital, Springfield, Mass.
St. Vincent's Hospital, New York, N. Y.
Santa Barbara Cottage Hospital, Santa Barbara, Calif.
Binghamton City Hospital, Binghamton, N. Y.
Cambridge City Hospital, Cambridge, Mass.
Brooklyn Jewish Hospital, Brooklyn, N. Y.
Kings County Hospital, Brooklyn, N. Y.
Mary Fletcher Hospital, Burlington
Mercy Hospital, Springfield, Mass.
FOURTH YEAR:
Lawrence Bernard Ahrens, B.S. Burlington
Anthony Maymore Alberico, B.S. Burlington

Deal Taber Asustine, Jr., B.S. Essex Junction

Laurence Havens Ballou, A.B. Chester
Ernest Stanley Barash, A.B. Brooklyn, N.Y.
Frank Lewis Bartlett, B.S. Burlington
Edwin Pitcher Bassett Rindland
James Paul Burke, B.S. Barre
Jack Wallace Conklin, A.B. Providence, R.I.
Frances Phillips Conklin (Mrs.), B.A. Milford, Pa.

Virginia Henrietta Donaldson, A.B. Washington, D.C.

James Edgar Downs Cadillyville, N.Y.

John William Edward Durkin, Jr. Poulsbo

Richard Milton Esser, A.B. Mt. Vernon, N.Y.

Fred Arthur Harrington, B.S. Rutland

John Robert Heckman Castleton

Philip James Hincks, B.S. Middlebury

Edward William Jenkins, B.S. Burlington

Alka Tewksbury Jones, B.S. in Ed. Morrisville

THIRD YEAR:

Henry Chester Baltrucki Gardiner, Mass.
Irvin William Becker, A.B. Burlington

Mitchell Bresnahan Carey Ludlow

Harlan Paul Cassvant, B.S. Waterbury

Arnold Herbert Codony, B.S. Burlington

Paul Edward Corley, B.S. Burlington

Marvin Lee Cousins, B.A. New Haven, Conn.

Richard Herbert Dolloff, A.B. Peabody, Mass.

William Arthur Eddy W. Hartford, Conn.

Morton Howard Frank, A.B. Portland, Me.

Marvin Garrel, A.B. Fort Chester, N.Y.

Nathan Glover, B.S., A.M., Ph.D. Portland, Me.

Theodore Herzl Goldberg, A.B. Westwood, N.J.

Cornelius Granai, Jr., A.B. Barre

Irvin McKee Graves Bellows Falls

Harry Elwin Howe, A.B., M.D. Tunbridge

Luke Amos Howe Tunbridge

Robert Jacob Hunziker, A.B. Poulton

Martin Jonas Koplewitz, B.S. For Rockaway, N.Y.

Raymond Paul Koval, B.A. Paterson, N.J.

Aristides Demetrios Julius Brooklyn, N.Y.

Edward Albert Kamens, A.B. Bridgeport, Conn.

Reginald Frederick Krause, A.B., M.S., Ph.D. Burlington

John Clifford Lantman, B.S. Hinesburg

Murdo Glenn MacDonald, B.S. South Ryegate

Annora Harris McGarry (Mrs.) South Shaftsbury

Thomas Maxwell McGarry, B.S. Rutland

Fred Leon Nelson, Jr. Ava, Mo.

James Thomas Riley Burlington


Charles Franklyn Ryan, B.S. Vergennes

Eric George Schweger New York, N.Y.

Harley Gruepe Shepard, B.S. Burlington

William Judah Sohn, A.B. Brooklyn, N.Y.

Robert Kirk Ward, B.S. St. Albans

Henry Wasserman, A.B. Yonkers, N.Y.

Seymour Paul Weissman, B.S. Build Lake, N.J.


Keith Clinton Wold, B.S. St. Paul, Minn.

Arthur Saul Kunin, A.B. Brooklyn, N.Y.

Daniel Germain Lareau Winookski

Gordon Manson, B.A. Burlington

Brewster Davis Martin Pittsfield

Avron Herbert Maser, B.S. Washington, D.C.

Cedric Llewellyn Mather, A.B., S.T.B. Burlington

Edward Cyprian Nash, A.B. N. Bennington

Murray Nussbaum Brooklyn, N.Y.

Arthur Jason Perelman, A.B. Newark, N.J.

Charles Harold Perry, Jr. Plainfield

Paul Allan Prior, A.B. St. Albans

Novello Egidio Ruggiero Waterbury, Conn.

Stanley Schilling, B.S. Middlebury

George Allen Segal Bennington

Wendell Anthony Stinnes, A.B. Highgate Center

Robert Moran True, A.B. Freeport, Mr.

Ching-Hua Wang Hongkong, China

John Alexander Warden Bluefield, W. Va.

Jack Carlton White West Chester, Pa.

Clifford Keith Wilbur, Jr., B.S. Westbrook, Mr.
SECOND YEAR:
Richard MacDonald Adams, B.S.  E. Middlebury
Philip Adler, A.B.  New Britain, Conn.
William David Basque, A.B.  Pittsford
Bertrand Philip Bisson, A.B.  Barre
James Hall Bonney, A.B.  Bath, Me.
Charles Ruford 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.
John Joseph Cahill  Bennington
George Hubert Collins, A.B.  Burlington
Anna Temple Condos, B.S.  Concord, N. H.
Valmore Francis Cross  Stanford
Robert Isaac Davies  Poultney
Philip Hovey Davis  Albany, N. Y.
John Randall Eddy  Burlington
Richard Neil Fabricius, B.S.  Watervliet, N. Y.
Emmett Lawrence Fagan, Jr., A.B.  Rutland
Adolphe Friedman  New York, N. Y.
Emanual Goldberg, A.B.  Westwood, N. J.
Roger Francis Greenslet A.B.  Bennington

FIRST YEAR:
Marvin Charles Adams, B.A.  Orono, Me.
Aldo Louis Bellucci, A.B.  Manchester, Conn.
Eugene Julius Bluto, A.B.  Grand Isle
Dewees Harold Brown  Donora, Pa.
William Frederick Byrne, B.S.  Burlington
John Thomas Conroy, B.S.  Meriden, Conn.
Lucien Joseph Cote  Lyndonville
Allyn Bernard Dambeck, A.B.  W. Hartford, Conn.
Gerard Lucian Daniel  Swanton
Norman Franklin Dennis, A.B.  St. Albans
Leslie Herbert Gaalen, B.S.  Glen Ridge, N. J.
Manfred Isaac Goldwein, B.S.  Wilmington, Del.
Sarita Goodman  Brooklyn, N. Y.
Bernard Adolphus Gouchoe  Rutland
Joseph Anthony Jurkoic, B.S.  Bellows Falls
Francis Alexander Klimaszewski, A.B., M.Ed.  Antonia, Conn.

Delbert Dean Griffith  Bridgport, Conn.
Earl Murdock Head, D.M.D.  Montpelier
Myrcele 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  St. Albans
Robert John Manjoney  Bridgeport, Conn.
David Lincoln Maxham  Woodstock
Gerald Nicholas Needlemann  Bennington
Joseph Georgeポンポ rio  Rutland
Frederick Edward Pratt  N. Clarendon
Henry Gordon Ring  Springfield, Mass.
Richard Maurice Robert, A.B.  Brattleboro
Karl Lee Rohde, Jr., B.S.  Brandon
Oney Percy Smith, Jr.  Troy, N. Y.
Thaddeus Stabbholz  New York, N. Y.
John Cushman Twitchell  Burlington
Richard Charles Wolff, A.B.  Westfield, N. J.
John Anthony Zagroba, A.B.  W. Rutland

Mark Harold Lane, B.A.  Portland, Me.
Herbert Jason Levine, B.A.  Newton, Mass.
Clifford Goadby Loew, B.A.  Poultney, N. Y.
Michael John Lynch, B.S.  Poultney
Benjamin Harris MacK, A.B.  Shelburne
John Edmund Mazuzan  Northfield
Edmund Brown McNamara  Burlington
David Lothrop Mossman, A.B.  Burlington
Margaret Newton, A.B.  So. Gardner, Mass.
Elis Frances Noe, B.A.  Beacon Falls, Conn.
Jacqueline Noonan, B.A.  Hartford, Conn.
Peter John Palmisano  Barre
Leo Richard Parnes  Brooklyn, Mass.
Richard Bonner Presbrey  Waban, Mass.
Robert Summer Richards, B.S.  Danvers, Mass.
Albert Anthony Romanoff, A.B.  White River Junction
James Seward Shea, B.S.  Bennington
Marvin Silk, A.B.  Providence, R. I.
Herbert Carl Sillman, B.A.  W. Hartford, Conn.
Melvin David Small, B.A. Brookline, Mass.
Wendell Earl Smith, A.B. Randolph
John Peter Tampas
Robert John Thoren, A.B. New Britain, Conn.
Thomas Bartholomew Tomasi, A.B.
Henry Carmer Van Buren, A.B. Burlington

Richard Joseph West, B.S. Rutland
Herbert White, A.B. 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.
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 1950 is Robert K. Ward.

OFFICERS OF THE U.V.M. MEDICAL ALUMNI ASSOCIATION—1950

President—Dr. David M. Bosworth, '21, New York, N. Y.
Vice-President—Dr. Douglas J. Roberts, '16, Hartford, Conn.
Secretary-Treasurer—Dr. J. C. Cunningham, '35, Burlington, Vt.
Executive Committee—Dr. W. M. Flagg, '34, Burlington; Dr. T. H. Harwood, '36, Burlington; Dr. E. W. Pike, '19, Burlington
Obituary Committee—Dr. C. A. Newhall, '28, Burlington; Dr. Frank J. Lawliss, '23, Richford; Dr. J. C. O'Neil, '17, Burlington