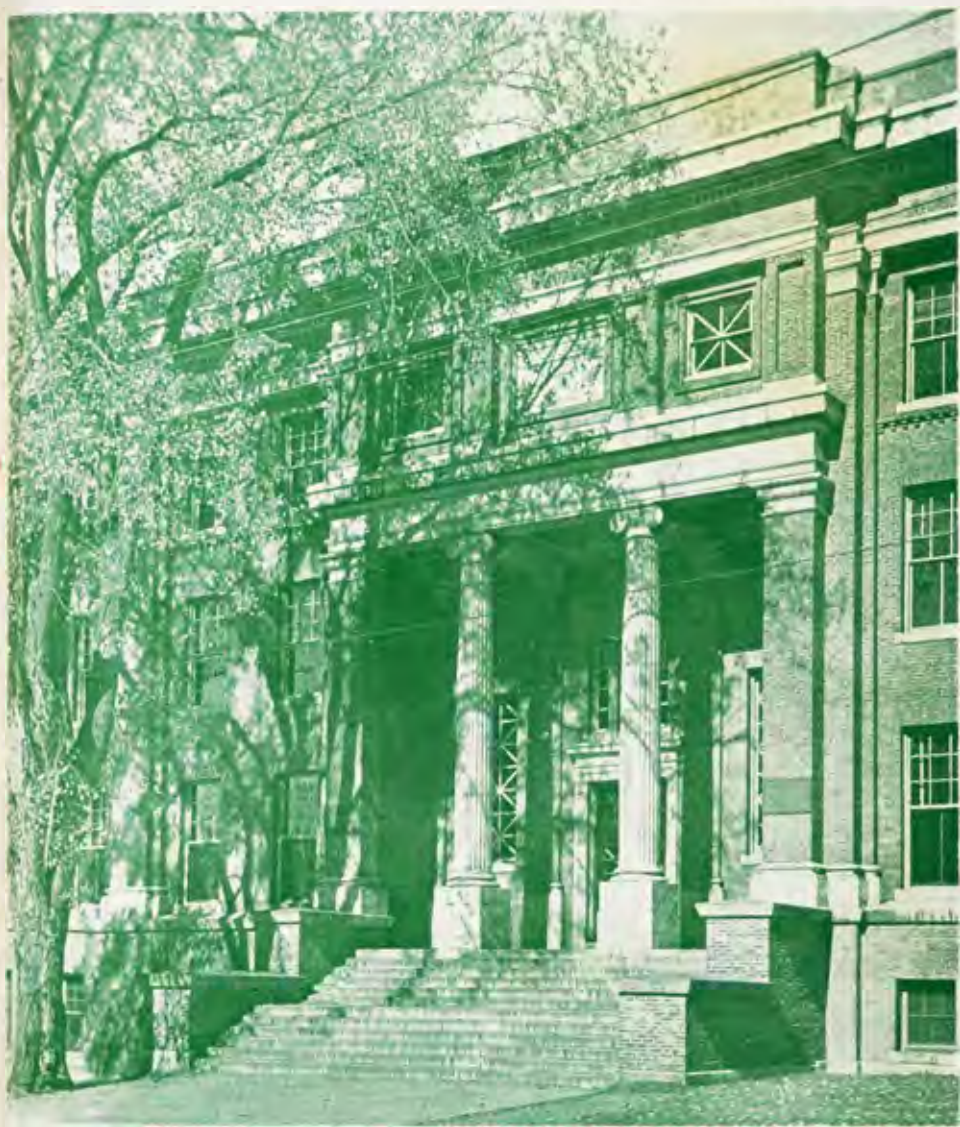


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COLLEGE OF MEDICINE



1959
1960

BULLETIN

VOLUME 57 NUMBER 5

UNIVERSITY
OF
VERMONT

BURLINGTON, VERMONT

DECEMBER 15, 1959



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OF
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THE COLLEGE OF MEDICINE NUMBER



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*Address all communications to the Dean's Office,
College of Medicine, University of Vermont,
Burlington, Vermont
Telephone UN 4-4511, extension 252*

CALENDAR

1959-60

September 18	Friday	Enrollment and payment of fees.
September 19	Saturday	Convocation
September 21	Monday	Class work and assignments begin.

1ST YEAR

1ST QUARTER: *Sept. 21 (Mon.) through Nov. 18 (Wed.)*

Sept. 21 Monday. Classes begin.

Nov. 14-18 Sat. through Wed. Midsemester examinations.

2ND QUARTER: *Nov. 19 (Thurs.) through Jan. 31 (Sun.)*

Nov. 25-29 Wed. noon through Sun. Thanksgiving recess.

Dec. 19-Jan. 3 Sat. noon through Sun. Christmas recess.

January 4 Monday. Classes resume.

Jan. 18-19 Mon. through Tues. No classes.

Jan. 20-27 Wed. through Wed. Examinations.

Jan. 27-31 Wed. through Sun. Vacation.

3RD QUARTER: *Feb. 1 (Mon.) through April 3 (Sun.)*

February 1 Monday. Classes resume.

February 2 Tuesday. Enrollment.

February 19-20 Friday and Sat. Kake Walk—no classes.

March 18-22 Friday through Tues. Midsemester examinations.

4TH QUARTER: *April 4 (Mon.) through June 12 (Sun.)*

April 9-17 Sat. noon through Sun. Spring recess.

April 18 Monday. Classes resume.

May 28 Saturday. Last day of classes.

May 31-June 7 Tues. through Tues. Examinations.

2ND YEAR

1ST FIFTH: *Sept. 21 (Mon.) through Nov. 4 (Wed.)*

Sept. 21 Monday. Classes begin.

Nov. 2-4 Monday through Wed. Examinations.

2ND FIFTH: *Nov. 5 (Thurs.) through Dec. 19 (Sat.)*

Nov. 5 Thursday. Classes resume.

Nov. 25-29 Wed. noon through Sun. Thanksgiving recess.

Dec. 17-19 Thurs. through Sat. Examinations.

Dec. 19-Jan. 3 Sat. noon through Sun. Christmas recess.

3RD FIFTH: *Jan. 4 (Mon.) through Feb. 18 (Thurs.)*

January 4 Monday. Classes resume.

February 2 Tuesday. Enrollment.

February 15-18 Mon. through Thurs. Examinations.

February 19-20 Friday and Sat. Kake Walk—no classes.

4TH FIFTH: *Feb. 22 (Mon.) through April 16 (Sat.)*

February 22 Monday. Classes resume.

April 6-9 Wed. through Sat. Examinations.

April 9-17 Sat. noon through Sun. Spring recess.

5TH FIFTH: *April 18 (Mon.) through June 12 (Sun.)*

April 18 Monday. Classes resume.

May 30 Monday. Memorial Day—no classes.

June 4 Saturday. Classes terminate.

June 6-11 Mon. through Sat. Examinations.

3RD YEAR

1ST TRIMESTER: *Sept. 21 (Mon.) through Dec. 13 (Sun.)*

Sept. 21 Monday. Classes begin.

2ND TRIMESTER: *Dec. 14 (Mon.) through March 13 (Sun.)*

Dec. 19-27 Sat. noon through Sun. Christmas recess.

Dec. 28 Monday. Assignments resume.

February 2 Tuesday. Enrollment.

3RD TRIMESTER: *March 14 (Mon.) through June 11 (Sat. noon)*

April 16-24 Sat. noon through Sun. Spring Vacation.

4TH YEAR

Sept. 21 Monday. Assignments begin.

Dec. 19-Jan. 3 Sat. noon through Sun. Christmas recess.

February 2 Tuesday. Enrollment.

April 16-24 Sat. noon through Sun. Spring recess.

May 21 Saturday. Last day of assigned work.

May 23-25 Mon. through Wed. Pre-examination days.

May 26-31 Thurs. through Tues. Examinations.

June 1-11 Wed. through Sat. Vacation.

June 12 Sunday. Graduation.

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ADMINISTRATION

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ROBERT THAYER HOLDEN, B.S. *Bennington, Vt.*

March, 1955—March, 1961

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(From Apr. 28, 1955)

March, 1956—March 1962

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March, 1957—March, 1963

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March, 1959—March, 1965

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THE COLLEGE OF MEDICINE

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Director of Health Studies
- JAMES HENRY BATES, B.S., M.Ed. *Executive Assistant*
CORNELIA JOSEPHINE BAYLIES, A.B.
Administrative Assistant
- MRS. MARGARET M. HINMAN, B.S.
Administrative Assistant (Admissions)

STANDING COMMITTEES

Effective July 1, 1959

Admissions—Dean Wolf*; Drs. Pierce **; R. Amidon; Lucey; Williams; Wallman.

Advancement—Dr. Pierce*; Executive Committee and appropriate Division Chairmen.

Intern—Dr. McKay* and appropriate staff.

Executive—Dean Wolf*; Drs. E. Amidon; Coon; Cunningham; Donaghy (1 yr.); Gallagher; Gladstone; Lezer; Mackay; Maeck; McKay; Newhall; Pierce; Sichel; D. Smith; Soule.

Subcommittees of the Executive Committee:

Curriculum—Drs. Schumacher*; A. H. Chambers; Tabakin.

Curriculum Study—Drs. Rice*; Bland; Macmillan; Page; Schein.

Library—Drs. Crowley*; A. Chambers; Eddy; Kunin; Lepeschkin; Miller; R. Smith. (Sichel; Withrow; Haviland, ex officio)

Postgraduate Education—Drs. French*; Bouchard; Cohen; Lantman; Mr. Bates.

Third-Year Lecture Committee—Drs. S. Allen*; Andrews; Bouchard; Laiden; Ring.

* Chairman

** Vice Chairman

HISTORY

The College of Medicine of the University of Vermont is one of the oldest institutions of its kind. 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 of 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 building at the head of Pearl Street which was occupied first in 1885.

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

In 1911 the faculty of the College of Medicine was reorganized and became an integral part of the University. In 1912 one year of college work was required for admission and the College of Medicine year was made equal in length to that of the academic college. Two full years of college work were required for admis-

sion in 1917. In 1920 women were admitted to the College of Medicine. In recent years all the students have completed four years of college prior to entrance into the College of Medicine.

In 1957 ground was broken for Phase I of a new College of Medicine building. Phase I was dedicated in September 1959.

FORM OF BEQUESTS

"I (we) hereby give and bequeath unto the College of Medicine of the University of Vermont and State Agricultural College of Burlington, Vermont, the sum of dollars for the use of the College of Medicine."

If it is desired that a gift shall be used in whole or in part for any specific purpose in connection with the College of Medicine, such use may be specified.

STUDENT INFORMATION

REQUIREMENTS FOR ADMISSION

The College of Medicine requires that an applicant hold a bachelor's degree, and that his four years of college work be taken 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 on year each of:

Biology

English

Fundamental mathematical principles, at the college level
(will be required effective September 1961)

Physics (including laboratory)

General Chemistry

Organic Chemistry

Quantitative Chemistry (a satisfactory one semester course)
or Physical Chemistry, including laboratory work

The College strongly recommends that the applicant while in college study in depth one or more fields of interest to him.

Correct English usage is demanded by all departments in the University. Written work of any kind which is unsatisfactory in manuscript form, grammar, punctuation, spelling, or effectiveness of expression may be penalized regardless of contents. Students whose written work falls below the standard of correct usage may be remanded to the English Department for additional instruction, even though the freshman course in English has been passed.

Students must complete satisfactorily all requirements for admission to the College of Medicine in any given year by July 1 preceding the September admission. Ordinarily courses taken in other than a liberal arts college will not meet our admission requirements.

Eligibility for admission to the College of Medicine of an applicant is determined by the Admissions Committee of the College of Medicine on the basis of the following:

1. The scholastic record of the applicant in his premedical work.
2. Personality and general fitness of the applicant for the study and practice of medicine as determined by recommendations of the applicant's college teachers and others, and by personal interview with the Admissions Committee.

3. The applicant's scores on the Medical College Admission Test. Such scores are taken into consideration but are not used as a final determinant in accepting students.

A maximum of fifty students is admitted to the entering class.

Preference for admission is according to the following priorities:

1. Qualified residents of Vermont.
2. Qualified residents of other New England states having contractual arrangements with the College of Medicine.
3. Qualified residents of other areas.

Sons and daughters of the alumni of the College of Medicine of the University of Vermont are given special consideration within the framework of the above policy.

Applications for admission to the class entering in September of any year will close January 1 preceding the September admission. Application blanks should be in by December 1 for early consideration.

An application fee of ten dollars, payable to The University of Vermont and State Agricultural College, must accompany all applications and is not refundable.

ENROLLMENT

On a day designated at the opening of each semester, registration and enrollment take place. Payment of one half of the 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 admission to 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 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 he 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 according to the policy for first-year students.

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

FEES AND EXPENSES

Application Fee	\$	10.00
Fee for late registration		6.00
Tuition Fee for each session for Vermont students		550.00
Tuition Fee for students not residents of Vermont		1,500.00
Microscope rental (required first and second years)		40.00
Locker Fee for each of first and second years		1.00
Locker Key Deposit—Paid on admission; refunded end of second year		1.00
	<i>Average Range</i>	
Room Rent	\$300.00 to	\$450.00
Board	400.00 to	500.00

Medical students may, by paying the student activity fee of \$15.00, become entitled to the benefits students receive from payment of that fee.

Living accommodations may be obtained with the help of the Housing Bureau in Waterman Building. Occasionally a list of available rooms in the vicinity is posted on the bulletin board in the College of Medicine building. The Dean's Office does not maintain a housing bureau.

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

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

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

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.

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

In the event of withdrawal from college, refunds are made as follows:

During the first week of any semester the full tuition is refunded. Thereafter 20% of the tuition is deducted for each week that has elapsed.

HONORS AND PRIZES

Certain students who have been top-ranking during the entire four years' course of study in the college may be graduated as Doctors of Medicine, *cum laude*, on recommendation of the Advancement Committee and the Faculty.

Prizes for general high standing for four years shall be awarded only to students who have been enrolled for four years at this college.

Clinical prizes may be awarded to any student who has spent the third and fourth years at this college.

Alpha Omega Alpha.—Honor medical society. Students are elected to this national society by faculty advisors and student members. Selection is based not only upon high academic records but also upon evidence of individual scholarship and promise for a medical career.

The Governor Woodbury Prizes.—The income from a fund of one thousand dollars provides annually two equal prizes. The first is awarded at graduation to the student who has shown the greatest proficiency in clinical work. The other is awarded to the sophomore having the highest standing in the subjects of the first two years. The amount of each prize is determined by the income obtained from the investment of the fund.

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

Lamb Foundation Prizes.—Prizes of \$150, \$100 and \$50 will be offered during the year 1959-1960 by the Lamb Foundation to students in the College of Medicine. The awarding of these prizes is based upon essays submitted concerning the problems of the physician-patient relationship.

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.

Needy Vermont residents are eligible for \$200 state scholarships. Upon receipt of the scholarship, the student will be required to sign notes for each year of state scholarship assistance. These notes will be payable serially beginning five years after graduation. If not paid by this time, interest will begin. Interest will not accrue if the notes are timely paid. The notes can be cancelled by the recipient practicing in the State of Vermont for each year for which scholarship aid was received.

Small scholarships, as well as loan funds, are available for needy students.

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 Dr. H. C. Tinkham Scholarship Fund was established by the will of Dr. Tinkham, the income to be used for scholarships for deserving students in the College of Medicine.

The John W. and John Seeley Estabrook Scholarship Fund was established by the will of John W. Estabrook, the income to be used for scholarships for students in the College of Medicine from Rutland County, with preference given to students from the town of Brandon.

The Edith Blanché 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.

The George W. Merck Memorial Loan Fund for interns and residents was established in 1959 by the Merck Company Foundation. It provides loan funds for selected graduates of this College of Medicine wherever they are in training, or to graduates of other medical schools who are in training at hospitals associated with this medical school. The Fund is administered by the Dean.

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. All requests for student aid should be made through the Dean's office.

REGULATIONS FOR COLLEGE OF MEDICINE STUDENTS

ATTENDANCE

a. Attendance upon the exercises assigned for the year is obligatory. Failure to attend 80 percent of the exercises of any course constitutes a failure in that course.

b. Students must wait ten minutes for an instructor or lecturer who is tardy. In case of examination, students are expected to remain at least 30 minutes.

c. No student is eligible for a medical degree who has not been registered in medical school four complete consecutive years unless a leave of absence has been granted by the Executive Committee. Resumption of study after other 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.

ADVANCEMENT

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

b. 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 session.

c. 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

grades 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.

d. Any student who has failed in 25 per cent or more of the major courses 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.

e. Students who fail 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 opening of the next school year. The highest final grade allowed for a course passed on re-examination shall be 75 per cent.

f. A student who, upon re-examination in any subject, again fails will be dismissed from the College. Such student may, however, petition the faculty to repeat the year.

g. A student, whose grade average for the year is less than 80, may be required, after review of his status by the Committee on Advancement and formal approval of the faculty, to withdraw from school.

h. 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 of Medicine.

i. 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 chairman of the department or division concerned.

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

k. Students shall not be apprised of their grades in any course or examination, nor of their exact standing in their class and they shall not have access to their grades from the files of the college or of the University.

l. Final written examination shall not be returned to students. If a student receives a failing grade in any final written examination or in any course, the final written examination shall be filed in the Dean's Office.

m. Final examinations may or may not be held, at the option of the departmental chairmen, with the approval of the Dean.

n. Final course marks are to be reported to the Dean's Office; if a course terminates in mid-term, final marks shall be reported to the Dean's Office within two weeks after such termination.

o. No student of the college, assigned to extra-mural duty, shall absent himself from such assignment except with permission of the preceptor and of the Dean.

1st year: 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.

2nd year: 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.

3rd year: 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.

4th year: 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 be 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 only upon the recommendation of the Committee on Advancement and the Faculty of the College of Medicine to the University Senate.

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

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

MEDICAL COLLEGE PROGRAM

The formal program of training in the College of Medicine consists of four years. During this period the student is taught the fundamental principles upon which he must continue to build all through life in order to keep himself informed of the most recent advances in the rapidly changing field of medicine. Specialized training in any area of medicine must come after graduation and may consist of from one to five years by means of internships, residencies, or research.

Those students who show an interest in the basic sciences and a desire to take further work are encouraged to do so in order to prepare themselves more adequately for the practice of medicine or for a career in academic medicine. Fellowships are available for summer research work or a year's leave of absence for research work in the basic sciences.

An experimental two-year integration program was begun during the year 1955-56 in an attempt to relate the work of the College of Arts and Sciences more closely to that of the College of Medicine and to make more gradual the transition to a much more specialized type of study.

GENERAL PLAN OF THE CURRICULUM

FIRST YEAR: Anatomy, physiology and biochemistry are integrated in such a fashion that topics are considered simultaneously by all departments in so far as possible. Thus when the abdomen is being dissected, the physiology of the gastro-intestinal system and the biochemistry of digestion are being considered at the same time. The students are introduced to psychobiology and preventive medicine during the first year.

SECOND YEAR: The curriculum is divided into three parts and correlated in time.

Course A, Morphology, Physiology and Chemistry of the Abnormal, runs throughout the entire year and includes pharmacology, pathology, clinical pathology, medical microbiology, psychopathology, preventive medicine and surface anatomy.

Course B, Elicitation of Data, includes history taking and examination which are taught cooperatively by the various specialists under the general supervision of an internist. This is given in the second semester only.

Course C, Introduction to Clinical Medicine, consists of didactic lectures and case presentations covering elementary medicine,

pediatrics, surgery, obstetrics, gynecology and oral medicine, and is given in the second semester.

The schedule varies from week to week because the subject material presented by the different departments is correlated.

THIRD AND FOURTH YEARS: The third and fourth years provide a continuing clinical clerkship under the direction of the major clinical departments. A one and a half-month vacation is afforded during the summer at the end of the third year. The schedule provides for clerkship experience in general and specialty hospitals, and includes ambulatory patient services in the Family Care Unit, the outpatient departments of the general hospitals, and in the home. Up to three months of elective time is provided for the student to pursue in depth an area of his interest.

TEACHING FACILITIES

THE COLLEGE OF MEDICINE BUILDINGS

The activities of the College of Medicine take place in a number of buildings on the University of Vermont campus. The Library, administrative offices, and laboratories of the Departments of Anatomy, Physiology and Biophysics, and Biochemistry are located in the original College of Medicine building.

Pharmacology occupies an adjacent structure. Part of the animal quarters are located in this area.

The Departments of Pathology, Medical Microbiology, and laboratories for clinical research are contained in Phase I of the new College of Medicine building which forms part of the eastern boundary of the University campus. Ultimately all of the basic science facilities will be located here.

The Department of Preventive Medicine and the Family Care Unit occupy the Roberts House south of the campus.

HOSPITALS

THE MARY FLETCHER HOSPITAL. This general hospital has 261 beds and 37 bassinets. It has been associated with the College of Medicine as a teaching hospital since 1879, and treats all diseases without limitation. Most recent development has been open-heart surgery. The hospital has a yearly average of approximately 67,000 patient days. 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 patients by attending staff men as members of the faculty of the College of Medicine. The hospital's

facilities have been expanded almost continuously. In the past year the hospital has constructed a convalescent unit and new radiation therapy center housing a 2-million-volt accelerator in addition to other equipment. Buildings to cost \$2,700,000 are now under construction which will provide greatly expanded services and 75 additional beds. When these buildings are completed in 1961 the hospital will have 336 adult beds. The hospital is approved by the American Medical Association for intern training and for residencies in anesthesia, medicine, neurology, neurosurgery, obstetrics-gynecology, otolaryngology, pathology, pediatrics, radiology, surgery and urology.

Besides medical teaching, educational programs are conducted in nursing, x-ray technique, laboratory technology, hospital administration and physical therapy. Research is an important part of the hospital program.

THE DEGOESBRIAND MEMORIAL HOSPITAL. The DeGoesbriand Memorial Hospital is a modern and completely equipped general hospital and houses the Vermont Rehabilitation Center. An additional floor for clinical research purposes has recently been completed, and an 80-bed long-term illness facility is presently under construction. The present capacity is 220 beds and 35 bassinets. When the present facility which is now under construction is completed, the total capacity will be 300 beds with 35 bassinets. All the clinical services are represented in the approximately 57,960 patient days. All cases, service and private, are used for teaching and medical students are under the supervision of the attending staff who are members of the faculty of the College of Medicine.

The DeGoesbriand Memorial Hospital is fully approved for intern training and has joint residency programs under the University of Vermont College of Medicine. These are approved in anesthesia, general practice, medicine, neurology, neurosurgery, obstetrics-gynecology, otolaryngology, pathology, pediatrics, radiology, surgery and urology.

Fourth-year students may spend periods of time at the following institutions under the supervision of a preceptor who reports to the College of Medicine.

Fanny Allen Hospital (Winooski)—An 86-bed general hospital.

Putnam Memorial Hospital (Bennington)—A 96-bed general hospital.

Springfield Hospital (Springfield)—A 47-bed general hospital.

Rutland Hospital (Rutland)—A 140-bed general hospital.

Brightlook Hospital (St. Johnsbury)—A 55-bed general hospital.

Veterans Administration Hospital (Sunmount, N. Y.)—A 564-bed tuberculosis hospital, with the teaching program supervised by Dean's Committee.

Ray Brook State Tuberculosis Hospital (Ray Brook, N. Y.)—A 350-bed tuberculosis hospital.

Vermont State Hospital (Waterbury)—A 1,125-bed state psychiatric hospital.

Brattleboro Retreat (Brattleboro)—A 750-bed mental hospital.

*All of the above institutions are approved
by the Joint Committee on Accreditation.*

The Elizabeth Lund Home—A home for 24 unmarried mothers, used for the teaching of normal obstetrics and newborn care.

St. Joseph's Orphanage—Ten to fifteen children are observed in weekly sick call. Average census, 125 children.

St. Joseph's Home—With 35 geriatric patients.

Children's Home—Approximately 12 children are observed under similar conditions.

AMBULATORY PATIENT AND HOME CARE FACILITIES

THE FAMILY CARE UNIT. The Family Care Unit is located in the Preventive Medicine Building at 232 South Willard Street (corner of Maple and South Willard Streets). It is a comprehensive medical care program with emphasis on general practice demonstration. Juniors and Seniors participate in the program throughout the year under the supervision of the Department of Preventive Medicine. In pairs of a junior and a senior, health supervision and maintenance is provided to families.

DURFEE MEMORIAL CLINIC. The Clinic is located at the Mary Fletcher Hospital. Approximately 10,782 free and part-pay patient visits are referred by the Family Care Unit and practicing physicians and studied in general and specialty clinics under the supervision of medical college staff specialists.

DEGOESBRIAND MEMORIAL OUTPATIENT DEPARTMENT. Four thousand five hundred five visits to general and specialty clinics

are made annually. These clinics are supervised by University of Vermont staff members.

PRECEPTORSHIPS IN GENERAL PRACTICE. Selected practitioners about the State accept fourth-year students, on an elective basis, in their homes and offices for one month of experience in general practice.

MEDICAL LIBRARY

The Medical Library is located on the second floor of the College of Medicine Building.

The collection, totalling 15,000 volumes, consists of textbooks, monographs and periodicals in the field of the medical sciences. Approximately 600 periodical subscriptions are received currently.

Instruction in the use of the library and in the preparation of medical bibliography is available for students and staff in the College.

The library has facilities for microfilm projection and can obtain microfilms of material which it does not possess. Photostats also may be ordered. Original material may be obtained through inter-library loan.

Students and staff have free access to the University Library's collection, located 100 yards from the College of Medicine Building.

MEDICAL MUSEUM

The College of Medicine maintains a museum with a collection of pathological specimens for use in teaching.

STATE LABORATORY FACILITIES

In addition to the teaching laboratories of the College of Medicine, the new laboratories of the Vermont State Department of Health are available for bacteriological, diagnostic, serological, medico legal, food and water testing.

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.

FIRST YEAR SCHEDULE

1959-60

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8:00- 8:50	Biochemistry	Biochemistry (first 9 wks.) Anatomy (remainder of yr.)	Biochemistry	Psychology** Discussion Groups**		Biochemistry
9:00- 9:50			Anatomy		Biochemistry	
10:00-10:50	Anatomy*	Anatomy	Physiology	Physiology		Anatomy
11:00-11:50						
1:00- 1:50						
2:00- 2:50	Anatomy	Free	Physiology (sec. a)	Physiology (sec. b)	Anatomy	
3:00- 3:50						
4:00- 4:50						

*Includes Gross Anatomy, Histology, Embryology and Neuro-anatomy.

**Meet alternate weeks.

SECOND YEAR SCHEDULE

First Three-fifths of Year 1959-60

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8:00-8:50						
9:00-9:50	Pathology	Medical Microbiology	Pathology	Pathology	Pathology	Free
10:00-10:50						
11:00-11:50	Pharmacology	Pharmacology	Course C: Introduction to Clinical Medicine			
1:00-1:50			Pharmacology	Pharmacology		
2:00-2:50	Pharmacology (sec. a)	Pharmacology (sec. b)				
3:00-3:50			Medical Microbiology		Medical Microbiology	
4:00-4:50						

There are some variations in this schedule from week to week.

SECOND YEAR SCHEDULE

Last Two-fifths of Year 1959-60

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8:00-8:50		Course C: Introduction to Clinical Medicine	Course C: Introduction to Clinical Medicine	Course C: Introduction to Clinical Medicine		Course C: Introduction to Clinical Medicine
9:00-9:50	Course A: Pathology	Course B: Elicitation of Data Physical Diagnosis	Course B: Elicitation of Data Neurological Diagnosis	Course B: Elicitation of Data History Taking	Course A: Pathology	
10:00-10:50			Course A: Public Health	Course B: Elicitation of Data Radiological Diag.		
11:00-11:50	Course C: Introduction to Clinical Medicine	Course A: Psycho- pathology	Course C: Introduction to Clinical Medicine	Course C: Introduction to Clinical Medicine		
1:00-1:50	Course B: Elicitation of Data			Course A: Public Health	Free	
2:00-2:50	Course B: Elicitation of Data	Course A: Pathology		Course B: Elicitation of Data		
3:00-3:50						
4:00-4:50						

There are some variations in this schedule from week to week.

THIRD YEAR SCHEDULE

1959-60

Surgical Trimester (12 weeks)

(Other trimesters are: Medicine and Pediatrics-Obstetrics-Surgical Specialties)

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8:00-9:00	Tutor	G. U.	Tutor	Fracture Conference	Tutor	Surgical Conference
9:00-10:00	Neurosurgical Rounds	Orthopedic Rounds				Grand Rounds
10:00-11:00	One student weekly to x-ray					
11:00-12:00		FNT conference				Orthopedic conference
12:00-1:00	Special lecture	Special lecture	Special lecture	Special lecture	Special lecture	
1:00-2:00				Anesthesia		
2:00-3:00		Otolaryngology	Pathological-Surgery Conference		Urology	
3:00-4:00		Chest Conference			Thoracic Surgery	
4:00-5:00	x-ray conference	Surgical Rounds	Oncology	Surgical Rounds	Surgical Rounds	

All hospital rounds and conferences not listed will be available for student attendance. Students spend unassigned time on the wards of the hospitals as clinical clerks. During the year, students will participate in the Family Care Unit program.

FOURTH YEAR SCHEDULE

1959-1960

Detail of Rotation

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Medicine	Pediatrics Psychiatry	Surgery	Obstetrics Elective

In subsequent years a 2-month elective period will be added.

SUMMARY OF STUDIES 1959-1960

CLASSROOM AND LABORATORY HOURS

<i>First Year</i>	<i>Hours</i>
*Gross Anatomy	324
*Biochemistry	214
Discussion Groups	6
*Histology and Embryology	148
*Neuro-anatomy	96
*Physiology	248
Psychobiology	32
Total hours	1,068

<i>Second Year</i>		<i>Hours</i>	
<i>Course A</i>	<i>1st Semester</i>	<i>2nd Semester</i>	<i>Total</i>
Anatomy	30		30
*Medical Microbiology	165		165
*Pathology and Clinical Pathology	222	188	410
*Pharmacology	84	80	164
Psychopathology		16	16
Preventive Medicine		31	31
Total hours	501	339	840
<i>Course B</i>			
*Elicitation of Data		141	141
<i>Course C</i>			
*Introduction to Clinical Medicine		95	95
Total hours for year	501	575	1,076

CLERKSHIPS

Third Year

The year consists of 36 weeks devoted predominantly to clinical work on the ward services of the two major teaching hospitals in Burlington. The work is divided into periods of clinical clerkships as follows: Medicine (12 weeks), Pediatrics (4 weeks), Surgery (12 weeks), Obstetrics and Gynecology (4 weeks), Surgical Specialties (4 weeks). The approximate total number of hours is 1,584 (36 weeks x 44 hours).

Fourth Year

This year consists of 36 weeks divided into 4 9-week periods, devoted entirely to clinical work. This takes place in outpatient departments, on a home care service, and on the wards of general and specialty hospitals. The approximate total hours is 1,584 (36 weeks x 44 hours).

*Major subjects.

ORGANIZATIONS

STUDENT COUNCIL

Elected representatives from each class form a student council which meets with the Dean monthly during the academic year.

ALPHA OMEGA ALPHA

A chapter of the national medical honor society was installed at this College on November 21, 1952.

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.

STUDENT AMERICAN MEDICAL ASSOCIATION

A chapter of the Student American Medical Association was established in 1959.

OFFICERS OF THE U. V. M. MEDICAL ALUMNI ASSOCIATION 1959-1960

President—DR. DAVID B. PITMAN, '33, Port Washington, N. Y.

Vice-President—DR. JOHN C. CUNNINGHAM, '35, Burlington

Secretary-Treasurer—DR. RALPH D. SUSSMAN, '38, Burlington

Executive Committee—DR. ARTHUR A. GLADSTONE, '31, *Chairman*, Burlington; DR. A. BRADLEY SOULE, JR., '28, Burlington; DR. OLIVER R. EASTMAN, '38, Burlington

Obituary Committee—DR. WILLIAM T. FAGAN, JR., '48, *Chairman*, Burlington; DR. CHESTER A. NEWHALL, '28, Burlington; DR. CHARLES B. RUST, '39, Burlington

THE DEPARTMENTS IN THE COLLEGE OF MEDICINE

THE DEPARTMENT OF ANATOMY

Thayer Professor of Anatomy: NEWHALL (*Chairman*)
Professors of Anatomy: *DUNIHUE, STULTZ
Assistant Professor of Anatomy: W. CHAMBERS.

This Department is concerned with teaching undergraduate students the fundamental morphology of the human body correlated with function. In addition, its research projects are concerned with the histology of the kidney in relation to pressor and depressor substances, the developmental mechanics of the vertebrate nervous system and limbs, the investigation of certain anomalies, the electro-physiological investigation of cerebellar nuclei, and a study of the nutritional status of residents of the northeast area.

Staff members have enjoyed training and teaching experience at Yale, New York University, the Medical College of South Carolina, the Medical College of Georgia, the University of West Virginia, the University of Pittsburgh, the University of Wisconsin, Vanderbilt University, and the University of Pennsylvania. All staff members are full time in the Department of Anatomy.

First year courses for medical students are given in histology (including embryology), gross anatomy and neuro-anatomy. The program provides for the microscopic study of tissues and for the gross study and identification of structures by means of dissections and the use of cross sections. In the second year, a one-semester course is given in surface and radiological anatomy. The facilities of the laboratory are available to physicians and nurses.

Anatomy is taught to X-ray technicians and the members of the staff cooperate in extension activities for postgraduate physicians and the lay public.

Work in the several branches of Anatomy leading to credit for a Master of Science degree can be arranged.

Graduate Courses

The following courses are designed for credit toward a Master of Science degree, in one or another of the subdivisions of Anatomy.

Prerequisites: A prerequisite for acceptance to candidacy should be an undergraduate major in Zoology, with particular

* On leave September 1, 1959 to August 31, 1960.

emphasis on one or another of its branches such as Comparative Anatomy, Comparative Embryology, Comparative Histology and Comparative Neuroanatomy.

Permission of the Department Chairman is also required.

201-202 *Medical Histology*. Based on the regular medical course. The microscopic study of cells, tissues and organs using routine techniques. **Prerequisite:** Undergraduate major in Zoology. Lectures and laboratory, 140 hours. Six credit hours. Drs. Dunihue and Chambers.

211-212 *Gross Anatomy*. The course as given to medical students. Study of the gross structure of the human body by means of general dissection, cross-sections and special dissections. **Prerequisite:** Undergraduate major in Zoology. Lectures and laboratory, 320 hours. Fourteen credit hours. Drs. Newhall and Stultz.

222 *Neuroanatomy*. As designed for the regular medical curriculum. Gross and microscopic study of the central nervous system, by means of dissection of the brain, accompanied by microscopic examination of stained sections and reconstructions of the principal nervous pathways. **Prerequisites:** 201-202 and 211-212. Lectures and laboratory, 100 hours, last quarter of year. Four credit hours. Drs. Chambers and Dunihue.

231 *Surface and Radiological Anatomy*. This is a second year medical school course in Living Anatomy in which all available landmarks are studied and utilized in the placement of internal structures. A complete series of radiological plates is used to correlate radiological landmarks with the positions of deep structures. **Prerequisite:** 211-212. Lectures and laboratory for one semester. Two credit hours. Dr. Stultz.

301-302 *Special Histology*. Specific work as agreed upon by the instructors and the graduate student. A study of selected cells, tissues or organs by means of special techniques. **Prerequisite:** 201-202. Conferences and laboratory. Hours and credit as arranged. Drs. Dunihue and Chambers.

305-306 *Special Problems in Embryology*. Specific work as agreed upon by student and instructor. The study of some particular embryological problem utilizing special techniques, with directed reading. **Prerequisite:** Undergraduate course in Comparative Embryology (such as Zoology 111 at U. V. M.) and in particular cases, in Experimental Embryology (as Zoology course

222, U. V. M.) Hours and credit as arranged. Drs. Dunihue and/or Stultz.

311-312 *Special Problems in Gross Anatomy.* Special dissections of particular regions of the human body, utilizing both adult and fetal material. Investigative work designed to further our particular knowledge of some special structure or relationship. Prerequisite: 211-212. Laboratory, special readings and discussions. Hours and credit as arranged. Drs. Stultz and Newhall.

321-322 *Special Problems in Neuroanatomy.* The study of some particular phase of Neuroanatomy, as selected by mutual consent, including minor investigations designed to serve as an introduction to research. Prerequisite: 222. Readings, conferences and laboratory work. Hours and credit as arranged. Drs. Chambers and Dunihue.

381, 382, 383, 384 *Seminars in Anatomy.* Attendance at departmental or sectional seminars. Designed to review the more recent literature and findings in one or another of the various branches of Anatomy. Prerequisite: graduate standing. Hours and credit as arranged, such as 2 x 1 hours per week and two credit hours. The Staff.

391, 392, 393, 394 *Thesis Research.* Investigation of a research topic under the direction of an assigned staff member, designed to culminate in an acceptable Master's thesis. Credit as arranged.

THE DEPARTMENT OF BIOCHEMISTRY

<i>Professors of Biochemistry:</i>	PIERCE (<i>Chairman</i>), ROBERTSON (<i>also Associate Professor of Experimental Medicine</i>).
<i>Associate Professors of Biochemistry:</i>	GJESSING, LAMDEN, SCHEIN.
<i>Associate Professor of Clinical Biochemistry:</i>	SIMS (<i>also Associate Professor of Medicine</i>).
<i>Instructors in Clinical Biochemistry:</i>	KUNIN (<i>also Instructor in Medicine</i>), LAGRANGE.

The primary aim of the Department is to provide a sound biochemical foundation for the study of medicine.

Medical biochemistry is taught throughout the first year by means of lectures, conferences, seminars and laboratory. The work is integrated with that in physiology and anatomy so that, insofar as possible, functional systems are considered concurrently by the three disciplines. Exercises are conducted upon animal and man whenever feasible. Members of the Department give lectures in other departments when the subject matter is related to biochemistry.

Every summer selected medical students are offered research fellowships in biochemistry for 8 to 10 weeks.

A program leading to the Doctor of Philosophy degree is offered jointly by the Departments of Biochemistry and Agricultural Biochemistry. The Department of Biochemistry also offers a graduate program leading to the Master of Science degree.

Courses in biochemistry are given to medical technologists, to students working for their baccalaureate degree in nursing, and to students in dental hygiene.

The staff is made up of members who prior to coming to the University of Vermont have served as teachers and investigators at the University of Rochester, the University of Iowa, Yale, Massachusetts Institute of Technology, Cornell University and the National Cancer Institute. Two of the men have been certified by the American Board of Clinical Chemistry and one man by the American Board of Nutrition. Senior staff members belong to the usual professional societies in the fields of chemistry and medicine.

There are eight senior and five junior members. Three members have joint appointments with the Department of Medicine.

Specific research is being conducted on human nutrition, proteins and protein metabolism, metabolism of purines and pyrimid-

ines, enzymes, connective tissue, endocrinology, growth factors and water and electrolyte balance.

Members of the staff participate in clinical conferences in the local hospitals.

Graduate training includes the following:

Graduate Courses

Prerequisite—Permission of the Department Chairman.

201-202. *Medical Biochemistry*

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

Lectures and conferences, 50 hours, first semester; 50 hours, second semester; laboratory, 60 hours, each semester. 5 credit hours each semester.

301. *Enzymology*

The general principles of enzyme chemistry are studied using specific enzymes as examples. Topics considered will include isolation, purification, and characterization of enzymes; kinetics, specificity, inhibitors, enzyme-substrate interactions, the nature of the active site, induction and adaptation. Laboratory experiments are chosen to demonstrate the subject matter and to acquaint the student with a wide variety of techniques used in enzymology.

Lectures, seminars and laboratory. Open to all properly qualified students. One semester, 5 credit hours.

311-312. *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. Offered either first or second semester and in summer. Open to all properly qualified students. 2 credit hours per semester.

321, 322. *Food and Nutrition*

Topics to be discussed 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*. Offered either first or second semester. Open to all properly qualified students. *2 credit hours*.

351. *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.

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

Lectures and seminars, *2 x 1.5 hours per week*. *1st semester*. Laboratory *1 x 4 hours per week*. *5 credit hours*.

361. *Vitamins in Metabolism*

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

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

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

Laboratory, *1 x 4 hours per week*. *1st semester*. Open to all properly qualified students. *5 credit hours*.

371. *Physical Biochemistry*

Topics to be discussed will be concerned largely with proteins and the methods and tools used in their investigation. The course will include protein interaction, solubility and fractionation, electrophoresis, sedimentation, phase rule study, diffusion, viscosity and spectrophotometry. In addition, recent methods for analysis of proteins such as column and paper chromatography and counter current distribution will be discussed.

Lectures and seminars 2 x 1 hour per week. Open to all properly qualified students. 2 credit hours.

381-384; 481-484. *Seminar*

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

1 x 1 hours per week. 2nd semester. Hours to be arranged. Open to all properly qualified students. 1 credit hour.

391-394; 491-494. *Thesis Research*

Investigation of a research topic under the direction of an assigned staff member, culminating in an acceptable Master's or Doctor's thesis.

Prerequisite—Bachelor's degree in Chemistry and departmental consent. *Credit as arranged.*

THE DEPARTMENT OF MEDICAL MICROBIOLOGY

Professor of Medical Microbiology: GALLAGHER (*Chairman*)
Instructor in Medical Microbiology: SURIANO

The primary objective of the course in Medical Microbiology is to impart to the student an understanding of the fundamentals of infectious disease. Accordingly, emphasis is placed on such aspects of the subject as modes of transmission, methods of disease production, the immune response of the body and epidemiology.

The course is given during the first three-fifths of the sophomore year. After a brief survey of the general biological characteristics of bacteria and of essential laboratory technics, a detailed consideration is then given to the general principles of infection and resistance. The remainder of the course is devoted to studies of the various groups of infectious agents. Laboratory exercises are designed to reinforce the didactic material by observation and handling of the individual species of bacteria, fungi and viruses. Certain basic serologic technics and the separation and identification of bacteria from "unknown" mixtures further round out the laboratory sessions.

Other teaching activities of the department include graduate study leading to the degree Master of Science, and a course in Bacteriology for students in the School of Dental Hygiene. Research in the areas of bacterial physiology, virology and immunology occupy the time of the staff members which is not devoted to teaching. While the members of the department have no formal responsibility for clinical teaching, they do participate in clinical conferences on infectious disease problems.

Formal graduate study in bacteriology consists of the following courses:

Graduate Courses

Prerequisite—permission of the Department Chairman.

201. *Medical Microbiology*. First semester, 7 credit hours.

301. *Special Problems in Bacteriology*. Minor investigations in bacteriology designed to serve as an introduction to research.

Prerequisite—Medical microbiology or its equivalent. 2 credit hours.

302. *Special Problems in Immunology.* Minor investigations in immunology and serology designed to serve as an introduction to research.

Prerequisite—Medical microbiology or its equivalent. 2 credit hours.

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

391, 392, 393, 394. *Thesis Research.*

Investigation of a research topic under the direction of an assigned staff member, designed to culminate in an acceptable Master's thesis.

Prerequisite—Courses 301 and 302. *Credit as arranged.*

THE DEPARTMENT OF MEDICINE

<i>Professor of Medicine:</i>	E. L. AMIDON (<i>Chairman</i>)
<i>Professors of Clinical Medicine:</i>	FRENCH, WOLF.
<i>Associate Professors of Medicine:</i>	S. ALLEN, SIMS (<i>also Associate Professor of Clinical Biochemistry</i>).
<i>Associate Professors of Clinical Medicine:</i>	BLAND, TERRIEN, UPTON.
<i>Assistant Professor of Medicine:</i>	TABAKIN.
<i>Assistant Professors of Clinical Medicine:</i>	R. AMIDON, BANNON, DESAUTELS, E. JOHNSTON, KLEMPERER, LAMBIE, MEDIVETSKY, O'BRIEN.
<i>Assistant Professor of Oral Hygiene and Dental Medicine:</i>	SAWABINI.
<i>Instructors in Medicine:</i>	BOUCHARD, HANSON, KUNIN (<i>also Instructor in Clinical Biochemistry</i>), R. SMITH (<i>and in Preventive Medicine-Rehabilitation</i>), WELSH.
<i>Instructors in Clinical Medicine:</i>	W. PRATT, SURAWICZ (<i>also Assistant Professor of Experimental Medicine</i>).
<i>Clinical Associates in Medicine:</i>	COLOMBO, J. CORLEY, EDDY, FRIEDMAN, HEININGER, JANUARY, MACDONALD, SAJA, TWITCHELL, WAINBR, WALSH.

A department of medicine must accept the general opinion of medical educators, that medicine constitutes the central core of teaching, especially in the last two years. From this core the specialties grow. With this concept in mind, the Department has been built on a broad base. Members of the Department are highly trained in the broad field of internal medicine, and most have additional training in some specific aspect of this field. Many of the members maintain intimate contact with one of the basic science departments. This arrangement tends to bridge the gap between preclinical and clinical instruction.

A well-balanced department, capable of training physicians must have adequate personnel, space, and equipment. Such a department must teach, do research, and care for patients. A balance should result in understanding the disease process; its pathology, patho-physiology and biochemistry. This information must be transferred as completely and accurately as possible to the student. The information thus gained, when applied to a given patient, should indicate the proper steps for treatment and thus result in the proper care of the patient, which is the ultimate goal.

The staff of the Department numbers thirty-four. Staff members are carefully chosen and are certified by their respective

Boards. The Junior men are either members of, or eligible for their Boards. Investigation is being done in renal, pulmonary metabolic and cardiac function, both in health and disease.

An integral part of the Department is a well-equipped cardiopulmonary laboratory which is supported by the College of Medicine, the Vermont Heart Association, the Vermont Tuberculosis and Health Association and the Mary Fletcher Hospital. Its Director is a full-time member of the Department.

Students begin their intimate contact with members of the Department in their second year. They are given an introductory course in clinical medicine in conjunction with the teaching of history-taking and physical diagnosis. Many hours are spent with patients under the close supervision of members of the Department.

During the third year students serve as clinical clerks. Most of the teaching during this period is at the bedside but supplemented by conferences and lectures. An opportunity for original investigation is offered all students.

The fourth-year students are taught through the medium of outpatient clinics, sanatoria, and the patients' homes. It is hoped that the student will be exposed to total patient care.

The weekly departmental conferences are attended not only by students, house staff, and members of the Department, but by many physicians throughout the state.

DIVISION OF DERMATOLOGY

Professor of Dermatology: DALY (Chairman).
Associate Professor of
Clinical Dermatology: FLOWER.

Case demonstrations of cutaneous disease, seminars, informal discussions and demonstrations are employed to present an outline of the field of dermatology to third-year students. Such instruction is carried out in groups of about fifteen during the trimester devoted to Medicine.

Fourth-year students receive practical instruction with patients in the outpatient clinics of the hospitals.

Consultation service to the hospitals is provided in dermatology and syphilology and limited instruction of nursing students is conducted. Staff members represent the University at local, regional and national meetings of dermatological societies and present occasional papers for non-dermatological groups in this region.

Both members of the staff are diplomats of the American

Board of Dermatology and Syphilology, Fellows of the American Academy of Dermatology and Syphilology, and of the Montreal and New England Dermatological Societies. Both staff members are part-time personnel.

DIVISION OF EXPERIMENTAL MEDICINE

<i>Professors of Experimental Medicine:</i>	RAAB (<i>Chairman</i>), LEPESCHKIN
<i>Associate Professor of Experimental Medicine:</i>	ROBERTSON (<i>also Professor of Biochemistry</i>).
<i>Assistant Professor of Experimental Medicine:</i>	SURAWICZ (<i>also Instructor in Clinical Medicine</i>).

The aims of the Division include stimulating among students and clinical staff a tendency to approach clinical questions in terms of their experimentally-established physiological background, and to contribute to the progress of clinical medicine by means of experimental techniques. The research activities of the Division concentrate on cardiovascular, neurovegetative, endocrine and metabolic problems.

Aided by grants from the U. S. Public Health Service, the American Heart Association, the Vermont Heart Association, the American Medical Association, and the U. S. Navy, research problems are being studied which involve derangements of the adrenergic-cholinergic balance in myocardial metabolism; the role of physical activity and inactivity respectively in cardiac health; protection of the heart muscle by drugs against degeneration; cardiotoxic effects of chronic sympathetic stimulation; correlation of the electrocardiogram with body build; the electrocardiogram during exercise and the effect of electrolyte imbalance on electrocardiogram, action potential and contractility of the heart in experimental animals; study of the role of ascorbic acid in the synthesis of collagen and mucopolysaccharides; hormonal effects on connective tissue.

The staff is comprised of two internists who are certified by the American Board of Internal Medicine and an electrocardiologist. Two staff members are authors of books related to their specialties. An associate professor who has a joint appointment with the Department of Biochemistry and an assistant professor who is also an instructor in medicine pursue active research and teaching programs.

A library of cardiological literature (14 foreign journals and more than 15,000 reprints) is maintained by the Division. New

spacious research laboratories for the clinical Cardiovascular Research Unit of the Division at the DeGoesbriand Memorial Hospital were opened in August 1959, with up-to-date equipment.

Teaching of undergraduate students includes lectures, ward rounds, demonstration of electrocardiograms and phonocardiograms. In addition, the staff participates in clinical, clinicopathological and correlation conferences, and arranges special courses and international symposia for graduates in cardiology and endocrinology.

DIVISION OF NEUROLOGY

<i>Professor of Neurology:</i>	SCHUMACHER (<i>Chairman</i>).
<i>Associate Professor of Clinical Neurology:</i>	STEPHENSON (<i>Electro-encephalography</i>), (<i>also Assistant Professor of Clinical Psychiatry</i>).
<i>Assistant Professor of Clinical Neurology:</i>	MARTIN.
<i>Instructor in Clinical Neurology:</i>	MARSHALL, MCKEE.

The primary function of the Division is to provide instruction to undergraduate medical students in the field of diseases of the nervous system. The Division of Neurology also carries on the training program for graduate physicians appointed to the hospital Residency in Neurology. In addition, the Division is engaged in research in the field of nervous system disease.

The undergraduate teaching program is spread over the second, third and fourth years. During the second year, the emphasis is on the techniques of examination, the common methods of eliciting and analyzing data, and training in neurological diagnosis. Didactic lectures are given in order to provide better understanding of and guidance in the carrying out of the neurological examination. Opportunity is provided to small groups of students for performance of a complete neurological examination on each other and on patients with nervous system disease.

During the third year several lectures are given to the entire class in order to provide broad orientation in the field of nervous system disease. No attempt is made to present didactically a series of individual disease syndromes. In addition, during the clinical clerkship on medicine, the student is assigned in rotation service patients and selected private patients admitted to the neurological service. Patients with nervous system disease are presented by the students at the regular weekly neurological conference held

for the clinical clerks on the floors of either the Mary Fletcher or DeGoesbriand Memorial Hospitals.

During the fourth year, instruction in neurology is confined essentially to participation in the work of the Neurology Out-patient Clinics. Small groups of students are assigned to the Clinics, which meet once a week, and students perform complete neurological examinations on new patients. At this time the student is expected to record his complete diagnostic formulation and plan of management. The work is closely supervised and checked. One-month electives for clinical work in neurology on the hospital wards are available to fourth-year students.

Interns obtain training by rotation through the neurological service at the Mary Fletcher and the DeGoesbriand Memorial Hospitals. Rounds and conferences take place, at which selected diseases of the nervous system are presented. The Resident staff in Neurology is assigned to both hospitals and assists in the instruction of third and fourth year students.

The staff consists of one full-time and four part-time clinical teachers, and three resident neurologists. Activities of the staff, in addition to teaching and research, consist of talks before hospital staff groups and the presentation of papers at state, regional, or national society meetings.

Collaboration in research and neurologic training of the staff of the Vermont State Hospital at Waterbury is provided through this Division. The staff participates in the clinics sponsored by the Vermont Association of the Crippled, including Speech and Hearing Clinics and Cerebral Palsy Clinics. Members of the staff function on the medical advisory boards and committees of regional and national voluntary medical societies and serve as neurological consultants to various hospitals and agencies. Lectures are given to three schools of nursing.

DIVISION OF PSYCHIATRY

<i>Professor of Psychiatry:</i>	CHITTICK (Chairman)
<i>Associate Professor of Clinical Psychiatry:</i>	YOUNG.
<i>Assistant Professors of Clinical Psychiatry:</i>	BROOKS, STEPHENSON, COHEN.
<i>Instructors in Clinical Psychiatry:</i>	CARON, FOREST, MARSHALL.
<i>Instructor in Clinical Psychology:</i>	ELDRED.
<i>Clinical Associates in Psychiatry:</i>	HUESSEY, TOMPKINS.

This Division provides the undergraduate student with a

broad understanding of human behavior and reactions to various life situations which can be applied to normal people, as well as to those who may be mentally or physically sick. Close cooperation with the other departments of the College of Medicine characterizes the work of the Division.

The staff is composed of twelve members, four of whom are certified by the American Board of Psychiatry and Neurology. Two of the staff practice psychiatry privately and supervise the psychiatric outpatient clinics. Other members specialize in electro-encephalography, psychiatric problems of children, psychological techniques, psychiatric social service and the care of patients in psychiatric hospitals.

The chairman is the Director of the Vermont State Hospital at Waterbury. Staff members have been trained at the Institute of Living in Hartford, the Menninger Clinic, the McLean Hospital in Boston, and the Westchester Division of the New York Hospital.

The teaching program consists of courses in each of the four years. The first-year course considers problems of personality development, psychobiological relationships and mental mechanisms. The discussion method based on moving pictures which illustrate the problems under consideration is used.

The second-year course concerns itself with the application of the understanding of personality problems as they occur in patients suffering physical and mental disorders. Attention is given to the elicitation of information from the patient in order to gain an understanding of him as a person.

The third-year course is presented at the various hospitals associated with the College of Medicine, at which time patients who are in the hospital and assigned to students are considered. Psychoses, neuroses and the problems of childhood are all under discussion at this time.

During the fourth year, the students serve as clinical clerks at the Vermont State Hospital or the Brattleboro Retreat. The fourth-year students also attend conferences concerned with patients who present psychiatric problems while in the Mary Fletcher and DeGoesbriand Memorial Hospitals.

A one-year residency in psychiatry at the Vermont State Hospital is approved by the American Medical Association and the American Board of Psychiatry and Neurology. This training program is conducted in cooperation with the Mary Fletcher Hospital and the faculty.

THE DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

<i>Professor of Obstetrics and Gynecology:</i>	MAECK (<i>Chairman</i>).
<i>Associate Professors of Clinical Obstetrics and Gynecology:</i>	EASTMAN, SLAVIN.
<i>Assistant Professor of Obstetrics and Gynecology:</i>	GRAY.
<i>Assistant Professor of Gynecology:</i>	MCSWEENEY.
<i>Assistant Professors of Clinical Obstetrics and Gynecology:</i>	BOEDMAN, B. CLARK, DURFEE.
<i>Instructors in Clinical Obstetrics and Gynecology:</i>	CANNON, H. PRATT, TABER, W. THIBAUT.

A thorough understanding of the basic science and principles, and an appreciation of the art of obstetrics and gynecology is the fundamental objective of this department. As the student progresses from college, to internship, to residency so is he given more problems and greater responsibilities. Teaching is directed to develop within the student the abilities to practice obstetrics as a family physician in this or in any other state. The additional training in the resident program fully qualifies a man for examination by the American Board of Obstetrics and Gynecology. The application of the student for fellowship while on the house staff level or beyond is encouraged.

Although postgraduate education is available in conferences, meetings, and lectures, a more fully developed and complete postgraduate series is anticipated for the future. The members of the teaching faculty are all graduates of recognized institutions and they are all certified by the American Board of Obstetrics and Gynecology or are qualified for certification.

An active research staff, with adequate laboratory facilities in the hospitals, is interested in the further investigation of basic obstetrical and gynecological problems particularly as they apply to this State. They are similarly devoted to the student who is interested in the way of scientific research. Past and present investigative problems include those involving pelvic anatomy, the evaluation of specific drugs, renal function in pregnancy, endometrial hyperplasia, evaluation of treatment of endometrial malignancy in this community, and others. Members of the faculty work in close cooperation and serve as consultants to the State Department of Health. All faculty members are available for consultant services to physicians throughout the state at any and all times. Support for research projects has been obtained from

the United States Public Health Service; National Research Council; Eaton Laboratories; Vermont State Cancer Society, and private bequests.

The residency program includes training in the associated hospitals of Burlington and the Boston Lying-In Hospital for a total of four years. The latter year includes advanced training in the specialty and the opportunity for more active participation in the teaching program. All members of the attending staff at the associated Burlington hospitals are members of the faculty of the College of Medicine.

The physiology of obstetrics is taught in the second semester of the second year by correlated didactic lectures. More advanced instruction in fundamental and clinical obstetrics and gynecology is continued in the third and fourth years, when small groups (10-15 students) are assigned to this department for eight and four weeks respectively. Instruction is given in daily tutorial sessions, work in outpatient clinics, in-patients, and delivery rooms and is presented by all members of the department including the resident staff. The student is made to feel that he may take his problem to a member of the faculty soon after it arises for discussion and constructive criticism. The course is continued in the fourth year and consists primarily of outpatient clinic teaching with limited refresher experience in the delivery room and post partum wards during the time that the student is assigned to the Burlington hospitals. Instruction in ante partum care is given at the Elizabeth Lund Home and a senior student is on call for deliveries at that institution. Regular rounds, conferences, discussions, and seminars are held at regular daily, weekly, and monthly intervals.

Examinations are held at the end of the semester in the second year, at the end of each period of instruction in the third year, and in the fourth year. Examinations usually are combined oral and comprehensive written.

THE DEPARTMENT OF OPHTHALMOLOGY AND OTOLARYNGOLOGY

<i>Shipman Professor of Ophthalmology:</i>	CUNNINGHAM (<i>Chairman</i>).
<i>Assistant Professor of Ophthalmology:</i>	TWITCHELL,
<i>Clinical Associate in Ophthalmology:</i>	IRWIN.

DIVISION OF OTOLARYNGOLOGY

<i>Associate Professor of Otolaryngology:</i>	R. MORROW (<i>Chairman</i>).
<i>Assistant Professor of Clinical Otolaryngology:</i>	REED.
<i>Instructor in Clinical Otolaryngology:</i>	HEISSE.

Teaching of all the aspects of ophthalmology and otolaryngology to undergraduate students is the primary aim of this Department. In addition, the staff participates in the activities of the Vermont Association for the Crippled and the Divisions of the Blind and Vocational Rehabilitation of the State Health Department.

Clinics are maintained at the Mary Fletcher and DeGoesbriand Hospitals. Consultation duties are performed at hospitals in neighboring communities of Vermont and New York.

Members of the staff have trained at Massachusetts Eye and Ear Infirmary, Lakeside Hospital and Eye Institute of Columbia-Presbyterian Hospital, St. Luke's Hospital, New York, and Mercy Hospital, Baltimore. The staff personnel are all part-time.

Ophthalmology and otolaryngology are taught in the second, third and fourth years by lectures, rounds, patient conferences and clinics. The use of visual aids is frequent.

A residency in Otolaryngology is maintained in which is offered a program of clinical training in all phases of this specialty, including broncho-esophagology and plastic and tumor surgery of this region.

Four members of the staff are certified by the American Board of Ophthalmology or Otolaryngology. Several of the department members are members of the New England Ophthalmology and Otolaryngology Society, the American Academy of Ophthalmology and Otolaryngology, and the American Broncho-Esophagological Association. Papers have been presented before the sectional and national societies. One member has been an Associate Examiner for the American Board of Ophthalmology.

THE DEPARTMENT OF PATHOLOGY AND ONCOLOGY

<i>Professor of Pathology:</i>	COON (<i>Chairman</i>)
<i>Associate Professors of Pathology:</i>	ANDREWS, CROWLEY, KORSON, STARK.
<i>Assistant Professors of Pathology:</i>	BUTTLES, KUSSEROW, RICE, UTTER BACK, WOODRUFF.
<i>Assistant Professor of Medical Technology:</i>	MAXSON.
<i>Instructor in Medical Technology (Pathology):</i>	BREEN.

The interests and responsibilities of the Pathology staff include teaching, research, and the practice of both anatomical and clinical pathology in the affiliated teaching hospitals. The diversity of interest and variety of responsibility within the staff, as represented by these activities, create an ideal atmosphere for the introduction of students and residents to the study of disease in all of its manifestations.

The formal instruction for second-year students, with emphasis on the correlation of functional and structural changes, is arbitrarily divided into the study of general pathology which includes the processes of injury, inflammation, repair, neoplasia, etc., and the study of special pathology in which diseases of the various organ systems are considered. In addition to the loan slide collection, extensive use is made of visual aids in the classroom and laboratory work. Study of fresh gross material from the teaching hospitals, attendance at autopsies, and use of museum specimens are integral parts of the course work.

Instruction in clinical pathology is closely correlated with work in general and special pathology. The clinical pathology course is designed to acquaint the student with laboratory medicine, including the tests available in the clinical laboratory, the value and limitations of these tests, and the interpretation of results. Emphasis is placed on the clinical application of laboratory data and the integration of the data obtained with other clinical findings. Hematology and parasitology are introduced in this phase of the course, as are techniques for examination of urine, gastric contents, cerebro-spinal fluid, and other body fluids.

The teaching activities of the Department continue into the clinical years of the undergraduate curriculum as well as into the residency years. Students assigned to the various clinical services of the teaching hospitals meet at regular intervals with members of the Pathology Department for specialized instruction in conjunction with their clinical assignments. Clinico-pathological

conferences are conducted twice monthly at the teaching hospitals.

Complete residency training in anatomic and clinical pathology approved by the American Board of Pathology is offered by the Department in its affiliated teaching hospitals. Residents are encouraged to engage in research and to participate actively in the teaching programs.

Graduate Courses:

Prerequisite—Permission of Department Chairman.

201. *Histochemistry.*

A survey of techniques used for chemical identification of cellular and tissue components, including discussion of the underlying theories. Conducted as a weekly seminar with laboratory hours to be arranged. Given either semester, but not both. Prerequisites: Acceptable course in cell structure (e. g., histology, cytology, etc.) and organic chemistry. Biochemistry recommended. *Credit hours to be arranged.*

301-302. *General and Special Pathology*

This is similar to the course for second-year medical students *except it does not* include the course work in clinical pathology. It may be taken by graduate students who have proper prerequisite training. Lectures and conferences: total for year, 110 hours. Laboratory: total for year, 195 hours. 13 credit hours total.

By special arrangement, properly qualified graduate students may be permitted to enroll for the first portion of the course only with credit hours to be arranged.

391, 392, 393, 394. *Thesis Research.*

Investigation of a research topic under the direction of a staff member, culminating in an acceptable Master's thesis.

Prerequisite—Courses 301 and 302. *Credit as arranged.*

THE DEPARTMENT OF PEDIATRICS

Professor of Pediatrics: *MCKAY (*Chairman*).

Associate Professors of

Clinical Pediatrics: P. CLARK, SUSSMAN.

Assistant Professor of Pediatrics: LUCEY.

Instructors in Clinical Pediatrics: MCKEE, D. MORROW, PAXSON, WORTHINGTON.

The Department of Pediatrics directs its teaching to medical students and attempts to improve the standards of pediatric practice, particularly among general practitioners in Vermont. In addition, research projects are under way in the fields of heart dis-

* On leave January 1 through June 30, 1960.

Service, the American Heart Association, and the National Science Foundation.

The Department of Pharmacology offers two graduate programs leading either to the Master of Science Degree or to the Doctor of Philosophy Degree. These training programs are supported by a substantial grant-in-aid from the National Institutes of Health of the U. S. Public Health Service. Facilities are available for properly qualified students and others for research either independently or in cooperation with members of the staff.

Graduate training includes the following:

Graduate Courses

Prerequisite—Permission of the Department Chairman.

301-302. *Pharmacology*

This is the course given in the medical curriculum, with such modifications for the individual graduate student as are required.

Lectures, conferences and demonstrations, 84 hours; laboratory, 80 hours, 8 credit hours.

311, 312. *Pharmacological Techniques*

Demonstration of and laboratory exercises in selected procedures of pharmacological research with special emphasis upon the cardiovascular system and neuropharmacology.

Laboratory, 4 hours per week, 15 or 30 weeks. Offered either first or second semester and in summer. Prerequisites: Physiology and Biophysics 201-202 or Pharmacology 201-202. 2 credit hours per semester.

320. *Drug Metabolism*

A study of how absorption, distribution, excretion and metabolism alter drug action. Methods of studying drug metabolism at the sub-cellular to the whole-organism level are discussed and evaluated, which include lectures on recent methods for analysis, such as counter current distribution, paper chromatography and electrophoresis.

Lectures and seminars, 2 x 1 hour per week. Prerequisites: Pharmacology 301-302. 2 credit hours.

362. *Drug Evaluation*

The techniques by which a new chemical agent is evaluated between its synthesis and its release to the medical profession are critically discussed.

Lectures and seminars, 2 x 1 hour per week; Laboratory 1 x 4 hours per week for 6 weeks. Offered second semester on alternate years only. Prerequisites: Pharmacology 301-302. 2 credit hours.

381, 382. *Seminar*

General topics are presented by students, staff members and visiting scientists. Organized surveys of selected fields may be presented upon request.

1 x 1 hour per week. Offered both first and second semesters. Open to all properly qualified graduate students. *1 credit hour per semester.*

391, 392, 393, 394 *Thesis Research*

Investigation of a research topic under the direction of an assigned staff member, culminating in an acceptable Master's or Doctor's thesis.

Credit as arranged.

THE DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS

<i>Professor of Physiology and Biophysics:</i>	シキエル SICHEL (<i>Chairman</i>).
<i>Associate Professor of Physiology and Biophysics:</i>	A. CHAMBERS.
<i>Assistant Professor of Physiology and Biophysics:</i>	WILSON.
<i>Instructor in Physiology:</i>	BLOUNT.
<i>Associate in Biophysics:</i>	PETERSON (<i>also Associate Professor of Clinical Radiology</i>).

The aim of the Department is to facilitate the dissemination of physiological and biophysical knowledge and to add to its store, particularly those phases which may be applied to medical practice and to clinical teaching and research. Current investigations in the Department concern the physiology and biophysics of cardiac contraction, respiratory control, intracellular clotting mechanisms, and auditory mechanisms.

The staff consists of four full-time faculty members and auxiliary personnel. These faculty members have doctorates from the University of Pennsylvania, New York University and the University of Missouri. The senior members belong to nationally recognized societies in their fields.

The teaching to medical students aims to describe and explain function in the whole human organism and also at the cellular, tissue, and organ levels. The approach is mainly biological and physical. Physiological principles fundamental to clinical medicine are examined on the basis of supporting experimental evidence. Instruction is given throughout the first year, mainly by means of lectures, laboratory classes and demonstrations. The

laboratory work is of a quantitative nature wherever feasible; in almost half of the experiments the student also acts as subject.

The graduate program is directed toward the candidate for the Master of Science degree. The courses and research program are restricted to the general fields of interest of the full-time faculty members.

Graduate Courses

Prerequisite—Permission of Department Chairman.

201-202. *Physiology and Biophysics.*

This is the course given in the medical curriculum, modified as required to meet the needs of individual graduate students.

Lectures and conferences, 64 hours, each semester; laboratory, 64 hours each semester. 6 credit hours each semester.

301, 302. *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 reading. Hours and credit as arranged.

311, 312. *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 and credit as arranged.

391, 392, 393, 394. *Thesis Research.*

Investigation of a research topic under the direction of an assigned staff member, culminating in an acceptable Master's thesis. Credit as arranged.

DEPARTMENT OF PREVENTIVE MEDICINE

<i>Associate Professors of Preventive Medicine:</i>	*LEZER, (<i>Acting Chairman</i>), AIKEN.
<i>Assistant Professors of Preventive Medicine:</i>	CULVER, HAYNES.
<i>Associate Professor of Public Health Nursing:</i>	HARSHBERGER.
<i>Assistant Professors:</i>	F. FALCK (<i>Speech Therapy</i>) K. SMITH (<i>Medical Social Service</i>)
<i>Instructor in Preventive Medicine (General Practice):</i>	J. LÄNTMAN.
<i>Instructor in Preventive Medicine (Rehabilitation):</i>	R. SMITH.
<i>Clinical Associates in Preventive Medicine (General Practice):</i>	W. COVEY, E. CRANE, W. HEININGER, A. LAWRENCE, H. LEVINE, H. SCHOENBERGER, B. SINGERMAN, L. WAINER.

The aims of this department are:

1. To provide instruction in the several fields which constitute preventive medicine today, namely: human ecology, clinical and social epidemiology, bio-statistics, medical care programs and public health, gerontology, rehabilitation, and industrial and occupational medicine.
2. To demonstrate the importance of fusion of preventive medicine concepts and curative medicine in comprehensive care of the patient.
3. To demonstrate the role of the general physician in total family care.
4. To relate the social sciences and allied professional fields in proper perspective to problems of medical care in the changing social, economic and cultural order of the 20th Century.
5. To conduct research in medical education and medical care with special emphasis on rural medical needs of Maine, New Hampshire and Vermont; to participate in research in geriatrics, gerontology and long-term illness.

To accomplish the stated purposes in orderly fashion, the department is functionally constituted as four divisions—general department, general practice, rehabilitation, and occupational and industrial health.

* On leave January 1 through August 31, 1960.

THE DEPARTMENT OF RADIOLOGY

<i>Professor of Radiology:</i>	SOULE (<i>Chairman</i>).
<i>Associate Professors of Clinical Radiology:</i>	PETERSON (<i>also Associate in Bio- physics</i>), VAN BUSKIRK.
<i>Associate Professor of Radiologic Physics:</i>	JANNEY.
<i>Assistant Professors of Clinical Radiology:</i>	FOLEY, GUARE.
<i>Instructors in Clinical Radiology:</i>	W. JOHNSTON, SAXBY.
<i>Instructor in Neuroradiology and Radiologic Anatomy:</i>	RING.
<i>Instructor in X-ray Technique:</i>	BANNISTER.

The Department of Radiology provides special services to local teaching hospitals and to community hospitals in central and northwestern Vermont. In addition, medical students, residents, nurses and x-ray technicians receive instruction by members of this Department.

Research projects include the development and design of a rotational x-ray therapy unit (supported by grants from the National Cancer Institute), study of new techniques in diagnosis of intestinal cancer, plane-scanning techniques in brain tumor localization, studies in improved techniques in radiation safety, use of cine-roentgenography in angiocardiology, cerebral angiography and urology.

Nine staff members work full time in radiology in the teaching hospitals and the College of Medicine.

The teaching of radiology extends through the entire four years. In conjunction with the Department of Anatomy, lecture-demonstrations of the normal roentgen anatomy are given during the first year. In conjunction with the Department of Physiology, fluoroscopic demonstrations of the chest and alimentary tract are conducted at the hospitals. During the latter part of the second year, students are instructed in the principles of diagnostic and therapeutic radiology. Third-year students receive sectional instruction in film analysis. Third and fourth year students attend weekly radiology conferences.

A fully accredited residency program is available and utilizes the facilities of the College of Medicine and cooperating hospitals. Staff members participate in most of the teaching conferences of the College of Medicine.

THE DEPARTMENT OF SURGERY

<i>Professor of Surgery:</i>	MACKAY (<i>Chairman</i>).
<i>Associate Professor of Surgery:</i>	JACOBSON.
<i>Associate Professors of Clinical Surgery:</i>	GLADSTONE, TRUAX.
<i>Assistant Professor of Surgery:</i>	PAGE.
<i>Assistant Professor of Clinical Surgery:</i>	KELLER, WOJNAR.
<i>Instructor in Surgery:</i>	HAINES (<i>Oncology</i>).
<i>Instructors in Clinical Surgery:</i>	BARNEY (<i>Plastic</i>), CAIN, CRANDALL, MCGILL, PACHE, SHEA, L. THA- BAULT.

The Department offers introductory training in disciplines leading to a firm foundational knowledge of the science of surgery. It is planned that the personnel of the Department will play an active part in carrying out the programs of the Surgical Section of the Vermont State Medical Society, the regional and national meetings of the American College of Surgeons, the New England Surgical Society, and other related associations. Research and the writing of surgical literature is encouraged through the availability of the animal operating facilities, the medical library, and free exchange of ideas among department personnel. A monthly journal club, conducted by the junior members of the Department, with the supervision of the senior members, stimulates interest and criticism of current surgical literature and acts as an excellent supportive exercise for resident training. The training of surgical residents is an integrated part of the Department's work, such residents holding appointments in local hospitals and having their training integrated with the personnel of the undergraduate level under the direction of the junior and senior staff.

All senior members of the staff are American Board certified surgeons and Fellows of the American College. All junior members are either already certified or in the process of completing their qualifications. Fields of special interest are well represented, including surgery of the head and neck, chest, gastric and biliary tracts, gastro-intestinal surgery, and surgery of the colon and rectum, as well as peripheral vascular diseases and other fields. Eight individuals are geographically full-time, and other personnel, in outlying hospitals, are associated in their work in undergraduate teaching.

The science of surgery is introduced in the second-year course. The fundamental concepts of surgical practice are emphasized, including panel discussions, lectures, slide projection, and movie film presentations, as well as observation of patients.

In the third year, the undergraduate becomes intimately associated with patients through direct assignment, and individual supervision is given through a tutor, who is responsible for the students' comprehensive coverage of the basic subjects in surgery. This teaching is supplemented with department conferences, clinico-pathological conferences, specialty conferences, panel discussions, ward rounds, and patient interviews. Examinations, which are oral and written, are given at the end of this period of instruction.

All material of the fourth year is presented in the new quinquimester; but for the year 1959-1960, this will be in the form of a quadrimester. The experience of the senior on surgery will be oriented to in-patient work under the direct supervision of Faculty and housestaff of both local hospitals, giving the fourth year students increased responsibilities over their basic training in Surgery which they received during their third year.

The Department concerns itself also with training personnel in the approved intern appointments of both local hospitals and their residency program, the latter being conducted jointly by the College of Medicine and the hospitals. The completion of this residency program leads to full qualification for admission to examinations by the American Board of Surgery and, indirectly, to experience completing qualification for fellowship in the American College of Surgeons.

Postgraduate courses are given in conjunction with other departments under the guidance of the Committee on Postgraduate Education.

DIVISION OF ANESTHESIOLOGY

Professor of Anesthesiology: ABAJIAN (Chairman).

Assistant Professors of

Clinical Anesthesia: DENTE, MILLS.

Instructors in Clinical Anesthesiology: FUKUDA, MAZUZAN.

The aim of this Division is to furnish anesthesia services encompassing the clinical work of both of the teaching hospitals associated with the University. The Divisional activities also extend their clinical services to the outlying hospitals on a consultant basis.

All members of the Division are certified by or eligible for the American Board of Anesthesiology, and take an active part in the research program.

Undergraduate teaching consists of twelve lectures, given three times yearly, to the third-year class of medical students, plus

conference one morning a week with the third year "Specialties" group, and periodically scheduled lectures in both the second and third years, as well as a number of invitation lectures in the Department of Pharmacology. The fourth year medical students are invited to attend the Anesthesiology Conferences which are held twice weekly. These conferences are primarily directed toward the resident training portion of the program. The resident training program consists of the appointment of six residents for a period of two years each, who rotate through both hospitals.

Research laboratories including those concerned with radioisotopes are under the supervision of one of the attending anesthesiologists, who devotes full time to this work.

DIVISION OF NEUROSURGERY

Professor of Neurosurgery: DONAGHY (*Chairman*).

Associate Professor of Neurosurgery: WALLMAN.

The Division of Surgical Neurology exists for four main purposes: research, teaching, therapy of neurological conditions by surgical measures, and aid to all regional practicing physicians via the medium of consultation.

The staff consists of two full-time surgical neurologists and nurses trained in the care of patients with neurological disorders.

As much time as possible has been allotted to research. An active research program is recognized as vital to a dynamic clinical service.

Research facilities are, therefore, being expanded as rapidly as funds permit. Students may gain valuable experience in this program.

Third-year students during the quarter on surgery meet in small clinical conferences and share in combined conferences on neuropathology and neuroradiology. They serve as clinical clerks and are welcomed to the daily neurosurgical rounds and the weekly staff conference.

Fourth-year students work in the combined neurology-neurosurgery outpatient clinics and assist on operations.

A four-year residency program is offered.

Neurosurgical services are maintained in both local teaching hospitals.

The Department provides 24-hour consultation service throughout Vermont, northern New Hampshire and northeastern New York.

DIVISION OF ORTHOPEDIC SURGERY

<i>Associate Professor of Orthopedic Surgery:</i>	J. F. BELL (<i>Chairman</i>)
<i>Assistant Professors of Clinical Orthopedic Surgery:</i>	KÜHLMANN, RUST.
<i>Instructors in Clinical Orthopedic Surgery:</i>	DAVIS, SIMPSON.
<i>Consultant in Orthopedic Surgery:</i>	BOSWORTH.

The aim of the Division is to promote the principles of orthopedic surgery on all levels of teaching, whether by organized instruction, rounds, and case work with students, interns and residents, or by conferences, consultation and formal presentations to doctors and other personnel concerned with health. The Division maintains an active interest in problems of orthopedic investigation and research but prefers to emphasize the application of orthopedic surgery to the practice of general medicine.

The majority of the faculty are certified by the American Board of Orthopedic Surgery and hold membership in the American Academy of Orthopedic Surgeons. The members of this group are part-time.

Undergraduate teaching occurs in the second, third, and fourth years. This includes the presentation of the orthopedic aspects of physical diagnosis, introduction to fractures, conferences, case studies and lectures on material within the field of orthopedic surgery. General orthopedic problems as encountered in the out-patient clinic are also included in the curriculum.

Intern and resident teaching is carried out through rounds and personal contact regarding specific cases. No approved residencies are available in this field.

Postgraduate training is effected through presentation at medical societies and by cooperation with state rehabilitation and crippled children's groups.

DIVISION OF THORACIC AND CARDIAC SURGERY

<i>Associate Professor of Clinical Surgery (Thoracic and Cardiac):</i>	MILLER (<i>Chairman</i>).
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In general this Division concerns itself primarily with problems that pertain to the various structures located within the thoracic cage.

An active teaching program is maintained which includes undergraduate instruction as well as surgical residency training.

All surgical residents rotate through the Thoracic Surgical Service.

This Division does its own diagnostic endoscopy and works in close cooperation with the Division of Otolaryngology in the Department of Ophthalmology and Otolaryngology. The Thoracic Surgical Service of both teaching hospitals is staffed by this Division, as well as the thoracic surgery departments for the two tuberculosis hospitals for the State of Vermont. Research is an important part of the program.

DIVISION OF UROLOGY

<i>Associate Professor of Clinical Urology:</i>	POWELL (<i>Chairman</i>).
<i>Assistant Professor of Clinical Urology:</i>	FAGAN.
<i>Instructor in Clinical Urology:</i>	ESPOSITO.

The staff is composed of four members, as noted above. Three members are certified by the American Board of Urology and the fourth member is in the process of completing his examinations. All members are part-time, and all take an active part in the teaching program.

The teaching program is directed at the third and fourth years. Didactic lectures usually levelled at the third-year group, are largely supplemented by tutorial sessions with smaller groups, briefly reviewing and clarifying puzzling aspects of broad segments of material to be covered. Patient material is used to assist in this effort. Third and fourth-year teaching is carried out almost entirely in the hospital. Fourth-year students are particularly active on the wards and in the outpatient departments. They are occupied with patient study, weekly urological rounds, observation in cystoscopy and operating rooms.

Interns in both teaching hospitals are assigned both to urology and the other surgical specialties, and their time is divided as indicated by weight of patient material.

A four-year approved urological residency program is in effect. At present there is a resident in the first year of that program.

PERSONNEL

COLLEGE OF MEDICINE FACULTY AND OTHER OFFICERS

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.
- WILLIAM EUSTIS BROWN *Professor Emeritus of
Preventive Medicine*
Ph.B., Lafayette, 1909; M.P.H., Harvard, 1915;
M.D., Harvard, 1920; D.Sc., Lafayette, 1950.
- OLIVER NEWELL EASTMAN *Professor Emeritus of Gynecology*
M.D., University of Vermont, 1908.
- FRED KINNEY JACKSON *Professor Emeritus of Physiology*
A.B., University of Vermont, 1897; M.D., 1899.
- CHARLES KIMBALL JOHNSON *Professor Emeritus of Pediatrics*
M.D., University of Vermont, 1899.
- HOVEY JORDAN *Professor Emeritus of Histology and Embryology*
Ph.B., University of Vermont, 1913; M.S., 1914; A.M., Harvard, 1916.
- ELIZABETH KUNDERT *Assistant Professor Emeritus of Clinical
Psychiatry*
B.S., University of Wisconsin, 1920; M.S., 1924;
M.D., Women's Medical College of Pennsylvania, 1926.
- PETER PAUL LAWLOR *Assistant Professor Emeritus of
Clinical Otolaryngology*
M.D., University of Vermont, 1920.
- DAVID MARVIN *Professor Emeritus of Pharmacology*
M.D., University of Vermont, 1900.
- HENRY LEE MILLS *Instructor Emeritus in Public Health*
D.V.M., Grand Rapids Veterinary College, 1911.
- CHARLES PERKINS MOAT *Assistant Professor Emeritus
of Public Health*
B.S., Massachusetts Institute of Technology, 1896.
- WALFORD TUPPER REES *Professor Emeritus of Clinical
Surgery*
M.D., University of Vermont, 1924.
- VIOLA RUSSELL *Instructor Emeritus in Public Health*
A.B., Vassar, 1913; M.D., University of Michigan, 1917.
- EMMUS GEORGE TWITCHELL *Professor Emeritus of
Ophthalmology, Otolaryngology
and Rhinology*
A.B., Queen's University,
Canada, 1902; M.D., C.M., 1906.
- CHARLES FLAGG WHITNEY *Professor Emeritus of Biochemistry
and Toxicology*
B.S., University of Vermont, 1897; M.D., 1903;
M.S., 1904.

*Deceased November 21, 1959.

PROFESSORS

- ARTHUR BRADLEY SOULE, JR. *Professor of Radiology*
A.B., University of Vermont, 1925; M.D., 1928.
- HAROLD BARNARD PIERCE *Professor of Biochemistry*
B.S., Massachusetts State College, 1917; M.S., Pennsylvania State College, 1921; Ph.D., University of Rochester, 1928.
- ALBERT GEORGE MACKAY *Professor of Surgery*
B.S., University of Vermont, 1929; M.D., 1932.
- FERDINAND JACOB MORRIS SICHEL *Professor of Physiology and Biophysics*
B.Sc., McGill, 1928; Sc.M., New York University, 1930; Ph.D., 1934.
- ELLSWORTH LYMAN AMIDON *Professor of Medicine*
B.S., Tufts College, 1927; M.D., University of Vermont, 1932; M.S. (Med.), University of Pennsylvania, 1938.
- WILHELM RAAB *Professor of Experimental Medicine*
M.D., University of Vienna, 1920; M.D., German University of Prague, 1926.
- RUPERT ADDISON CHITTICK *Professor of Psychiatry*
B.S., University of Nebraska, 1923; M.A., 1924; M.D., Harvard Medical School, 1929.
- PAUL KENDRICK FRENCH *Professor of Clinical Medicine*
Ph.B., University of Vermont, 1920; M.D., 1923.
- FRED W. GALLAGHER *Professor of Bacteriology*
A.B., Western Reserve University, 1929; M.A., Ohio State University, 1936; Ph.D., 1939.
- JOHN CHARLES CUNNINGHAM *Professor of Ophthalmology*
A.B., University of Vermont, 1931; M.D., 1935.
- JOHN ABAJIAN, JR. *Professor of Anesthesia*
M.D., New York Medical College, 1937.
- *FRED WILLIAMS DUNIHUE *Professor of Anatomy*
A.B., Wabash College, 1929; M.S., New York University, 1931; Ph.D., 1934.
- GEORGE ADAM SCHUMACHER *Professor of Neurology*
B.S., Pennsylvania State College, 1932; M.D., Cornell, 1936.
- CHESTER ALBERT NEWHALL *Professor of Anatomy*
A.B., North-Western College, 1924; M.D., University of Vermont, 1928.
- JOHN FIDLAR DALY *Professor of Dermatology*
B.S., Knox College, 1926; M.D., University of Pennsylvania, 1930.
- RAYMOND MADIFORD PEARDON DONAGHY *Professor of Neurosurgery*
B.S., University of Vermont, 1933; M.D., 1936.
- WILLIAM VAN BOGAERT ROBERTSON *Professor of Biochemistry and Associate Professor of Experimental Medicine*
M.E., Stevens Institute of Technology, 1934; Ph.D., University of Freiburg, 1937.

* On leave September 1, 1959 to August 31, 1960.

- GEORGE ANTHONY WOLF, JR. *Professor of Clinical Medicine*
B.S., New York University, 1936; M.D., Cornell, 1941.
- DURWOOD JAMES SMITH *Professor of Pharmacology*
A.B., Syracuse, 1938; M.D., 1941.
- *ROBERT JAMES MCKAY, JR. *Professor of Pediatrics*
A.B., Princeton, 1939; M.D., Harvard, 1943.
- ROBERT WILLIAM COON *Professor of Pathology*
B. S., North Dakota State College, 1942;
M.D., University of Rochester, 1944.
- JOHN VAN SICKLEN MAECK *Professor of Obstetrics
and Gynecology*
B.S., University of Vermont, 1936; M.D., 1939.
- WALTER ALVA STULTZ *Professor of Anatomy*
A.B., Acadia, 1927; Ph.D., Yale, 1932.
- EUGENE LEPECHKIN *Professor of Experimental Medicine*
M.D., University of Vienna, 1939.

ASSOCIATE PROFESSORS

- ROBERT BASCOM AIKEN *Associate Professor of
Preventive Medicine*
Ph.B., University of Vermont, 1931;
M.S., 1933; M.D., 1937; M.P.H., Harvard, 1948.
- SINCLAIR TOUSEY ALLEN, JR. *Associate Professor of Medicine*
B.A., Williams College, 1936; M.D., Harvard, 1940.
- EDWARD CLINTON ANDREWS, JR. *Associate Professor of
Pathology*
A.B., Middlebury, 1946; M.D., Johns Hopkins, 1951.
- JOHN FRYE BELL *Associate Professor of Orthopedic Surgery*
A.B., Yale, 1931; M.D., Harvard, 1935.
- JOHN HARDESTY BLAND *Associate Professor of Clinical Medicine*
A.B., Earlham College, 1939; M.D., Jefferson Medical College, 1943.
- ALFRED HAYES CHAMBERS *Associate Professor of Physiology
and Biophysics*
A.B., Swarthmore, 1936;
Ph.D., University of Pennsylvania, 1942.
- PAUL DENNISON CLARK *Associate Professor of
Clinical Pediatrics*
M.D., University of Vermont, 1926.
- LEONARD VINCENT CROWLEY *Associate Professor of Pathology*
M.D., University of Vermont, 1949.
- OLIVER ROLFE EASTMAN *Associate Professor of Clinical
Obstetrics and Gynecology*
B.S., University of Vermont, 1935;
M.D., 1938.
- ARTHUR HOWARD FLOWER, JR. *Associate Professor of
Clinical Dermatology*
A.B., Heidelberg, 1938; M.D., Duke, 1942.
- ERLAND CHENEY GJESSING *Associate Professor of Biochemistry*
B.S., Copenhagen, 1936; M.S., Michigan State, 1938;
Ph.D., Cornell, 1942.

* On leave January 1 through June 30, 1960.

- ARTHUR GLADSTONE *Associate Professor of Clinical Surgery*
B.S., University of Vermont, 1928; M.D., 1931.
- CALVIN HANNA *Associate Professor of Pharmacology*
B.S., University of Illinois, 1949; M.S., State University of Iowa, 1950.
Ph.D., 1953.
- JANE YARD HARSHBERGER *Associate Professor of Public*
B.S. in Education, University of Pennsylvania, 1930; *Health Nursing*
M.A., Teachers' College, Columbia, 1945. (*Preventive Medicine*)
- JULIUS H. JACOBSON *Associate Professor of Surgery*
A.B., University of Toledo, 1947;
M.S., University of Pennsylvania, 1948; M.D., Johns Hopkins, 1952.
- CLINTON DALES JANNEY *Associate Professor of*
B.S., University of Illinois, 1941; *Radiologic Physics*
Ph.D., University of California, 1945.
- ROY KORSON *Associate Professor of Pathology*
A.B., University of Pennsylvania, 1943; M.D., Jefferson, 1947.
- MERTON PHILIP LAMDEN *Associate Professor of Biochemistry*
B.S., University of Massachusetts, 1941; Ph.D., Massachusetts Institute
of Technology, 1947.
- *LEON ROBERT LEZER *Associate Professor of Preventive Medicine*
B.S., University of Vermont, 1939;
M.D., 1942; M.P.H., Harvard, 1954.
- WILLIAM HOOPER MACMILLAN *Associate Professor of*
A.B., McGill, 1948; Ph.D., Yale, 1954. *Pharmacology*
- DONALD BARKER MILLER *Associate Professor of Clinical*
A.B., Johns Hopkins, 1938; *Surgery (Thoracic and Cardiac)*
M.D., 1942.
- RUFUS CLEGG MORROW, JR. *Associate Professor of*
B.S., Davidson College, 1934; *Otolaryngology*
M.D., Duke, 1939.
- OSCAR SYLVANDER PETERSON, JR. *Associate Professor of*
M.D., University of Vermont, 1936. *Clinical Radiology and*
Associate in Biophysics
- PLATT RUGAR POWELL *Associate Professor of Clinical Urology*
B.S., University of Vermont, 1936; M.D., 1939.
- ARNOLD HAROLD SCHEIN *Associate Professor of Biochemistry*
B.S., College of the City of New York, 1936;
Ph.D., University of Iowa, 1943.
- ETHAN ALLEN HITCHCOCK SIMS *Associate Professor of*
B.S., Harvard, 1938; M.D., College of Physicians *Medicine and*
and Surgeons, Columbia University, 1942. *Clinical Biochemistry*

* On leave January 1 through August 31, 1960.

- WILLIAM JOSEPH SLAVIN, JR. . . . *Associate Professor of Clinical
Obstetrics and Gynecology*
B.S., University of Vermont, 1933;
M.D., 1935.
- ERNEST STARK *Associate Professor of Pathology*
B.S., Columbia, 1933; M.D., Long Island, 1939.
- CHARLES WATTLES STEPHENSON *Associate Professor of Clinical
Neurology (Electro-encephalography)
and Assistant Professor of
Clinical Psychiatry*
A.B., Williams, 1919;
M.D., Harvard, 1922.
- RALPH DANIEL SUSSMAN *Associate Professor of Clinical
Pediatrics*
B.S., University of Vermont, 1935; M.D., 1938.
- CHRISTOPHER MARLOWE TERRIEN *Associate Professor of
Clinical Medicine*
M.D., University of Vermont, 1936.
- KEITH FRANK TRUAX *Associate Professor of Clinical Surgery*
B.S., University of Vermont, 1928; M.D., 1931.
- HIRAM EUGENE UPTON *Associate Professor of Clinical Medicine*
B.S., St. John's College, 1924; M.D., University of Maryland, 1927.
- FREDERICK WILLIAM VAN BUSKIRK *Associate Professor of
Clinical Radiology*
A.B., University of Pennsylvania, 1930;
M.D., 1933.
- LESTER JULIAN WALLMAN *Associate Professor of Neurosurgery*
A.B., Yale, 1934; M.D., 1938.
- WILLIAM GREENHILL YOUNG *Associate Professor of
Clinical Psychiatry*
M.D., University of Toronto, 1930.

ASSISTANT PROFESSORS

- RICHARD WALKER AMIDON *Assistant Professor of Clinical
Medicine*
B.S., University of Vermont, 1941; M.D., 1943.
- JAMES HENRY BANNON *Assistant Professor of
Clinical Medicine*
M.D., C.M., McGill, 1940.
- JOHN DOUGLAS BOARDMAN *Assistant Professor of Clinical
Obstetrics and Gynecology*
A.B., Holy Cross, 1945;
- GEORGE WILSON BROOKS *Assistant Professor of Clinical
Psychiatry*
B.S., University of New Hampshire, 1941;
M.D., University of Vermont, 1944.
- ROY VEDDER BUTTLES *Assistant Professor of Pathology*
B.S., University of Vermont, 1937; M.D., 1940.
- WILBERT FRANKLIN CHAMBERS *Assistant Professor of
Anatomy*
A.B., University of West Virginia, 1945;
M.S., 1946; Ph.D., University of Wisconsin, 1952.
- BENJAMIN FRANKLIN CLARK *Assistant Professor of
Clinical Obstetrics and Gynecology*
B.S., University of
Vermont, 1930; M.D., 1933.

- JULIUS GEORGE COHEN *Assistant Professor of Clinical
Psychiatry*
B.S., University of Vermont, 1942; M.D., 1945.
- JAMES OWEN CULVER *Assistant Professor of
Preventive Medicine*
B.A., Stanford, 1936; M.D., 1950;
M.P.H., University of California, 1959.
- GINO ALDO DENTE *Assistant Professor of Clinical Anesthesia*
M.D., University of Vermont, 1941.
- EUGENE JOSEPH DESAUTELS *Assistant Professor of
Clinical Medicine*
B.S., St. Michael's, 1931;
M.D., University of Vermont, 1934.
- HERBERT ASHLEY DURFEE, JR. *Assistant Professor of Clinical
Obstetrics and Gynecology*
B.S., Yale, 1944;
M.D., University of Vermont, 1948.
- WILLIAM THOMAS FAGAN, JR. *Assistant Professor of
Clinical Urology*
B.S., University of Vermont, 1945; M.D., 1948.
- FRANK JAMES FALCK *Assistant Professor of Speech Therapy
(Preventive Medicine)*
A.B., University of Kentucky, 1950;
M.A., 1951; Ph.D., Pennsylvania State University, 1955.
- JOSEPH CLAYTON FOLEY *Assistant Professor of Clinical
Radiology*
B.S., Middlebury, 1939; M.A., New York State
College, 1940; M.D., University of Vermont, 1949.
- MARY JANE GRAY *Assistant Professor of Obstetrics
and Gynecology*
B.A., Swarthmore, 1945; M.D., Washington
University (St. Louis), 1949; D.Sc. (Med),
Columbia, 1954.
- HOWARD THEODORE GUARE *Assistant Professor of
Clinical Radiology*
M.D., University of Vermont, 1934.
- MOSES ALFRED HAYNES *Assistant Professor of
Preventive Medicine*
B.S., Columbia, 1950;
M.D., State University of New York, 1954.
- ELBRIDGE EUGENE JOHNSTON *Assistant Professor of
Clinical Medicine*
M.D., University of Vermont, 1936.
- JAY EDGAR KELLER *Assistant Professor of Clinical Surgery*
M.D., University of Vermont, 1940.
- FRIEDRICH WILHELM KLEMPERER *Assistant Professor of
Clinical Medicine*
M.D., University of Freiburg, 1932.
- RAYMOND FRANK KUHLMANN *Assistant Professor of Clinical
Orthopedic Surgery*
B.A., University of Wisconsin, 1936;
M.D., Washington University, 1939.
- BERT KARL KUSSEROW *Assistant Professor of Pathology*
B.S., Union, 1948; M.D., Yale, 1953.
- MORRIS WILLIAMS LAMBIE *Assistant Professor of
Clinical Medicine*
B.S., Harvard, 1942;
M.D., University of Rochester, 1946.

- JEROLD FRANCIS LUCEY *Assistant Professor of Pediatrics*
A.B., Dartmouth, 1948; M.D., New York University, 1952.
- HERBERT LLOYD MARTIN *Assistant Professor of Clinical
Neurology*
B.S., Boston University, 1947; M.D., 1950.
- INA MAXSON *Assistant Professor of Medical Technology*
B.S., Battle Creek College, 1926;
M.S., Michigan State College, 1934.
- EDWARD DOUGLAS MCSWEENEY *Assistant Professor of
Gynecology*
A.B., University of Vermont, 1919; M.D., 1922.
- HAROLD EDWARD MEDIVETSKY *Assistant Professor of
Clinical Medicine*
B.S., University of Vermont, 1929; M.D., 1932.
- ERNEST LEE MILLS *Assistant Professor of Clinical Anesthesia*
B.S., University of Vermont, 1938; M.D., 1942.
- ROBERT EMMETT O'BRIEN *Assistant Professor of Clinical
Medicine*
B.S., St. Michael's, 1942;
M.D., University of Vermont, 1945.
- HAROLD GORDON PAGE *Assistant Professor of Surgery*
B.S., University of Vermont, 1940; M.D., 1945.
- ELMER MCCREADY REED *Assistant Professor of Clinical
Otolaryngology*
B.S., Allegheny, 1932;
M.D., Jefferson Medical College, 1936.
- JOHN DOWNING RICE *Assistant Professor of Pathology*
B.Ch.E., New York University, 1943; M.D., Yale, 1953.
- CHARLES BRUSH RUST *Assistant Professor of Clinical
Orthopedic Surgery*
M.D., University of Vermont, 1939.
- WADI SAWABINI *Assistant Professor of Oral Hygiene and
Dental Medicine*
D.D.S., American University of Beirut, 1940.
- KENNETH MORTON SMITH *Assistant Professor of Medical
Social Service
(Preventive Medicine)*
A.B., Bates, 1949; M.S., in Social Work,
College of William and Mary, 1952.
- BORYS SURAWICZ *Assistant Professor of Experimental Medicine
and Instructor in Clinical
Medicine*
M.D., Medical School, Wilno, Poland, 1939.
- BURTON SAMUEL TABAKIN *Assistant Professor of Medicine*
A.B., University of Pennsylvania, 1943; M.D., 1947.
- MARSHALL COLEMAN TWITCHELL, JR. *Assistant Professor of
Ophthalmology*
A.B., Williams, 1934; M.D., Harvard, 1938.
- JAMES GREGG UTTERBACK *Assistant Professor of Pathology*
B.A., Bowdoin, 1949; M.D., Rochester, 1954.
- MARTIN WESLEY WILLIAMS *Assistant Professor of Pharmacology*
A.B., Anderson, 1948; Ph.D., Ohio State, 1953.

- WALTER LEROY WILSON *Assistant Professor of Physiology*
B.S., State Teachers College, West Chester, Pa., 1940; *and Biophysics*
Ph.D., University of Pennsylvania, 1949.
- VICTOR S. WOJNAR *Assistant Professor of Clinical Surgery*
A. B., University of Pennsylvania, 1943; M.D., 1946.
- RICHARD S. WOODRUFF *Assistant Professor of Pathology*
B.A., Yale, 1922; M.D., C.M., McGill, 1928.

VISITING STAFF

- DAVID MARSH BOSWORTH *Consultant in Orthopedic Surgery*
A.B., University of Vermont, 1918; M.D., 1921.

INSTRUCTORS

- RALPH BANNISTER *Instructor in X-ray Technique*
R.T., American Society of X-ray Technicians, 1950.
- BERNARD BENJAMIN BARNEY *Instructor in Clinical Surgery*
B.S., University of Vermont, 1941; M.D., 1943.
- DON HOUSTON BLOUNT *Instructor in Physiology*
B.A., University of Missouri, 1950; M. A., 1956; Ph.D., 1958.
M.D., University of Vermont, 1948.
- RICHARD EMILE BOUCHARD *Instructor in Medicine*
M.D., University of Vermont, 1949; M.S., 1951.
- MARY BREEN *Instructor in Medical Technology (Pathology)*
B.S., University of Vermont, 1947.
- ROBERT NOLAN CAIN *Instructor in Clinical Surgery*
B.S., University of Vermont, 1943; M.D., 1945.
- MARTIN JOHN CANNON *Instructor in Clinical Obstetrics*
B.S., University of Vermont, 1943; M.D., 1945. *and Gynecology*
- MAURICE RAYMOND CARON *Instructor in Clinical Psychiatry*
A.B., St. Michael's, 1930; M.D., University of Vermont, 1936.
- ALBERT JAMES CRANDALI *Instructor in Clinical Surgery*
B.S., University of Vermont, 1930; M.D., 1933.
- PHILIP HOVEY DAVIS *Instructor in Clinical Orthopedic Surgery*
B.S., University of Vermont, 1950; M.D., 1953.
- DONALD MERRITT ELDRED *Instructor in Clinical Psychology*
A.B., Oberlin, 1931; A.M., Columbia, 1942.
- LOUIS WILLIAM ESPOSITO *Instructor in Clinical Urology*
B.S., University of Notre Dame, 1931;
M.D., Johns Hopkins University, 1935.
- J. LOUIS PHILIPPE FOREST *Instructor in Clinical Psychiatry*
A.B., University of Montreal, 1920; M.D., 1925.

- DAVID MINORU FUKUDA *Instructor in Clinical Anesthesia*
M.D., Kyusku Imperial University, 1946.
- CARLETON RAYMOND HAINES *Instructor in Surgery (Oncology)*
B.S., University of Vermont, 1941; M.D., 1943.
- JOHN SHERWOOD HANSON *Instructor in Medicine*
B.A., Yale, 1951; M.D., New York University, 1954.
- JOHN WILBUR HEISSE, JR. *Instructor in Clinical Otolaryngology*
A.B., Johns Hopkins, 1949; M.D., University of Maryland, 1953.
- WILLIAM HERBERT JOHNSTON *Instructor in Clinical Radiology*
B.S., University of Vermont, 1940; M.D., 1943.
- ARTHUR SAUL KUNIN *Instructor in Medicine and in
Clinical Biochemistry*
A.B., Columbia, 1948;
M.D., University of Vermont, 1952.
- BETTY MAY LAGRANGE *Instructor in Clinical Biochemistry*
B.A., Cornell, 1952; M.S., University of Vermont, 1956.
- JOHN CLIFFORD LANTMAN *Instructor in Preventive Medicine*
B.S., University of Vermont, 1948; M.D., 1951. (*General Practice*)
- CLARE KENT MARSHALL *Instructor in Clinical Psychiatry
and in Clinical Neurology*
B.A., Barnard College, 1943;
M.D., Harvard, 1949;
- JOHN EDMUND MAZUZAN, JR. *Instructor in Clinical
Anesthesiology*
B.S., Boston College, 1951;
M.D., University of Vermont, 1954.
- JAMES BISHOP MCGILL *Instructor in Clinical Surgery*
B.S., University of Vermont, 1944; M.D., 1946.
- MARION CLAIRE MCKEE *Instructor in Clinical Neurology
and in Clinical Pediatrics*
B.A., Hunter, 1949; M.D., Temple, 1953.
- DOROTHY JACKSON MORROW *Instructor in Clinical Pediatrics*
B.S., Boston University, 1936; M.D., Tufts, 1940.
- HENRI LOUIS PACHE *Instructor in Clinical Surgery*
B.S., University of Vermont, 1941; M.D., 1944.
- EDWIN MATTSON PAXSON *Instructor in Clinical Pediatrics*
A.B., Swarthmore, 1950; M.D., Jefferson, 1954.
- HENRY LEWIS PRATT *Instructor in Clinical Obstetrics and
Gynecology*
B.S., University of Vermont, 1938; M.D., 1941.
- WILLIAM ARTHUR PRATT *Instructor in Clinical Medicine*
B.S., University of Vermont, 1941; M.D., 1943.
- BENJAMIN ALBERT RING *Instructor in Neuroradiology an
Radiologic Anatomy*
B.S., Bates, 1942; M.D., Tufts, 1946.
- ROBERT NEWTON SAXBY *Instructor in Clinical Radiology*
B.S., University of Vermont, 1937; M.D., 1941.
- WILLIAM IRELAND SHEA *Instructor in Clinical Surgery*
A.B., Holy Cross, 1936; M.D., University of Vermont, 1940.

- JAMES EDWIN SIMPSON *Instructor in Clinical Orthopedic
Surgery*
B.S., University of Vermont, 1941; M.D., 1943.
- ROBERT PEASE SMITH *Instructor in Medicine and in
Preventive Medicine (Rehabilitation)*
A.B., Princeton, 1939;
M.D., Harvard, 1943.
- JOSEPH ROBERT SURIANO *Instructor in Bacteriology*
B.S., Fordham, 1952; Ph.D., University of Pennsylvania, 1959.
- DAVID LATHAM TABER *Instructor in Clinical Obstetrics
and Gynecology*
M.D., Long Island, 1946.
- LOUIS GEORGE THABAULT *Instructor in Clinical Surgery*
M.D., University of Vermont, 1930.
- WILFRID LOUIS THABAULT *Instructor in Clinical Obstetrics
and Gynecology*
B.S., St. Michael's, 1943;
M.D., University of Vermont, 1947.
- GEORGE WILLIAM WELSH *Instructor in Medicine*
B.A., Yale, 1942; M.D., Rochester, 1950.
- WILLIAM DORRANCE WORTHINGTON *Instructor in Clinical
Pediatrics*
M.D., Baylor, 1949; M.P.H., University of Pittsburgh, 1957.

RESIDENTS AND FELLOWS

- ALLEN GIRARD BENNETT *Resident in Obstetrics and Gynecology*
A.B., Oberlin, 1953; M.D., Western Reserve, 1957.
- RUSSELL CHAMBERLIN BRIGGS *Resident in Radiology*
B.A., Middlebury, 1954; M.D., Albany, 1958.
- ANN LEWIS CALDWELL *Resident in Medicine*
B.S., Florida Southern College, 1954; M.D., Tulane, 1958.
- EDGAR JACOB CALDWELL *Resident in Medicine*
B.S., University of New Hampshire, 1954;
M.D., University of Vermont, 1958.
- STIRLING CARPENTER *Resident in Neurology*
A.B., Princeton, 1950; M.D., Temple, 1957.
- AYEOLIS CETIN *Resident in Anesthesiology*
M.D., Istanbul University, 1955.
- THOMAS ALLEN CLARK *Resident in Pediatrics*
A.B., Dartmouth, 1953; M.D., McGill, 1956.
- WILLIAM WAYNE COTANCH *Resident in Neurosurgery*
B.S., Wisconsin, 1955; M.D., 1958.
- TIMOTHY JAMES DRISCOLL, JR. *Resident in Pediatrics*
B.S., University of New Hampshire, 1950;
M.S., 1951; M.D., University of Vermont, 1955.
- JACK EDWIN FARNHAM *Resident in Medicine*
B.A., University of Vermont, 1953; M.D., 1957.

- MARTIN EDWARD FLANAGAN *Resident in Neurosurgery*
M.D., University of Vermont, 1956.
- STOKES GENTRY *Resident in Pediatrics*
B.A., Swarthmore, 1951; M.D., Temple, 1955.
- ANTONIO ISAIAS GERMAN *Resident in Pathology*
B.S., Normal School, Trujillo City, 1946;
M.D., University of Santo Domingo, 1952.
- LEONARD SHEFFER GETTES *Resident in Medicine*
B.A., Harvard, 1954; M.D., Pennsylvania, 1958.
- DANIEL JAMES HANSON, JR. *Resident in Radiology*
B.S., Mühlenberg, 1950; M.D., University of Vermont, 1958.
- ANTRANIK HAZARYAN *Resident in Anesthesiology*
M.D., Istanbul, 1949.
- RUHI KHALIL HINDAWI *Resident in Surgery*
A.B., American University of Beirut, 1948; M.D., 1952.
- JAN JAMHARIAN *Resident in Anesthesiology*
M.D., Istanbul, 1953.
- FRANK EMERSON JONES, III *Resident in Surgery*
M.D., Tennessee, 1958.
- ARISTOTELES GREGORY KATSAS *Resident in Surgery*
M.D., National University, Athens, 1957.
- THOMAS EUGENE LAVELL *Resident in Surgery*
A.B., Cornell, 1949; M.D., New York University, 1953.
- SIMMONS LESSELL *Resident in Neurology*
A.B., Amherst, 1954; M.D., Cornell, 1958.
- HARRY WALTER LETTS *Resident in Pathology*
M.Sc., Sir George Williams College, 1952; M.D., Ottawa, 1957.
- ARTHUR MAURICE LEVY *Fellow in Medicine*
B.A., Harvard, 1952; M.D., Cornell, 1956.
- SANGHWAN LEW *Resident in Anesthesiology*
M.D., Seoul National University, 1957.
- HAROLD PONS LIPTON *Resident in Radiology*
M.D., Duke, 1955.
- MARSHALL GENE LONDON *Resident in Medicine*
B.S., University of Vermont, 1951; M.D., 1955.
- ROBERT WILLIAM MCCAULEY *Resident in Surgery*
A.B., University of Vermont, 1951; M.D., 1955.
- CORNELIUS IRVING MEEKER *Resident in Obstetrics and
Gynecology*
B.A., Middlebury, 1950; M.D., Cornell, 1954.
- FRANCIS CLINTON PASLEY *Resident in Medicine*
B.S., St. Patrick's College, 1953; M.D., Ottawa, 1957.
- FRANCIS LEE PERRY *Resident in Obstetrics and Gynecology*
B.S., University of Vermont, 1954; M.D., 1957.

- PINCUS PEYSER *Helen Hay Whitney Research Fellow in
Biochemistry and Experimental Medicine*
B.A., Yeshiva, 1945;
M.S., University of Vermont, 1949; Ph.D., Columbia, 1954.
- GEORGE STEWART RAY *Resident in Medicine*
B.S., Rutgers, 1950; M.D., Cornell, 1957.
- JAMES EDWARD ROSS *Resident in Urology*
A.B., Michigan, 1956; M.D., 1958.
- AKBAR SAFIZADEH *Resident in Otolaryngology*
M.D., University of Teheran, 1940.
- EDUARDO ARTURO SANCHEZ *Resident in Anesthesiology*
M.D., University of Santo Domingo, 1956.
- LESLIE SCHLESINGER *Resident in Radiology*
B.S., Rutgers, 1952; M.D., Pennsylvania, 1957.
- JOHN PETER TAMPAS *Resident in Radiology*
B.S., University of Vermont, 1951; M.D., 1954.
- FITZGERALD TELEMAQUE *Resident in Anesthesiology*
M.D., University of Haiti, 1950.
- HAROLD JAMES WALLACE *Resident in Medicine*
B.A., University of Vermont, 1954; M.D., 1958.
- DON WESLEY WEHLING *Resident in Anesthesiology*
B.S., Wheaton, 1954; M.D., Ohio State, 1958.

ASSOCIATES

- FRANCIS ARNOLD CACCAVO *Clinical Associate in Surgery*
A.B., Syracuse, 1940; M.D., University of Vermont, 1943.
- HARRY LIVINGSTON COLOMBO *Clinical Associate in Medicine*
B.S., University of Vermont, 1935; M.D., 1938.
- JOHN PATRICK CORLEY *Clinical Associate in Medicine*
A.B., Holy Cross, 1937; M.D., University of Vermont, 1943.
- WILTON WARNER COVEY *Clinical Associate in Preventive
Medicine (General Practice)*
A.B., Middlebury, 1941;
M.D., University of Vermont, 1944.
- EDWARD BYINGTON CRANE *Clinical Associate in Preventive
Medicine (General Practice)*
A.B., Dartmouth, 1945;
M.D., University of Vermont, 1947.
- WILLIAM NELSON DEANE *Research Associate in Medical
Sociology*
A.B., Gordon College, 1941;
B.S., Andover-Newton Theological School, 1944;
M.A., University of New Hampshire, 1948;
Ph.D., Washington University, 1954.
- WINSTON MILO EDDY *Clinical Associate in Medicine*
B.S., University of Vermont, 1943; M.D., 1945.

- RAINER FRIED *Research Associate in Medicine*
B.Sc., Sao Paulo, 1945; Ph.D., 1952.
- EDWARD ESAU FRIEDMAN *Clinical Associate in Medicine*
A.B., Norwich, 1942; M.D., University of Vermont, 1950.
- WILLIAM HENRY HEININGER *Clinical Associate in Medicine and
in Preventive Medicine
(General Practice)*
M.D., University of Vermont, 1939.
- HERMAN CONRAD HERRLICH *Research Associate in Experi-
mental Medicine*
B.S., Rensselaer Polytechnic Institute, 1938;
M.S., University of California, 1949; Ph.D., Northwestern, 1953.
- HANS ROSENSTOCK HUESSEY *Clinical Associate in Psychiatry*
M.D., Yale, 1945.
- EDWARD SUTER IRWIN *Clinical Associate in Ophthalmology*
B.S., University of Vermont, 1940; M.S., 1942;
O.D., Pennsylvania State College of Optometry, 1950;
M.D., University of Vermont, 1955.
- LINTON JANUARY *Clinical Associate in Medicine*
A.B., Harvard, 1930; M.D., 1934.
- ARTHUR BYRON LAWRENCE *Clinical Associate in Preventive
Medicine (General Practice)*
A.B., University of Vermont, 1921;
M.D., 1924.
- HYMAN BERNARD LEVINE *Clinical Associate in Preventive
Medicine (General Practice)*
B.S., University of Vermont, 1930;
M.D., 1939.
- MURDO GLENN MACDONALD *Clinical Associate in Medicine*
B.S., University of Vermont, 1948; M.D., 1951.
- HANS GERHARD MARCHET *Research Associate in Medicine*
M.D., Innsbruck, 1951.
- ALLEN WRAY MATHIES, JR. *Research Associate in Pathology
(Parasitology)*
B.A., Colorado College, 1952;
M.S., Columbia, 1956; Ph.D., 1958.
- CAROL FENTON PHILLIPS *Research Associate in Pediatrics*
B.S., New Jersey College for Women, 1954;
M.D., Yale, 1958.
- JOHN LOUIS SAIA *Clinical Associate in Medicine*
B.S., University of Vermont, 1931; M.D., 1934.
- HENRY SCHOENBERGER *Clinical Associate in Preventive
Medicine (General Practice)*
M.D., Boston University, 1950.
- BENJAMIN SINGERMAN *Clinical Associate in Preventive
Medicine (General Practice)*
B.S., College of the City of New York, 1929;
M.D., University of Vermont, 1934.
- JOHN BUTLER TOMPKINS *Clinical Associate in Psychiatry*
M.D., Tufts, 1935.

- FREDERICK ROBERT HYLAND *Teaching Assistant in Pathology*
B.S., University of Vermont, 1958.
- GLORIA F. KURZMANN *Teaching Assistant in Medical
Technology*
B.S., Bucknell, 1951.
- DAVID HERBERT MCDERMOTT *Research Assistant in
Biochemistry*
A.B., Drew, 1943; M.A., Columbia, 1950.
- MRS. PATRICIA B. MCHUGO *Research Assistant in Pharmacology*
- EDWARD FREDERICK MERRILL *Teaching Assistant in
Biochemistry*
B.S., University of Vermont, 1951.
- MRS. DOROTHY WRIGHT NEWTON *Research Assistant in
Biochemistry*
- MRS. JOAN MARY O'BRIEN *Research Assistant in Pharmacology*
B.S., University of Connecticut School of Pharmacy, 1954.
- BRIAN WILLIAM PERRISS *Research Assistant in Biochemistry*
B.Sc., University of London, 1959.
- ELIZABETH REILLY *Teaching Assistant in Medical Technology
(Pathology)*
B.S., Trinity, 1948.
- YVONNE K. STARCHESKA *Research Assistant in Experimental
Medicine*
- SHIRLEY JANE STRONG *Research Assistant (Documentation)
in Pharmacology*
B.A., University of Vermont, 1951.
- EUGENIE VON EMNICH *Research Assistant in Anatomy*
B.Sc., Marinski-Donski Institute, (Yugoslavia), 1934;
D.V.M., College of Veterinary Medicine (Germany), 1952.
- WING MORRISON WOON *Research Assistant in Pathology
(Photography)*

GRADUATES—INTERNSHIP

APPOINTMENTS

JUNE 1959

- Patricia Ann Adams, B.A.
Union Memorial Hospital, Baltimore, Md.
- Americo Bernardo Almeida, B.S., M.S.
Union Hospital, Fall River, Mass.
- Virginia Lee Ault, B.S. University Hospital, Baltimore, Md.
- Randolph Chandler Blodgett, Jr., B.S.
Mountainside Hospital, Montclair, N. J.
- William Francis Cirimo, B.S. U. S. Naval Hospital, Bethesda, Md.
- Lewis Robert Dan, B.A.
Meadowbrook Hospital, Hempstead, N. Y.
- James Arthur Danigelis, B.S.
Syracuse Medical Center, Syracuse, N. Y.
- Howard Randall Deming, A.B.
Mary Fletcher Hospital, Burlington
- Herbert James Deutsch, B.S.
Mount Sinai Hospital, New York, N. Y.
- Robert Healy Elwell, A.B.
Walter Reed Army Hospital, Washington, D. C.
- George Joseph Feroletto, A.B., M.S.
St. Vincent's Hospital, Bridgeport, Conn.
- Peter Jay Hamre, A.B. Beverly Hospital, Beverly, Mass.
- Clifford Morris Herman, B.A., B.S.
U. S. Naval Hospital, Bethesda, Md.
- William Elwin Hodgkin, B.S.
Bellevue (3rd Pediatrics Division), New York, N. Y.
- Leonard Samuel Kaplow, B.S., M.S.
DeGoesbriand Memorial Hospital, Burlington
- Nance Jane Lefrancois, B.S.
Bronx Municipal Hospital Center, Bronx, N. Y.
- Arnold Manheim, B.A. The Robert Packer Hospital, Sayre, Pa.
- George Mastras, B.A.
Massachusetts Memorial Hospital, Boston, Mass.

- Norman Gerald Mireault, B.S.
U. S. Naval Hospital, Chelsea, Mass.
- Maurice Edward Mongeon, B.S.
Worcester City Hospital, Worcester, Mass.
- Mrs. Judith O'Connor Nepveu, B.S.
DeGoesbriand Memorial Hospital, Burlington
- Joseph Francis John Palma, B.S.
St. Francis Hospital, Hartford, Conn.
- Norman Gerard Pare, B.S. U. S. Naval Hospital, Bethesda, Md.
- Bernard Passman, A.B.
Bellevue (1st Surgical Division), New York, N. Y.
- Henry John Ramini, Jr., B.A. Beverly Hospital, Beverly, Mass.
- Fayette Cecil Root, B.A. Woman's Hospital, Detroit, Mich.
- Murray Keith Rosenthal, A.B., A.M.
Rochester General Hospital, Rochester, N. Y.
- Harold Leon Rudman, B.S. Tripler Hospital, Honolulu, Hawaii
- Theodore Philip Sanders, A.B.
Philadelphia General Hospital, Philadelphia, Pa.
- Glenn Marvin Seager, B.S. The Robert Packer Hospital, Sayre, Pa.
- Jay Elliott Selcow, B.A.
Bellevue (3rd Pediatrics Division), New York, N. Y.
- Robert Edward Sharkey, A.B.
Bellevue (3rd Pediatrics Division), New York, N. Y.
- Harry Samuel Spaulding, Jr., B.S., M.S.
Beverly Hospital, Beverly, Mass.
- Stanley Irwin Stein, B.A.
Bellevue (3rd Pediatrics Division), New York, N. Y.
- William Craigie Street, B.E.E. Woman's Hospital, Detroit, Mich.
- Parker Allen Towle, B.A. U. S. Naval Hospital, Bethesda, Md.
- Ronald Orrin Weinraub, B.A.
Rochester General Hospital, Rochester, N. Y.
- Stephen William Weinstein, B.S.
Syracuse Medical Center, Syracuse, N. Y.
- Alan Weisel, B.S. Albany Hospital, Albany, N. Y.
- Andrew Paul Zak, Jr., B.S.
Hospital of St. Raphael, New Haven, Conn.

PRIZES

JUNE 1959

CARBEE PRIZES

For greatest proficiency in the subject of Obstetrics

Parker Allen Towle, B.A.

WOODBURY PRIZES IN MEDICINE

For greatest proficiency in Clinical Work in senior year

Robert Healy Elwell, A.B.

Norman Gerald Mireault, B.S.

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

Clarence Edward Bunker, B.S.

LAMB FOUNDATION PRIZES

*To the students showing greatest comprehension and appreciation
of the Doctor-Patient Relationship**First:* Parker Allen Towle, B.A.*Second:* Herbert James Deutsch, B.S.*Third:* Harold Leon Rudman, B.S.

ALPHA OMEGA ALPHA

National Honor Medical Society

Robert Healy Elwell, A.B.

Clifford Morris Herman, B.A., B.S.

Leonard Samuel Kaplow, B.S., M.S.

Norman Gerald Mireault, B.S.

Theodore Philip Sanders, A.B.

Parker Allen Towle, B.A.

REGISTER—1959-1960

FOURTH YEAR:

- Louis Niman Ashkar, A.B.
Manchester, N. H.
- David Anthony Austin, A.B.
Beattleboro
- Martin Ellis Bloomfield, B.A.
Springfield
- Charles Rudolph Brinkman, B.S.
Torrington, Conn.
- Robert Keith Brown, A.B.
Enosburg Falls
- Richard George Caldwell, A.B.
Tenafly, N. J.
- Bruce Allan Chaffee, B.A.
Burlington
- John Dana Clark, B.A.
Burlington
- John Patton Clements, B.A.
Burlington
- Henry Eugene Curley, B.A.
Portland, Me.
- William Franklin Cushman, A.B., M.S.
E. Hartford, Conn.
- John Joseph Dalton, Jr., B.A.
Poultney
- Richard Charles Dillihunt, B.S.
Winthrop, Me.
- William Hotchkiss Doolittle, B.S.
Cheshire, Conn.
- John Bowns Fenning, B.S.
Bradford
- Antonio Isaias German, B.S., M.D.
Trujillo City, Dominican Republic
- Edward Alfred Greco, B.S.
Cape Elizabeth, Me.
- Donald Richard Homer, A.B.
Danbury, Conn.
- Joseph Raphael Jurkoic, A.B.
Rocky Hill, Conn.
- Seymour Ronald Kaplan, B.A.
W. Hartford, Conn.
- William Knights, A.B., M.A.
Winchester, Mass.
- Edward Anthony Kupic, B.A.
Burlington
- David DuBrul Lawrence, A.B.
Burlington
- Robert Livingston, B.S.
W. Hartford, Conn.
- Kenneth Allton Murdock, Jr.
Bradford
- Richard Milton Narkewicz, A.B.
Agawam, Mass.
- Marvin Alfred Nierenberg, A.B.
Jamaica, N. Y.
- Audrey Jean Opulski, B.A.
New Britain, Conn.
- John Joseph Ouellette, A.B.
Tunbridge
- Artemas John Wise Packard, B.S.
Hanover, N. H.
- Stephen George Pappas, B.S.
Somersworth, N. H.
- Robert Clifton Parker, A.B.
Morrisville
- Lawrence Charles Schine, A.B.
Fairfield, Conn.
- Joseph Michael Siegel, A.B.
Hillside, N. J.
- George Adam Soufleris, B.A.
Manchester, N. H.
- Herzl Robert Spiro, B.A.
Burlington
- John Waller Stetson, A.B.
Rutland
- James Cedric Stevens, B.S.
Leominster, Mass.
- Sara Ann Stoesser, A.B.
New York, N. Y.
- Philip Goodrich Whitney, B.A.
W. Lebanon, N. H.
- Melvyn Hyman Wolk, A.B.
Waterbury, Conn.
- Fred Anthony Ziter, A.B.
Barre

THIRD YEAR:

- Donald Skinner Bicknell, B.A.
McIndoe Falls
- Alden Hirsh Blackman, B.A.
Providence, R. I.
- Charles Gerard Brennan, A.B.
Brookline, Mass.
- John Charles Collins, Jr., B.A.
Waterbury, Conn.
- Raymond Wade Covill, B.S.
Bedford, N. H.
- Gerald Francis D'Ancicco, B.A.
W. Haven, Conn.
- Victor Joseph DePratti, B.S.
Athol, Mass.
- Mrs. Elizabeth Day Fields, B.S.
Waterbury

- Wilfred Leon Fortin, B.A.
Manchester, N. H.
- Allan Howard Greenfield, B.A.
Brookline, Mass.
- Robert Cesare Guiduli, B.A. *Barre*
- George Hughes Hansen, B.S. *Rutland*
- Edward Keith Howard, B.A.
Burlington
- Thomas Gerald Howrigan, B.S.
Fairfield
- Rudolph Martin Keimowitz, B.A.
Middletown, N. Y.
- John Bradley Lafave, B.A.
Malone, N. Y.
- Thomas Edward Lally, B.S.
Franklin, N. H.
- Kenneth Spero Latchis, A.B.
Brattleboro
- Kenneth Jay Levin, A.B.
Manchester, N. H.
- Alan Blair Mackay, A.B. *Burlington*
- Allan Wray Mathies, Jr., B.A., M.S.,
PH.D. *Colorado Springs, Colo.*
- John Marshall McGinnis, Jr., B.A.
Natick, Mass.
- William James McSweeney, B.S.
Burlington
- John Charles Mesch, B.A.
Hanover, N. J.
- Charles Eldor Moisan, Jr., B.A.
Burlington
- Patrick Edward Moriarty, B.S.
Springfield, Mass.
- Richard Dodge Morrison, B.A.
Canaan, N. H.
- Willard Jackson Morse, Jr., B.S.
Waterford, Conn.
- Donald Robert Morton, B.S.
Presque Isle, Me.
- Albert John Murphy, B.S.
Manchester, N. H.
- James Edward O'Brien,
B.S., M.S., Ph.D. *New Haven, Conn.*
- Evan Orphanos, B.S. *Lynn, Mass.*
- Leonard Martin Parker, B.A.
Mattapan, Mass.
- Charles Arthur Pitman, B.A.
Bayside, N. Y.
- Herbert Gerhard Prakelt, B.S.
Townshend
- George Benjamin Reservitz, B.S.
Brockton, Mass.
- David Alan Stephens, B.A. *Burlington*
- Andrew Melville Stewart, B.A.
Hanover, N. H.
- Albert Howard Stone, B.A. *St. Albans*
- Edwin Laurie Tolman, A.B.
Waban, Mass.
- John Alfred Vaillancourt, B.A.
Swanton
- Marianna Vas *Budapest, Hungary*
- Margaret Miles Waddington, B.S.
North Hero
- William Taylor Wallace, Jr., A.B.
Littleton, N. H.
- Miles Edward Waltz, B.A.
Keene, N. H.

SECOND YEAR:

- Saul Adams, B.S., M.S.
Rockland, Mass.
- Ralph David Aserkoff, B.A.
Dorchester, Mass.
- Edward Michael Austin *Brattleboro*
- Roger David Baker *Burlington*
- Charles Curtis Beebe, III, A.B.
Hollis, N. H.
- Salomon Bensimhon, B.A.
New York, N. Y.
- Spencer Worthington Burney, B.S.
Charlestown, N. H.
- John Barry Burns, B.S. *Montpelier*
- David Stuart Chase *Lancaster, N. H.*
- James Ford Clapp, III, A.B.
Cambridge, Mass.
- Stuart Donald Cook, A.B., M.S.
Brookline, Mass.
- Daniel Harrison Day, A.B.
Yarmouth, Me.
- John Richard Dooley, A.B.
Portland, Me.
- Donald Thomas Evans, B.A. *Rutland*
- Samuel Edwin Fineberg, B.S.
Bridgeport, Conn.
- John Rudolph Fischer, B.A.
Burlington
- Nathel John Fontana, B.A.
W. Lebanon, N. H.
- Donald McKenzie Ford, B.S.
Northfield
- Michael Ignatius Grady, A.B.
Chestnut Hill, Mass.

- Harvey Grant, B.S., B.A.
Springfield, Mass.
- Joseph John Guardino, B.S., M.Ed.
Essex Junction
- Christos Arthur Hasiotis, A.B.
Boston, Mass.
- Richard Donald Haskell, A.B.
Orono, Me.
- Frederick P. Hobin, B.S.
Chelsea, Mass.
- John David Izsak, A.B.
Longmeadow, Mass.
- Warren Evan Johnson, A.B.
Leicester, Mass.
- Joshua Moses Kaplan, A.B.
W. Roxbury, Mass.
- Arnold Martin Kerzner, B.A.
Springfield, Mass.
- Paul Jerome LaRaia, B.A.
Watertown, Mass.
- Roger Lee Lerner, B.S.
Bridgeport, Conn.
- Dean Sherwood Louis, B.S.
Fremont, N. H.
- Neil Francis Mara, B.S., M.S.
Chicopee Falls, Mass.
- Paul Arthur Marshall, B.S.
Waterville, Me.
- John Bingham Marvin, B.A.
Montpelier
- Jack Norman Meltzer, B.A.
Bangor, Me.
- Donald Putnam Miller, A.B.
Montpelier
- Robert George Mondou, A.B.
Manchester, N. H.
- Daniel Isaac Palant, B.A.
Springfield, Mass.
- Sherwin Howard Ritter, B.A.
Springfield, Mass.
- Norman Burton Schwartz, A.B.
Milton, Mass.
- Ruth Andrea Seeler, A.B.
Ardsley, N. Y.
- Lewis Mark Slater, A.B.
Flushing, N. Y.
- Peter Dodds Upton, B.S.
Burlington
- Hervey Allan Weitzman, B.S.
Longmeadow, Mass.
- Walter George Wroblewski, Jr., B.S.
Nashua, N. H.

FIRST YEAR:

- Daniel Vincent Bartolomei, Jr., B.S.
Falmouth, Mass.
- Frank Platt Bolles, B.S. Bellows Falls
- Thomas George Brault, A.B.
Burlington
- Augustine David Brewin, Jr., B.S.
Nahant, Mass.
- James Chrysostom Cabral, B.S.
Middleton, Mass.
- Joseph Donald Capra, A.B. Barre
- David Ralph Congdon, Wallingford
- Taylor Irving Cook, B.A.
Carolina, R. I.
- Joseph Valentine Cresci
Brooklyn, N. Y.
- Alan Frederick Crosby, B.A.
Burlington
- Gerald Louis Evans, B.A.
Gloucester, Mass.
- Gerald Lester Finkelstein, B.S.
Revere, Mass.
- Jesse Lewis Ginsburg, B.A. Burlington
- Philip Anthony Goddard, A.B.
Morrisville
- Melvin Avram Golden, B.S., B.J.ED.,
A. B. Roxbury, Mass.
- Alan Burton Gruskin, B.S.
Springfield, Mass.
- Thomas Joseph Halligan, Jr., B.S.
Concord, N. H.
- Thomas Michael Hanlon, Jr., B.S.
Salem, Mass.
- Michael Israel, A.B.
W. Roxbury, Mass.
- Leigh Wakefield Kendall, A.B.
Brattleboro
- William Edward Layden, Rutland
- Neil Nason Mann, B.A. Waban, Mass.
- Leroy George Mesbel, B.A.
Lido, L. I., N. Y.
- Darrell Lloyd Moody, B.A.
North Anson, Me.
- Edward Richard Mulcahy, Jr., A.B.
Malden, Mass.
- John Joseph Murray, Jr., B.A.
Somerville, Mass.
- Ronald Stanley Nadel, B.A.
Brookline, Mass.
- John Lowery Noyes, B.A. Brattleboro
- Cathleen Connaughton O'Brien, B.S.
St. Albans

- | | |
|--|---|
| Felix Anthony Perriello, B.S.
<i>Medford, Mass.</i> | Duncan Edward Stewart, B.A.
<i>Bellows Falls</i> |
| Allen Douglas Price, B.S., M.S.
<i>Concord, N. H.</i> | Arthur Townsend Stultz, B.S.
<i>Butlington</i> |
| Peter Ivan Rabinovitch, A.B.
<i>Norwich, Conn.</i> | William Carl Swanson, Jr., B.A.
<i>Woodstock</i> |
| Paul Chester Rutkowski
<i>Malone, N. Y.</i> | Ann Marie Tompkins, B.A.
<i>Island Falls, Me.</i> |
| Edward Charles Saef, B.A.
<i>Mattapan, Mass.</i> | Philip Joseph Villandry, B.A.
<i>Biddeford, Me.</i> |
| David Giles Saunders, A.B.
<i>Wakefield, Mass.</i> | Howard Alan Walker
<i>Barre</i> |
| Frederick Stephen Shmase, A.B.
<i>Peabody, Mass.</i> | Carol Marion Wildman, B.S.
<i>Cochituate, Mass.</i> |
| Richard Norman Stein
<i>Brooklyn, N. Y.</i> | Graham Yelland, B.A.
<i>Watertown, Mass.</i> |
| Derwood Lynn Stetson, B.S.
<i>Morrisville</i> | George Nabile Yerid, B.S.
<i>Lebanon, N. H.</i> |
| | Sheldon David Zigelbaum,
B.S., D.M.D. <i>Swampscott, Mass.</i> |

Phase I, College of Medicine Building.

